JOB NO.: TCS00975/18

CEDD CONTRACT AGREEMENT NO. EDO/04/2018 - ENVIRONMENTAL TEAM FOR CROSS BAY LINK, TSEUNG KWAN O

MONTHLY ENVIRONMENTAL MONITORING & AUDITING REPORT OF THE PROJECT – OCTOBER 2022

PREPARED FOR
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT (CEDD)

Date	Reference No.	Prepared By	Certified By
10 November 2022	TCS00975/18/600/R0692v2		
		Martin Li (Environmental Consultant)	Tam Tak Wing (Environmental Team Leader)

Version	Date	Remarks
1	7 November 2022	First Submission
2	10 November 2022	Amended against IEC's comments

Acuity Sustainability Consulting Limited
Nature & Technologies (HK) Limited
Joint Venture

Our ref: PL-202211016

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

Attention: Mr. Conrad NG

11 November 2022

Dear Sir,

Contract No. NE/2017/07 & NE/2017/08
Cross Bay Link, Tseung Kwan O
Monthly EM&A Report for October 2022

I refer to the email of the ET concerning the Monthly EM&A Report for October 2022 (Version 2) with Ref. No. TCS00975/18/600/R0692v2. We have no adverse comment on it and verify the captioned monthly report according to Conditions 1.9 and 4.4 of Environmental Permit with No. EP-459-2013.

Yours faithfully,

Li Wai Ming Kevin
Independent Environmental Checker

cc. Mr. T.W. TAM (ETL)
Ms. Sheri S.Y. LEUNG (CEDD)

EXECUTIVE SUMMARY

ES01 Civil Engineering and Development Department (hereafter referred as "CEDD") is the Project Proponent and the Permit Holder of the Project Cross Bay Link, Tseung Kwan O (hereinafter referred as "the Project") which is a Designated Project to be implemented under Environmental Permit number EP-459/2013 (hereinafter referred as "the EP-459/2013" or "the EP").

ES02 AUES was awarded the CEDD Contract Agreement No. EDO/04/2018 - Environmental Team for Cross Bay Link, Tseung Kwan O (hereinafter called "the Service Contract"). The Services under the Service Contract is to provide environmental monitoring and audit (EM&A) services for the Works Contracts pursuant to the requirement of Environmental Team (ET) under the Approved EM&A Manual to ensure that the environmental performance of the Works Contracts comply with the requirement specified in the EM&A Manual and EIA Report of Agreement No. CE 43/2008 (HY) Cross Bay Link, Tseung Kwan O - Investigation and other relevant statutory requirements.

ES03 To facilitate management, the proposed Works of the project was divided into two Civil Engineering and Development Department (CEDD) Works contracts included *Contract 1 (Contract No. NE/2017/07)* and *Contract 2 (Contract No. NE/2017/08)*. The date for commencement of Contract 1 was ***3rd December 2018*** while the date for commencement of Contract 2 was ***17th January 2019***.

ES04 According to the Approved Environmental Monitoring & Audit (EM&A) Manual, air quality, noise and water quality monitoring are required to be conducted during the construction phase of the Project. As part of the EM&A programme, baseline monitoring shall undertake before the Project construction work commencement to determine the ambient environment condition. The baseline air quality, background noise and water quality monitoring has been carried out between ***21st September 2018*** and ***13th November 2018*** at the designated and interim locations. The baseline monitoring report under the EP-459/2013 has been compiled by the ET and verified by Independent Environmental Checker (hereinafter the "IEC') prior submitted to EPD on ***19th November 2018*** for endorsement.

ES05 This is the **47th** Monthly EM&A report presenting the monitoring results and inspection findings for the reporting period from ***1*** to ***31 October 2022*** (hereinafter 'the Reporting Period').

CONSTRUCTION WORKS CONDUCTED AT THE REPORTING MONTH

ES06 The major construction activities of Contract 1 (Contract No. NE/2017/07) undertaken in this Reporting Period are:-

- E&M Work at Portion V Plant Room Building
- Steel bridge – E&M Cable tray installation
- Top coating of steel deck and painting repair of the arch rib
- Installation of L3 parapet post & railing, isolation panel, PMMA panel at concrete bridge at at Portion II

ES07 The major construction activities of Contract 2 (Contract No. NE/2017/08) undertaken in this Reporting Period are:-

- UU Diversion
- Drainage work at Portion III
- Monitoring and Instrumentation works
- Ducting installation along Portion III, U-through and Elevated Deck
- Ducting installation along At grade road and general backfilling
- SENB installation at At-Grade Road and Wan O Road
- SENB installation at Portion III, U-trough and Elevated Deck
- Road Paving Work

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES08 Environmental monitoring activities under the EM&A program in this Reporting Period are summarized in the following table.

Table ES-4 Summary Environmental Monitoring Activities Undertaken in the Reporting Period

Issues	Environmental Monitoring Parameters / Inspection		Sessions
Air Quality	1-Hour TSP		36
	24-Hr TSP		10
Construction Noise	Leq (30min) Daytime		15
	Leq (5min) Evening(Note 1)		0
	Leq (5min) Night(Note 1)		0
Water Quality	Marine Water Sampling(Note 2) (Note 3)		0
Inspection / Audit	Contract 1	ET Regular Environmental Site Inspection	4
		Joint site audit with Project Consultant and IEC	1
	Contract 2	ET Regular Environmental Site Inspection	4
		Joint site audit with Project Consultant and IEC	1

Note 1 Total sessions are counted by every 3 consecutive Leq5min
Note 2 Total sessions are counted by monitoring days
Note 3 Since the marine construction works that requires marine water quality monitoring as stated in the EM&A Manual were completed, the impact water quality monitoring was ceased with effect from 1 May 2020.

BREACH OF ACTION AND LIMIT (A/L) LEVELS

ES09 No air quality monitoring exceedance was recorded in this Reporting Period. For construction noise monitoring, no exceedance was recorded in this Reporting Period. The statistics of environmental exceedance and investigation of exceedance are summarized in the following table.

Table ES-5 Summary Environmental Monitoring Parameter Exceedance in the Reporting Period

Environmental Issues	Monitoring Parameters	Action Level	Limit Level	Event & Action	
				Investigation Results	Corrective Actions
Air Quality	1-Hour TSP	0	0	--	--
	24-Hr TSP	0	0	--	--
Construction Noise	Leq_{30min} Daytime	2	0	Not project related	NA
	Leq_{5min} Evening	0	0	--	--
	Leq_{5min} Night	0	0	--	--
Water Quality (Marine Water)	DO	0	0	--	--
	Turbidity	0	0	--	--
	SS	0	0	--	--

ENVIRONMENTAL COMPLAINT

ES10 In the reporting period, no environmental complaint was recorded for the Project. The statistics of environmental complaint are summarized in the following table.

Table ES-6 Summary Environmental Complaint Records in the Reporting Period

Reporting Period	Contract	Environmental Complaint Statistics			Related with the Works Contract(s)
		Frequency	Cumulative	Complaint Nature	
1 – 31 October 2022	1	2	31	Noise	No
	2	0	23	NA	NA

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES11 No environmental summons or prosecutions was received in this Reporting Period for the Project. The statistics of environmental summons or prosecutions are summarized in the following tables.

Table ES-7 Summary Environmental Summons Records in the Reporting Period

Reporting Period	Contract	Environmental Summons Statistics			Related with the Works Contract(s)
		Frequency	Cumulative	Complaint Nature	
1 – 31 October 2022	1	0	0	NA	NA
	2	0	0	NA	NA

Table ES-8 Summary Environmental Prosecutions Records in the Reporting Period

Reporting Period	Contract	Environmental Prosecution Statistics			Related with the Works Contract(s)
		Frequency	Cumulative	Complaint Nature	
1 – 31 October 2022	1	0	0	NA	NA
	2	0	0	NA	NA

REPORTING CHANGE

ES12 There is no reporting change made for this monthly report.

SITE INSPECTION BY EXTERNAL PARTIES

ES13 No site inspection was undertaken by AFCD within the Reporting Period. No site inspection was carried by EPD within the Reporting Period.

FUTURE KEY ISSUES

ES14 Due to the coming month is dry and windy season for Hong Kong, the Contractor was reminded that all the works to undertaking must be fulfill environmental statutory requirement, especially construction dust come from working sites of the Project.

ES15 Construction noise would be the key environmental issue as Lohas Park Phase 4 & 6 were already available for resident occupation. The noise mitigation measures such as use of quiet plants and installation of temporary noise barrier at the construction noise predominate area should be fully implemented in accordance with the EM&A requirement.

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1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 Civil Engineering and Development Department (hereafter referred as "CEDD") is the Project Proponent and the Permit Holder of the Project Cross Bay Link, Tseung Kwan O (hereinafter referred as "the Project") which is a Designated Project to be implemented under Environmental Permit number EP-459/2013 (hereinafter referred as "the EP-459/2013" or "the EP").

1.1.2 AUES was awarded the CEDD Contract Agreement No. EDO/04/2018 - Environmental Team for Cross Bay Link, Tseung Kwan O (hereinafter called "the Service Contract"). The Services under the Service Contract is to provide environmental monitoring and audit (EM&A) services for the Works Contracts pursuant to the requirement of Environmental Team (ET) under the Approved EM&A Manual to ensure that the environmental performance of the Works Contracts comply with the requirement specified in the EM&A Manual and EIA Report of Agreement No. CE 43/2008 (HY) Cross Bay Link, Tseung Kwan O - Investigation and other relevant statutory requirements.

1.1.3 To facilitate management, the proposed Works of ***Cross Bay Link, Tseung Kwan O*** (hereinafter called "the Project') was divided into two Civil Engineering and Development Department (CEDD) Works contracts included *Contract 1 (Contract No. NE/2017/07)* and *Contract 2 (Contract No. NE/2017/08).* The details of each contract Works are summarized below and the delineation of each contract is shown in ***Appendix A***.

Contract 1 (Contract No. NE/2017/07)

(i) 400m section of marine viaducts of steel deck sections including the Eternal Arch Bridge;
(ii) 600m section of marine viaducts of concrete deck sections;
(iii) An E&M Plantroom and associated building services; and
(iv) E&M provisions.

Contract 2 (Contract No. NE/2017/08)

(i) Elevated deck structures along Road D9;
(ii) A 210m section of cycle track and footpath ramp bridge;
(iii) A 630m section of noise semi-enclosure covering the entire length of Road D9, and;
(iv) Lift, staircase, modification of existing seawall along Road D9, landscaping and miscellaneous works.

1.1.4 The date for commencement of Contract 1 is ***3rd December 2018*** while the date for commencement of Contract 2 is ***17th January 2019***.

1.1.5 As part of the EM&A programme, baseline monitoring shall be undertaken before the Project construction work commencement to determine the ambient environmental condition. The baseline air quality, background noise and water quality monitoring has been carried out between ***21st September 2018*** and ***13th November 2018*** at the designated and interim locations. The baseline monitoring report under the EP-459/2013 has been compiled by the ET and verified by Independent Environmental Checker (hereinafter the "IEC') prior submitted to EPD on ***19th November 2018*** for endorsement.

1.1.6 This is the **47th** Monthly EM&A report presenting the monitoring results and inspection findings for the reporting period from ***1*** to ***31 October 2022*** (hereinafter 'the Reporting Period').

1.2 REPORT STRUCTURE

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

Section 1	*Introduction*
Section 2	*Project Organization and Construction Progress*
Section 3	*Summary of Impact Monitoring Requirements*
Section 4	*Air Quality Monitoring*
Section 5	*Construction Noise Monitoring*

2. PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS AND SUBMISSION

2.1 PROJECT ORGANIZATION

2.1.1 The project organization is shown in ***Appendix B***. The responsibilities of respective parties are:

The Project Consultant

2.1.2 The Project Consultant (hereinafter "the Consultant") is responsible for overseeing the construction works and for ensuring that the works are undertaken by the Contractor in accordance with the specification and contract requirements. The duties and responsibilities of the Consultant with respect to EM&A are:

- Monitor the Contractors' compliance with contract specifications, including the implementation and operation of the environmental mitigation measures and their effectiveness
- Monitor Contractors', ET's and IEC's compliance with the requirements in the Environmental Permit (EP) and EM&A Manual
- Facilitate ET's implementation of the EM&A programme
- Participate in joint site inspection by the ET and IEC
- Oversee the implementation of the agreed Event / Action Plan in the event of any exceedance
- Adhere to the procedures for carrying out complaint investigation

The Contractor(s) of Works Contract(s)

2.1.3 There will be one contractor for each individual works contract. The Contractor(s) should report to the Consultant. The duties and responsibilities of the Contractor are:

- Comply with the relevant contract conditions and specifications on environmental protection
- Participate in the site inspections by the ET and IEC, and undertake any corrective actions
- Provide information / advice to the ET regarding works programme and activities which may contribute to the generation of adverse environmental impacts
- Submit proposals on mitigation measures in case of exceedances of Action and Limit levels in accordance with the Event / Action Plans
- Implement measures to reduce impact where Action and Limit levels are exceeded
- Adhere to the procedures for carrying out complaint investigation

Environmental Team (ET)

2.1.4 ET shall not be in any way an associated body of the Contractor(s) and employed by the Permit Holder (i.e., CEDD) to conduct the EM&A programme. The ET should be managed by the ET Leader. The ET Leader shall be a person who has at least 7 years' experience in EM&A and has relevant professional qualifications. Suitable 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(s), to enable fulfillment of the Project's EM&A requirements as specified in the EM&A Manual during construction of the Project. ET shall report to the Project Proponent and the duties shall include:

- Conduct baseline monitoring, impact monitoring and post-construction monitoring and the associated in-situ and laboratory tests to monitor various environmental parameters as required in the EM&A Manual and the EP
- Analyze the environmental monitoring and audit data, review the success of EM&A programme and the adequacy of mitigation measures implemented, confirm the validity of the EIA predictions and identify any adverse environmental impacts arising
- Carry out regular site inspection to investigate and audit the Contractors' site practice, equipment/plant and work methodologies with respect to pollution control and environmental mitigation, and effect proactive action to pre-empt problems
- Monitor compliance with conditions in the EP, environmental protection, pollution prevention and control regulations and contract specifications
- Audit environmental conditions on site

- Report on the environmental monitoring and audit results to EPD, the Consultant, the IEC and Contractor(s) or their delegated representatives
- 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
- Liaise with the IEC on all environmental performance matters and timely submit all relevant EM&A proforma for approval by IEC
- Advise the Contractor(s) on environmental improvement, awareness, enhancement measures etc., on site
- Adhere to the procedures for carrying out complaint investigation
- Set up a dedicated web site where the project information, all environmental monitoring and audit data and reports described in Condition 5.2 of the EP, and all finalized submissions and plans required under the EP are to be placed for public inspection
- Upload the environmental monitoring results to the dedicated web site in accordance with requirements of the EP and EM&A Manual
- To carry out the Operational Phase Landfill Gas monitoring during effluent drainage system maintenance for one year

Independent Environmental Checker (IEC)

2.1.5 IEC will be employed for this Project. The Independent Environmental Checker (IEC) should not be in any way an associated body of the Contractor(s) or the ET for the Project. The IEC should be employed by the Permit Holder (i.e., CEDD) prior to the commencement of the construction of the Project. The IEC should have at least 7 years' experience in EM&A and have relevant professional qualifications. The duty of IEC should be:

- Provide proactive advice to the Project Consultant and the Project Proponent on EM&A matters related to the project, independent from the management of construction works, but empowered to audit the environmental performance of construction
- Review and audit all aspects of the EM&A programme implemented by the ET
- Review and verify the monitoring data and all submissions in connection with the EP and EM&A Manual submitted by the ET
- Arrange and conduct regular, at least monthly site inspections of the works during construction phase, and ad hoc inspections if significant environmental problems are identified
- Check compliance with the agreed Event / Action Plan in the event of any exceedance
- Check compliance with the procedures for carrying out complaint investigation
- Check the effectiveness of corrective measures
- Feedback audit results to ET by signing off relevant EM&A proforma
- Check that the mitigation measures are effectively implemented
- Report the works conducted, the findings, recommendation and improvement of the site inspections, after reviewing ET's and Contractor's works, and advices to the Project Consultant and Project Proponent on a monthly basis

2.2 CONSTRUCTION PROGRESS

2.2.1 3-month rolling construction program of the each Works Contract is enclosed in ***Appendix C***; and the major construction activities undertaken in the Reporting Period is presented in below sub-sections.

Contract 1 (Contract No. NE/2017/07)

2.2.2 The major construction activities of Contract 1 undertaken in this Reporting Period are:-

- E&M Work at Portion V Plant Room Building
- Steel bridge – E&M Cable tray installation
- Top coating of steel deck and painting repair of the arch rib
- Installation of L3 parapet post & railing, isolation panel, PMMA panel at concrete bridge at at Portion II

Contract 2 (Contract No. NE/2017/08)

2.2.3 The major construction activities of Contract 2 undertaken in this Reporting Period are:-

- UU Diversion
- Drainage work at Portion III
- Monitoring and Instrumentation works
- Ducting installation along Portion III, U-through and Elevated Deck
- Ducting installation along At grade road and general backfilling
- SENB installation at At-Grade Road and Wan O Road
- SENB installation at Portion III, U-trough and Elevated Deck
- Road Paving Work

2.3 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.3.1 The required documents list below shall be to submit to EPD for retention:

Table 2-1 Documents Submission under Environmental Permit Requirement

EP condition	Submission to EPD	Requirement	Situation
1.11	Commencement date of construction of the Project	no later than 1 month prior to the commencement of construction of the Project	• Contract 1 notified EPD on 19 Oct 2018 • Contract 2 notified EPD on 12 Dec 2018
2.3	The date of setting up the Community Liaison Group (CLG), the membership, the terms of reference and the contact details	At least 1 month before the commencement of construction of the Project	• CLG setting has submitted to EPD on 9 Oct 2018
2.4	Management Organization of Main Construction Companies	No later than 2 weeks before the commencement of construction of the Project	• Management Organization of Contract 1 was submitted to EPD on 2 October 2018 • Management Organization of Contract 2 was submitted to EPD on 12 December 2018
2.5	Waste Management Plan (WMP)	No later than 1 month before commencement of construction of the Project	• WMP of Contract 1 was submitted to EPD in 11 October 2018 • WMP of Contract 2 was submitted to EPD in 14 December 2018
2.6	Landscape Mitigation Plan (LSMP)	No later than 1 month before commencement of construction of the Project	• LSMP was submitted on 1 Nov 2018
2.7	Detailed Qualitative Landfill Gas Hazards Assessment (QLGHA)	No later than 1 month before commencement of construction of the Project	• QLGHA of the Project was submitted to EPD on 1 November 2018

2.3.2 Upon completed baseline monitoring, a Baseline Monitoring Report was verified by IEC on 19 November 2018 and submitted to EPD on that day for endorsement.

2.3.3 The notification of Project dedicated web site to EPD was made on 9 January 2019 (http://www.envcbltko.hk/).

2.3.4 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project are presented in ***Table 2-2***.

Table 2-2 Status of Environmental Licenses and Permits of the Project Works (Contract 1)

Item	Description	License/Permit Status			
		Permit no./ Account no./ Ref. no.	Valid Period		Status
			From	To	
1	Notification pursuant to Air pollution Control (Construction Dust) Regulation	--	--	--	Notified on 11 July 2018
2	Chemical Waste Producer Registration	5213-839-C1232-19	28 Aug 2018	N/A	--
3	Water Pollution Control Ordinance - Discharge License	WT00032842-2018	1 Mar 2019	31 Mar 2024	Valid until 31 March 2024
		WT00034178-2019	15 Jul 2019	31 Jul 2024	Valid until 31 July 2024
4	Billing Account for Disposal of Construction Waste	7031412	24 Jul 2018	N/A	--
5	Construction Noise Permit	GW-RE1021-22	1 Oct 2022	30 Nov 2022	Valid until 30 Nov 2022

Remark: No evening work and night work was carried out for Contract 1

Table 2-3 Status of Environmental Licenses and Permits of the Project Works (Contract 2)

Item	Description	License/Permit Status			
		Permit no./ Account no./ Ref. no.	Valid Period		Status
			From	To	
1	Notification pursuant to Air pollution Control (Construction Dust) Regulation	--	--	--	Notified on 31 October 2018
2	Chemical Waste Producer Registration	5213-839-B2500-04	22 Nov 2018	N/A	--
3	Water Pollution Control Ordinance - Discharge License	WT00034244-2019	8 Jul 2019	31 Jul 2024	Valid until 31 July 2024
4	Billing Account for Disposal of Construction Waste	7032702	8 Nov 2018	N/A	--
5	Construction Noise Permit	GW-RE0798-22	1 Aug 2022	31 Dec 2022	Valid until 5 Oct 2022 and superseded by GW-RE1062-22
		GW-RE1062-22	6 Oct 2022	31 Dec 2022	Valid until 31 Dec 2022

Remark: No evening work and night work was carried out for Contract 2

3. SUMMARY OF ENVIRONMENTAL MONITORING PROGRAMMES AND REQUIREMENTS

3.1 GENERAL

3.1.1 The Environmental Monitoring and Audit Programmes and requirements are set out in the Approved EM&A manual. Environmental issues such as air quality, construction noise and water quality were identified as the key issues during the construction phase of the Project. A summary of EM&A programmes and requirements are presented in the sub-sections below.

3.2 MONITORING PARAMETERS

3.2.1 Monitoring parameters of air quality, noise and water quality are summarized in ***Table 3-1***.

Table 3-1 Summary of EM&A Requirements

Environmental Issue	Parameters
Air Quality	• 1-hour TSP by Real-Time Portable Dust Meter; and • 24-hour TSP by High Volume Air Sampler
Noise	• Leq (30min) in six consecutive Leq(5 min) between 07:00-19:00 on normal weekdays • Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.
Water Quality	• In-situ measurement – Dissolved Oxygen (DO) concentration (mg/L) & saturation (%), pH, Salinity (mg/L), Temperature (ºC) and Turbidity (NTU); and • Laboratory analysis – SS (mg/L)

3.3 MONITORING LOCATIONS

Air Quality and Construction Noise

3.3.1 According to the Approved EM&A Manual Section 5.4 and Section 6.3, three (3) representative air sensitive receivers (ASR) and four (4) representative noise sensitive receivers were designated as monitoring stations. The designated air quality and noise monitoring locations are listed in ***Table 3-2*** and ***Table 3-3,*** and illustrated in ***Appendix D***.

Table 3-2 Designated Air Quality Monitoring Location recommended in EM&A Manual

ID	Location in the EM&A Manual	Currently Situation
AM1	Tung Wah Group of Hospitals Aided Primary School & Secondary School	Not yet construct
AM2	Lohas Park Stage 2 (Planned Development in Area 86)	Available for resident occupation in February 2021
AM3	Lohas Park Stage 3 (Planned Development in Area 86)	Under Construction

Table 3-3 Designated Construction Noise Monitoring Location recommended by EM&A Manual

ID	Location	Currently Situation
CNMS-1	Lohas Park Stage 1(Planned Development in Area 86, Package 4) (Southeast facade)	Available for resident occupation in November 2019
CNMS-2	Lohas Park Stage 1 (Planned Development in Area 86, Package 6) (Southeast facade)	Available for resident occupation in February 2021
CNMS-3	Lohas Park Stage 3 (Planned Development in Area 86,Package 11) (West facade)	Under Construction
CNMS-4	Tung Wah Group of Hospitals Aided Primary School & Secondary School (Southwest facade)	Not yet construct

3.3.2 As observed and confirmed by ET and IEC during the joint site visit on 29th August 2018, the designated air quality and noise monitoring locations are under construction or yet to construct. It is considered that these designated locations are not appropriate to perform air quality and noise monitoring. In this regard, alternative locations were proposed as interim arrangement to carry out

air quality and noise monitoring before occupation of the designated monitoring location. A letter enclosed with the alternative location proposal and IEC verification (Our Ref: TCS00975/18/300/L0038) was sent to EPD on 19th October 2018 and the proposal was agreed by EPD. Therefore, air quality and construction noise impact monitoring would be performed at the agreed alternative locations until the designated sensitive receivers occupied and granted the premises.

3.3.3 1-Hour TSP air quality and construction noise monitoring was commenced in February 2021 regarding the handover of residential units to purchases for LP6. However, the installation of High Volume Sampler (HVS) for 24-Hour TSP is still pending approval from LP6 property management team. Therefore, an interim alternative monitoring location AM2a was proposed near the LP 6 for the 24-Hour TSP monitoring during the request of HVS installation is being reviewed by LP6 Property Management Office.

3.3.4 The designated and interim alternative monitoring location for impact air quality and noise monitoring in the Reporting Period are summarized in Table 3-4 and illustrated in ***Appendix D***.

Table 3-4 Designated and interim alternative location for air quality and noise monitoring in the Reporting Period

Location ID	Monitoring Parameter	Location
AM2	1-Hour TSP Air Quality	Lohas Park Phase 6
AM2a	24-Hour TSP Air Quality	Near Lohas Park Phase 6
AM4	1-Hour TSP Air Quality	Podium of Lohas Park Phase 2A (Le Prestige)
AM5	24-Hour TSP Air Quality	Boundary of Site Office near Junction of Wan Po Road and Wan O Road
CNMS-1	Noise (L_{eq}, L_{10} & L_{90})	Podium of Lohas Park Package 4
CNMS-2	Noise (L_{eq}, L_{10} & L_{90})	Lohas Park Package 6
CNMS-5	Noise (L_{eq}, L_{10} & L_{90})	Podium of Lohas Park Phase 2A (Le Prestige)

Remark: Since 24-Hour TSP Air Quality monitoring is not granted at AM4 Lohas Park Phase 2A, the 24-Hour TSP monitoring was therefore proposed at AM5 which is located at the boundary of the project site office.

Water Quality

3.3.5 According to Table 7.1 of the approved EM&A Manual Section 7.4, two Control Stations (C3 & C4), six (6) sensitive receivers (CC1, CC2, CC3, CC4, CC13 & SWI1) and one (1) Gradient station (I1) are recommended to perform water quality monitoring. Details and coordinate of these water quality monitoring stations are described in ***Table 3-5*** and the locations is shown in ***Appendix D.***

Table 3-5 Location of Water Quality Monitoring Station

Station	Coordinates		Description
	Easting	Northing	
CC1	843201	816416	**Sensitive Receiver** – Coral Sites at Chiu Keng Wan
CC2	844076	817091	**Sensitive Receiver** – Coral Sites at Junk Bay
CC3	844606	817941	**Sensitive Receiver** – Coral Sites at Junk Island
CC4	845444	815595	**Sensitive Receiver** – Coral Sites at Fat Tong Chau West
CC13	844200	817495	**Sensitive Receiver** – Coral Sites at Junk Bay near Chiu Keng Wan
SWI1	845512	817442	**Sensitive Receiver** – Tseung Kwan O Salt Water Intake
C3	843821	816211	**Control Station** (Ebb Tide) – within Junk Bay
C4	844621	815770	**Control Station** (Flood Tide) – within Junk Bay
I1	844602	817675	**Gradient Station** – in between Lam Tin Tunnel (LTT) and CBL

3.4 MONITORING FREQUENCY AND PERIOD

3.4.1 To according with the approved *EM&A Manual*, impact monitoring requirements are presented as follows.

Air Quality Monitoring

3.4.2 Air quality impact monitoring frequency is as follows:

- Once every 6 days of 24-hour TSP and 3 times of 1-hour TSP monitoring; during course of

works throughout the construction period

Construction Noise Monitoring

3.4.3 Construction noise monitoring frequency is as follows:

- One set of $Leq_{(30min)}$ measurements in a weekly basis between 07:00 and 19:00 hours on normal weekdays during course of works as throughout the construction period
- If construction works are extended to include works during the hours of 1900-0700, additional weekly impact monitoring shall be carried out during evening and night-time works. Applicable permits under the NCO shall be obtained by the Contractor.

Water Quality (Marine Water) Monitoring

3.4.4 Marine water impact monitoring frequency is as follows:

- Three days a week, at mid ebb and mid flood tides during course of pile excavation works for the bridge pier foundations underway. Moreover, the intervals between 2 consecutive sets of monitoring day shall not be less than 36 hours.

3.5 MONITORING EQUIPMENT

Air Quality Monitoring

3.5.1 The 24-hour and 1-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the *Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50),* Appendix *B*. If the ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, it shall submit sufficient information to the IEC to prove that the instrument is capable of achieving a comparable results to the HVS. The instrument should be calibrated regularly, and the 1-hour sampling shall be determined on yearly basis by the HVS to check the validity and accuracy of the results measured by direct reading method. The filter paper of 24-hour TSP measurement shall be determined by HOKLAS accredited laboratory. The equipment used for air quality monitoring is listed in ***Table 3-6***.

Table 3-6 Air Quality Monitoring Equipment

Equipment		Model
24-hour TSP	High Volume Air Sampler	TISCH High Volume Air Sampler, HVS Model TE-5170
	Calibration Kit	TISCH Model TE-5025A (S/N: 1612)
1- hour TSP	Portable Dust Meter	Laser Dust Monitor Sibata LD-3B Laser Dust Monitor (S/N: 3Y6501 & 366410)

Noise Monitoring

3.5.2 Sound level meter in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in ms^{-1}. Noise equipment will be used for impact monitoring is listed in ***Table 3-7***.

Table 3-7 Construction Noise Monitoring Equipment

Equipment	Model
Integrating Sound Level Meter	Rion NL-52 (S/N:00464681)
Calibrator	Rion NC-74 (S/N:34657231)
Portable Wind Speed Indicator	Anemometer AZ Instrument 8908

Water Quality Monitoring

3.5.3 For water quality monitoring, the equipment should fulfill the requirement under the Approved *EM&A Manual Section 7.2*. The requirement is summarized below:

- ***Dissolved Oxygen and Temperature Measuring Equipment*** – The instrument should be a portable, weatherproof dissolved oxygen measuring instrument completed with cable, sensor, comprehensive operation manuals, and should be operable from a DC power source. It should be capable of measuring: dissolved oxygen levels in the range of 0-20 mg/L and

0-200% saturation; and a temperature of 0-45 degrees Celsius. It should have a membrane electrode with automatic temperature compensation complete with a cable of not less than 35 m in length. Sufficient stocks of spare electrodes and cable should be available for replacement where necessary.

- ***Turbidity Measurement Equipment*** – The instrument shall be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment shall use a DC power source. It shall have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU.
- ***Salinity Measurement Instrument*** – A portable salinometer capable of measuring salinity in the range of 0-40 ppt should be provided for measuring salinity of the water at each monitoring location.
- ***Water Depth Detector*** – A portable, battery-operated echo sounder should be used for the determination of water depth at each designated monitoring station. A detector affixed to the bottom of the works boat, if the same vessel is to be used throughout the monitoring programme, is preferred.
- ***Positioning Device*** – hand-held or boat-fixed type digital Global Positioning System (GPS) with way point bearing indication or other equipment instrument of similar accuracy, should be provided and used during water quality monitoring to ensure the monitoring vessel is at the correct location before taking measurements.
- ***Water Sampling Equipment*** – A water sampler, consisting of a transparent PVC or glass cylinder of not less than two liters, which can be effectively sealed with cups at both ends, should be used. The water sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth.

3.5.4 Equipment used for water quality impact monitoring is listed in ***Table 3-8***.

Table 3-8 Water Monitoring Equipment

Equipment	Model
A Digital Global Positioning System	GPS12 Garmin
Water Depth Detector	Eagle Sonar CUDA 300
Water Sampler	A 2-litre transparent PVC cylinder with latex cups at both ends
Thermometer & DO meter	YSI ProDSS Digital Sampling System Water Quality Meter
pH meter	
Turbidimeter	
Salinometer	
Sample Container	High density polythene bottles (provided by laboratory)
Storage Container	'Willow' 33-litter plastic cool box with Ice pad

3.6 MONITORING PROCEDURES

Air Quality

1-hour TSP

3.6.1 The 1-hour TSP monitor was a brand named "*Sibata LD-3 Laser Dust monitor Particle Mass Profiler & Counter*" which is a portable, battery-operated laser photometer. The 1-hour TSP meter provides a real time 1-hour TSP measurement based on 90^{o} light scattering. The 1-hour TSP monitor consists of the following:

(a.) A pump to draw sample aerosol through the optic chamber where TSP is measured;

(b.) A sheath air system to isolate the aerosol in the chamber to keep the optics clean for maximum reliability; and

(c.) A built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.

24-hour TSP

3.6.2 The equipment used for 24-hour TSP measurement is TISCH, Model TE-5170 TSP High Volume Air Sampler, which complied with *EPA Code of Federal Regulation, Appendix B to Part 50*. The High Volume Air Sampler (HVS) consists of the following:

(a.) An anodized aluminum shelter;
(b.) A 8"x10" stainless steel filter holder;
(c.) A blower motor assembly;
(d.) A continuous flow/pressure recorder;
(e.) A motor speed-voltage control/elapsed time indicator;
(f.) A 7-day mechanical timer, and
(g.) A power supply of 220v/50 Hz

3.6.3 For HVS for 24-hour TSP monitoring, the HVS is mounted in a metallic cage with a top for protection and also it is sat on the existing ground or the roof of building. The flow rate of the HVS between 0.6m^3/min and 1.7m^3/min will be properly set in accordance with the manufacturer's instruction to within the range recommended in *EPA Code of Federal Regulation, Appendix B to Part 50*. Glass Fiber Filter 8" x 10" of TE-653 will be used for 24-Hour TSP monitoring and would be supplied by laboratory. The general procedures of sampling are described as below:-

- A horizontal platform with appropriate support to secure the samples against gusty wind should be provided;
- No two samplers should be placed less than 2 meters apart;
- The distance between the sampler and an obstacle, such as building, must be at least twice the height that the obstacle protrudes above the sample;
- A minimum of 2 meters of separation from any supporting structure, measured horizontally is required;
- Before placing any filter media at the HVS, the power supply will be checked to ensure the sampler work properly;
- The filter paper will be set to align on the screen of HVS to ensure that the gasket formed an air tight seal on the outer edges of the filter. Then filter holder frame will be tightened to the filter hold with swing bolts. The holding pressure should be sufficient to avoid air leakage at the edge.
- The mechanical timer will be set for a sampling period of 24 hours (00:00 mid-night to 00:00 mid-night next day). Information will be recorded on the field data sheet, which would be included the sampling data, starting time, the weather condition at current and the filter paper ID with the initial weight;
- After sampling, the filter paper will be collected and transfer from the filter holder of the HVS to a sealed envelope and sent to a local HOKLAS accredited laboratory for quantifying.

3.6.4 All the sampled 24-hour TSP filters will be kept in normal air conditioned room conditions, i.e. 70% HR (Relative Humidity) and 25^oC, for six months prior to disposal.

3.6.5 The HVS used for 24-hour TSP monitoring will be calibrated in two months interval for in accordance with the manufacturer's instruction using the NIST-certified standard calibrator (Tisch Calibration Kit Model TE-5025A) to establish a relationship between the follow recorder meter reading in cfm (cubic feet per minute) and the standard flow rate, Qstd, in m^3/min. Motor brushes of HVS will be regularly replaced. The calibration certificates of the air quality monitoring equipment used for the impact monitoring and the HOKLAS accredited certificate of laboratory was provided in Appendix G.

Noise Monitoring

3.6.6 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 shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration levels from before and after the noise measurement agree to within 1.0 dB.

3.6.7 All noise measurements will be performed with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq). $Leq_{(30\ min)}$ in six consecutive $Leq_{(5\ min)}$ measurements will be used as the monitoring parameter for the time period between 07:00-19:00 hours on weekdays throughout the construction period.

3.6.8 The sound level meter will be mounted on a tripod at a height of 1.2 m and placed at the assessment point and oriented such that the microphone is pointed to the site with the microphone facing perpendicular to the line of sight. The windshield will be fitted for all measurements. Where a measurement is to be carried out at a building, the assessment point would normally be at a position 1 m from the exterior of the building façade. Where a measurement is to be made for noise being received at a place other than a building, the assessment point would be at a position 1.2 m above the ground in a free-field situation, i.e. at least 3.5 m away from reflective surfaces such as adjacent buildings or walls.

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

3.6.10 Noise measurements will not be made in fog, rain, wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed will be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

3.6.11 The sound level meter and calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis. The calibration certificates of noise monitoring equipment used for the impact monitoring was provided in Appendix G.

Marine Water Quality

3.6.12 Marine water quality monitoring would be conducted at all designated locations in accordance with Table 7.1 of the approved EM&A Manual. The procedures of water sampling, in-situ measurement and chemical analysis are described as below:

- A Global Positioning System (GPS) will be used to ensure that the correct location was selected prior to sample collection. A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring station.
- The marine water sampler will be lowered into the water body at a predetermined depth. The trigger system of the sampler is activated with a messenger and opening ends of the sampler are closed accordingly then the sample of water is collected.
- During the sampling, the sampling container will be rinsed to use a portion of the marine water sample before the water sample is transferred to the container. Upon sampling completion, the container will be sealed with a screw cap.
- Before the sampling process, general information such as the date and time of sampling, weather condition and tidal condition as well as the personnel responsible for the monitoring will be recorded on the monitoring field data sheet.
- In-situ measurement including water temperature, turbidity, dissolved oxygen, salinity, pH and water depth will be recorded at the identified monitoring station and depth. At each station, marine water samples will be collected at three depths: 1m below water surface, 1m above sea bottom and at mid-depth when the water depth exceeds 6m. Samples at 1m below water surface and 1m above sea bottom will be collected when the water depth is between 3m and 6m. And sample at mid-depth will be taken when the water depth is below 3m.
- For the in-situ measurement, two consecutive measurements of sampling depth, temperature, dissolved oxygen, salinity, turbidity and pH concentration will be measured at the sea. The YSI ProDSS Multifunctional Meter will be retrieved out of the water after the first measurement and then re-deployed for the second measurement. Where the difference in the value between the first and second readings of each set is more than 25% of the value of the first reading, the reading is discarded and further readings is taken.

- Marine water sample will be collected by using a water sampler. The high-density polythene bottles will be filled after the water sample collected from the sea. Before the water sample being fills into the sampling bottles, the sampling bottles will be pre-rinsed with the same water sample. The sampling bottles will then be packed in cool-boxes (cooled at $4^{O}C$ without being frozen), and delivered to HOKLAS accredited laboratory for the chemical analysis as followed APHA *Standard Methods for the Examination of Water and Wastewater* 19ed 2540D, unless otherwise specified.

3.6.13 Before each round of monitoring, the dissolved oxygen probe will be calibrated by wet bulb method; a zero check in distilled water will be performed with the turbidity and salinity probes. The turbidity probe also will be checked with a standard solution of known NTU and known value of the pH standard solution were used to check the accuracy of pH value before each monitoring day. Moreover, all in-situ measurement equipment used marine water monitoring will be calibrated at three months interval.

Laboratory Analysis

3.6.14 All water samples included the duplicate samples, was tested with chemical analysis as specified in the EM&A Manual by a HOKALS accredited laboratory - ALS Technichem (HK) Pty Ltd. The chemicals analysis method and reporting limit show ***Table 3-9***.

Table 3-9 Testing Method and Reporting Limit of the Chemical Analysis

Parameter	ALS Method Code	In-house Method Reference (1)	Reporting Limit
Total Suspended Solids	EA025	APHA 2540D	1 mg/L

Note:

1. The exact method shall depend on the laboratory accredited method. APHA = Standard Methods for the Examination of Water and Wastewater by the American Public Health Association.

3.6.15 The determination works will start within 24 hours after collection of the water samples or within the holding time as advised by the laboratory.

Meteorological Information

3.6.16 The meteorological information including wind direction, wind speed, humidity and temperature etc. of impact monitoring is extracted from the closest Tseung Kwan O Hong Kong Observatory Station. Moreover, the data of rainfall and air pressure would be extracted from King's Park Station.

3.6.17 For marine water quality monitoring, tidal information would be referred to tide gauge at Tai Miu Wan.

3.7 DETERMINATION OF ACTION/LIMIT (A/L) LEVELS

3.7.1 The baseline results form the basis for determining the environmental acceptance criteria for the impact monitoring. A summary of the Action/Limit (A/L) Levels for air quality, construction noise and water quality are shown in ***Tables 3-10***, ***3-11*** and ***3-12*** respectively.

Table 3-10 Action & Limit Levels of Air Quality (1-Hour & 24-Hr TSP)

Monitoring Station	Action Level (μg /m^3)		Limit Level (μg/m^3)	
	1-Hour TSP	24-Hr TSP	1-Hour TSP	24-Hr TSP
AM2	278	NA	500	NA
AM2a	NA	190	NA	260
AM4	278	NA	500	NA
AM5	NA	190	NA	260
Note: 1-Hour & 24-Hr TSP of Action Level = (Average Baseline Results × 1.3 + Limit level)/2				

Table 3-11 Action and Limit Levels for Construction Noise, dB(A)

Monitoring Location	Action Level	Limit Level
CNMS-1 **CNMS-2** **CNMS-5**	**Time Period: 0700-1900 hours on normal weekdays (Leq30min)**	
	When one or more documented complaints are received	***75*** dB(A)
	Time Period: 1900-2300 hours on all days (Leq15min)	
	When one or more documented complaints are received	***55*** dB(A)

Remarks:

1. *Construction noise monitoring will be resumed at the designated locations CNMS-2, CNMS-3 and CNMS4 once they are available and permission are granted;*
2. *The designated locations CNMS-2 and CNMS-3 are located at residential building which are still under construction, Limit Level of 75dB(A) will be adopted until they are occupied;*
3. *The designated location CNMS-4 is located at planned school and still not yet to construction. When the school occupied and operated, Limit Level of 70dB(A) should be adopted and should be reduced to 65dB(A) during examination period; and*
4. *If construction works are required during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority shall be followed.*

Table 3-12 Action and Limit Levels for Water Quality

Monitoring Station	Depth Average of SS (mg/L)			
	Action Level		Limit Level	
CC1	7.8	**OR** 120% of upstream control station at the same tide of the same day (Control Station C3 at Ebb tide and Control Station C4 at Flood tide), whichever is higher	9.3	**OR** 130% of upstream control station at the same tide of the same day (Control Station C3 at Ebb tide and Control Station C4 at Flood tide) , whichever is higher
CC2	9.0		9.2	
CC3	8.2		9.0	
CC4	13.8		15.4	
CC13	8.9		10.3	
SWI1	8 mg/L		10 mg/L	

Monitoring Location	Dissolved Oxygen (mg/L)			
	Depth Average of Surface and Mid-depth		Bottom	
	Action Level	Limit Level	Action Level	Limit Level
CC1	5.8	5.7	5.3	5.2
CC2	5.8	5.7	5.3	5.1
CC3	5.5	5.4	4.9	4.7
CC4	5.7	5.7	5.5	5.4
CC13	5.6	5.5	5.3	5.2
SWI1	5.4	4.8	5.1	5.0

Monitoring Location	Depth Average of Turbidity (NTU)			
	Action Level		Limit Level	
CC1	5.8	**OR** 120% of upstream control station at the same tide of the same day (Control Station C3 at Ebb tide and Control Station C4 at Flood tide) , whichever is higher	6.0	**OR** 130% of upstream control station at the same tide of the same day (Control Station C3 at Ebb tide and Control Station C4 at Flood tide) , whichever is higher
CC2	4.6		5.5	
CC3	4.8		5.4	
CC4	6.1		7.1	
CC13	6.0		6.3	
SWI1	6.1		7.1	

3.7.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan which presented in ***Appendix E.***

3.8 DATA MANAGEMENT AND DATA QA/QC CONTROL

3.8.1 All monitoring data will be handled by the ET's in-house data recording and management system. The monitoring data recorded in the equipment will be downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data will input into a computerized database properly maintained by the ET. The laboratory results will be input directly into the computerized database and checked by personnel other than those who input the data.

3.8.2 For monitoring parameters that require laboratory analysis, the local laboratory shall follow the QA/QC requirements as set out under the HOKLAS scheme for the relevant laboratory tests.

4. AIR QUALITY MONITORING

4.1 GENERAL

4.1.1 As notified that Lohas Park Package 6 was available for resident occupation in late January 2021, air quality monitoring at designated monitoring location AM2 was therefore commenced in February 2021. Since the installation of High Volume Sampler for 24-Hour TSP monitoring is still under review by Property Management Team of Lohas Park Package 6, an interim alternative monitoring location AM2a was proposed for the 24-Hour TSP monitoring and was commenced on 13 July 2021 upon agreed by ER and IEC.

4.1.2 In the Reporting Period, 1-Hour TSP monitoring was performed at designated monitoring location AM2 and interim alternative monitoring locations AM4, and 24-Hr TSP of air quality monitoring was performed at interim alternative monitoring locations AM2a and AM5. The air quality monitoring schedule is presented in ***Appendix F***.

4.1.3 Valid calibration certificates of monitoring equipment are shown in ***Appendix G*** and the monitoring results are summarized in the following sub-sections

4.2 RESULTS OF AIR QUALITY MONITORING IN THE REPORTING MONTH

4.2.1 During the Reporting Period, ***36*** sessions of 1-hour TSP and ***10*** sessions of 24-hours TSP monitoring were carried out and the monitoring results are summarized in ***Table 4-1*** and ***Table 4-2***. The detailed 24-hour TSP monitoring data are presented in ***Appendix H*** and the relevant graphical plots are shown in ***Appendix I***.

Table 4-1 1-Hour TSP Air Quality Impact Monitoring Results for AM4 and 24-Hour TSP Air Quality Impact Monitoring Results for AM5

AM5		AM4				
24-Hr TSP (μg/m³)		1-Hour TSP (μg/m³)				
Date	**Meas. Result**	**Date**	**Start Time**	**1st Meas.**	**2nd Meas.**	**3rd Meas.**
6-Oct-22	70	3-Oct-22	9:47	94	77	81
12-Oct-22	60	7-Oct-22	13:04	74	83	82
18-Oct-22	110	13-Oct-22	9:51	106	101	96
24-Oct-22	112	19-Oct-22	13:32	133	137	119
29-Oct-22	66	25-Oct-22	9:16	43	36	40
--	--	31-Oct-22	13:26	45	49	46
Average (Range)	**83 (60 – 112)**	Average (Range)		**80 (36 – 137)**		

Table 4-2 1-Hour TSP Air Quality Impact Monitoring Results for AM2 and 24-Hour TSP Air Quality Impact Monitoring Results for AM2a

AM2a		AM2				
24-Hr TSP (μg/m³)		1-Hour TSP (μg/m³)				
Date	**Meas. Result**	**Date**	**Start Time**	**1st Meas.**	**2nd Meas.**	**3rd Meas.**
6-Oct-22	70	3-Oct-22	9:26	85	72	74
12-Oct-22	113	7-Oct-22	13:15	99	105	82
18-Oct-22	136	13-Oct-22	9:33	98	87	93
24-Oct-22	174	19-Oct-22	9:39	109	112	120
29-Oct-22	130	25-Oct-22	9:31	42	34	36
--	--	31-Oct-22	13:49	71	64	67
Average (Range)	**124 (70 – 174)**	Average (Range)		**81 (34 – 120)**		

4.2.2 As shown in ***Table 4-1*** and ***Table 4-2***, all the 1-hour TSP and 24-hour TSP monitoring results were below the Action / Limit Levels. No Notification of Exceedance (NOE) was issued in this Reporting Period.

4.2.3 The meteorological data during impact monitoring period is summarized in ***Appendix J***.

5. CONSTRUCTION NOISE MONITORING

5.1 GENERAL

5.1.1 In the Reporting Period, construction noise quality monitoring was performed at designated monitoring location **CNMS-1 & CNMS-2,** and interim alternative monitoring location **CNMS-5**. The construction noise monitoring schedule is presented in ***Appendix F***.

5.1.2 Valid calibration certificates of monitoring equipment is shown in ***Appendix G*** and the construction noise monitoring results are summarized in the following sub-sections:

5.2 RESULTS OF NOISE MONITORING

5.2.1 ***15*** sessions of daytime construction noise monitoring were performed at both the designated monitoring location CNMS-1 & CNMS-2 and the interim alternative location CNMS-5 in the reporting period. The daytime noise monitoring results are summarized in ***Table 5-1*** to ***Table 5-3.*** The detailed noise monitoring data are presented in ***Appendix H*** and the relevant graphical plots are shown in ***Appendix I***.

Table 5-1 Daytime Construction Noise Impact Monitoring Results at CNMS-1

Date	Time	Measurement Result (dB(A))	
		$L_{eq30min}$	Façade Correction
3-Oct-22	10:19	68.6	NA
13-Oct-22	10:37	69.4	NA
19-Oct-22	13:52	71.1	NA
25-Oct-22	9:24	69.2	NA
31-Oct-22	14:27	62.9	NA

Table 5-2 Daytime Construction Noise Impact Monitoring Results at CNMS-2

Date	Time	Measurement Result (dB(A))	
		$L_{eq30min}$	Façade Correction
3-Oct-22	10:57	62.4	NA
13-Oct-22	11:15	65.0	NA
19-Oct-22	14:25	65.8	NA
25-Oct-22	11:01	63.7	NA
31-Oct-22	15:15	64.7	NA

Table 5-3 Daytime Construction Noise Impact Monitoring Results at CNMS-5

Date	Time	Measurement Result (dB(A))	
		$L_{eq30min}$	Façade Correction
3-Oct-22	9:23	63.6	NA
13-Oct-22	9:51	64.7	NA
19-Oct-22	9:42	65.4	NA
25-Oct-22	10:23	63.6	NA
31-Oct-22	13:31	63.1	NA

5.2.2 As shown in ***Table 5-1*** to ***Table 5-3***, all the measured results were below 75dB(A) of the acceptance criteria. No adverse weather condition which may affect the monitoring result was encountered during the course of noise monitoring in the reporting period.

6. WATER QUALITY MONITORING

6.1 GENERAL

6.1.1 According to the approved EM&A Manual Section 7.6.1, the impact marine water quality monitoring work shall be carried out during the CBL piling and pile excavation works (marine construction activity) of the Project. Impact marine water quality monitoring was commenced in December 2018 when CBL piling and pile excavation works started.

6.1.2 As confirmed, all the marine piling and piling excavation work were completed in January 2020 and all pile cap installation work was completed in mid-March 2020. Due to the marine construction works that requires marine water quality monitoring as stated in the EM&A Manual were completed, the impact water quality monitoring was ceased with effect from 1 May 2020 and IEC has no particular comment on this arrangement.

6.1.3 No impact water quality monitoring was therefore carried out in the reporting period.

7. WASTE MANAGEMENT

7.1 GENERAL WASTE MANAGEMENT

7.1.1 Waste management would be carried out by an on-site Environmental Officer or an Environmental Consultant from time to time.

7.2 RECORDS OF WASTE QUANTITIES

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

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

7.2.2 According to the information provided by Contractor of Contract 1 and Contract 2, waste disposal was made in the Reporting period are summarized in ***Tables 7-1*** and ***7-2***.

Table 7-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Contract 1		Contract 2	
	Quantity	Disposal Location	Quantity	Disposal Location
Total C&D Materials (Inert) (‘000m^3)	0.012	-	0.912	-
Reused in this Contract (Inert) (‘000m^3)	0	-	0	-
Reused in other Projects (Inert) (‘000m^3)	0	-	0	-
Disposal as Public Fill (Inert) (‘000m^3)	0.012	TKO 137	0.649	TKO 137
Imported Fill (‘000m^3)	0	-	0.061	-

Table 7-2 Summary of Quantities of C&D Wastes

Type of Waste	Contract 1		Contract 2	
	Quantity	Disposal Location	Quantity	Disposal Location
Recycled Metal (‘000kg)	0	-	0	-
Recycled Paper / Cardboard Packing (‘000kg)	0.150	Collected by paper recycling company	0	-
Recycled Plastic (‘000kg)	0	-	0	-
Chemical Wastes (‘000kg)	0	-	0	-
General Refuses (‘000m^3)	1.011	NENT	0.068	NENT

7.2.3 The Monthly Summary Waste Flow Table of the Contracts 1 and Contract 2 are shown in ***Appendix K***.

8. SITE INSPECTION

8.1 REQUIREMENTS

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

8.2 FINDINGS / DEFICIENCIES DURING THE REPORTING MONTH

Contract 1

8.2.1 In this Reporting Month, weekly joint site inspection to evaluate site environmental performance for the *Contract 1* was carried out by the Project Consultant, ET and the Contractor on ***5, 13, 19 & 26 October 2022***. Moreover, the Independent Environmental Checker (IEC) monthly site inspection was conducted on ***13 October 2022***.

8.2.2 The findings / deficiencies of ***Contract 1*** that observed during the weekly site inspection are listed in ***Table 8-1*** and the site layout plan was provided in **Appendix A**.

Table 8-1 Site Observations of the Contract 1 (Contract No. NE/2017/07)

Date	Findings / Deficiencies	Follow-Up Status
5 October 2022	Observation: • Waste skip was observed full. General refuse cumulated inside the waste skip should be cleaned more frequency. (Works Area A)	• General refuse inside the waste skip has been cleaned.
13 October 2022	Observation: • Drip tray should be provided for chemical storage on-site. (Portion II) • NRMM label should be displayed properly for NRMM using on-site. (Portion II)	• Chemical has been removed. • NRMM label has been displayed for NRMM using on-site.
19 October 2022	Observation: • Stagnant water cumulated inside the drip tray should be cleaned. (Portion II)	• Water cumulated inside the drip tray has been cleaned.
26 October 2022	• No adverse environmental issue was observed.	NA

Contract 2

8.2.3 In this Reporting Month, weekly joint site inspection to evaluate site environmental performance for the *Contract 2* were carried out by the Project Consultant, ET and the Contractor on ***5, 13, 19 & 26 October 2022***. Moreover, the Independent Environmental Checker (IEC) monthly site inspection was conducted on ***13 October 2022***.

8.2.4 The findings / deficiencies of ***Contract 2*** that observed during the weekly site inspection are listed in ***Table 8-2*** and the site layout plan was provided in **Appendix A**.

Table 8-2 Site Observations of the Contract 2 (Contract No. NE/2017/08)

Date	Findings / Deficiencies	Follow-Up Status
5 October 2022	• No adverse environmental issue was observed.	• NA
13 October 2022	Observation: • Proper dust mitigation measure should be provided for stockpile of loose material storage on-site to reduce dust impact. (Portion VI)	• Stockpile was removed.

Date	Findings / Deficiencies	Follow-Up Status
19 October 2022	• No adverse environmental issue was observed.	• NA
26 October 2022	Observation: • Drip tray should be provided for chemical storage on-site. (Portion VI)	• Chemical container was removed from site.

8.3 IMPLEMENTATION STATUS OF SURFACE RUNOFF MITIGATION MEASURES

8.3.1 During the inspection of the reporting month, implementation of surface runoff mitigation measures were observed in both Contracts. The surface runoff mitigation measures observed during the weekly site inspection of Contract 1 and Contract 2 are summarized below and the photo recorded was provided in **Appendix L**.

Contract 1 (Contract No. NE/2017/07)

8.3.2 The surface runoff mitigation measures of Contract 1 implemented in this Reporting Period are:-

- Treatment facilities was installed at site to treat the site generated water prior discharge.

Contract 2 (Contract No. NE/2017/08)

8.3.3 The surface runoff mitigation measures of Contract 2 implemented in this Reporting Period are:-

- Treatment facilities was installed at site to treat the site generated water prior discharge.

8.3.4 Overall, the surface runoff mitigation measures of Contract 1 and Contract 2 observed during the inspection of the reporting period are efficient.

9. LANDFILL GAS MONITORING

9.1 GENERAL REQUIREMENT

9.1.1 Pursuant to Section 13 of the Project's EM&A Manual, landfill gas monitoring shall perform during excavation work within the 250m Consultation Zone of Tseung Kwan O Stage II & III Landfill. For landfill gas monitoring requirements, pre entry and routine measurement shall be undertaken in accordance with the *Factories and Industrial Undertaking (Confined Spaces) Regulation.*

9.1.2 According to Environmental Mitigation Implementation Schedule (EMIS) S14.7.6, portable monitoring equipment can be used to conduct landfill gas monitoring. Moreover, the frequency and areas to be monitored should be set down prior to commencement of the works either by the Safety Officer or by an appropriately qualified person.

9.2 LIMIT LEVELS AND EVENT AND ACTION PLAN

9.2.1 In event of the trigger levels specified in Table 14.6 of the EIA report being exceeded, a person, such as the Safety Officer, shall be nominated, with deputies, to be responsible for dealing with any emergency which may occur due to LFG. In an emergency situation the nominated person, or his deputies, shall have the necessary authority and shall ensure that the confined space is evacuated and the necessary works implemented for reducing the concentrations of gas. The Limit levels and relevant Action Plans for landfill gas detected in utilities and any on-site areas following construction is listed in ***Table 9-1***.

Table 9-1 Actions in the Event of Landfill Gas Being Detected in Excavations

Parameter	Limit Level	Actions
Methane	>10% LEL (i.e. >0.5% by volume)	• Post "No Smoking" signs • Prohibit hot works • Ventilate to restore methane to <10% LEL
	>20% LEL (i.e. >1% by volume)	• Stop excavation works • Evacuate personnel/prohibit entry • Increase ventilation to restore methane to <10% LEL
Carbon dioxide	>0.5%	• Ventilate to restore carbon dioxide to <0.5%
	>1.5%	• Stop excavation works • Evacuate personnel/prohibit entry • Increase ventilation to restore carbon dioxide to <0.5%
Oxygen	<19%	Ventilation to restore oxygen >19%
	<18%	• Stop excavation works • Evacuate personnel/prohibit entry • Increase ventilation to restore oxygen to >19%

9.2.2 In the event of the trigger levels specified in Table 9-1 being exceeded, the Safety Officer shall be responsible for dealing with any emergency which may occur due to landfill gas.

9.3 LANDFILL GAS MONITORING

9.3.1 In the Reporting Period, landfill gas monitoring was conducted at the zone Wan O Road which excavation work of Contract 2 was carried out. Crowcon Gas-Pro Portable Gas Detector was used for the landfill gas monitoring and the valid calibration certificate is presented in **Appendix G**.

9.3.2 There were a total of ***24*** days monitoring were carried by the Safety Officer or an approved and qualified persons. The results of landfill gas measurement are summarized in ***Table 9-2***. Moreover, database of monitoring result is attached in **Appendix H**.

Table 9-2 Summary of Landfill Gas Measurement Results

Landfill Gas Parameter	Action Level	Limit Level	Detectable at LMR	
			Min	Max
Methane	>10% LEL (>0.5% v/v)	>20% LEL (>1% v/v)	0.0%	0.0%
Oxygen	<19%	<18%	20.3%	20.7%
Carbon Dioxide	>0.5%	>1.5%	0.0%	0.0%

9.3.3 The measurement results shown that slightly methane and Carbon Dioxide concentration were detected, oxygen concentration measured was over 19.0 %. No exceedance was triggered and therefore no corrective action was required accordingly.

10. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

10.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

10.1.1 In the Reporting Period, two (2) environmental complaint was received for the Project. Besides, no summons and prosecution under the EM&A Programme was lodged for the project.

Complaint received on 21 October 2022

10.1.2 A complaint was received by CEDD regarding the low frequency noise from engines of vessels travelling or berthing on the sea at Tsueng Kwan O from 9pm to 8am.

10.1.3 As advised by the Contractor of Contract 1 – Contract No. NE/2017/07 (CRBC), no marine construction work and no operation of marine vessel was carried out from 21:00 to 08:00 during the week of complaint received under the Project. It is also confirmed by RSS that there is no marine construction work and no operation of marine vessel during the complaint period under the Project.

10.1.4 The Investigation conducted by the ET revealed that the complaint is unlikely due to the Project as no construction work and operation of marine vessel was carried out under the Project during the complaint period. Nevertheless, the Contractor was reminded to strictly follow the requirement stated in the issued construction noise permit when construction work is required during restricted hours.

Complaint received on 27 October 2022

10.1.5 A complaint was received by EPD regarding the noise nuisance generated from construction barges suspected from CBL project.

10.1.6 As advised by the Contractor of Contract 1 – Contract No. NE/2017/07 (CRBC), lifting work were conducted at Pier E3 from 15:00 to 16:00 on 27 October 2022 and no work barge was used for the rest of the day. One (1) construction barge was involved for the lifting work and the lifting work was carried out under the bridge where there should be no direct sight of the work barge from Lohas Park Sea to Sky. In addition, the work location is about 350m far from Lohas Park Sea to Sky which the noise generated from the work barge should be insignificant.

10.1.7 The Investigation conducted by the ET revealed that the complaint is unlikely due to the Project as the lifting work was carried out under the bridge and the work location is far from the Lohas Park Sea to Sky. The noise nuisance could be generated from other barges which are not under the Project. Nevertheless, the Contractor was reminded to strictly implement the noise mitigation measures on site as far as practicable to minimize noise impact to the surrounding resident.

10.1.8 The statistical summary table of environmental complaint is presented in ***Tables 10-1, 10-2*** and ***10-3***.

Table 10-1 Statistical Summary of Environmental Complaints

Reporting Period	Contract	Environmental Complaint Statistics			Related with the Works Contract(s)
		Frequency	Cumulative	Complaint Nature	
1 – 31 October 2022	1	2	31	Noise	No
	2	0	23	NA	NA

Table 10-2 Statistical Summary of Environmental Summons

Reporting Period	Contract	Environmental Summons Statistics		
		Frequency	Cumulative	Summons Nature
1 – 31 October 2022	1	0	0	NA
	2	0	0	NA

Table 10-3 Statistical Summary of Environmental Prosecution

Reporting Period	Contract	Environmental Prosecution Statistics		
		Frequency	Cumulative	Prosecution Nature
1 – 31 October 2022	1	0	0	NA
	2	0	0	NA

11. IMPLEMENTATION STATUS OF MITIGATION MEASURES

11.1 GENERAL REQUIREMENTS

11.1.1 The environmental mitigation measures that recommended in the Implementation Schedule for Environmental Mitigation Measures (ISEMM) in the approved EM&A Manual covered the issues of dust, noise, water and waste and they are summarized presented in ***Appendix M.***

11.1.2 The Contractors had been implementing the required environmental mitigation measures according to the Environmental Monitoring and Audit Manual subject to the site condition. Environmental mitigation measures generally implemented by the Contractors in this Reporting Month are summarized in ***Table 11-1*** and photo record of water mitigation measure was provided in **Appendix L**.

Table 11-1 Environmental Mitigation Measures in the Reporting Month

Issues	Environmental Mitigation Measures
Construction Noise	• Regularly to maintain all plants, so only the good condition plants were used on-site ; • If possible, all mobile plants onsite operation has located far from NSRs; • When machines and plants (such as trucks) were not in using, it was switched off; • Wherever possible, plant was prevented oriented directly the nearby NSRs; • Provided quiet powered mechanical equipment to use onsite; • Weekly noise monitoring was conducted to ensure construction noise meet the criteria.
Air Quality	• Stockpile of dusty material was covered entirely with impervious sheeting or sprayed with water so as to maintain the entire surface wet; • The construction plants regularly maintained to avoid the emissions of black smoke; • The construction plants switched off when it not in use; • Water spraying on haul road and dry site area was provided regularly; • Where a vehicle leaving the works site is carrying a load of dusty materials, the load has covered entirely with clean impervious sheeting; and • Before any vehicle leaving the works site, wheel watering has been performed.
Water Quality	• Debris and refuse generated on-site collected daily; • Oils and fuels were stored in designated areas; • The chemical waste storage as sealed area provided; • Site hoarding with sealed foot were provided surrounding the boundary of working site to prevent wastewater or site surface water runoff get into public areas; and • Portable chemical toilets were provided on-site. A licensed contractor was regularly disposal and maintenance of these facilities. • Silt curtain was installed and maintained in accordance with EP condition
Waste and Chemical Management	• Excavated material reused on site as far as possible to minimize off-site disposal. • Scrap metals or abandoned equipment should be recycled if possible; • Waste arising kept to a minimum and be handled, transported and disposed of in a suitable manner; • Disposal of C&D wastes to any designated public filling facility and/or landfill followed a trip ticket system; and • Chemical waste handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.
General	• The site is generally kept tidy and clean. • Mosquito control is performed to prevent mosquito breeding on site.

11.2 TENTATIVE CONSTRUCTION ACTIVITIES IN THE COMING MONTH

11.2.1 Tentative construction activities to be undertaken in **November 2022** should be included:-

Contract 1

- Installation of L3 railing and balustrade; E&M works; Road pavement works; Paving block at footpath; Landscaping works; Road marking at carriageway and green color dressing at cycle track at Portion I
- Removal of temporary support at Piers W1, W2, E1, E2; Top coating of steel deck and painting repair of the arch rib; Road pavement works; Installation of E&M works; L3 railing, balustrade

and isolation PMMA panel; Landscaping works; Road marking at carriageway and green color dressing at cycle track at Portion II, III, IV&VI.

- Pillar box installation, 100 TPN isolator, road lighting, main cable laying and E&M testing & Commissioning at Portion V.

Contract 2

- UU Diversion
- Installation Noise Barrier Panel
- Lift installation
- Drainage Work at Wan O Road & Wan Po Road
- SENB installation at At-Grade Road, Portion III, U-trough
- Directional sign at Wan Po Road
- Monitoring and Instrumentation works
- E&M Work at Portion I
- Road Paving Work

11.3 IMPACT FORECAST

11.3.1 Potential environmental impacts arising from the works of the Contracts 1 and Contract 2 include:

- Construction waste generated from construction activities (e.g. cable paving work and concreting work);
- Dust impact generated from handling of earth material (e.g. backfilling work);
- Construction noise generated from work barges, plants and vehicles;
- Potential water quality impact from unmanaged site runoff.

11.3.2 Environmental mitigation measures shall be properly implemented and maintained as per the Mitigation Implementation Schedule in **Appendix M** to ensure site environmental performance is acceptable.

12. CONCLUSIONS AND RECOMMENDATIONS

12.1 CONCLUSIONS

12.1.1 This is the monthly EM&A report as presented the monitoring results and inspection findings for the reporting period from ***1*** to ***31 October 2022***.

12.1.2 In this Reporting Period, no 1-Hour TSP or 24-Hr TSP air quality monitoring exceedance was recorded. No NOE or the associated corrective actions were therefore issued.

12.1.3 In the Reporting Period, no noise exceedance was recorded. No NOE or the associated corrective actions were therefor issued.

12.1.4 In the Reporting Period, two (2) noise action level exceedances were recorded due to noise complaint was recorded. No noise limit level exceedance was recorded.

12.1.5 In the Reporting Period, two (2) environmental complaint were recorded for the Project with respect to noise nuisance suspected arising from the Project. Investigation for complaint were undertaken by ET and indicated that the noise complaints was not Project related. Besides, no summons and prosecution was lodged for the project.

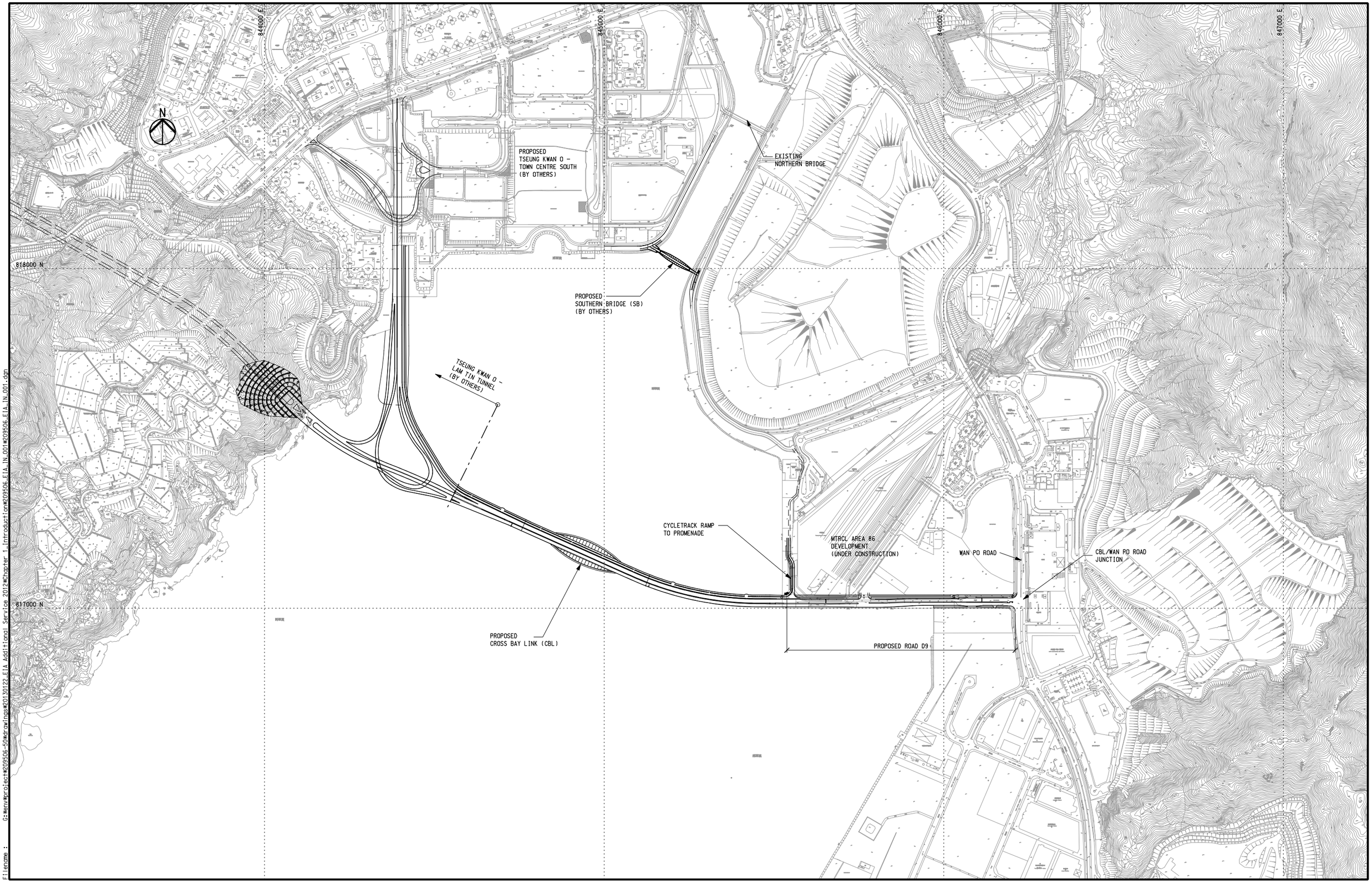
12.2 RECOMMENDATIONS

12.2.1 Due to the coming month is dry and windy season for Hong Kong, the Contractor was reminded that all the works to undertaking must be fulfill environmental statutory requirement, especially construction dust come from working sites of the Project.

12.2.2 Construction noise would be the key environmental issue as Lohas Park Phase 4 & 6 were already available for resident occupation. The noise mitigation measures such as use of quiet plants and installation of temporary noise barrier at the construction noise predominate area should be fully implemented in accordance with the EM&A requirement.

Appendix A

Project Layout Plan



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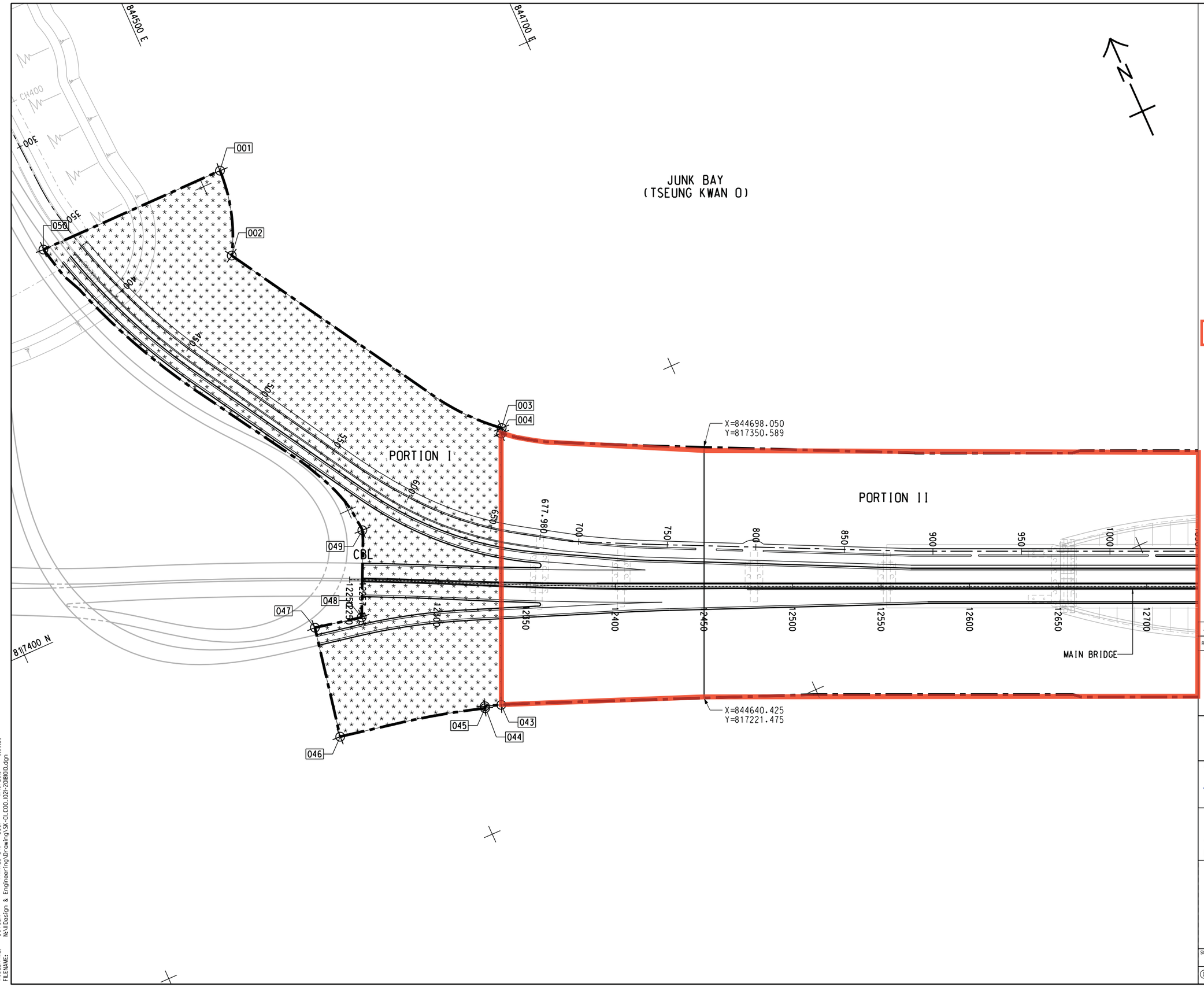
土木工程拓展署 Civil Engineering and Development Department	ARUP Ove Arup & Partners Hong Kong Limited	Job Title: **Agreement No. CE 43/2008(HY) Cross Bay Link, Tseung Kwan O – Investigation**
Drawing Title: GENERAL LAYOUT PLAN		

Rev.	Description	Date
B	SECOND ISSUE	01/13
A	FIRST ISSUE	07/11

Drawn: GL	Date: 01/13
Checked: JP	Approved: ST
Scale: 1:5000 on A1 & 1:10000 on A3	
Drawing No.: 209506/EIA/IN/001	
Status: FINAL	Rev.: B



NOTES:

1. ALL SETTING OUT POINTS SHOWN ON THIS SET OF DRAWINGS ARE FOR REFERENCE ONLY. THE EXACT LIMIT OF SITE BOUNDARY SHALL BE VERIFIED AND DETERMINED BY THE CONTRACTOR ON SITE.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 60329339/C1/COO/1022 AND 1023.

LEGEND:

- SITE BOUNDARY
- PORTION I
- PORTION II
- PORTION III
- PORTION IV
- PORTION V
- PORTION VI
- PORTION VII
- WORKS AREA A
- WORKS AREA B
- Works area under Contract 1

Rev	Amendment	By	Chk.	App.	Date
A	FIRST ISSUE	HK	KN	AC	19/09/18

PROJECT MANAGER:

PROJECT MANAGER:

土木工程拓展署
Civil Engineering and Development Department

SUPERVISOR:

AECOM

CONTRACTOR:

中國路橋工程有限責任公司
China Road and Bridge Corp.

CONTRACT NO. AND TITLE:

Contract No. NE/2017/07

CROSS BAY LINK, TSEUNG KWAN O - MAIN BRIDGE AND ASSOCIATED WORKS

DRAWING TITLE:

SCALE @ A1
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POINTS	EASTING	NORTHING
001	844512.175	817604.422
002	844498.695	817557.993
003	844598.186	817407.065
004	844596.769	817404.339
005	845132.374	817153.641
006	845500.00	817088.580
007	845524.969	817088.226
008	845524.909	817236.307
009	845558.095	817236.307
010	845558.095	817195.885
011	845550.234	817174.288
012	845550.219	817158.042
013	845562.850	817139.744
014	845562.850	817035.700
015	845550.850	817035.670
016	845524.969	817035.670
017	846030.606	817036.089
018	846030.604	817038.387
019	846200.700	817038.418
020	846200.700	817038.796
021	846205.200	817042.796
022	846205.200	817138.796
023	846245.180	817138.796
024	846246.698	816900.099
025	846206.155	816900.099

SETTING OUT POINTS		
POINTS	EASTING	NORTHING
026	846204.700	816926.589
027	846199.263	816926.590
028	846144.269	816926.589
029	846091.080	816926.744
030	845969.970	816926.504
031	846199.197	816975.364
032	846188.983	816993.582
033	846144.274	816999.997
034	846144.274	817000.722
035	846091.204	817000.679
036	845970.070	817000.581
037	845970.069	817000.099
038	845550.850	817000.099
039	845524.969	817000.099
040	845550.850	816953.291
041	845500.00	816952.636
042	845076.990	817029.022
043	844534.373	817264.536
044	844525.572	817267.627
045	844525.199	817266.527
046	844444.018	817285.203
047	844456.043	817347.194
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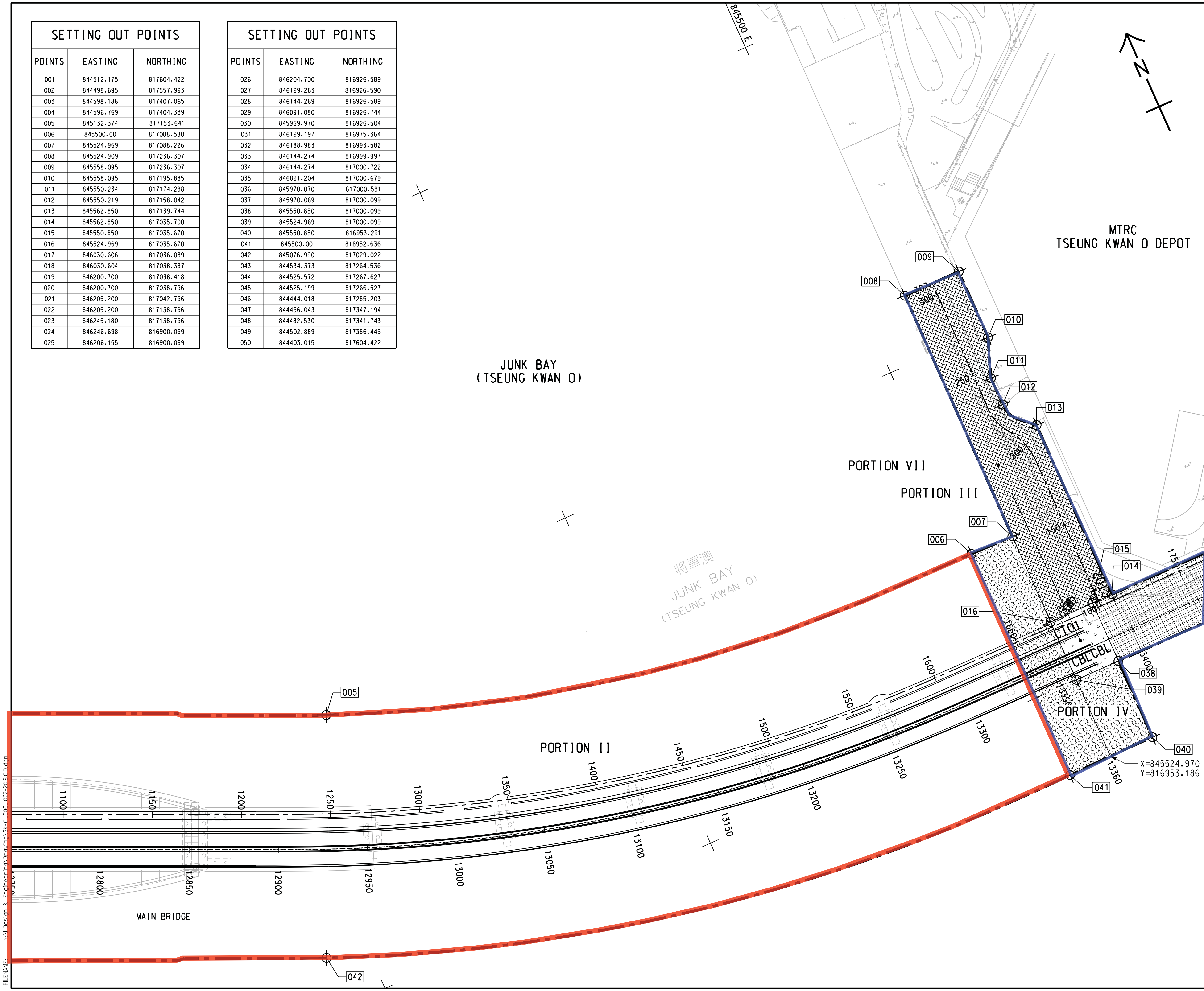
050	844403.015	817604.422



NOTE:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 60329339/C1/C00/1021 AND 1023.

LEGEND:

Works area under Contract 1

Works area under Contract 2

Rev	Amendment	By	Chk.	App.	Date

PROJECT MANAGER:

土木工程拓展署
Civil Engineering and Development Department

SUPERVISOR:

AECOM

CONTRACTOR:

中國路橋工程有限責任公司
China Road and Bridge Corp.

CONTRACT NO. AND TITLE:

Contract No. NE/2017/07

CROSS BAY LINK, TSEUNG KWAN O - MAIN BRIDGE AND ASSOCIATED WORKS

DRAWING TITLE:

SCALE @ A1

DRAWING NO:

NOTE:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 60329339/C1/C00/1021 AND 1022.

LEGEND:

Works area under Contract 1

Works area under Contract 2

845700 E

845900 E

846100 E

N

MTRC
TSEUNG KWAN O DEPOT

817200 N

LOHAS PARK

CUT LINE B-B
SEE DRAWING NO. 60329339/C1/C00/1022

PORTION VI

817000 N

E=845869.991
N=817000.014

E=845869.970
N=816926.504

Loading & Unloading Marine Area

100m

WORKS AREA A

WORKS AREA B

PORTION V

JUNK BAY
(TSEUNG KWAN O)

816800 N

017 018 019 020 021 022 023 024 025 026 027 028 029 030 031 032 033 034 035 036 037

Rev	Amendment	By	Chk.	App.	Date

PROJECT MANAGER:

PROJECT MANAGER:

土木工程拓展署
Civil Engineering and Development Department

SUPERVISOR:

AECOM

CONTRACTOR:

中國路橋工程有限責任公司
China Road and Bridge Corp.

CONTRACT NO. AND TITLE:

Contract No. NE/2017/07

CROSS BAY LINK, TSEUNG KWAN O - MAIN BRIDGE AND ASSOCIATED WORKS

DRAWING TITLE:

SCALE @ A1

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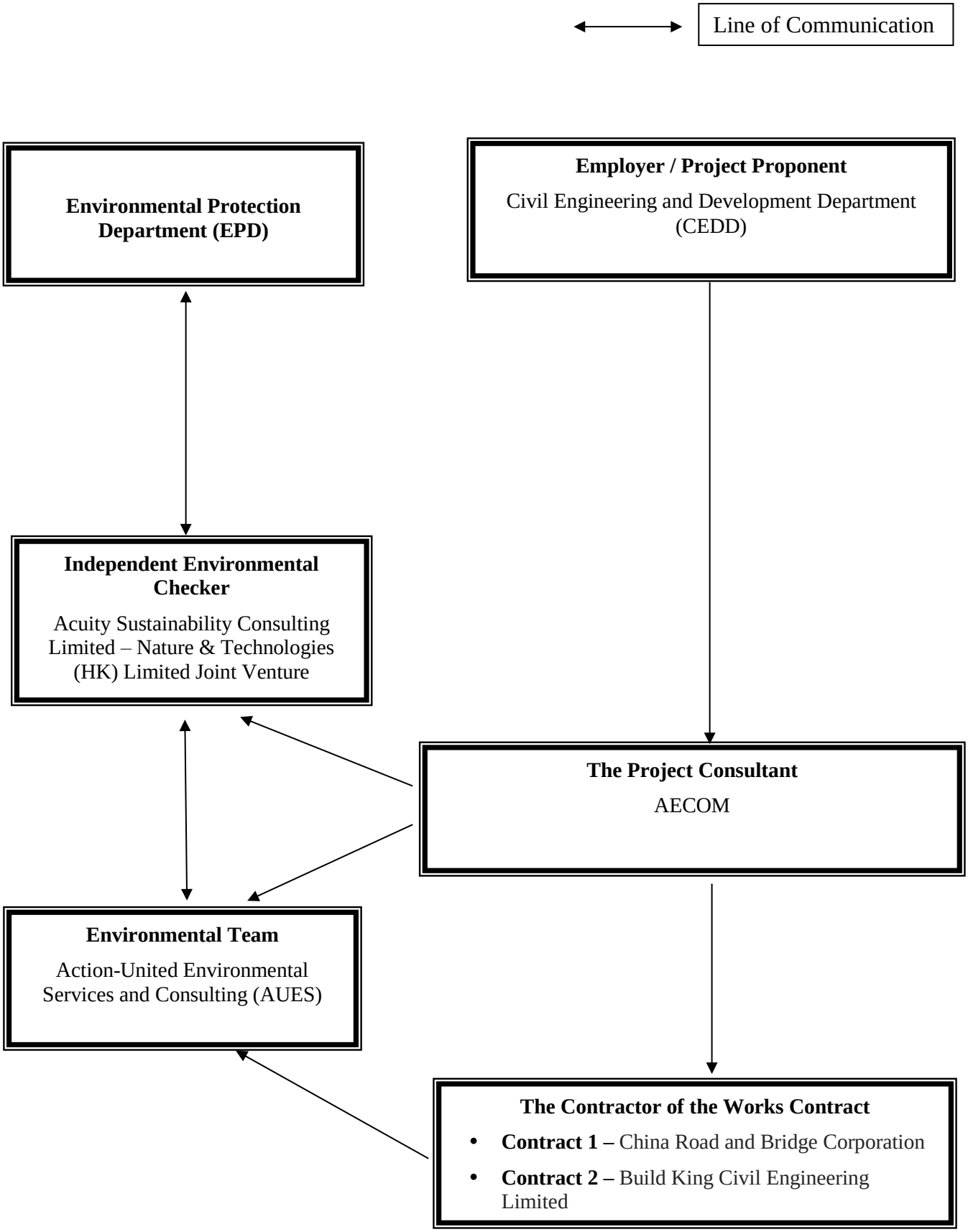
Appendix B

Project Organization Chart & Contact Details of Key Personnel for the Project

Project Organization Structure



Contact Details of Key Personnel for the Project

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
CEDD	Project Proponent	CK Lam	2301 1398	2714 5174
CEDD	Project Proponent	Sheri Leung	2301 1398	2714 5174
AECOM	Senior Resident Engineer	Jackie Chan	3595 8045	3596 6118
AECOM	Resident Engineer	Kingman Chan	3595 8045	3596 6118
ASC – N&T JV	Independent Environmental Checker	Kevin Li	2698 6833	2698 9383
ASC – N&T JV	Senior Environmental Consultant	Tandy Tse	2698 6833	2698 9383
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Martin Li	2959 6059	2959 6079
CRBC	Site Agent	Raymond Suen	9779 8871	2283 1689
CRBC	Environmental Officer	Sedo Sze	9724 6254	2283 1689
CRBC	Environmental Supervisor	Janice Poon	9148 5688	2283 1689
Build King	Site Agent	Stephen Leung	9071 7657	NA
Build King	Environmental Officer	Louisa Fung	9271 5370	NA
Build King	Environmental Supervisor	Kenneth Hung	6170 9304	NA

Legend:

CEDD (Employer) – Civil Engineering and Development Department

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

ASC – N&T JV (IEC) – Acuity Sustainability Consulting Limited – Nature & Technologies (HK) Limited Joint Venture

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

CRBC (the Main Contractor of the Works Contract 1) – China Road and Bridge Corporation

Build King (the Main Contractor of the Works Contract 2) - Build King Civil Engineering Limited

Appendix C

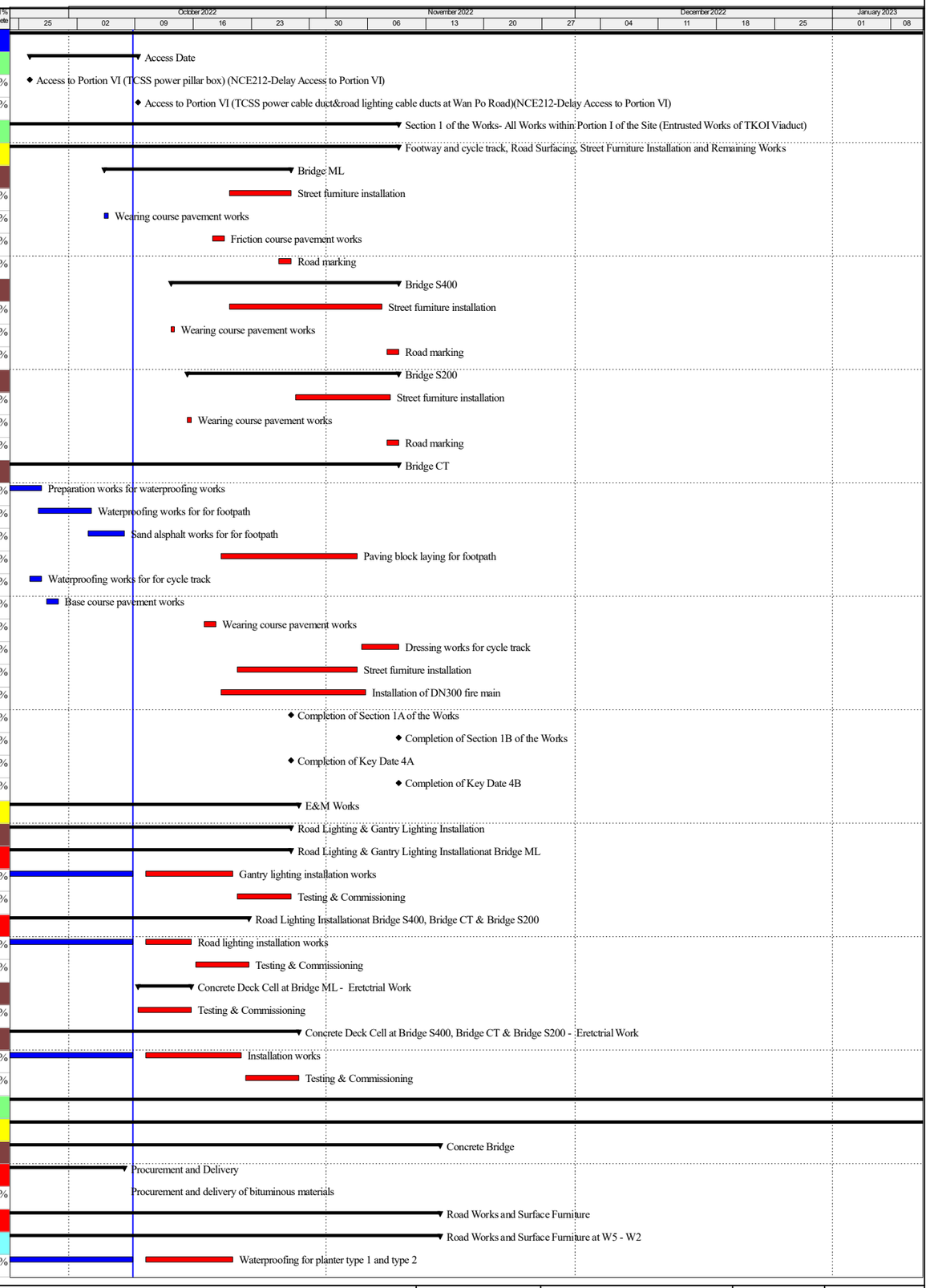
3-Month Rolling Construction Programme

Contract 1

Data Date :08-Oct-22
Sheet 1 of 4

Contract No. NE/2017/07 Cross Bay Link, Tseng Kwan O - Main Bridge and Associated Works

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Physical % Complete
Cross Bay Link,Tseung Kwan O Main Bridge and Associated Works		703	150	31-Dec-20 A	03-Apr-23	
Access Date		30	0	26-Sep-22 A	09-Oct-22	
PAD1105	Access to Portion VI (TCSS power pillar box) (NCE212-Delay Access to Portion VI)	0	0	26-Sep-22 A		100%
PAD1110	Access to Portion VI (TCSS power cable duct&road lighting cable ducts at Wan Po Road)(NCE212-Delay Access to Portion VI)	0	0	09-Oct-22*		0%
Section 1 of the Works- All Works within Portion I of the Site (Entrusted Works of TKOI Viaduct)		125	27	29-Jun-22 A	09-Nov-22	
Footway and cycle track, Road Surfacing, Street Furniture Installation and Remaining Works		41	24	23-Sep-22 A	09-Nov-22	
Bridge ML		13	9	05-Oct-22 A	27-Oct-22	
S1-RW3006	Street furniture installation	7	7	20-Oct-22	27-Oct-22	0%
S1-RW3007	Wearing course pavement works	5	0	05-Oct-22 A	05-Oct-22 A	100%
S1-RW3007.1	Friction course pavement works	2	2	18-Oct-22	19-Oct-22	0%
S1-RW3008	Road marking	2	2	26-Oct-22	27-Oct-22	0%
Bridge S400		24	24	13-Oct-22	09-Nov-22	
S1-RW6060	Street furniture installation	16	16	20-Oct-22	07-Nov-22	0%
S1-RW6070	Wearing course pavement works	1	1	13-Oct-22	13-Oct-22	0%
S1-RW6080	Road marking	2	2	08-Nov-22	09-Nov-22	0%
Bridge S200		22	22	15-Oct-22	09-Nov-22	
S1-RW3070	Street furniture installation	10	10	28-Oct-22	08-Nov-22	0%
S1-RW3072	Wearing course pavement works	1	1	15-Oct-22	15-Oct-22	0%
S1-RW3075	Road marking	2	2	08-Nov-22	09-Nov-22	0%
Bridge CT		41	21	23-Sep-22 A	09-Nov-22	
S1-RW3041	Preparation works for waterproofing works	4	0	23-Sep-22 A	27-Sep-22 A	100%
S1-RW3042	Waterproofing works for for footpath	5	0	27-Sep-22 A	03-Oct-22 A	100%
S1-RW3043	Sand alsphalt works for for footpath	4	0	03-Oct-22 A	07-Oct-22 A	100%
S1-RW3044	Paving block laying for footpath	15	15	19-Oct-22	04-Nov-22	0%
S1-RW3045	Waterproofing works for for cycle track	5	0	26-Sep-22 A	27-Sep-22 A	100%
S1-RW3046	Base course pavement works	5	0	28-Sep-22 A	29-Sep-22 A	100%
S1-RW3047	Wearing course pavement works	2	2	17-Oct-22	18-Oct-22	0%
S1-RW3048	Dressing works for cycle track	4	4	05-Nov-22	09-Nov-22	0%
S1-RW3049	Street furniture installation	13	13	21-Oct-22	04-Nov-22	0%
S1-RW3050	Installation of DN300 fire main	18	18	19-Oct-22	05-Nov-22	0%
S1-RW4800	Completion of Section 1A of the Works	0	0		27-Oct-22	0%
S1-RW5000	Completion of Section 1B of the Works	0	0		09-Nov-22	0%
S1-RW5800	Completion of Key Date 4A	0	0		27-Oct-22	0%
S1-RW6020	Completion of Key Date 4B	0	0		09-Nov-22	0%
E&M Works		115	17	29-Jun-22 A	28-Oct-22	
Road Lighting & Gantry Lighting Installation		114	16	29-Jun-22 A	27-Oct-22	
Road Lighting & Gantry Lighting Installationat Bridge ML		114	16	30-Jun-22 A	27-Oct-22	
S1-EM1020	Gantry lighting installation works	37	10	30-Jun-22 A	20-Oct-22	15%
S1-EM1060	Testing & Commissioning	7	7	21-Oct-22	27-Oct-22	0%
Road Lighting Installationat Bridge S400, Bridge CT & Bridge S200		78	12	29-Jun-22 A	22-Oct-22	
S1-EM1080	Road lighting installation works	40	6	29-Jun-22 A	15-Oct-22	20%
S1-EM1140	Testing & Commissioning	7	7	16-Oct-22	22-Oct-22	0%
Concrete Deck Cell at Bridge ML - Eretctrial Work		7	7	09-Oct-22	15-Oct-22	
S1-EM1180	Testing & Commissioning	7	7	09-Oct-22	15-Oct-22	0%
Concrete Deck Cell at Bridge S400, Bridge CT & Bridge S200 - Eretctrial Work		71	17	04-Aug-22 A	28-Oct-22	
S1-EM1200	Installation works	43	11	04-Aug-22 A	21-Oct-22	0%
S1-EM1220	Testing & Commissioning	7	7	22-Oct-22	28-Oct-22	0%
Section 2 of Works-All Works within Portion II,III,IV and VI		651	98	31-Dec-20 A	31-Jan-23	
CBL Main Bridge and Marine Viaduct		640	87	31-Dec-20 A	18-Jan-23	
Concrete Bridge		590	31	31-Dec-20 A	14-Nov-22	
Procurement and Delivery		65	0	31-Dec-20 A	07-Oct-22 A	
S2-CB2488	Procurement and delivery of bituminous materials	240	0	31-Dec-20 A	07-Oct-22 A	100%
Road Works and Surface Furniture		312	31	13-Nov-21 A	14-Nov-22	
Road Works and Surface Furniture at W5 - W2		48	31	15-Aug-22 A	14-Nov-22	
S2-CB4930	Waterproofing for planter type 1 and type 2	10	10	20-Sep-22 A	20-Oct-22	0%



Remaining Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
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Summary

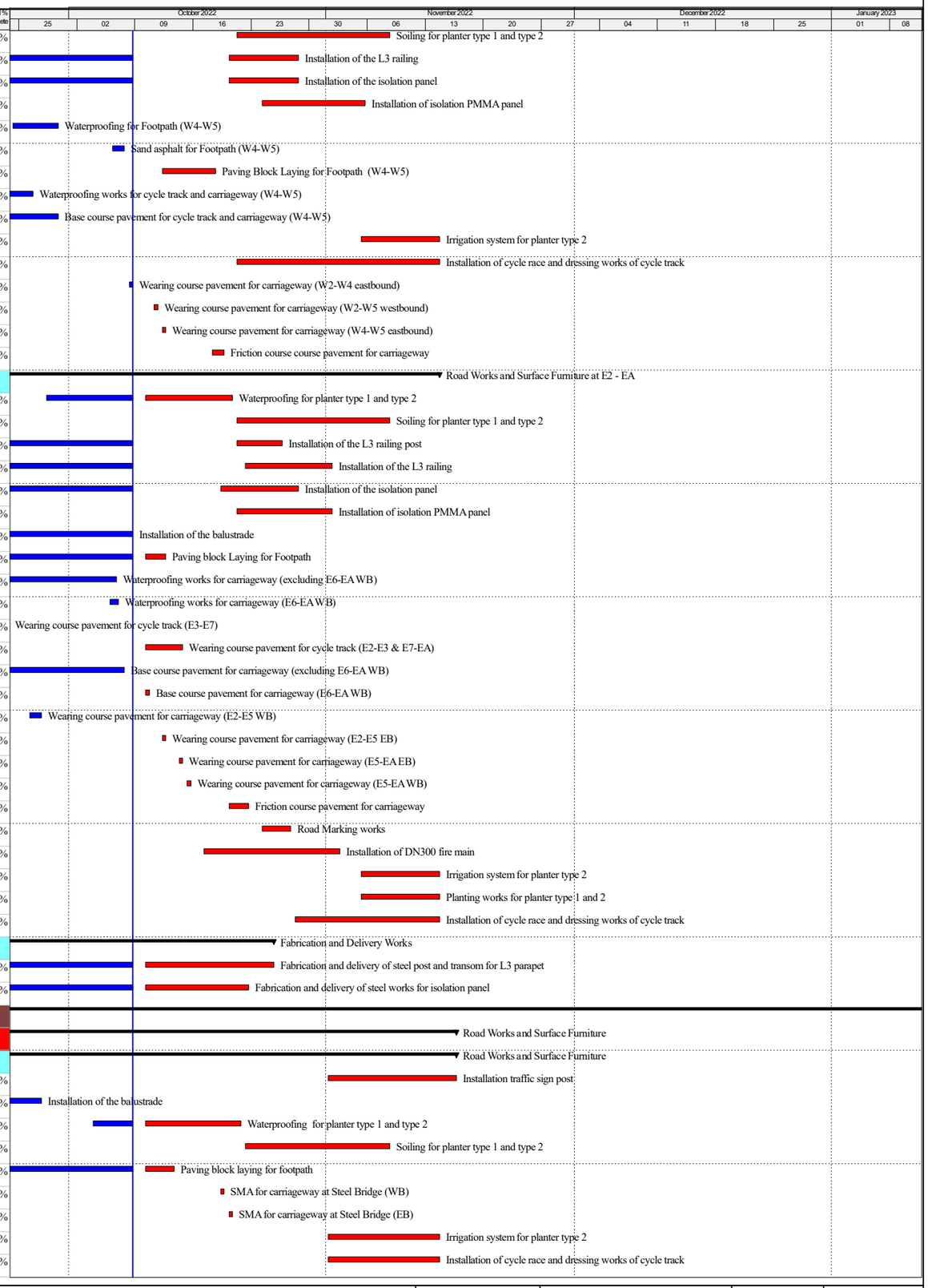
Three Month Rolling Programme (October 2022 - January 2023)

Date	Revision	Checked	Approved
08-Oct-22	3MRP (Oct 22 - Jan 23)		

Data Date :08-Oct-22
Sheet 2 of 4

Contract No. NE/2017/07 Cross Bay Link, Tseng Kwan O - Main Bridge and Associated Works

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Physical % Complete
S2-CB4932	Soiling for planter type 1 and type 2	16	16	21-Oct-22	08-Nov-22	0%
S2-CB4980	Installation of the L3 railing	15	8	15-Aug-22 A	28-Oct-22	55%
S2-CB5000	Installation of the isolation panel	15	8	15-Aug-22 A	28-Oct-22	80%
S2-CB5020	Installation of isolation PMMA panel	12	12	24-Oct-22	05-Nov-22	0%
S2-CB5065	Waterproofing for Footpath (W4-W5)	5	0	24-Sep-22 A	29-Sep-22 A	100%
S2-CB5070	Sand asphalt for Footpath (W4-W5)	2	0	06-Oct-22 A	07-Oct-22 A	100%
S2-CB5080	Paving Block Laying for Footpath (W4-W5)	6	6	12-Oct-22	18-Oct-22	0%
S2-CB5140.1	Waterproofing works for cycle track and carriageway (W4-W5)	5	0	17-Sep-22 A	26-Sep-22 A	100%
S2-CB5140.3	Base course pavement for cycle track and carriageway (W4-W5)	3	0	21-Sep-22 A	29-Sep-22 A	100%
S2-CB5142	Irrigation system for planter type 2	8	8	05-Nov-22	14-Nov-22	0%
S2-CB5147	Installation of cycle race and dressing works of cycle track	21	21	21-Oct-22	14-Nov-22	0%
S2-CB5149	Wearing course pavement for carriageway (W2-W4 eastbound)	4	0	08-Oct-22 A	08-Oct-22 A	100%
S2-CB5150	Wearing course pavement for carriageway (W2-W5 westbound)	1	1	11-Oct-22	11-Oct-22	0%
S2-CB5151	Wearing course pavement for carriageway (W4-W5 eastbound)	1	1	12-Oct-22	12-Oct-22	0%
S2-CB5620	Friction course course pavement for carriageway	2	2	18-Oct-22	19-Oct-22	0%
Road Works and Surface Furniture at E2 - EA		90	31	01-Aug-22 A	14-Nov-22	
S2-CB5190	Waterproofing for planter type 1 and type 2	10	10	28-Sep-22 A	20-Oct-22	0%
S2-CB5195	Soiling for planter type 1 and type 2	16	16	21-Oct-22	08-Nov-22	0%
S2-CB5240	Installation of the L3 railing post	30	5	01-Aug-22 A	26-Oct-22	85%
S2-CB5246	Installation of the L3 railing	20	9	27-Aug-22 A	01-Nov-22	25%
S2-CB5260	Installation of the isolation panel	30	9	29-Aug-22 A	28-Oct-22	90%
S2-CB5280	Installation of isolation PMMA panel	10	10	21-Oct-22	01-Nov-22	0%
S2-CB5300	Installation of the balustrade	24	0	15-Sep-22 A	08-Oct-22 A	100%
S2-CB5340	Paving block Laying for Footpath	35	3	19-Sep-22 A	12-Oct-22	0%
S2-CB5365	Waterproofing works for carriageway (excluding E6-EA WB)	15	0	13-Aug-22 A	06-Oct-22 A	100%
S2-CB5366	Waterproofing works for carriageway (E6-EA WB)	3	0	06-Oct-22 A	07-Oct-22 A	100%
S2-CB5382	Wearing course pavement for cycle track (E3-E7)	5	0	22-Sep-22 A	23-Sep-22 A	100%
S2-CB5385	Wearing course pavement for cycle track (E2-E3 & E7-EA)	5	5	10-Oct-22	14-Oct-22	0%
S2-CB5400	Base course pavement for carriageway (excluding E6-EA WB)	32	0	22-Aug-22 A	07-Oct-22 A	100%
S2-CB5401	Base course pavement for carriageway (E6-EA WB)	1	1	10-Oct-22	10-Oct-22	0%
S2-CB5402	Wearing course pavement for carriageway (E2-E5 WB)	8	0	26-Sep-22 A	27-Sep-22 A	100%
S2-CB5405	Wearing course pavement for carriageway (E2-E5 EB)	1	1	12-Oct-22	12-Oct-22	0%
S2-CB5405.1	Wearing course pavement for carriageway (E5-EA EB)	1	1	14-Oct-22	14-Oct-22	0%
S2-CB5405.21	Wearing course pavement for carriageway (E5-EA WB)	1	1	15-Oct-22	15-Oct-22	0%
S2-CB5406	Friction course pavement for carriageway	3	3	20-Oct-22	22-Oct-22	0%
S2-CB5410	Road Marking works	4	4	24-Oct-22	27-Oct-22	0%
S2-CB5415	Installation of DN300 fire main	15	15	17-Oct-22	02-Nov-22	0%
S2-CB5420	Irrigation system for planter type 2	8	8	05-Nov-22	14-Nov-22	0%
S2-CB5440	Planting works for planter type 1 and 2	8	8	05-Nov-22	14-Nov-22	0%
S2-CB5460	Installation of cycle race and dressing works of cycle track	15	15	28-Oct-22	14-Nov-22	0%
Fabrication and Delivery Works		107	14	13-Nov-21 A	25-Oct-22	
S2-CB5480	Fabrication and delivery of steel post and transom for L3 parapet	60	14	05-Jan-22 A	25-Oct-22	72%
S2-CB5500	Fabrication and delivery of steel works for isolation panel	80	12	13-Nov-21 A	22-Oct-22	69%
Steel Bridge		322	87	03-Jan-22 A	18-Jan-23	
Road Works and Surface Furniture		207	33	07-Mar-22 A	16-Nov-22	
Road Works and Surface Furniture		93	33	08-Jul-22 A	16-Nov-22	
S2-RW1063	Installation traffic sign post	14	14	01-Nov-22	16-Nov-22	0%
S2-RW1067	Installation of the balustrade	45	0	28-Jul-22 A	27-Sep-22 A	100%
S2-RW1068	Waterproofing for planter type 1 and type 2	15	11	04-Oct-22 A	21-Oct-22	0%
S2-RW1068.1	Soiling for planter type 1 and type 2	15	15	22-Oct-22	08-Nov-22	0%
S2-RW1072	Paving block laying for footpath	50	4	08-Jul-22 A	13-Oct-22	98%
S2-RW1076	SMA for carriageway at Steel Bridge (WB)	1	1	19-Oct-22	19-Oct-22	0%
S2-RW1076-5	SMA for carriageway at Steel Bridge (EB)	1	1	20-Oct-22	20-Oct-22	0%
S2-RW1077	Irrigation system for planter type 2	12	12	01-Nov-22	14-Nov-22	0%
S2-RW1078-2	Installation of cycle race and dressing works of cycle track	12	12	01-Nov-22	14-Nov-22	0%



Remaining Level of Effort
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Three Month Rolling Programme (October 2022 - January 2023)

Date	Revision	Checked	Approved
08-Oct-22	3MRP (Oct 22 - Jan 23)		

Data Date :08-Oct-22
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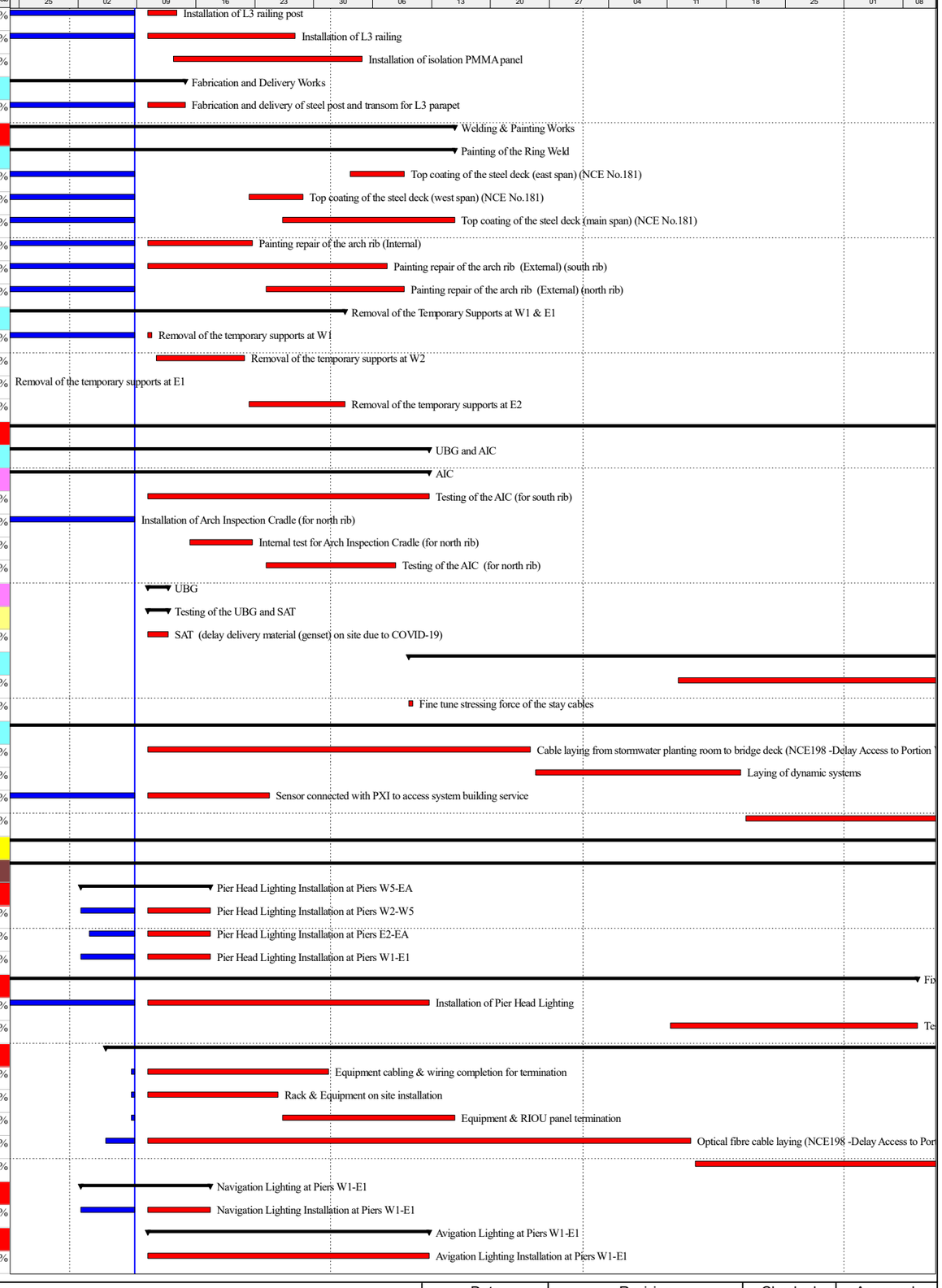
Contract No. NE/2017/07 Cross Bay Link, Tseng Kwan O - Main Bridge and Associated Works

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Physical % Complete
S2-RW1160	Installation of L3 railing post	16	4	28-Jul-22 A	13-Oct-22	99%
S2-RW1160-1	Installation of L3 railing	30	16	18-Aug-22 A	27-Oct-22	25%
S2-RW1202	Installation of isolation PMMA panel	20	20	13-Oct-22	04-Nov-22	0%
Fabrication and Delivery Works		60	5	07-Mar-22 A	14-Oct-22	
S2-CB5540	Fabrication and delivery of steel post and transom for L3 parapet	60	5	07-Mar-22 A	14-Oct-22	75%
Welding & Painting Works		242	32	03-Jan-22 A	15-Nov-22	
Painting of the Ring Weld		214	32	08-Jan-22 A	15-Nov-22	
S2-SB2072	Top coating of the steel deck (east span) (NCE No.181)	75	6	08-Jan-22 A	09-Nov-22	80%
S2-SB2076	Top coating of the steel deck (west span) (NCE No.181)	75	6	08-Jan-22 A	28-Oct-22	80%
S2-SB2080	Top coating of the steel deck (main span) (NCE No.181)	98	18	08-Jan-22 A	15-Nov-22	80%
S2-SB2100	Painting repair of the arch rib (Internal)	45	12	07-Apr-22 A	22-Oct-22	90%
S2-SB2105	Painting repair of the arch rib (External) (south rib)	25	25	06-Sep-22 A	07-Nov-22	10%
S2-SB2300	Painting repair of the arch rib (External) (north rib)	20	15	02-Aug-22 A	09-Nov-22	10%
Removal of the Temporary Supports at W1 & E1		242	21	03-Jan-22 A	02-Nov-22	
S2-SB2220	Removal of the temporary supports at W1	10	1	04-Jan-22 A	10-Oct-22	75%
S2-SB2240	Removal of the temporary supports at W2	10	10	11-Oct-22	21-Oct-22	0%
S2-SB2260	Removal of the temporary supports at E1	10	0	03-Jan-22 A	23-Sep-22 A	100%
S2-SB2280	Removal of the temporary supports at E2	10	10	22-Oct-22	02-Nov-22	0%
Assocaited, E&M Works for CBL Main Bridge and Marine Viaduct		105	87	18-Jul-22 A	18-Jan-23	
UBG and AIC		46	30	21-Sep-22 A	12-Nov-22	
AIC		46	30	21-Sep-22 A	12-Nov-22	
S2-EM1340	Testing of the AIC (for south rib)	30	30	10-Oct-22	12-Nov-22	0%
S2-EM1355	Installation of Arch Inspection Cradle (for north rib)	20	0	21-Sep-22 A	08-Oct-22 A	100%
S2-EM1360	Internal test for Arch Inspection Cradle (for north rib)	7	7	15-Oct-22	22-Oct-22	0%
S2-EM1370	Testing of the AIC (for north rib)	14	14	24-Oct-22	08-Nov-22	0%
UBG		3	3	10-Oct-22	12-Oct-22	
Testing of the UBG and SAT		3	3	10-Oct-22	12-Oct-22	
S2-EM1300	SAT (delay delivery material (genset) on site due to COVID-19)	3	3	10-Oct-22	12-Oct-22	0%
Installation of Other Systems		57	57	10-Nov-22	17-Jan-23	
S2-EM1400	Commission and testing of the dehumidification system	30	30	12-Dec-22	17-Jan-23	0%
S2-EM1420	Fine tune stressing force of the stay cables	1	1	10-Nov-22	10-Nov-22	0%
SHMS installation		98	87	18-Jul-22 A	18-Jan-23	
S2-EM1362	Cable laying from stormwater planting room to bridge deck (NCE198 -Delay Access to Portion VI)	40	40	10-Oct-22	24-Nov-22	0%
S2-EM3140	Laying of dynamic systems	21	21	25-Nov-22	19-Dec-22	0%
S2-EM3160	Sensor connected with PXI to access system building service	14	13	18-Jul-22 A	24-Oct-22	40%
S2-EM3180	Testing & Commissioning	30	30	20-Dec-22	18-Jan-23	0%
E&M Works		178	98	30-Jun-22 A	31-Jan-23	
E&M Works in Portion II,III & IV		178	98	30-Jun-22 A	31-Jan-23	
Pier Head Lighting Installation at Piers W5-EA		30	7	02-Oct-22 A	17-Oct-22	
S2-EM3040	Pier Head Lighting Installation at Piers W2-W5	30	7	02-Oct-22 A	17-Oct-22	0%
S2-EM3060	Pier Head Lighting Installation at Piers E2-EA	30	7	03-Oct-22 A	17-Oct-22	0%
S2-EM3080	Pier Head Lighting Installation at Piers W1-E1	30	7	02-Oct-22 A	17-Oct-22	0%
Fixed Red Lighting Installation at Piers W1-E1		105	79	02-Sep-22 A	09-Jan-23	
S2-EM3100	Installation of Pier Head Lighting	30	30	02-Sep-22 A	12-Nov-22	0%
S2-EM3120	Testing & Commissioning	30	30	11-Dec-22	09-Jan-23	0%
SCADA System		116	93	05-Oct-22 A	31-Jan-23	
S5-PR3300	Equipment cabling & wiring completion for termination	20	19	08-Oct-22 A	31-Oct-22	0%
S5-PR3320	Rack & Equipment on site installation	14	14	08-Oct-22 A	25-Oct-22	0%
S5-PR3340	Equipment & RIOU panel termination	18	18	08-Oct-22 A	15-Nov-22	0%
S5-PR3360	Optical fibre cable laying (NCE198 -Delay Access to Portion VI)	60	56	05-Oct-22 A	13-Dec-22	0%
S5-PR3380	Cable & wiring Termination	37	37	14-Dec-22	31-Jan-23	0%
Navigation Lighting at Piers W1-E1		30	7	02-Oct-22 A	17-Oct-22	
S2-EM1630	Navigation Lighting Installation at Piers W1-E1	30	7	02-Oct-22 A	17-Oct-22	0%
Avigation Lighting at Piers W1-E1		30	30	10-Oct-22	12-Nov-22	
S2-EM1700	Avigation Lighting Installation at Piers W1-E1	30	30	10-Oct-22	12-Nov-22	0%



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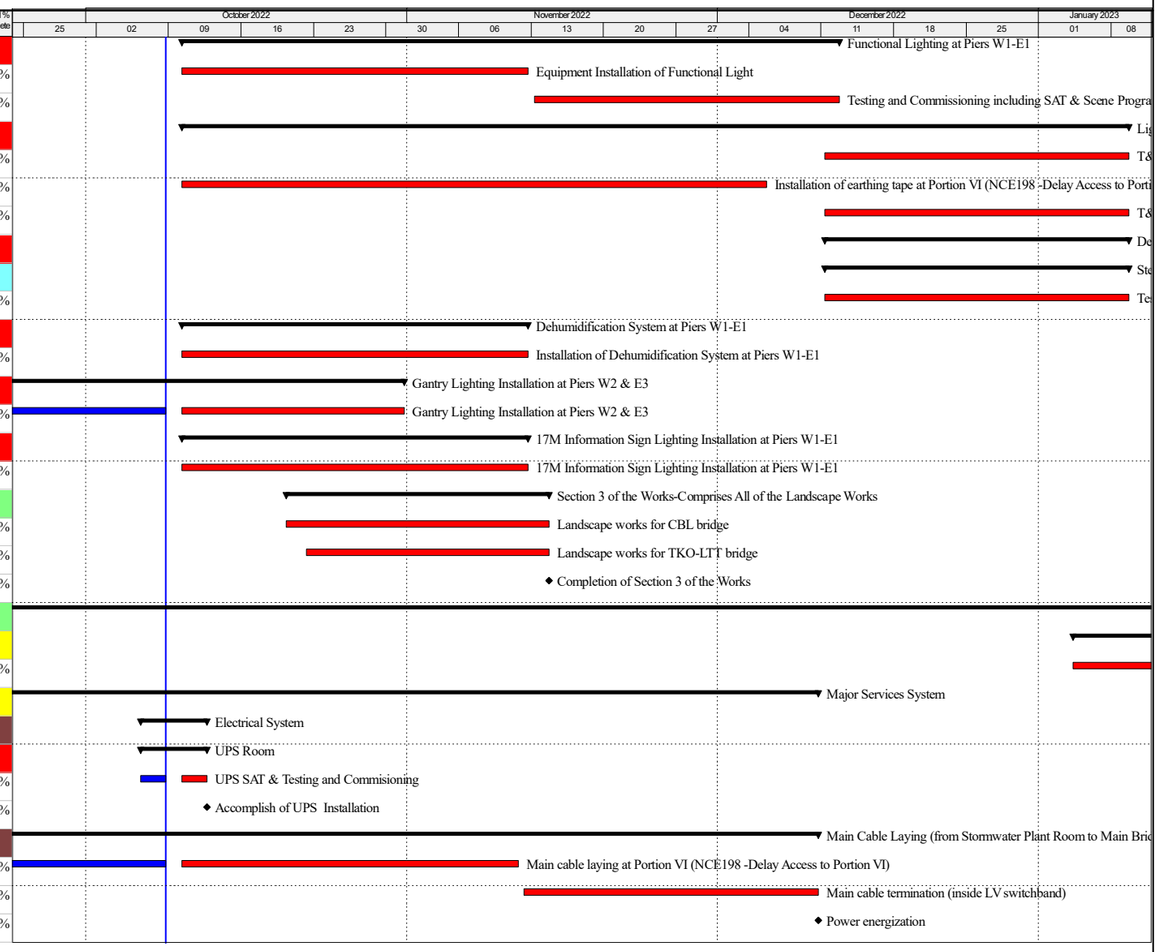
Three Month Rolling Programme (October 2022 - January 2023)

Date	Revision	Checked	Approved
08-Oct-22	3MRP (Oct 22 - Jan 23)		

Data Date :08-Oct-22
Sheet 4 of 4

Contract No. NE/2017/07 Cross Bay Link, Tseng Kwan O - Main Bridge and Associated Works

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Physical % Complete
Functional Lighting at Piers W1-E1		55	55	10-Oct-22	12-Dec-22	
S2-EM1760	Equipment Installation of Functional Light	30	30	10-Oct-22	12-Nov-22	0%
S2-EM1920	Testing and Commissioning including SAT & Scene Program	30	30	13-Nov-22	12-Dec-22	0%
Lightning System and Main Earthing System		79	79	10-Oct-22	09-Jan-23	
S2-EM1960	T&C for lightning system	30	30	11-Dec-22	09-Jan-23	0%
S2-EM1985	Installation of earthing tape at Portion VI (NCE198 -Delay Access to Portion VI)	49	49	10-Oct-22	05-Dec-22	0%
S2-EM1990	T&C for main earthing system	30	30	11-Dec-22	09-Jan-23	0%
Deck Cell - Eretctrial Work		30	30	11-Dec-22	09-Jan-23	
Steel Deck Cell at Piers E1-E2 East Side Span Deck		30	30	11-Dec-22	09-Jan-23	
S1-EM1480	Testing & Commissioning	30	30	11-Dec-22	09-Jan-23	0%
Dehumidification System at Piers W1-E1		30	30	10-Oct-22	12-Nov-22	
S1-EM1500	Installation of Dehumidification System at Piers W1-E1	30	30	10-Oct-22	12-Nov-22	0%
Gantry Lighting Installation at Piers W2 & E3		47	19	30-Jun-22 A	31-Oct-22	
S1-EM1520	Gantry Lighting Installation at Piers W2 & E3	47	19	30-Jun-22 A	31-Oct-22	40%
17M Information Sign Lighting Installation at Piers W1-E1		30	30	10-Oct-22	12-Nov-22	
S2-EM3020	17M Information Sign Lighting Installation at Piers W1-E1	30	30	10-Oct-22	12-Nov-22	0%
Section 3 of the Works-Comprises All of the Landscape Works		22	22	20-Oct-22	14-Nov-22	
S3-LW2000	Landscape works for CBL bridge	22	22	20-Oct-22	14-Nov-22	0%
S3-LW2020	Landscape works for TKO-LTT bridge	20	20	22-Oct-22	14-Nov-22	0%
S3-LW2040	Completion of Section 3 of the Works	0	0		14-Nov-22	0%
Section 5 of the Works-All Works within Portion V (CBL E&M Plantroom)		150	150	13-Sep-22 A	03-Apr-23	
Remaining Work		76	76	04-Jan-23	03-Apr-23	
S5-PR2300	T&C for all systems after connection from plantroom to the bridge (incl. 15 days TRA)	76	76	04-Jan-23	03-Apr-23	0%
Major Services System		54	54	13-Sep-22 A	10-Dec-22	
Electrical System		20	3	06-Oct-22 A	12-Oct-22	
UPS Room		20	3	06-Oct-22 A	12-Oct-22	
S5-PR2620	UPS SAT & Testing and Commisioning	20	3	06-Oct-22 A	12-Oct-22	0%
S5-PR2640	Accomplish of UPS Installation	0	0		12-Oct-22	0%
Main Cable Laying (from Stormwater Plant Room to Main Bridge)		54	54	13-Sep-22 A	10-Dec-22	
S5-PR3540	Main cable laying at Portion VI (NCE198 -Delay Access to Portion VI)	50	29	13-Sep-22 A	11-Nov-22	0%
S5-PR3560	Main cable termination (inside LV switchband)	25	25	12-Nov-22	10-Dec-22	0%
S5-PR3600	Power energization	0	0		10-Dec-22	0%



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Three Month Rolling Programme (October 2022 - January 2023)

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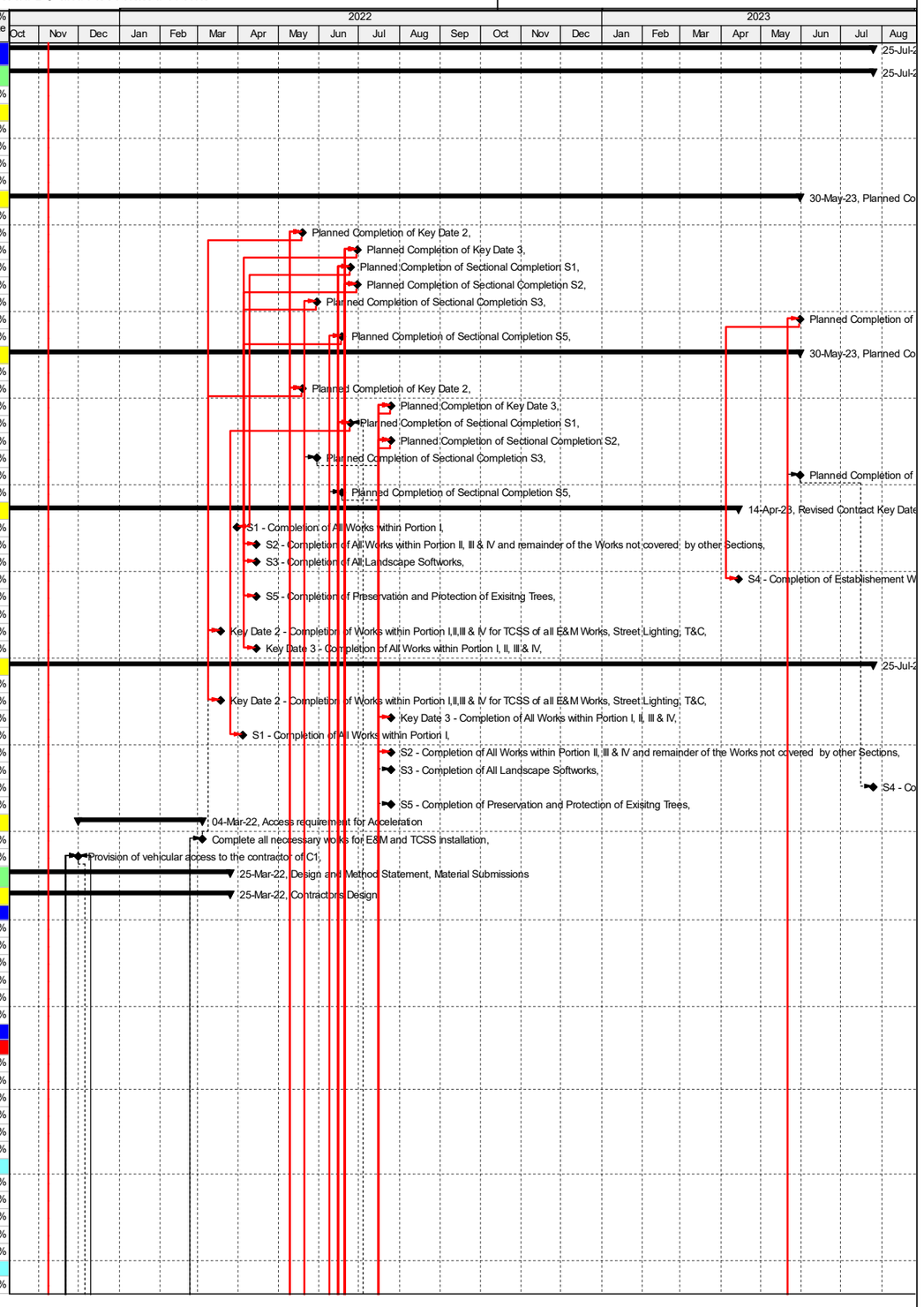
Contract 2

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
NE/2017/08 Programme Update (Nov 2021)		1399	899	504		31-Oct-18 A	25-Jul-23	19-Jul-21	30-Sep-23	58		
Project Key Dates		1399	488	484		31-Oct-18 A	25-Jul-23	27-Aug-21	30-Sep-23	58		
SD1000	Starting Date	0	0	0	017/08(7	31-Oct-18 A		27-Aug-21			0	100%
Access Dates		243	243	0	017/08(7	01-Nov-18 A	02-Jul-19 A	27-Aug-21	27-Aug-21			
POS1010	Possession of Portion I	0	0	0	017/08(7	02-Jul-19 A		27-Aug-21			0	100%
POS1020	Possession of Portion II	0	0	0	017/08(7	01-Nov-18 A		27-Aug-21			0	100%
POS1030	Possession of Portion III	0	0	0	017/08(7	01-Nov-18 A		27-Aug-21			0	100%
POS1040	Possession of Portion IV	0	0	0	017/08(7	01-Nov-18 A		27-Aug-21			0	100%
Planned Completion under Revised Contract Key Dates under CEs		1070	0	376	017/08(7	25-Jun-20 A	30-May-23	18-Mar-22	30-Sep-23	123		
PC1010	Planned Completion of Key Date 1	0	0	0	017/08(7		25-Jun-20		30-Sep-23		0	100%
PC1020	Planned Completion of Key Date 2	0	0	0	017/08(7		19-May-22		18-Mar-22	-62	0	0%
PC1030	Planned Completion of Key Date 3	0	0	0	017/08(7		29-Jun-22		14-Apr-22	-76	0	0%
PC1040	Planned Completion of Sectional Completion S1	0	0	0	017/08(7		24-Jun-22		30-Mar-22	-86	0	0%
PC1050	Planned Completion of Sectional Completion S2	0	0	0	017/08(7		29-Jun-22		14-Apr-22	-76	0	0%
PC1060	Planned Completion of Sectional Completion S3	0	0	0	017/08(7		30-May-22		14-Apr-22	-46	0	0%
PC1070	Planned Completion of Sectional Completion S4	0	0	0	017/08(7		30-May-23		14-Apr-23	-46	0	0%
PC1080	Planned Completion of Sectional Completion S5	0	0	0	017/08(7		18-Jun-22		14-Apr-22	-64	0	0%
Planned Completion under Possible Contract Key Dates under CEs		1070	0	376	017/08(7	25-Jun-20 A	30-May-23	18-Mar-22	30-Sep-23	123		
PCP1010	Planned Completion of Key Date 1	0	0	0	017/08(7		25-Jun-20		30-Sep-23		0	100%
PCP1020	Planned Completion of Key Date 2	0	0	0	017/08(7		19-May-22		18-Mar-22	-62	0	0%
PCP1030	Planned Completion of Key Date 3	0	0	0	017/08(7		25-Jul-22		25-Jul-22	-1	0	0%
PCP1040	Planned Completion of Sectional Completion S1	0	0	0	017/08(7		24-Jun-22		04-Apr-22	-82	0	0%
PCP1050	Planned Completion of Sectional Completion S2	0	0	0	017/08(7		25-Jul-22		25-Jul-22	-1	0	0%
PCP1060	Planned Completion of Sectional Completion S3	0	0	0	017/08(7		30-May-22		25-Jul-22	56	0	0%
PCP1070	Planned Completion of Sectional Completion S4	0	0	0	017/08(7		30-May-23		25-Jul-23	56	0	0%
PCP1080	Planned Completion of Sectional Completion S5	0	0	0	017/08(7		18-Jun-22		25-Jul-22	37	0	0%
Revised Contract Key Dates and Sectional Completion Dates under CEs		1024	0	392	017/08(7	25-Jun-20 A	14-Apr-23	18-Mar-22	30-Sep-23	169		
CD1010	S1 - Completion of All Works within Portion I	0	0	0	017/08(7		30-Mar-22*		30-Mar-22	0	0	0%
CD1020	S2 - Completion of All Works within Portion II, III & IV and remainder of the W	0	0	0	017/08(7		14-Apr-22*		14-Apr-22	0	0	0%
CD1030	S3 - Completion of All Landscape Softworks	0	0	0	017/08(7		14-Apr-22*		14-Apr-22	0	0	0%
CD1040	S4 - Completion of Establishement Works	0	0	0	017/08(7		14-Apr-23*		14-Apr-23	0	0	0%
CD1050	S5 - Completion of Preservation and Protection of Exisitng Trees	0	0	0	017/08(7		14-Apr-22*		14-Apr-22	0	0	0%
KD0001	Key Date 1 - Completion of Eastern Abutment in Portion II	0	0	0	017/08(7		25-Jun-20		30-Sep-23		0	100%
KD0002	Key Date 2 - Completion of Works within Portion I,II,III & IV for TCSS of all E&	0	0	0	017/08(7		18-Mar-22*		18-Mar-22	0	0	0%
KD0003	Key Date 3 - Completion of All Works within Portion I, II, III & IV	0	0	0	017/08(7		14-Apr-22*		14-Apr-22	0	0	0%
Possible Key Dates and Sectional Completion Dates under CEs		1126	0	494	017/08(7	25-Jun-20 A	25-Jul-23	18-Mar-22	30-Sep-23	68		
KDP0001	Key Date 1 - Completion of Eastern Abutment in Portion II	0	0	0	017/08(7		25-Jun-20		30-Sep-23		0	100%
KDP0002	Key Date 2 - Completion of Works within Portion I,II,III & IV for TCSS of all E&	0	0	0	017/08(7		18-Mar-22*		18-Mar-22	0	0	0%
KDP0003	Key Date 3 - Completion of All Works within Portion I, II, III & IV	0	0	0	017/08(7		25-Jul-22*		25-Jul-22	0	0	0%
SCP0001	S1 - Completion of All Works within Portion I	0	0	0	017/08(7		04-Apr-22*		04-Apr-22	0	0	0%
SCP0002	S2 - Completion of All Works within Portion II, III & IV and remainder of the W	0	0	0	017/08(7		25-Jul-22*		25-Jul-22	0	0	0%
SCP0003	S3 - Completion of All Landscape Softworks	0	0	0	017/08(7		25-Jul-22*		25-Jul-22	0	0	0%
SCP0004	S4 - Completion of Establishement Works	0	0	0	017/08(7		25-Jul-23*		25-Jul-23	0	0	0%
SCP0005	S5 - Completion of Preservation and Protection of Exisitng Trees	0	0	0	017/08(7		25-Jul-22*		25-Jul-22	0	0	0%
Access requirement for Acceleration		75	0	75		30-Nov-21	04-Mar-22	15-Dec-21	18-Mar-22	12		
HO1010	Complete all neccessary works for E&M and TCSS installation	0	0	0	017/08(7		04-Mar-22		18-Mar-22	14	0	0%
HO1020	Provision of vehicular access to the contractor of C1	0	0	0	017/08(6		30-Nov-21		15-Dec-21	13	0	0%
Design and Method Statement, Material Submissions		1242	1104	138	017/08(7	31-Oct-18 A	25-Mar-22	19-Jul-21	30-Sep-23	554		
Contractor's Design		1223	850	63	017/08(7	12-Jan-19 A	25-Mar-22	27-Aug-21	26-May-22	62		
AIP Submission		247	208	0	017/08(7	12-Jan-19 A	07-Aug-19	27-Aug-21	27-Aug-21			
AD1010	Alternative Designs - Prepare AIP Submission	14	33	0	017/08(7	12-Jan-19 A	13-Feb-19	27-Aug-21	27-Aug-21		0	100%
AD1020	Alternative Designs - Review and Comment of AIP by PM	21	19	0	017/08(7	14-Feb-19 A	04-Mar-19	27-Aug-21	27-Aug-21		0	100%
AD1110	Alternative Designs - Review and Comment of AIP by HyD	21	66	0	017/08(7	05-Mar-19 A	09-May-19	27-Aug-21	27-Aug-21		0	100%
AD1190	Alternative Designs - Prepare AIP Submission (Rev.A)	14	33	0	017/08(7	10-May-19 A	11-Jun-19	27-Aug-21	27-Aug-21		0	100%
AD1200	Alternative Designs - Review and Comment of AIP by PM	21	24	0	017/08(7	12-Jun-19 A	05-Jul-19	27-Aug-21	27-Aug-21		0	100%
AD1210	Alternative Designs - Review and Comment of AIP by HyD	21	33	0	017/08(7	06-Jul-19 A	07-Aug-19	27-Aug-21	27-Aug-21		0	100%
DDA Submission		381	392	0	017/08(7	29-Jan-19 A	24-Feb-20	27-Aug-21	27-Sep-21			
Elevated Deck and U-trough		220	200	0	017/08(7	29-Jan-19 A	16-Aug-19	27-Aug-21	27-Aug-21			
AD1030	Alternative Designs - Prepare DDA Submission to Relevant Authorities (Eleva	21	50	0	017/08(7	29-Jan-19 A	19-Mar-19	27-Aug-21	27-Aug-21		0	100%
AD1035	Alternative Designs - Review and Comment of DDA (Elevated Deck and U-tro	7	1	0	017/08(7	20-Mar-19 A	20-Mar-19	27-Aug-21	27-Aug-21		0	100%
AD1036	Alternative Designs - Prepare DDA Submission (Elevated Deck and U-trough	16	20	0	017/08(7	21-Mar-19 A	09-Apr-19	27-Aug-21	27-Aug-21		0	100%
AD1037	Alternative Designs - Review and Comment of DDA Submission (Rev.A)	7	1	0	017/08(7	09-Apr-19 A	09-Apr-19	27-Aug-21	27-Aug-21		0	100%
AD1038	Alternative Designs - Prepare DDA Submission (Elevated Deck and U-trough	14	9	0	017/08(7	10-Apr-19 A	18-Apr-19	27-Aug-21	27-Aug-21		0	100%
AD1039	Alternative Designs - Review and Acceptance of DDA Submission (Rev.B)	7	1	0	017/08(7	18-Apr-19 A	18-Apr-19	27-Aug-21	27-Aug-21		0	100%
Response to CEDD - Port Works		84	120	0	017/08(7	19-Apr-19 A	16-Aug-19	27-Aug-21	27-Aug-21			
AD1230	Alternative Designs - Review and Comment of DDA (ED and UT) (21D for CE	21	56	0	017/08(7	19-Apr-19 A	13-Jun-19	27-Aug-21	27-Aug-21		0	100%
AD1250	Alternative Designs - Prepare DDA Submission (ED & UT, Response to CEDI	21	11	0	017/08(7	14-Jun-19 A	24-Jun-19	27-Aug-21	27-Aug-21		0	100%
AD1270	Alternative Designs - Review and Comment of DDA (ED&UT, 21D from CEDI	21	25	0	017/08(7	25-Jun-19 A	19-Jul-19	27-Aug-21	27-Aug-21		0	100%
AD1300	Alternative Designs - Prepare DDA Submission (ED&UT, Reponse to CEDD)	21	6	0	017/08(7	20-Jul-19 A	25-Jul-19	27-Aug-21	27-Aug-21		0	100%
AD1310	Alternative Designs - Review and Acceptance of DDA (ED&UT, 21D from CEI	21	22	0	017/08(7	26-Jul-19 A	16-Aug-19	27-Aug-21	27-Aug-21		0	100%
Response to HyD - Bridges and Structure		113	104	0	017/08(7	19-Apr-19 A	31-Jul-19	27-Aug-21	27-Aug-21			
AD1040	Alternative Designs - Review and Comment of DDA (ED and UT) (21D for Hyl	21	22	0	017/08(7	19-Apr-19 A	10-May-19	27-Aug-21	27-Aug-21		0	100%



Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
◆ Milestone
summary

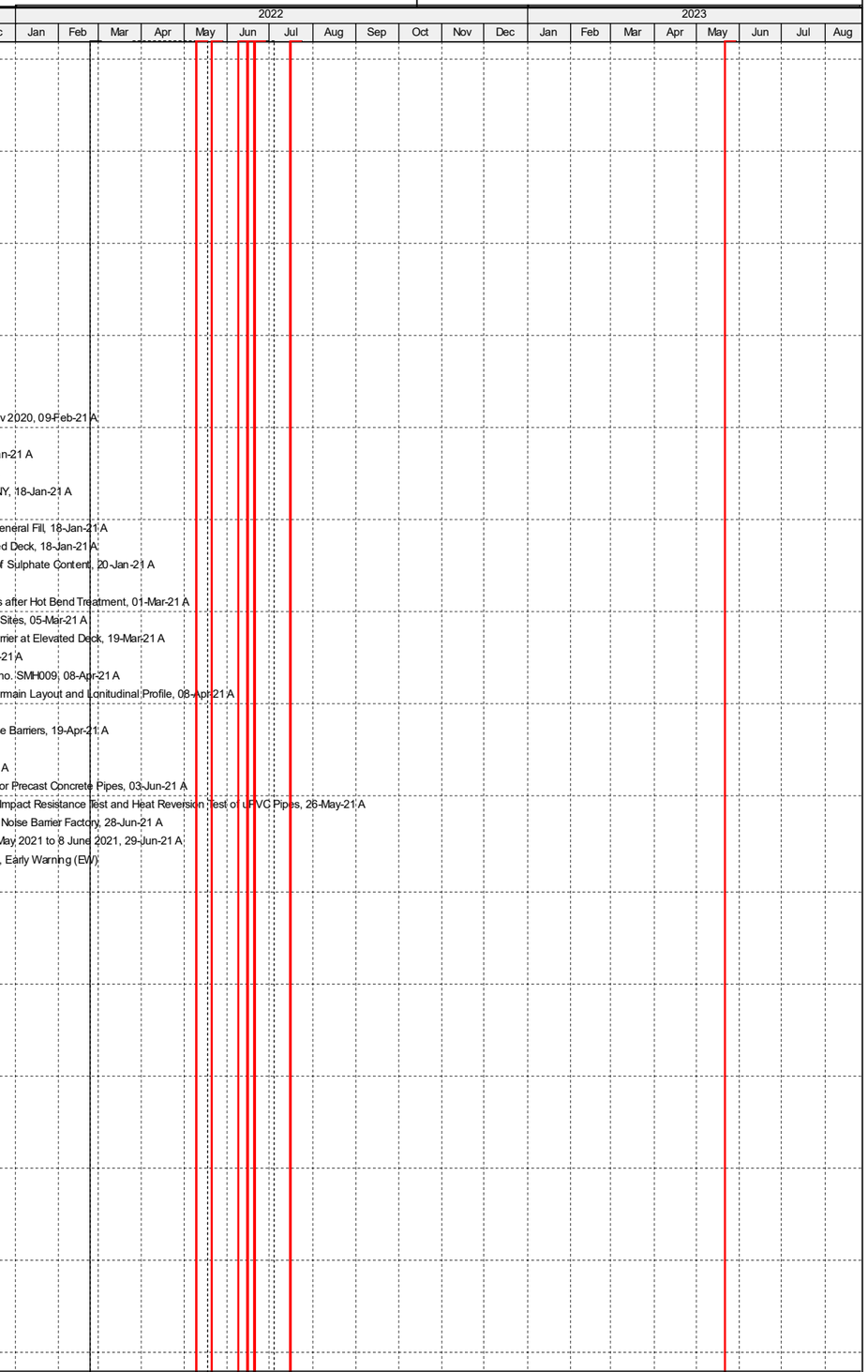
土木工程拓展署
Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

Date	Revision	Checked	Approved
08-Mar-21	Monthly Programme Update (Mar 2021)	TL	StL
08-May-21	Monthy Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
NCE130	NCE130 - Extra Length of PBSH at Portion I	0	0	0	017/08(7	11-Sep-20 A		30-Sep-23			0	100%
NCE131	NCE131 - Extra Length of PBSH at Portion III	0	0	0	017/08(7	11-Sep-20 A		30-Sep-23			0	100%
NCE132	NCE132 - Additional Works for Left-in Steel Casing for PBSH at Cycle Track I	0	0	0	017/08(7	11-Sep-20 A		30-Sep-23			0	100%
NCE133	NCE133 - Additional Works for Left-in Steel Casing for PBSH at Lift and Stai	0	0	0	017/08(7	11-Sep-20 A		30-Sep-23			0	100%
NCE134	NCE134 - Additional Works for Left-in Steel Casing for PBSH at Wan O Roac	0	0	0	017/08(7	11-Sep-20 A		30-Sep-23			0	100%
NCE135	NCE135 - Additional Point Load Test for Proof Drill Hole no. PC9,10-PD1	0	0	0	017/08(7	16-Sep-20 A		30-Sep-23			0	100%
NCE136	NCE136 - Inclement Weather for the Period of 9 July 2020 to 8 August 202(	0	0	0	017/08(7	16-Sep-20 A		30-Sep-23			0	100%
NCE137	NCE137 - Special Arrangement for Concrete Testing Services from the Publi	0	0	0	017/08(7	08-Oct-20 A		30-Sep-23			0	100%
NCE138	NCE138 - Inclement Weather for the Period of 9 August 2020 to 8 Septemb	0	0	0	017/08(7	16-Oct-20 A		30-Sep-23			0	100%
NCE139	NCE139 - Works affected by the Tropical Cyclone Warning Signal No. No. 8 '	0	0	0	017/08(7	16-Oct-20 A		30-Sep-23			0	100%
NCE140	NCE140 - Uncharted Steel Materials Found at Pre-Bored Socketed H-Pile Nc	0	0	0	017/08(7	28-Oct-20 A		30-Sep-23			0	100%
NCE141	NCE141 - Uncharted Steel Materials Found at Pre-Bored Socketed H-Pile Nc	0	0	0	017/08(7	28-Oct-20 A		30-Sep-23			0	100%
NCE142	NCE142 - Extra Length of Pre-Bored Socketed H-Piles at Lift and Staircase i	0	0	0	017/08(7	28-Oct-20 A		30-Sep-23			0	100%
NCE143	NCE143 - Additional Works for Left-in Steel Casing for 610mm PBSH at Lift a	0	0	0	017/08(7	28-Oct-20 A		30-Sep-23			0	100%
NCE144	NCE144 - Additional Works for Left-in Steel Casing for 610mm PBSH at War	0	0	0	017/08(7	28-Oct-20 A		30-Sep-23			0	100%
NCE145	NCE145 - Works affected by the Tropical Cyclone Warning Signal No. No. 8 '	0	0	0	017/08(7	30-Oct-20 A		30-Sep-23			0	100%
NCE146	NCE146 - Inclement Weather for the Period of 9 September 2020 to 8 Octol	0	0	0	017/08(7	05-Nov-20 A		30-Sep-23			0	100%
NCE148	NCE148 - Additional Works for Left-in Steel Casing for 610mm PBSH at War	0	0	0	017/08(7	24-Nov-20 A		30-Sep-23			0	100%
NCE149	NCE149 - Extra Length of Pre-Bored Socketed H-Piles at Wan O Road in Pc	0	0	0	017/08(7	25-Nov-20 A		30-Sep-23			0	100%
NCE150	NCE150 - Inclement Weather for the Period of 9 October 2020 to 8 Novemb	0	0	0	017/08(7	08-Dec-20 A		30-Sep-23			0	100%
NCE151	NCE151 - Additional Works for Left-in Steel Casing for 610mm PBSH at War	0	0	0	017/08(7	09-Feb-21 A		30-Sep-23			0	100%
NCE152	NCE152 - Unexpected Obstruction to Manhole no. SMH011 at Road D9 in P	0	0	0	017/08(7	07-Jan-21 A		30-Sep-23			0	100%
NCE153	NCE153 - Extra Works for Carry Out Laboratory Testings for Gully Formers up	0	0	0	017/08(7	07-Jan-21 A		30-Sep-23			0	100%
NCE154	NCE154 - Unexpected Obstruction to Manhole no. SMH012 at Road D9 in P	0	0	0	017/08(7	18-Jan-21 A		30-Sep-23			0	100%
NCE155	NCE155 - Works affected by COVID-19 - Additional Cost for Supply of Aggre	0	0	0	017/08(7	18-Jan-21 A		30-Sep-23			0	100%
NCE156	NCE156 - Movement Joint Construction at 2nd Portion of Abutment 2B	0	0	0	017/08(7	18-Jan-21 A		30-Sep-23			0	100%
NCE157	NCE157 - Delay in Backfilling Works along At-Grade Road due to Repeated	0	0	0	017/08(7	18-Jan-21 A		30-Sep-23			0	100%
NCE158	NCE158 - Conflict between Existing Manhole No. SMH4046896 and Pile Cap	0	0	0	017/08(7	18-Jan-21 A		30-Sep-23			0	100%
NCE159	NCE159 - Delay in Using Imported General Fill from ND/2018/01 Due to Una	0	0	0	017/08(7	20-Jan-21 A		30-Sep-23			0	100%
NCE160	NCE160 - Additional Point Load Test for Proof Drill Hole no. PD-1 at PC77	0	0	0	017/08(7	05-Feb-21 A		30-Sep-23			0	100%
NCE161	NCE161 - Additional Material Testing for Steel Works of Semi-Enclosure Nois	0	0	0	017/08(7	01-Mar-21 A		30-Sep-23			0	100%
NCE162	NCE162- Compulsory Valid Negative COVID-19 Test Result for Entry of Cons	0	0	0	017/08(7	05-Mar-21 A		30-Sep-23			0	100%
NCE163	NCE163 - Revision of Spacing of Movement Joints for Semi-Enclosure Noise	0	0	0	017/08(6	19-Mar-21 A		30-Sep-23				100%
NCE164	NCE164 - Inclement Weather Period of 9 Feb 2021 to 8 March 2021	0	0	0	017/08(6	29-Mar-21 A		30-Sep-23				100%
NCE165	NCE165 - Unexpected CLP Power Cables at XYZ Junction near Manhole no	0	0	0	017/08(6	08-Apr-21 A		30-Sep-23				100%
NCE166	NCE166 - Delay in Procurement of Watermain Pipes due to Revised Waterm	0	0	0	017/08(6	08-Apr-21 A		30-Sep-23				100%
NCE167	NCE167 - Ground Settlement Issue at Portion I	0	0	0	017/08(6	08-Apr-21 A		30-Sep-23				100%
NCE168	NCE168 - Additional Coating fo Sub-Frame of the Semi-Enclosure Noise Bar	0	0	0	017/08(6	19-Apr-21 A		30-Sep-23				100%
NCE169	NCE169 - Lighting works for Traffic Sign	0	0	0	017/08(6	29-Apr-21 A		30-Sep-23				100%
NCE170	NCE170 - Revised Landscape Softworks and Hardworks	0	0	0	017/08(6	30-Apr-21 A		30-Sep-23				100%
NCE171	NCE171 - Extra Works for Carry Out Laboratory Testings for Precast Concrete	0	0	0	017/08(6	03-Jun-21 A		30-Sep-23				100%
NCE172	NCE172 - Extra Works for Carry Out Laboratory testings for Impact Resistanc	0	0	0	017/08(6	26-May-21 A		30-Sep-23				100%
NCE173	NCE173 - Electric Suspension for Semi-Enclosure Noise Barrier Factory	0	0	0	017/08(6	28-Jun-21 A		30-Sep-23				100%
NCE174	NCE174 - Inclement Weather for the Period of 9 May 2021 to 8 June 2021	0	0	0	017/08(6	29-Jun-21 A		30-Sep-23				100%
Early Warning (EW)		860	653	0		10-Dec-18 A	08-Nov-21	29-Sep-23	30-Sep-23	562		
EW001	Temporary Discharges from LOHAS Park Development MTRC Contractors In	0	0	0	017/08(7		10-Dec-18		30-Sep-23		0	100%
EW002	Construction Debris and Domestic Waste Left Behind by MTRC's Contractors	0	0	0	017/08(7		10-Dec-18		30-Sep-23		0	100%
EW003	Maintenance of EVA at Portion II and III for MTRC's Depot along Road D9	0	0	0	017/08(7		10-Dec-18		30-Sep-23		0	100%
EW004	Diversion of Existing Fire Service Main along D9 Road upon Possession of P	0	0	0	017/08(7		10-Dec-18		30-Sep-23		0	100%
EW005	Severe Cracks and Abnormal Movement Observed on the Existing Road D9	0	0	0	017/08(7		14-Jan-19		30-Sep-23		0	100%
EW006	Uncharted Utilities (Hong Kong Broadband and CLP) identified at Road D9, '	0	0	0	017/08(7		17-Jan-19		30-Sep-23		0	100%
EW007	Additional Works for Determination of Bond Properety of Steel Reinforcing B	0	0	0	017/08(7		25-Apr-19		30-Sep-23		0	100%
EW008	Additional Works for Laying Concrete Blocks on Top of the Existing Seawall t	0	0	0	017/08(7		14-Feb-19		30-Sep-23		0	100%
EW009	Existing Public Lighting Columns Removal by Others	0	0	0	017/08(7		10-Feb-19		30-Sep-23		0	100%
EW010	Unexpeced CLP Cables Identified at Wan O Road	0	0	0	017/08(7		10-Jun-19		30-Sep-23		0	100%
EW012	Obstruction of Construction of Elevated Deck and U-Trough by Unexpected (	0	0	0	017/08(7		13-Feb-19		30-Sep-23		0	100%
EW014	Unregistered Tree No. A0001 found at Wan O Road and obstruct the UU div	0	0	0	017/08(7		16-Feb-19		30-Sep-23		0	100%
EW015	Constraints on TTA Scheme for Full Enclosure in Wan O Road	0	0	0	017/08(7		21-Feb-19		30-Sep-23		0	100%
EW016	Accumlation of Settlement Values with the Existing Data	0	0	0	017/08(7		21-Feb-19		30-Sep-23		0	100%
EW017	Additional Works for Disposal of Unsuitable Materials to NENT in Lieu of TKO	0	0	0	017/08(7		14-Mar-19		30-Sep-23		0	100%
EW018	Unexpected Traxcomm Cable Ducts at Portion I	0	0	0	017/08(7		10-Jun-19		30-Sep-23		0	100%
EW019	Obstruction of Construction of Elevated Deck and U-Trough by Unexpected (	0	0	0	017/08(7		14-Mar-19		30-Sep-23		0	100%
EW023	Extra Length of Bored Pile No. PL131, 132, 133, 107, 110, 113, 149, 152	0	0	0	017/08(7		21-Jun-19		30-Sep-23		0	100%
EW024	Unexpected WTT and HKT Ducts Identified at Wan O Road	0	0	0	017/08(7		26-Jul-19		30-Sep-23		0	100%
EW025	Uncertain Information of the Existing DN1800 drainage Pipe	0	0	0	017/08(7		16-Aug-19		30-Sep-23		0	100%
EW026	Delay in Response from HyD on Submission of Alternative Foundation desig	0	0	0	017/08(7		20-Aug-19		30-Sep-23		0	100%
EW027	Maintenance of EVA at Portion I for MTRC's Depot	0	0	0	017/08(7		21-Aug-19		30-Sep-23		0	100%
EW028	Unexpected Gas Main at Extent of Portion I	0	0	0	017/08(7		22-Aug-19		30-Sep-23		0	100%
EW029	Discrepancy of Finish Ground Level in Portion I	0	0	0	017/08(7		23-Aug-19		30-Sep-23		0	100%
EW030	Insufficiency of Information for Construction of Drainage works in U-Trough in	0	0	0	017/08(7		02-Sep-19		30-Sep-23		0	100%
EW031	Potential of Excessive Concrete Loss at Bored Piles No. PL132, PL133, P6,	0	0	0	017/08(7		03-Sep-19		30-Sep-23		0	100%
EW032	Extra Length of Pre-Bored Socketed H-Pile No. UP06, 11, 16, 21, 26, 31-38,	0	0	0	017/08(7		09-Sep-19		30-Sep-23		0	100%



Actual Level of Effort
Actual Work
Remaining Work
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summary

土木工程拓展署
Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

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08-Mar-21	Monthly Programme Update (Mar 2021)	TL	StL
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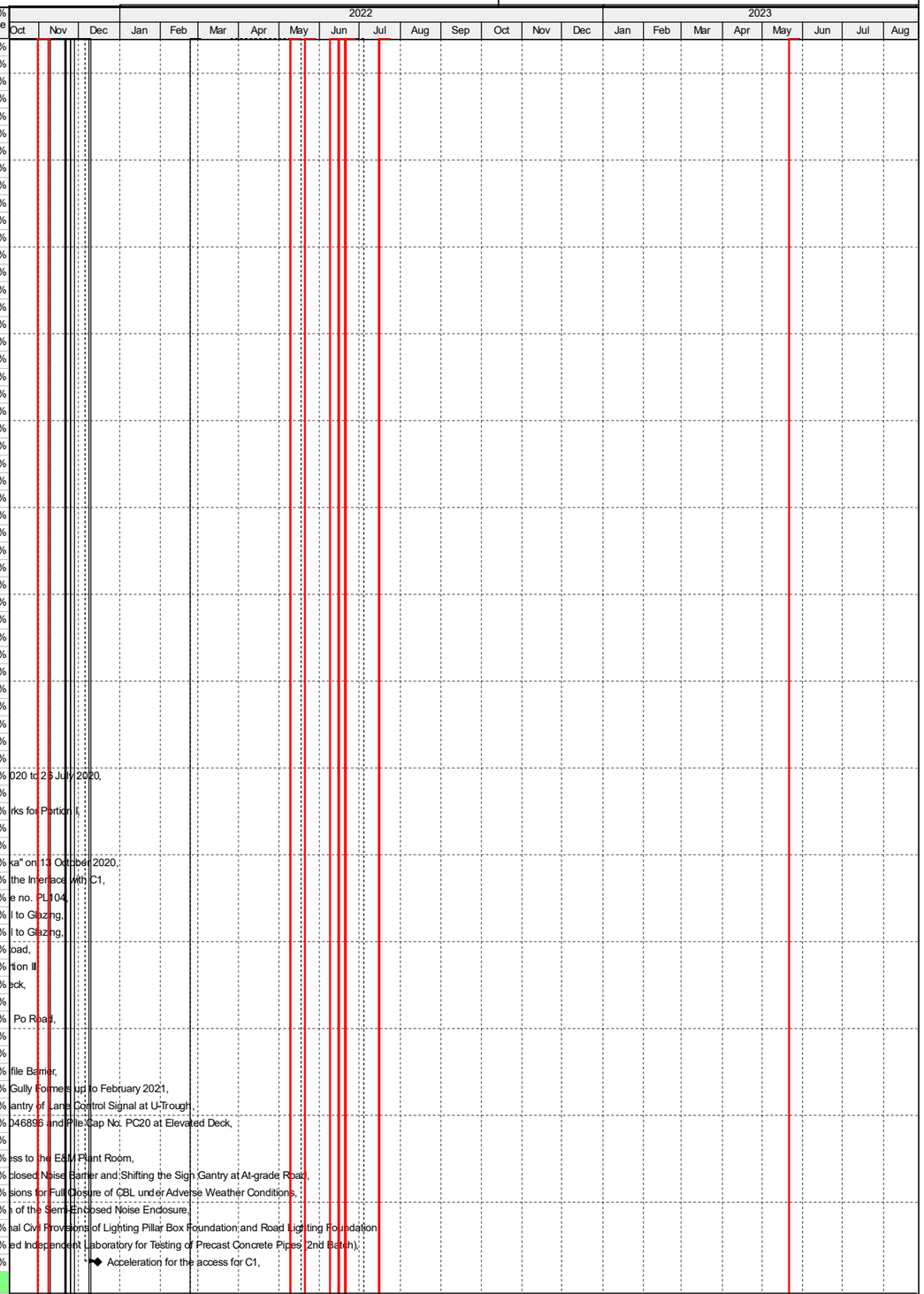
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
PMI037	Request for Quotation - Additional Road Marking and Traffic Sign Poles	0	0	0	017/08(7		03-Jan-20		30-Sep-23		0	100%
PMI038	Request for Quotation - Works affected by Strike Event, Riots and Blockage	0	0	0	017/08(7		08-Feb-2(		30-Sep-23		0	100%
PMI039	Request for Quotation - Enhancement Measures for TTA at Wan Po Road	0	0	0	017/08(7		08-Feb-2(		30-Sep-23		0	100%
PMI040	Request for Quotation - Works affected by Spreading of Novel Coronavirus	0	0	0	017/08(7		13-Feb-2(		30-Sep-23		0	100%
PMI041	Request for Quotation - Extra Length of PBSH PC24-P1, PC25-P3, PC26-P'	0	0	0	017/08(7		20-Feb-2(		30-Sep-23		0	100%
PMI042	Request for Quotation - Extra Length of Pre-Bored Socketed H-Pile No	0	0	0	017/08(7		20-Feb-2(		30-Sep-23		0	100%
PMI043	Provision of Additional Computer Equipment	0	0	0	017/08(7		26-Feb-2(		30-Sep-23		0	100%
PMI044	Request for Quotation - Revised Details of Type D Semi-enclosure Noise Bar	0	0	0	017/08(7		04-Mar-20		30-Sep-23		0	100%
PMI045	Request for Quotation - Revised Drainage Details at Eastbound of D9 Road	0	0	0	017/08(7		28-Feb-2(		30-Sep-23		0	100%
PMI046	Request for Quotation - Additional Works for Laying Concrete Blocks on Top	0	0	0	017/08(7		03-Mar-20		30-Sep-23		0	100%
PMI047	Laying of Cable Duct and Earthing Conductor at Portion III	0	0	0	017/08(7		10-Mar-20		30-Sep-23		0	100%
PMI048	Request for Quotation - Revised the Extent and Details of the Stem Wall for	0	0	0	017/08(7		13-Mar-20		30-Sep-23		0	100%
PMI049	Request for Quotation - Extra Length of Pre-Bored Socketed H-Pile	0	0	0	017/08(7		16-Mar-20		30-Sep-23		0	100%
PMI051	Request for Quotation - Extra Length of Pre-Bored Socketed H-Pile	0	0	0	017/08(7		22-Apr-20		30-Sep-23		0	100%
PMI052	Request for Quotation - Revised Drainage Details at Portion I and Western F	0	0	0	017/08(7		25-Apr-20		30-Sep-23		0	100%
PMI053	Request for Quotation - Uncharted Mass Concrete Conflict with Proposed PE	0	0	0	017/08(7		04-May-2(		30-Sep-23		0	100%
PMI054	Request for Quotation - Low Noise Road Surfacing	0	0	0	017/08(7		06-May-2(		30-Sep-23		0	100%
PMI055	Engaging a HOKLAS Laboratory for Impact Resistance Test and Heat Rever	0	0	0	017/08(7		06-May-2(		30-Sep-23		0	100%
PMI056	Request for Quotation - Additional E&M Facilities in the enclosed area under	0	0	0	017/08(7		07-May-2(		30-Sep-23		0	100%
PMI057	Request for Quotation - Extra Length of Pre-Bored Socketed H-Piles for Pile	0	0	0	017/08(7		20-May-2(		30-Sep-23		0	100%
PMI058	Request for Quotation - Extra Length of Pre-Bored Socketed H-Piles for Pile	0	0	0	017/08(7		20-May-2(		30-Sep-23		0	100%
PMI059	Request for Quotation - Extra Length of Pre-Bored Socketed H-Pile No. PC2	0	0	0	017/08(7		20-May-2(		30-Sep-23		0	100%
PMI060	Additional Material Testing & Concrete Coring	0	0	0	017/08(7		08-Jun-20		30-Sep-23		0	100%
PMI061	Request for Quotation - Revised Seawall Modification Works and Revision of	0	0	0	017/08(7		12-Jun-20		30-Sep-23		0	100%
PMI062	Point Load Test for Proof Drilling Works of Pre-bored Socketed H-pile No. PC	0	0	0	017/08(7		10-Jul-20,		30-Sep-23		0	100%
PMI063	Request for Quotation - Extra Length of Pre-Bored Socketed H-Piles	0	0	0	017/08(7		27-Jul-20,		30-Sep-23		0	100%
PMI064	Request for Quotation - Delay in PMMA Panel Production for Noise Barrier D	0	0	0	017/08(7		27-Jul-20,		30-Sep-23		0	100%
PMI065	Engaging an Independent HOKLAS Accredited Laboratory for Testing of Sta	0	0	0	017/08(7		10-Aug-2(		30-Sep-23		0	100%
PMI066	Request for Quotation - Details for Abutment 2B	0	0	0	017/08(7		18-Aug-2(		30-Sep-23		0	100%
PMI067	Request for Quotation - Revised Fresh Water Main Layout and Details	0	0	0	017/08(7		27-Aug-2(		30-Sep-23		0	100%
PMI068	Request for Quotation - Cancellation of Preservation and Protection of Existi	0	0	0	017/08(7		01-Sep-2(		30-Sep-23		0	100%
PMI069	Request for Quotation - Revised Power Cable Ducting Layout and Civil Provi	0	0	0	017/08(7		02-Sep-2(		30-Sep-23		0	100%
PMI070	Request for Quotation - Revised Details for Abutment 2A for the Installation c	0	0	0	017/08(7		10-Sep-2(		30-Sep-23		0	100%
PMI071	Request for Quotation - Revised of U-Trough structure and Abutment 2B	0	0	0	017/08(7		06-Oct-20		30-Sep-23		0	100%
PMI072	Request for Quotation - Additional Lightning Protection System for Semi-enc	0	0	0	017/08(7		16-Sep-2(		30-Sep-23		0	100%
PMI073	Removal of 5 nos. of Uncharted Trees at Wan O Road and Wan Po Road	0	0	0	017/08(7		16-Sep-2(		30-Sep-23		0	100%
PMI074	Request for Quotation - Extra Length of PBSH No. PC72-P1 and PC79-P1 a	0	0	0	017/08(7		17-Sep-2(		30-Sep-23		0	100%
PMI075	Request for Quotation - Extra Length of PBSH at Lift and Staircase in Portio	0	0	0	017/08(7		17-Sep-2(		30-Sep-23		0	100%
PMI076	Request for Quotation - Extra Length of PBSH at Elevated Cycle Track in Po	0	0	0	017/08(7		17-Sep-2(		30-Sep-23		0	100%
PMI077	Point Load Test for Proof Drill Hole no. PC9, 10-PD1	0	0	0	017/08(7		07-Oct-20		30-Sep-23		0	100%
PMI078	Request for Quotation - Revised Drainage Details near Abutment 2A	0	0	0	017/08(7		16-Oct-20		30-Sep-23		0	100%
PMI079	Request for Quotation - Tropical Cyclone Warning Signal No. 8 on 19 August	0	0	0	017/08(7		22-Oct-20		30-Sep-23		0	100%
PMI080	Engaging a HOKLAS Lab for Compression Tests of Concrete Cubes during t	0	0	0	017/08(7		27-Oct-20		30-Sep-23		0	100% 020 to 25 July 2020,
PMI081	Revised Landscape Details at Wan O Road and Wan Po Road	0	0	0	017/08(7		27-Oct-20		30-Sep-23		0	100%
PMI082	Request for Quotation - Top Level of the Concrete Blocks for the Proposed \	0	0	0	017/08(7		04-Nov-2(		30-Sep-23		0	100% rks for Portion I,
PMI083	Request for Quotation - Extra Length of PBSH at Lift and Staircase in Portio	0	0	0	017/08(7		04-Nov-2(		30-Sep-23		0	100%
PMI084	Request for Quotation - Seawall Modification Works Along MTRCL Promenac	0	0	0	017/08(7		10-Nov-2(		30-Sep-23		0	100%
PMI085	Request for Quotation - Works affected by the Tropical Cyclone Warning Sig	0	0	0	017/08(7		13-Nov-2(		30-Sep-23		0	100% ka" on 15 October 2020,
PMI086	Request for Quotation - Revised the Type of Steel Vehicle Parapet and Tran	0	0	0	017/08(7		19-Nov-2(		30-Sep-23		0	100% the Interface with C1,
PMI087	Request for Quotation - Unexpected Rock Sample Retrieved from Interface (	0	0	0	017/08(7		24-Nov-2(		30-Sep-23		0	100% e no. PL104,
PMI088	Request for Quotation - Revised Design for Lift Internal Panels and Door fror	0	0	0	017/08(7		25-Nov-2(		30-Sep-23		0	100% l to Glazing,
PMI089	Request for Quotation - Revised Design for Lift Internal Panels and Door fror	0	0	0	017/08(7		25-Nov-2(		30-Sep-23		0	100% l to Glazing,
PMI090	Request for Quotation - Revised Drainage Details at Westbound of Road D9	0	0	0	017/08(7		02-Dec-2(		30-Sep-23		0	100% oad,
PMI091	Request for Quotation - Extra Length of Pre-Bored Socketed H-Pile at Wan (	0	0	0	017/08(7		04-Dec-2(		30-Sep-23		0	100% tion II
PMI092	Request for Quotation - Additional Footpath Pavement Underneath Elevatec	0	0	0	017/08(7		08-Jan-21		30-Sep-23		0	100% ck,
PMI093	Request for Quotation - Revision of M.J. Detail	0	0	0	017/08(7		11-Jan-21		30-Sep-23		0	100%
PMI094	Removal of Uncharted Tree Nos. A0006 and A0008 at Wan O Road and Wa	0	0	0	017/08(7		14-Jan-21		30-Sep-23		0	100% Po Road,
PMI095	Request for Quotation - Revision of Interface Structure and Associated Detai	0	0	0	017/08(7		15-Jan-21		30-Sep-23		0	100%
PMI096	Request for Quotation - Clarification of Detail for Wall Opening	0	0	0	017/08(7		28-Jan-21		30-Sep-23		0	100%
PMI097	Request for Quotation - Revision of the Extent and Detail of Concrete Profile	0	0	0	017/08(7		28-Jan-21		30-Sep-23		0	100% file Barrier,
PMI098	Engaging a HOKLAS Accredited Independent Laboratory for Testing of Gully,	0	0	0	017/08(7		03-Feb-21		30-Sep-23		0	100% Gully Formeis up to February 2021,
PMI099	Additional R.C. Corbel and Structural Steelwork Connection for Sign Gantry (	0	0	0	017/08(7		09-Feb-21		30-Sep-23		0	100% antry of Lane Control Signal at U-Trough,
PMI100	Request for Quotation - Conflict between Existing Manhole No. SMH404689(	0	0	0	017/08(7		10-Feb-21		30-Sep-23		0	100% 046896 and Pile Cap No. PC20 at Elevated Deck,
PMI101	Point Load Test for Proof Drill Hole no. PD-1 at PC77	0	0	0	017/08(7		25-Feb-21		30-Sep-23		0	100%
PMI102	Provision of Temporary Concrete Pavement at the Access to the E&M Plant	0	0	0	017/08(7		31-Mar-21		30-Sep-23			100% ss to the E&M Plant Room,
PMI103	Request for Quotation - Update Details of Semi-Enclosed Noise Barrier and :	0	0	0	017/08(7		13-Apr-21		30-Sep-23			100% closed Noise Barrier and Shifting the Sign Gantry at At-grade Road,
PMI104	Request for Quotation - Additional TCSS Civil Provisions for Full Closure of C	0	0	0	017/08(7		14-Apr-21		30-Sep-23			100% sions for Full Closure of CBL under Adverse Weather Conditions,
PMI105	Risk Assessment for Lightning Protection System of the Semi-Enclosed Nois	0	0	0	017/08(7		22-Apr-21		30-Sep-23			100% n of the Semi-Enclosed Noise Enclosure,
PMI106	Request for Quotation - Additional Civil Provisions of Lighting Pillar Box Foun	0	0	0	017/08(7		18-Jun-21		30-Sep-23			100% al Civil Provisions of Lighting Pillar Box Foundation and Road Lighting Foundation
PMI107	Engaging a HOKLAS Accredited Independent Laboratory for Testing of Prec	0	0	0	017/08(7		24-Jun-21		30-Sep-23			100% ed Independent Laboratory for Testing of Precast Concrete Pipes (2nd Batch),
PMI113	Acceleration for the access for C1	0	0	0	017/08(6		15-Dec-21		15-Dec-21	0		0%
Request for Information (RFI)		125	125	0		24-Dec-18 A	31-May-19	27-Aug-21	27-Aug-21			



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

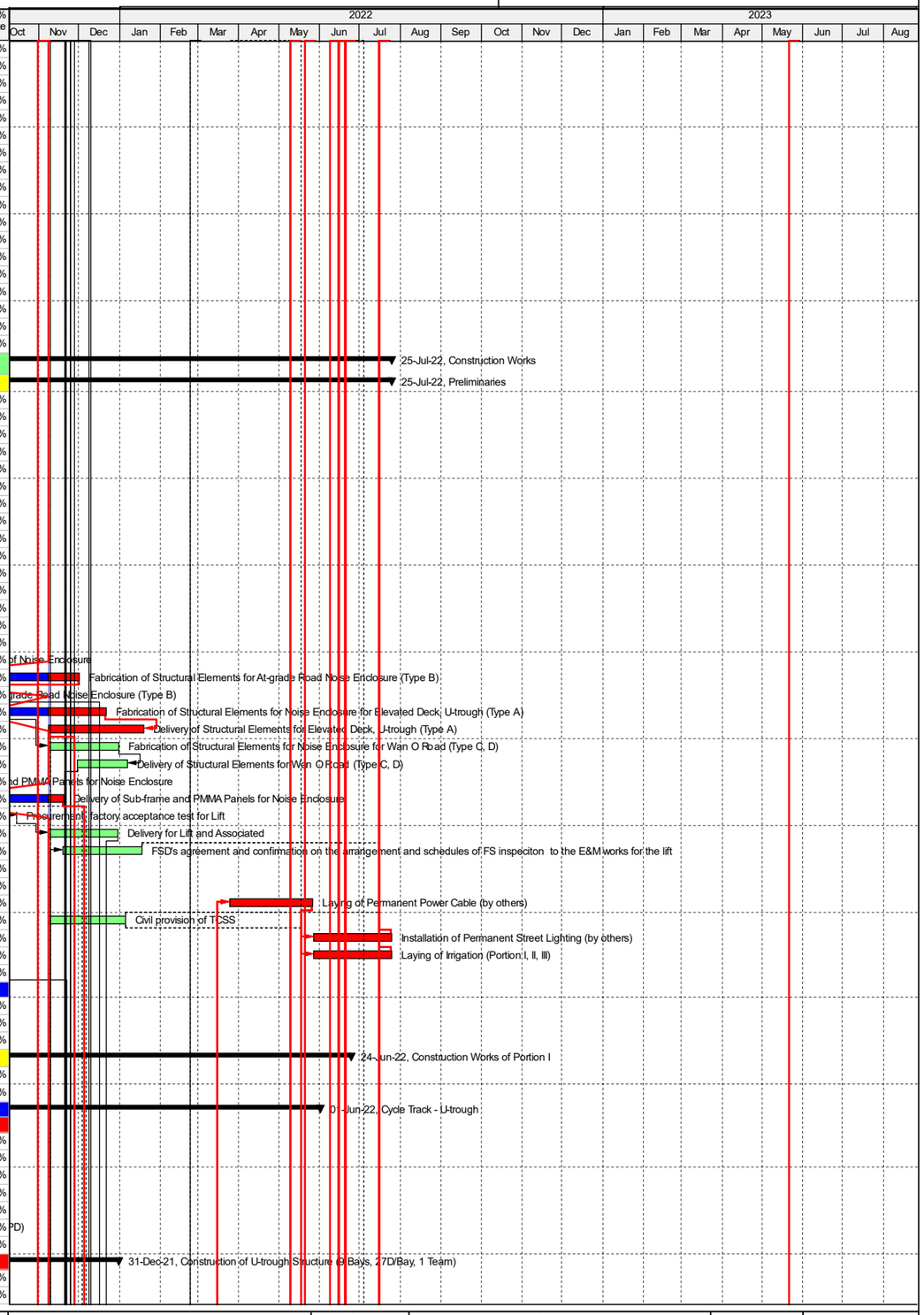
土木工程拓展署
Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

Date	Revision	Checked	Approved
08-Mar-21	Monthly Programme Update (Mar 2021)	TL	StL
08-May-21	Monthy Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
RFI001.SUB	Submission of RFI001 - Discrepancy between the Seawall Finished Ground l	0	0	0	017/08(7	24-Dec-18 A		27-Aug-21			0	100%
RFI001REP	Reply on RFI001 - Discrepancy between the Seawall Finished Ground Level	0	0	0	017/08(7		14-Mar-19		27-Aug-21		0	100%
RFI002.SUB	Submission of RFI002 - Top Level of Pile Cap for the Elevated Section	0	0	0	017/08(7	24-Dec-18 A		27-Aug-21			0	100%
RFI002.SUB10	Reply on RFI002 - Top Level of Pile Cap for the Elevated Section	0	0	0	017/08(6		14-Mar-19		27-Aug-21		0	100%
RFI006.SUB	Submission of RFI006 - Confirmation of Top Level of Pile Caps and Pile Cap	0	0	0	017/08(7	24-Jan-19 A		27-Aug-21			0	100%
RFI006REP	Reply on RFI006 - Confirmation of Top Level of Pile Caps and Pile Caps of A	0	0	0	017/08(7		07-Mar-19		27-Aug-21		0	100%
RFI010.SUB	Submission of RFI010 - Confirmation of Top Level of Pile Caps at Lift Shaft	0	0	0	017/08(7	01-Feb-19 A		27-Aug-21			0	100%
RFI010REP	Reply on RFI010 - Confirmation of Top Level of Pile Cpas at Lift Shaft	0	0	0	017/08(7		04-Mar-19		27-Aug-21		0	100%
RFI011.SUB	Submission of RFI011 - Confirmation of Top Level of Pile Caps at Cycle Ram	0	0	0	017/08(7	04-Feb-19 A		27-Aug-21			0	100%
RFI011REP	Reply on RFI011 - Confirmation of Top Level of Pile Caps at Cycle Ramp	0	0	0	017/08(7		04-Mar-19		27-Aug-21		0	100%
RFI012.SUB	Submission of RFI012 - Confirmation of Top Level of Pile Caps at At-Grade F	0	0	0	017/08(7	04-Feb-19 A		27-Aug-21			0	100%
RFI012REP	Reply on RFI012 - Confirmation of Top Level of Pile Caps at At-Grade Road	0	0	0	017/08(7		04-Mar-19		27-Aug-21		0	100%
RFI013.SUB	Submission of RFI013 - Grid Line Origin	0	0	0	017/08(7	08-Feb-19 A		27-Aug-21			0	100%
RFI013REP	Reply on RFI013 - Grid Line Origin	0	0	0	017/08(7		03-Mar-19		27-Aug-21		0	100%
RFI016.SUB	Submission of RFI016 - Unexpected Tree at Wan O Road	0	0	0	017/08(7	16-Feb-19 A		27-Aug-21			0	100%
RFI016REP	Reply on RFI016 - Unexpected Tree at Wan O Road	0	0	0	017/08(7		13-Mar-19		27-Aug-21		0	100%
RFI025.SUB	Submission of RFI025 - Cycle Track Ramp Portion Ground Level	0	0	0	017/08(7	06-May-19 A		27-Aug-21			0	100%
RFI025REP	Reply on RFI025 - Cycle Track Ramp Portion Ground Level	0	0	0	017/08(7		31-May-19		27-Aug-21		0	100%
Construction Works		1093	888	209		13-Nov-18 A	25-Jul-22	18-Aug-21	30-Sep-23	353		
Preliminaries		1093	884	209		13-Nov-18 A	25-Jul-22	27-Aug-21	30-Sep-23	353		
PREL1010	1st Independent Safety Audit Scheme Audit	2	2	0	017/08(6	14-Dec-18 A	15-Dec-18	30-Sep-23	30-Sep-23		0	100%
PREL1015	Initial Survey	7	7	0	017/08(6	13-Nov-18 A	20-Nov-18	27-Aug-21	27-Aug-21		0	100%
PREL1017	Initial Hydrographic Survey	7	7	0	017/08(6	21-Nov-18 A	28-Nov-18	27-Aug-21	27-Aug-21		0	100%
PREL1020	Tree Survey	7	7	0	017/08(6	27-Nov-18 A	04-Dec-18	27-Aug-21	27-Aug-21		0	100%
PREL1030	Utilities Detection and Trial Pit at MTRC's Development Area	37	24	0	017/08(6	17-Jan-19 A	16-Feb-19	30-Sep-23	30-Sep-23		0	100%
PREL1035	Installation of Utilities/ Ground Settlement Monitoring Points at MTRC's Devel	28	28	0	017/08(6	12-Jan-19 A	16-Feb-19	30-Sep-23	30-Sep-23		0	100%
PREL1037	Installation of Ground Settlement Monitoring Points at MTRC Development F	20	17	0	017/08(6	23-Feb-19 A	14-Mar-19	30-Sep-23	30-Sep-23		0	100%
PREL1040	Erection of Contractor Site Office	74	76	0	017/08(6	14-Jan-19 A	16-Apr-19	30-Sep-23	30-Sep-23		0	100%
PREL1050	General Site Clearance (Tree Felling, Formation of Tempoary Working Acces	26	36	0	017/08(6	02-Jan-19 A	15-Feb-19	27-Aug-21	27-Aug-21		0	100%
PREL1070	Erection of Chain Link Fence and Gates at MTRC's Development Area	30	30	0	017/08(6	27-Dec-18 A	31-Jan-19	27-Aug-21	27-Aug-21		0	100%
PREL1100	Pre-Construction Condition Survey	15	15	0	017/08(6	28-Nov-18 A	14-Dec-18	30-Sep-23	30-Sep-23		0	100%
PREL1110	Installation of Monitoring on Exisiting Structure/ Buildings/Utilities	28	28	0	017/08(6	12-Jan-19 A	16-Feb-19	30-Sep-23	30-Sep-23		0	100%
PREL1115	Construction of Temporary Wheel Washing Facilities	6	6	0	017/08(7	18-Mar-19 A	23-Mar-19	30-Sep-23	30-Sep-23		0	100%
PREL1120	Construction of Wheel Washing System (CE005, 007, 009)	22	42	0	017/08(6	26-Apr-19 A	17-Jun-19	30-Sep-23	30-Sep-23		0	100%
PREL1130-01	Late Delivery of Steel Material for Fabrication of Structural Members at Pre-fa	60	154	0	017/08(7	29-Jan-20 A	30-Jun-20	23-Sep-21	23-Sep-21		0	100%
PREL1130-02	Sample Selection and Testing for Structural Steels for Pre-fabrication of Nois	33	185	0	017/08(6	02-Jul-20 A	10-Feb-21	23-Sep-21	23-Sep-21		0	100%
PREL1130-12	Fabrication of Structural Elements for At-grade Road Noise Enclosure (Type	90	204	21	017/08(6	02-Mar-21 A	01-Dec-21	28-Oct-21	20-Nov-21	-9	0	76.67%
PREL1130-22	Delivery of Structural Elements for At-grade Road Noise Enclosure (Type B)	60	60	0	017/08(6	13-Mar-21 A	28-May-21	10-Jan-22	10-Jan-22		0	100%
PREL1130-32	Fabrication of Structural Elements for Noise Enclosure for Elevated Deck, U-t	90	51	38	017/08(6	06-Sep-21 A	21-Dec-21	18-Oct-21	30-Nov-21	-18	0	57.78%
PREL1130-42	Delivery of Structural Elements for Elevated Deck, U-trough (Type A)	60	0	60	017/08(6	08-Nov-21	19-Jan-22	24-Sep-21	04-Dec-21	-36	0	0%
PREL1130-52	Fabrication of Structural Elements for Noise Enclosure for Wan O Road (Type	45	0	45	017/08(6	08-Nov-21	31-Dec-21	10-Dec-21	08-Feb-22	29		0%
PREL1130-62	Delivery of Structural Elements for Wan O Road (Type C, D)	30	0	30	017/08(6	30-Nov-21	06-Jan-22	05-Jan-22	12-Feb-22	29		0%
PREL1140-01	Fabrication of Sub-frame and PMMA Panels for Noise Enclosure	60	60	0	017/08(6	20-Apr-21 A	02-Jul-21	23-Sep-21	23-Sep-21		0	100%
PREL1140-21	Delivery of Sub-frame and PMMA Panels for Noise Enclosure	30	121	11	017/08(6	15-Jun-21 A	19-Nov-21	23-Sep-21	06-Oct-21	-37	0	63.33%
PREL1150-00	Procurement, factory acceptance test for Lift	60	0	0	017/08(6	15-Oct-21 A	15-Oct-21	20-Nov-21	20-Nov-21		0	100%
PREL1150-01	Delivery for Lift and Associated	44	0	44	017/08(6	08-Nov-21*	30-Dec-21	20-Nov-21	13-Jan-22	11	0	0%
PREL1160	FSD's agreement and confirmation on the arrangement and schedules of FS	48	0	48	017/08(6	19-Nov-21	17-Jan-22	17-Feb-22	14-Apr-22	71	0	0%
PREL1170	Environmental baseline monitoring (by others)	48	48	0	017/08(6	17-Dec-18 A	16-Feb-19	30-Sep-23	30-Sep-23		0	100%
PREL1180	Removal of Exisitng Lighting Columns (by others)	3	3	0	017/08(6	09-Apr-19 A	11-Apr-19	27-Aug-21	27-Aug-21		0	100%
PREL1190	Laying of Permanent Power Cable (by others)	48	0	48	017/08(6	25-Mar-22	26-May-22	24-Mar-22	26-May-22	-1	0	0%
PREL1220	Civil provision of TCSS	48	0	48	017/08(6	08-Nov-21	05-Jan-22	19-Jan-22	18-Mar-22	59	0	0%
PREL1230	Installation of Permanent Street Lighting (by others)	49	0	49	017/08(6	27-May-22	25-Jul-22	26-May-22	25-Jul-22	-1	0	0%
PREL1240	Laying of Irrigation (Portion I, II, III)	49	0	49	017/08(6	27-May-22	25-Jul-22	26-May-22	25-Jul-22	-1	0	0%
PREL1250	Procurement, Factory Accpetance Test and Delivery of Bearing	80	365	0	017/08(7	14-Jan-20 A	13-Jan-21	02-Sep-21	02-Sep-21		0	100%
Ground Investigation		30	23	0	017/08(6	13-Jun-19 A	10-Jul-19	27-Aug-21	27-Aug-21			
GI1010	Ground Investigation Borehole (NEBH1) (Rg4) (10D/hole+5D TRA)	15	8	0	017/08(6	02-Jul-19 A	10-Jul-19	27-Aug-21	27-Aug-21		5	100%
GI1020	Ground Investigation Borehole (NEBH2) (Rg1) (10D/hole+5D TRA)	15	9	0	017/08(6	13-Jun-19 A	22-Jun-19	27-Aug-21	27-Aug-21		5	100%
GI1030	Ground Investigation Borehole (NEBH3) (Rg1) (10D/hole+5D TRA)	15	8	0	017/08(6	24-Jun-19 A	03-Jul-19	27-Aug-21	27-Aug-21		5	100%
Construction Works of Portion I		866	700	184		02-Jul-19 A	24-Jun-22	18-Aug-21	30-Sep-23	378		
PORI.A1000	Provide Access to MTRC P10 at Elevated Cycle Track Area	274	274	0	017/08(7	02-Jul-19 A	31-Mar-20	27-Aug-21	27-Aug-21		0	100%
PORI.A1010	Provide Access to MTRC P10 at U-trough Section	214	188	0	017/08(7	01-Apr-20 A	05-Oct-20	09-Sep-21	09-Sep-21		0	100%
Cycle Track - U-trough		821	659	165		19-Aug-19 A	01-Jun-22	09-Sep-21	14-Apr-22	-36		
Excavation to U-tough Level(+5.0mPD to +4.4mPD) (700m3)		446	398	0		19-Aug-19 A	17-Dec-20	09-Sep-21	09-Sep-21			
PORI.UT.EX1010	Excavation to U-trough Founding Level for Construction of Bay 6-9 (+5.0mPI	5	3	0	017/08(6	19-Aug-19 A	21-Aug-19	09-Sep-21	09-Sep-21		0	100%
PORI.UT.EX1020	Plate Load Test	7	5	0	017/08(7	22-Aug-19 A	26-Aug-19	09-Sep-21	09-Sep-21		0	100%
PORI.UT.EX1030	Excavation to U-trough Founding Level for Construction of Bay 3-5 (+5.0mPI	10	13	0	017/08(6	09-Mar-20 A	23-Mar-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.EX1040	Liaision with Towngas and TranxComm and Utilities Diversion for Bay 3 (EW(	60	235	0	017/08(6	17-Jan-20 A	02-Nov-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.EX1050	Excavation to U-trough Founding Level for Construction of Bay 2 (+5.0mPD	4	5	0	017/08(6	19-Nov-20 A	24-Nov-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.EX1055	Excavation to U-trough Founding Level for Construction of Bay 1 (+5.0mPD	4	5	0	017/08(6	12-Dec-20 A	17-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.EX1060	Utilities Diversion for Bay 1-2	30	22	0	017/08(6	21-Sep-20 A	17-Oct-20	09-Sep-21	09-Sep-21		0	100%
Construction of U-trough Structure (9 Bays, 27D/Bay, 1 Team)		697	556	45	017/08(6	27-Aug-19 A	31-Dec-21	09-Sep-21	03-Nov-21	-48		
PORI.UT.ST1000	Construction of Blinding Layer for Bay 6-9	2	4	0	017/08(6	27-Aug-19 A	30-Aug-19	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1010	Construction of U-trough Structure Bay 6-9 Base Slab (14D/bay, 1 team)	56	34	0	017/08(6	27-Aug-19 A	08-Oct-19	09-Sep-21	09-Sep-21		0	100%



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

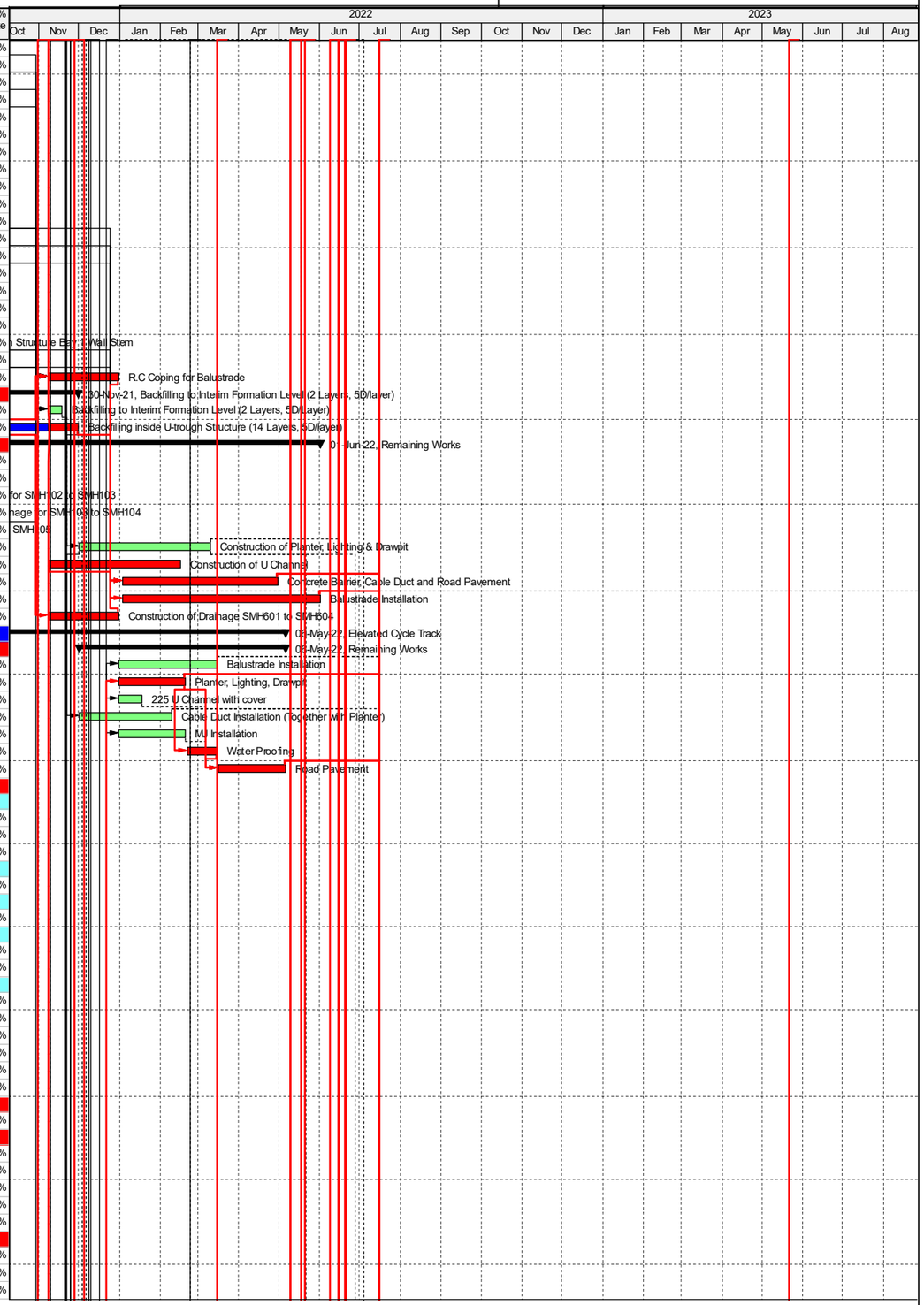
CEDD 土木工程拓展署 Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

Date	Revision	Checked	Approved
08-Mar-21	Monthly Programme Update (Mar 2021)	TL	StL
08-May-21	Monthy Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
PORI.UT.ST1010-01	Construction of U-trough Structure Bay 9 Wall Stem	14	10	0	017/08/(6	06-Mar-20 A	17-Mar-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1010-02	Construction of U-trough Structure Bay 8 Wall Stem	14	33	0	017/08/(6	19-Mar-20 A	02-May-2(	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1010-03	Construction of U-trough Structure Bay 7 Wall Stem	14	10	0	017/08/(6	06-Mar-20 A	17-Mar-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1010-13	Construction of U-trough Structure Bay 6 Wall Stem	14	28	0	017/08/(6	11-Apr-20 A	18-May-2(	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1020	Access Road Modification to Seaside	14	9	0	017/08/(6	27-Feb-20 A	07-Mar-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1030	Construction of Blinding Layer for Bay 4-5	2	1	0	017/08/(6	24-Mar-20 A	24-Mar-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1040-01	Construction of U-trough Structure Bay 5 Base Slab	14	12	0	017/08/(6	25-Mar-20 A	08-Apr-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1040-11	Construction of U-trough Structure Bay 4 Base Slab	14	25	0	017/08/(6	28-Mar-20 A	02-May-2(	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1040-15	Construction of Blinding Layer for Bay 3	4	2	0	017/08/(6	03-Nov-20 A	04-Nov-2(	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1040-21	Construction of U-trough Structure Bay 3 Base Slab	14	12	0	017/08/(6	11-Nov-20 A	24-Nov-2(	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1040-31	Construction of U-trough Structure Bay 5 Wall Stem	14	16	0	017/08/(6	27-Jul-20 A	13-Aug-2(	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1040-41	Construction of U-trough Structure Bay 4 Wall Stem	14	28	0	017/08/(6	22-Jun-20 A	25-Jul-20 A	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1040-51	Construction of U-trough Structure Bay 3 Wall Stem	14	14	0	017/08/(6	18-Feb-21 A	05-Mar-21	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1060	Construction of Blinding Layer for Bay 2	2	1	0	017/08/(6	25-Nov-20 A	25-Nov-2(	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1065	Construction of Blinding Layer for Bay 1	2	1	0	017/08/(6	18-Dec-20 A	18-Dec-2(	09-Sep-21	09-Sep-21			100%
PORI.UT.ST1070	Construction of U-trough Structure Bay 2 Base Slab	14	14	0	017/08/(6	26-Nov-20 A	11-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1070-01	Construction of U-trough Structure Bay 1 Base Slab	14	10	0	017/08/(6	21-Dec-20 A	04-Jan-21	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1070-02	Construction of U-trough Structure Bay 1 Wall Stem	14	109	0	017/08/(6	01-Mar-21 A	15-Jul-21 A	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1070-12	Construction of U-trough Structure Bay 2 Wall Stem	14	36	0	017/08/(6	18-Dec-20 A	01-Feb-21	09-Sep-21	09-Sep-21		0	100%
PORI.UT.ST1070-42	R.C Coping for Balustrade	45	0	45	017/08/(6	08-Nov-21	31-Dec-21	09-Sep-21	03-Nov-21	-48		0%
Backfilling to Interim Formation Level (2 Layers, 5D/layer)		70	55	20	017/08/(6	01-Sep-21 A	30-Nov-21	09-Sep-21	08-Dec-21	7		
PORI.UT.BF1010	Backfilling to Interim Formation Level (2 Layers, 5D/Layer)	10	0	10	017/08/(6	08-Nov-21	18-Nov-21	26-Nov-21	08-Dec-21	17	0	0%
PORI.UT.BF1020	Backfilling inside U-trough Structure (14 Layers, 5D/layer)	70	55	20	017/08/(6	01-Sep-21 A	30-Nov-21	09-Sep-21	04-Oct-21	-48	0	71.43%
Remaining Works		503	253	165	017/08/(6	16-Sep-20 A	01-Jun-22	26-Oct-21	14-Apr-22	-36		
PORI.UT.1050	Construction of Drainage for SMH101 to SMH102	35	16	0	017/08/(6	16-Sep-20 A	06-Oct-20	26-Nov-21	26-Nov-21		0	100%
PORI.UT.1055	Review and Acceptance of Design for ELS for Drainage	30	30	0	017/08/(6	08-Oct-20 A	12-Nov-2(	26-Nov-21	26-Nov-21			100%
PORI.UT.1060	Construction of Drainage for SMH102 to SMH103	35	50	0	017/08/(6	08-May-21 A	09-Jul-21 A	26-Nov-21	26-Nov-21		0	100%
PORI.UT.1070	Construction of Drainage for SMH103 to SMH104	35	31	0	017/08/(6	21-Jun-21 A	28-Jul-21 A	26-Nov-21	26-Nov-21		0	100%
PORI.UT.1080	Construction of Drainage for SMH104 to SMH105	35	15	0	017/08/(6	03-May-21 A	21-May-21	26-Nov-21	26-Nov-21		0	100%
PORI.UT.1090.00	Construction of Planter, Lighting & Drawpit	80	0	80	017/08/(6	01-Dec-21	10-Mar-22	08-Dec-21	18-Mar-22	7	0	0%
PORI.UT.1090.01	Construction of U Channel	80	0	80	017/08/(6	08-Nov-21	15-Feb-22	06-Nov-21	14-Feb-22	-1		0%
PORI.UT.1090.02	Concrete Barrier, Cable Duct and Road Pavement	95	0	95	017/08/(6	03-Jan-22	30-Apr-22	17-Dec-21	14-Apr-22	-11		0%
PORI.UT.1090.12	Balustrade Installation	120	0	120	017/08/(6	03-Jan-22	01-Jun-22	04-Nov-21	30-Mar-22	-48		0%
PORI.UT.1110.10	Construction of Drainage SMH601 to SMH604	45	0	45	017/08/(6	08-Nov-21	31-Dec-21	26-Oct-21	16-Dec-21	-11		0%
Elevated Cycle Track		826	682	144	017/08/(6	23-Jul-19 A	06-May-22	27-Aug-21	30-Sep-23	418		
Remaining Works		124	0	124	017/08/(6	01-Dec-21	06-May-22	11-Dec-21	14-Apr-22	-15		
PORI.ED.MISC.1010	Balustrade Installation	60	0	60	017/08/(6	31-Dec-21	15-Mar-22	31-Jan-22	14-Apr-22	25		0%
PORI.ED.MISC.1020	Planter, Lighting, Drawpit	40	0	40	017/08/(6	31-Dec-21	19-Feb-22	11-Dec-21	29-Jan-22	-15		0%
PORI.ED.MISC.1030	225 U Channel with cover	14	0	14	017/08/(6	31-Dec-21	17-Jan-22	10-Feb-22	25-Feb-22	31		0%
PORI.ED.MISC.1040	Cable Duct Installation (Together with Planter)	55	0	55	017/08/(6	01-Dec-21	09-Feb-22	10-Jan-22	18-Mar-22	32		0%
PORI.ED.MISC.1050	MJ Installation	40	0	40	017/08/(6	31-Dec-21	19-Feb-22	07-Jan-22	25-Feb-22	5		0%
PORI.ED.MISC.1060	Water Proofing	20	0	20	017/08/(6	21-Feb-22	15-Mar-22	31-Jan-22	25-Feb-22	-15		0%
PORI.ED.MISC.1070	Road Pavement	40	0	40	017/08/(6	16-Mar-22	06-May-22	26-Feb-22	14-Apr-22	-15		0%
Predrilling Works for Alternative PBSH at MTRC Development Zone (10nos, 10D/pile+5D TRA, 1 to 4rig		240	232	0	017/08/(6	23-Jul-19 A	05-May-2(	27-Aug-21	30-Sep-23			
Rig 2		128	120	0	017/08/(6	04-Dec-19 A	05-May-2(	27-Aug-21	27-Aug-21			
PORI.ED.PD1070	Predrilling for Alternative PBSH at Portion I (PD97)	15	17	0	017/08/(6	04-Dec-19 A	23-Dec-19	27-Aug-21	27-Aug-21		5	100%
PORI.ED.PD1070-0	Idling of Predrill Rig for PD97 by Sub-contractor	3	3	0	017/08/(6	14-Dec-19 A	17-Dec-19	27-Aug-21	27-Aug-21		0	100%
PORI.ED.PD1120	Predrilling for Alternative PBSH at Portion I (PD01A)	15	7	0	017/08/(6	25-Apr-20 A	05-May-2(	27-Aug-21	27-Aug-21		5	100%
Rig 3		15	10	0	017/08/(6	05-Sep-19 A	17-Sep-19	27-Aug-21	27-Aug-21			
PORI.ED.PD1020	Predrilling for Alternative PBSH at Portion I (PD08)	15	10	0	017/08/(6	05-Sep-19 A	17-Sep-19	27-Aug-21	27-Aug-21		5	100%
Rig 4		15	10	0	017/08/(6	17-Aug-19 A	28-Aug-19	27-Aug-21	27-Aug-21			
PORI.ED.PD1040	Predrilling for Alternative PBSH at Portion I (PD98)	15	10	0	017/08/(6	17-Aug-19 A	28-Aug-19	27-Aug-21	27-Aug-21		5	100%
Rig 5		23	16	0	017/08/(6	10-Oct-19 A	28-Oct-19	27-Aug-21	27-Aug-21			
PORI.ED.PD1050	Predrilling for Alternative PBSH at Portion I (PD02)	15	8	0	017/08/(6	10-Oct-19 A	18-Oct-19	27-Aug-21	27-Aug-21		5	100%
PORI.ED.PD1080	Predrilling for Alternative PBSH at Portion I (PD03)	15	8	0	017/08/(6	19-Oct-19 A	28-Oct-19	27-Aug-21	27-Aug-21		5	100%
Rig 6		60	58	0	017/08/(6	23-Jul-19 A	28-Sep-19	27-Aug-21	30-Sep-23			
PORI.ED.PD1010	Predrilling for Alternative PBSH at Portion I (PD01) (CE018, CE017)	15	10	0	017/08/(6	23-Jul-19 A	02-Aug-19	27-Aug-21	27-Aug-21		5	100%
PORI.ED.PD1030	Predrilling for Alternative PBSH at Portion I (PD04)	15	12	0	017/08/(6	13-Sep-19 A	27-Sep-19	30-Sep-23	30-Sep-23		5	100%
PORI.ED.PD1060	Predrilling for Alternative PBSH at Portion I (PD07)	15	9	0	017/08/(6	03-Aug-19 A	13-Aug-19	27-Aug-21	27-Aug-21		5	100%
PORI.ED.PD1090	Predrilling for Alternative PBSH at Portion I (PD06)	15	8	0	017/08/(6	14-Aug-19 A	22-Aug-19	27-Aug-21	27-Aug-21		5	100%
PORI.ED.PD1100	Predrilling for Alternative PBSH at Portion I (PD05)	15	8	0	017/08/(6	23-Aug-19 A	31-Aug-19	27-Aug-21	27-Aug-21		5	100%
PORI.ED.PD1110	Demobolize of Predrilling Rig 6 off Site	1	1	0	017/08/(6	28-Sep-19 A	28-Sep-19	30-Sep-23	30-Sep-23		0	100%
ELS Construction for Elevated Cycle Track		15	47	0	017/08/(6	21-Aug-20 A	16-Oct-20	27-Aug-21	27-Aug-21			
PORI.ED.EX1000	Sheet Piling along Elevated Cycle Track	15	47	0	017/08/(6	21-Aug-20 A	16-Oct-20	27-Aug-21	27-Aug-21		0	100%
Construction of Alternative PBSH (24nos, 7D/pile, 1 rig)		157	143	0	017/08/(6	10-Mar-20 A	01-Sep-2(	27-Aug-21	27-Aug-21			
PORI.ED.HP0500	Mobilization of Piling Rigs for PBSH	5	15	0	017/08/(6	07-May-20 A	23-May-2(	27-Aug-21	27-Aug-21		0	100%
PORI.ED.HP1000	Construction of Alternative PBSH (16nos,7D/pile, rig 1)	70	71	0	017/08/(6	25-May-20 A	17-Aug-2(	27-Aug-21	27-Aug-21		0	100%
PORI.ED.HP1010	Construction of Alternative PBSH at PC2-P1, PC2-P2, PC3-P2 (3nos, 7D/rig,	28	14	0	017/08/(6	10-Mar-20 A	25-Mar-20	27-Aug-21	27-Aug-21		0	100%
PORI.ED.HP1020	Construction of Alternative PBSH (5nos,7D/pile, rig 2)	21	26	0	017/08/(6	03-Aug-20 A	01-Sep-2(	27-Aug-21	27-Aug-21		0	100%
PORI.ED.HP1250	Pile Loading Test	14	6	0	017/08/(6	26-Aug-20 A	01-Sep-2(	27-Aug-21	27-Aug-21		0	100%
Excavation to Pile Cap Level (+5.0mPD to +2.8mPD) (2000m3)		45	72	0	017/08/(6	12-Oct-20 A	07-Jan-21	27-Aug-21	09-Sep-21			
PORI.ED.EX1030	Excavation to Strut Level (+5.0mPD to +4.0mPD)	8	25	0	017/08/(6	12-Oct-20 A	10-Nov-2(	27-Aug-21	27-Aug-21		0	100%
PORI.ED.EX1040	Installation of Concrete Blocks and Struts for ELS	20	20	0	017/08/(6	11-Nov-20 A	03-Dec-2(	09-Sep-21	09-Sep-21		0	100%
PORI.ED.EX1060	Excavation to Pile Cap Founding Level (+2.8mPD)	20	47	0	017/08/(6	11-Nov-20 A	07-Jan-21	09-Sep-21	09-Sep-21		0	100%



Actual Level of Effort
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土木工程拓展署
Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

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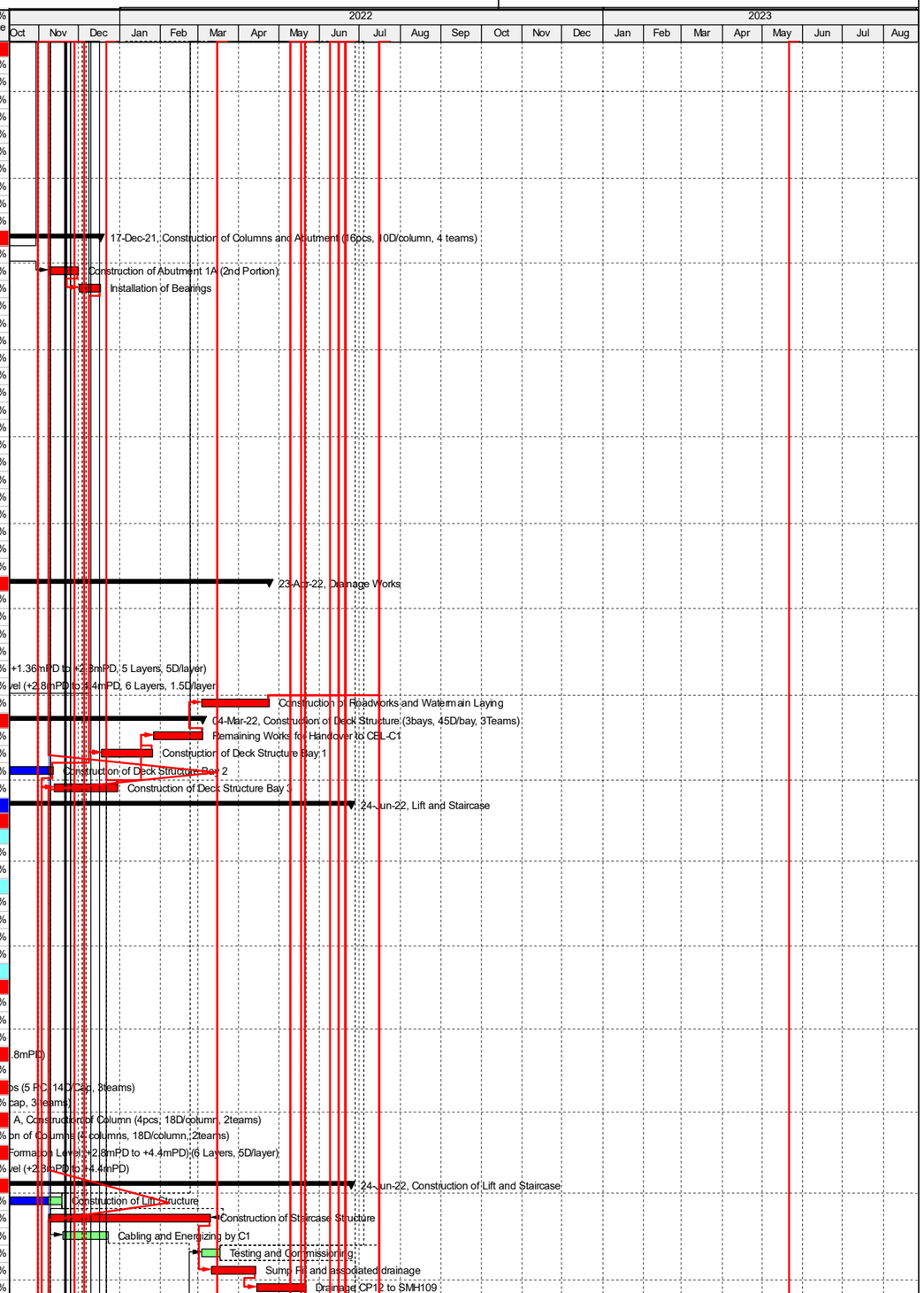
08-May-21	Monthly Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
Construction of Pile Caps (10 PC, 14D/Cap, 3teams)		105	62	0	017/08/6	17-Nov-20 A	30-Jan-21	09-Sep-21	21-Oct-21			
PORI.ED.PC1010	Construction of PC10 (incl. Installation of Capping plate)	14	23	0	017/08/6	17-Nov-20 A	12-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1020	Construction of PC9 (incl. Installation of Capping plate)	14	22	0	017/08/6	18-Nov-20 A	12-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1030	Construction of PC8 (incl. Installation of Capping plate)	14	22	0	017/08/6	24-Nov-20 A	18-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1040	Construction of PC7 (incl. Installation of Capping plate)	14	19	0	017/08/6	27-Nov-20 A	18-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1050	Construction of PC6 (incl. Installation of Capping plate)	14	20	0	017/08/6	28-Nov-20 A	21-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1060	Construction of PC5 (incl. Installation of Capping plate)	14	26	0	017/08/6	30-Nov-20 A	31-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1070	Construction of PC4 (incl. Installation of Capping plate)	14	19	0	017/08/6	08-Dec-20 A	31-Dec-20	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1080	Construction of PC3 (incl. Installation of Capping plate)	14	19	0	017/08/6	14-Dec-20 A	07-Jan-21	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1090	Construction of PC2 (incl. Installation of Capping plate)	14	16	0	017/08/6	17-Dec-20 A	07-Jan-21	09-Sep-21	09-Sep-21		0	100%
PORI.ED.PC1100	Construction of PC1 (incl. Installation of Capping plate)	14	10	0	017/08/6	20-Jan-21 A	30-Jan-21	21-Oct-21	21-Oct-21		0	100%
Construction of Columns and Abutment (16pcs, 10D/column, 4 teams)		289	55	35	017/08/6	29-Dec-20 A	17-Dec-21	09-Sep-21	27-Nov-21	-17		
PORI.ED.CP1010	Construction of Abutment 1A (1st Portion)	29	51	0	017/08/6	04-Jan-21 A	08-Mar-21	09-Sep-21	09-Sep-21		0	100%
PORI.ED.CP1010-01	Construction of Abutment 1A (2nd Portion)	20	0	20	017/08/6	08-Nov-21	30-Nov-21	19-Oct-21	10-Nov-21	-17	0	0%
PORI.ED.CP1020	Installation of Bearings	15	0	15	017/08/6	01-Dec-21	17-Dec-21	11-Nov-21	27-Nov-21	-17	0	0%
PORI.ED.CP1030	Construction Column PC9-CA	18	12	0	017/08/6	29-Dec-20 A	12-Jan-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1040	Construction Column PC9-CB	18	12	0	017/08/6	29-Dec-20 A	12-Jan-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1050	Construction Column PC8-CA	18	18	0	017/08/6	29-Dec-20 A	19-Jan-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1060	Construction Column PC8-CB	18	12	0	017/08/6	29-Dec-20 A	12-Jan-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1070	Construction Column PC7-CA	18	6	0	017/08/6	18-Jan-21 A	23-Jan-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1080	Construction Column PC7-CB	18	6	0	017/08/6	18-Jan-21 A	23-Jan-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1090	Construction Column PC6-CA	18	7	0	017/08/6	22-Jan-21 A	29-Jan-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1095	Construction Column PC6-CB	18	7	0	017/08/6	22-Jan-21 A	29-Jan-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1100	Construction Column PC5-CA	18	9	0	017/08/6	23-Jan-21 A	02-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1110	Construction Column PC5-CB	18	9	0	017/08/6	23-Jan-21 A	02-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1120	Construction Column PC4-CA	18	10	0	017/08/6	26-Jan-21 A	05-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1130	Construction Column PC4-CB	18	10	0	017/08/6	26-Jan-21 A	05-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1140	Construction Column PC3-CA	18	8	0	017/08/6	02-Feb-21 A	10-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1150	Construction Column PC3-CB	2	8	0	017/08/6	02-Feb-21 A	10-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1160	Construction Column PC1-CA	18	5	0	017/08/6	24-Feb-21 A	01-Mar-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.CP1170	Construction Column PC2-CA	18	5	0	017/08/6	24-Feb-21 A	01-Mar-21	21-Oct-21	21-Oct-21		0	100%
Drainage Works		353	133	40	017/08/6	22-Dec-20 A	23-Apr-22	21-Oct-21	30-Mar-22	-17		
PORI.ED.DRA1020	Construction of Drainage from SMH105 to SMH106	20	34	0	017/08/6	22-Dec-20 A	02-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.DRA1030	Construction of Drainage from SMH106 to SMH107	20	24	0	017/08/6	09-Jan-21 A	05-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.DRA1040	Construction of Drainage from SMH107 to SMH108	20	33	0	017/08/6	15-Jan-21 A	25-Feb-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.DRA1050	Construction of Drainage from SMH108 to SMH109	20	20	0	017/08/6	09-Mar-21 A	31-Mar-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.DRA1055	Backfilling to Interim Formation Level (+1.36mPD to +2.8mPD, 5 Layers, 5D/	25	25	0	017/08/6	28-Apr-21 A	28-May-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.DRA1060	Backfilling to Interim Formation Level (+2.8mPD to 4.4mPD, 6 Layers, 1.5D/l	9	9	0	017/08/6	29-May-21 A	08-Jun-21	21-Oct-21	21-Oct-21		0	100%
PORI.ED.DRA1080	Construction of Roadworks and Watermain Laying	40	0	40	017/08/6	04-Mar-22	23-Apr-22	12-Feb-22	30-Mar-22	-17	0	0%
Construction of Deck Structure (3bays, 45D/bay, 3Teams)		180	159	95	017/08/6	28-Apr-21 A	04-Mar-22	21-Oct-21	12-Feb-22	-17		
PORI.ED.1140	Remaining Works for Handover to CBL-C1	30	0	30	017/08/6	26-Jan-22	04-Mar-22	06-Jan-22	12-Feb-22	-17	0	0%
PORI.ED.DS.1010	Construction of Deck Structure Bay 1	30	0	30	017/08/6	18-Dec-21	25-Jan-22	29-Nov-21	05-Jan-22	-17	0	0%
PORI.ED.DS.1020	Construction of Deck Structure Bay 2	180	159	4	017/08/6	28-Apr-21 A	11-Nov-21	21-Oct-21	25-Oct-21	-15		97.78%
PORI.ED.DS.1030	Construction of Deck Structure Bay 3	40	0	40	017/08/6	12-Nov-21	30-Dec-21	26-Oct-21	10-Dec-21	-15		0%
Lift and Staircase		820	636	184		16-Sep-19 A	24-Jun-22	18-Aug-21	30-Sep-23	378		
Predrilling Works for PBSH (5nos, 10D/pile+5D TRA, 1-3rigs)		148	142	0		16-Sep-19 A	07-Mar-20	27-Aug-21	30-Sep-23			
Rig 3		68	64	0	017/08/6	18-Sep-19 A	03-Dec-19	27-Aug-21	27-Aug-21			
PORI.LS.PD1010	Predrilling for PBSH at Lift and Staircase (PD09)	15	11	0	017/08/6	21-Nov-19 A	03-Dec-19	27-Aug-21	27-Aug-21		5	100%
PORI.LS.PD1020	Predrilling for PBSH at Lift and Staircase (PD94)	15	9	0	017/08/6	18-Sep-19 A	27-Sep-19	27-Aug-21	27-Aug-21		5	100%
Rig 2		148	142	0	017/08/6	16-Sep-19 A	07-Mar-20	27-Aug-21	30-Sep-23			
PORI.LS.PD1030	Predrilling for PBSH at Lift and Staircase (PD10)	15	14	0	017/08/6	16-Sep-19 A	02-Oct-19	27-Aug-21	27-Aug-21		5	100%
PORI.LS.PD1040	Predrilling for PBSH at Lift and Staircase (PD95)	15	7	0	017/08/6	29-Feb-20 A	07-Mar-20	27-Aug-21	27-Aug-21		5	100%
PORI.LS.PD1040-0	Demobilization of Rig 2 off site	1	1	0	017/08/6	07-Mar-20 A	07-Mar-20	30-Sep-23	30-Sep-23		0	100%
PORI.LS.PD1050	Predrilling for PBSH at Lift and Staircase (PD96)	15	11	0	017/08/6	03-Oct-19 A	16-Oct-19	27-Aug-21	27-Aug-21		5	100%
Rig 5		0	0	0						0		
Construction of PBSH (14nos, 7D/pile, 1 rig)		84	71	0	017/08/6	03-Jul-20 A	23-Sep-20	27-Aug-21	04-Dec-21			
PORI.LS.HP0900	Mobilization of PBSH rig	10	10	0	017/08/6	03-Jul-20 A	14-Jul-20	27-Aug-21	27-Aug-21		0	100%
PORI.LS.HP1000	Construction of PBSH (10nos,7D/pile,1 rig)	49	36	0	017/08/6	13-Aug-20 A	23-Sep-20	04-Dec-21	04-Dec-21		0	100%
PORI.LS.HP1010	Construction of PBSH (5nos,7D/pile,1 rig)	21	23	0	017/08/6	15-Jul-20 A	10-Aug-20	27-Aug-21	27-Aug-21		0	100%
Excavation to Pile Cap Level (+5.0mPD to +2.8mPD)		10	10	0	017/08/6	09-Mar-21 A	19-Mar-21	04-Dec-21	04-Dec-21			
PORI.LS.EX1010	Excavation to Pile Cap Level (+5.0mPD to +2.8mPD)	10	10	0	017/08/6	09-Mar-21 A	19-Mar-21	04-Dec-21	04-Dec-21		0	100%
Construction of Pile Caps (5 PC, 14D/Cap, 3teams)		23	55	0	017/08/6	20-Mar-21 A	31-May-21	04-Dec-21	04-Dec-21			
PORI.LS.PC1000	Construction of Pile Caps (5PC, 14D/cap, 3 teams)	23	55	0	017/08/6	20-Mar-21 A	31-May-21	04-Dec-21	04-Dec-21		0	100%
Construction of Column (4pcs, 18D/column, 2teams)		36	66	0	017/08/6	11-Jun-21 A	30-Aug-21	04-Dec-21	04-Dec-21			
PORI.LS.CO1000	Construction of Columns (4 columns, 18D/column, 2teams)	36	66	0	017/08/6	11-Jun-21 A	30-Aug-21	04-Dec-21	04-Dec-21		0	100%
Backfilling to Interim Formation Level (+2.8mPD to +4.4mPD) (6 Layers, 5D/layer)		30	4	0	017/08/6	04-Jun-21 A	09-Jun-21	04-Dec-21	04-Dec-21			
PORI.LS.BF1010	Backfilling to Interim Formation Level (+2.8mPD to +4.4mPD)	30	4	0	017/08/6	04-Jun-21 A	09-Jun-21	04-Dec-21	04-Dec-21		0	100%
Construction of Lift and Staircase		203	113	184	017/08/6	24-Jun-21 A	24-Jun-22	18-Aug-21	30-Mar-22	-67		
PORI.LS.1060	Construction of Lift Structure	120	113	10	017/08/6	24-Jun-21 A	18-Nov-21	04-Dec-21	15-Dec-21	23	0	91.67%
PORI.LS.1061	Construction of Staircase Structure	100	0	100	017/08/6	08-Nov-21	10-Mar-22	18-Aug-21	15-Dec-21	-67		0%
PORI.LS.1070	Cabling and Energizing by C1	30	0	30	017/08/6	19-Nov-21	23-Dec-21	10-Feb-22	16-Mar-22	65	0	0%
PORI.LS.1080	Testing and Commissioning	12	0	12	017/08/6	04-Mar-22	17-Mar-22	17-Mar-22	30-Mar-22	11	0	0%
PORI.LS.1090	Sump Pit and associated drainage	28	0	28	017/08/6	11-Mar-22	13-Apr-22	16-Dec-21	20-Jan-22	-67		0%
PORI.LS.1100	Drainage CP12 to SMH109	28	0	28	017/08/6	14-Apr-22	21-May-22	21-Jan-22	25-Feb-22	-67		0%



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

土木工程拓展署
Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

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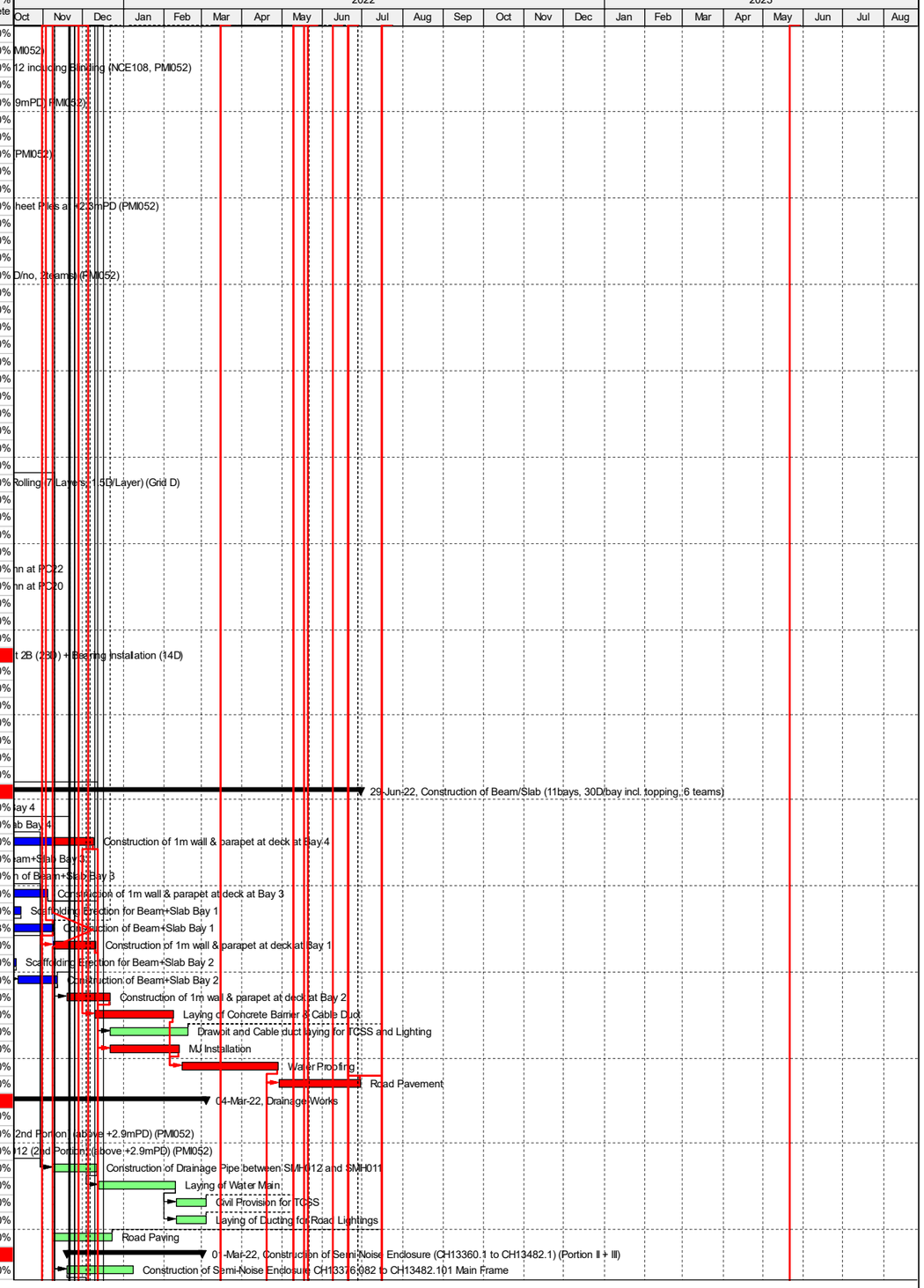
08-May-21	Monthy Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
PORIIILED.GD.0190	2nd Drainage Diversion of Existing 1500mm pipe from SMH011 ELS to SMH	14	15	0	017/08(6	06-Oct-20 A	22-Oct-20	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0210	Further Excavation and Installation of ELS (lagging) to +0.83mPD for SMH01	18	9	0	017/08(6	23-Oct-20 A	03-Nov-20	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0220	Further Excavation and Installation of ELS (lagging) to +0.31mPD for SMH01	17	23	0	017/08(6	22-Dec-20 A	20-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0230	Construction of Manhole SMH011 (1st Portion) (below +2.9mPD) (PMI052)	10	45	0	017/08(6	05-Nov-20 A	29-Dec-20	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0240	Construction of Manhole SMH012 (1st Portion) (below +2.9mPD) PMI052)	10	10	0	017/08(6	12-Mar-21 A	23-Mar-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0250	Backfilling for SMH011 to +2.3mPD (PMI052)	10	4	0	017/08(6	30-Dec-20 A	04-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0250-01	Excavation to +2.3mPD for PC30 (PMI052)	4	5	0	017/08(6	05-Jan-21 A	09-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0260	Removal of Struts in ELS for SMH011 and Cutting of Sheet Piles at +2.3mPI	4	7	0	017/08(6	04-Jan-21 A	11-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0270	Backfilling for SMH012 to +2.3mPD (PMI052)	10	10	0	017/08(6	12-Mar-21 A	23-Mar-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0270-01	Excavation to +2.3mPD for PC18 (PMI052)	4	4	0	017/08(6	24-Mar-21 A	27-Mar-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0280	Removal of Struts in ELS for SMH012 and Cutting of Sheet Piles at +2.3mP	4	4	0	017/08(6	29-Mar-21 A	01-Apr-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.0310	Excavate to +2.3mPD for Grid 3	5	5	0	017/08(6	09-Mar-21 A	13-Mar-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1010-02	Installation of Capping Plate for PC22, PC24 (4nos, 4D/no, 2teams) (PMI052	8	8	0	017/08(6	17-Nov-20 A	25-Nov-20	27-Aug-21	27-Aug-21		0	100%
PORIIILED.GD.1010-03	Installation of Capping Plate for PC30 (4nos, 4D/no, 2teams) (PMI052)	8	5	0	017/08(6	14-Jan-21 A	19-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1010-04	Installation of Capping Plate for PC18, 20 (4nos, 4D/no, 2teams) (PMI052)	8	8	0	017/08(6	07-Apr-21 A	15-Apr-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1010-05	Installation of Capping Plate for PC14, 16 (4nos, 4D/no, 2 teams) (PMI052)	8	5	0	017/08(6	16-Jan-21 A	21-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1010-06	Installation of Capping Plate for PC26, PC28 (4nos, 4D/no, 2 teams)	8	6	0	017/08(6	16-Nov-20 A	21-Nov-20	27-Aug-21	27-Aug-21		0	100%
PORIIILED.GD.1020	Construction of PC30 (PMI052)	9	10	0	017/08(6	20-Jan-21 A	30-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1021	Construction of PC28 (PMI052)	9	8	0	017/08(6	27-Nov-20 A	05-Dec-20	27-Aug-21	27-Aug-21		0	100%
PORIIILED.GD.1022	Construction of PC26 (PMI052)	9	9	0	017/08(6	26-Nov-20 A	05-Dec-20	27-Aug-21	27-Aug-21		0	100%
PORIIILED.GD.1023	Construction of PC24 (PMI052)	9	10	0	017/08(6	25-Nov-20 A	05-Dec-20	27-Aug-21	27-Aug-21		0	100%
PORIIILED.GD.1024	Construction of PC22 (PMI052)	9	7	0	017/08(6	28-Nov-20 A	05-Dec-20	27-Aug-21	27-Aug-21		0	100%
PORIIILED.GD.1025	Construction of PC20 (PMI052)	9	33	0	017/08(6	16-Apr-21 A	27-May-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1026	Construction of PC18 (PMI052)	9	32	0	017/08(6	16-Apr-21 A	26-May-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1027	Construction of PC16 (PMI052)	9	14	0	017/08(6	19-Dec-20 A	07-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1028	Construction of PC14 (PMI052)	9	11	0	017/08(6	23-Dec-20 A	07-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1030	Backfilling to Interim Formation Level by Rolling (7 Layers, 1.5D/Layer) (Grid	11	11	0	017/08(6	05-May-21 A	17-May-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1050	Construction of Column at PC30	10	19	0	017/08(6	13-Mar-21 A	09-Apr-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1060	Construction of Column at PC28	10	20	0	017/08(6	19-Jan-21 A	10-Feb-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1070	Construction of Column at PC26	10	10	0	017/08(6	19-Jan-21 A	29-Jan-21	02-Sep-21	02-Sep-21		0	100%
PORIIILED.GD.1080	Construction of Column at PC24	10	10	0	017/08(6	19-Jan-21 A	29-Jan-21	07-Sep-21	07-Sep-21		0	100%
PORIIILED.GD.1090	Construction of Column at PC22	10	148	0	017/08(6	19-Jan-21 A	23-Jul-21 A	07-Sep-21	07-Sep-21		0	100%
PORIIILED.GD.1100	Construction of Column at PC20	10	71	0	017/08(6	27-Apr-21 A	23-Jul-21 A	07-Sep-21	07-Sep-21		0	100%
PORIIILED.GD.1110	Construction of Column at PC18	10	10	0	017/08(6	27-Apr-21 A	08-May-21	07-Sep-21	07-Sep-21		0	100%
PORIIILED.GD.1120	Construction of Column at PC16	10	10	0	017/08(6	15-Mar-21 A	25-Mar-21	07-Sep-21	07-Sep-21		0	100%
PORIIILED.GD.1130	Construction of Column at PC14	10	10	0	017/08(6	15-Mar-21 A	25-Mar-21	07-Sep-21	07-Sep-21		0	100%
Construction of PC42 (16D) + Abutment 2B (28D) + Bearing Installation (14D)		292	292	0	017/08(6	15-Apr-20 A	09-Apr-21	08-Sep-21	30-Sep-23			
PORIIIAB2B.1000	Excavation to Pile Cap Founding Level (Abutment 2B)	10	49	0	017/08(6	15-Apr-20 A	12-Jun-20	08-Sep-21	08-Sep-21		0	100%
PORIIIAB2B.1002	Trimming of Bored Pile Head (3nos) (Abutment 2B)	15	45	0	017/08(6	04-May-20 A	24-Jun-20	08-Sep-21	08-Sep-21		0	100%
PORIIIAB2B.1005	Construction of PC42	16	11	0	017/08(6	26-Jun-20 A	09-Jul-20 A	08-Sep-21	08-Sep-21		0	100%
PORIIIAB2B.1007	Backfilling to Interim Formation Level (7 Layers, 5D/Layer) (Abutment 2B)	35	17	0	017/08(6	13-Jul-20 A	31-Jul-20 A	30-Sep-23	30-Sep-23		0	100%
PORIIIAB2B.1010	Construction of Abutment 2B (1st pour)	14	25	0	017/08(6	13-Jul-20 A	10-Aug-20	08-Sep-21	08-Sep-21		0	100%
PORIIIAB2B.1010-01	Construction of Abutment 2B (2nd pour)	14	14	0	017/08(6	01-Dec-20 A	16-Dec-20	08-Sep-21	08-Sep-21		0	100%
PORIIIAB2B.1020	Bearing Installation at Abutment 2B	14	14	0	017/08(6	20-Mar-21 A	09-Apr-21	08-Sep-21	08-Sep-21		0	100%
Construction of Beam/Slab (11bays, 30D/bay incl. topping, 6 teams)		330	190	188	017/08(6	23-Mar-21 A	29-Jun-22	02-Sep-21	14-Apr-22	-59		
PORIIILED.PB1009	Scaffolding Erection for Beam+Slab Bay 4	12	52	0	017/08(6	23-Mar-21 A	29-May-21	02-Sep-21	02-Sep-21			100%
PORIIILED.PB1010	Construction of Beam+Slab Bay 4	28	40	0	017/08(6	20-May-21 A	08-Jul-21 A	02-Sep-21	02-Sep-21		0	100%
PORIIILED.PB1011	Construction of 1m wall & parapet at deck at Bay 4	28	34	28	017/08(6	27-Sep-21 A	09-Dec-21	02-Sep-21	06-Oct-21	-54		0%
PORIIILED.PB1019	Scaffolding Erection for Beam+Slab Bay 3	12	31	0	017/08(6	28-May-21 A	06-Jul-21 A	07-Sep-21	07-Sep-21			100%
PORIIILED.PB1020	Construction of Beam+Slab Bay 3	28	43	0	017/08(6	06-Jul-21 A	25-Aug-21	07-Sep-21	07-Sep-21		0	100%
PORIIILED.PB1021	Construction of 1m wall & parapet at deck at Bay 3	28	32	0	017/08(6	27-Sep-21 A	05-Nov-21	07-Oct-21	07-Oct-21			100%
PORIIILED.PB1029	Scaffolding Erection for Beam+Slab Bay 1	20	49	0	017/08(6	16-Aug-21 A	15-Oct-21	07-Sep-21	07-Sep-21			100%
PORIIILED.PB1030	Construction of Beam+Slab Bay 1	28	34	1	017/08(6	27-Sep-21 A	08-Nov-21	07-Sep-21	07-Sep-21	-50	0	96.43%
PORIIILED.PB1031	Construction of 1m wall & parapet at deck at Bay 1	28	0	28	017/08(6	09-Nov-21	10-Dec-21	08-Sep-21	12-Oct-21	-50		0%
PORIIILED.PB1039	Scaffolding Erection for Beam+Slab Bay 2	12	44	0	017/08(6	19-Aug-21 A	12-Oct-21	08-Sep-21	08-Sep-21			100%
PORIIILED.PB1040	Construction of Beam+Slab Bay 2	28	25	0	017/08(6	13-Oct-21 A	12-Nov-21	08-Sep-21	08-Sep-21		0	100%
PORIIILED.PB1042	Construction of 1m wall & parapet at deck at Bay 2	28	0	28	017/08(6	19-Nov-21	21-Dec-21	08-Sep-21	12-Oct-21	-59		0%
PORIIILED.PB1050	Laying of Concrete Barrier & Cable Duct	45	0	45	017/08(6	10-Dec-21	07-Feb-22	07-Oct-21	29-Nov-21	-54		0%
PORIIILED.PB1055	Drawpit and Cable duct laying for TCSS and Lighting	45	0	45	017/08(6	22-Dec-21	18-Feb-22	21-Jan-22	18-Mar-22	24		0%
PORIIILED.PB1060	MJ Installation	40	0	40	017/08(6	22-Dec-21	12-Feb-22	13-Oct-21	29-Nov-21	-59		0%
PORIIILED.PB1070	Water Proofing	60	0	60	017/08(6	14-Feb-22	28-Apr-22	30-Nov-21	14-Feb-22	-59		0%
PORIIILED.PB1080	Road Pavement	50	0	50	017/08(6	29-Apr-22	29-Jun-22	15-Feb-22	14-Apr-22	-59		0%
Drainage Works		253	173	95	017/08(6	16-Nov-20 A	04-Mar-22	20-Nov-21	14-Apr-22	34		
PORIIILED.DRA1110	Construction of Drainage SMH109 to SMH012	45	121	0	017/08(6	16-Nov-20 A	17-Apr-21	20-Nov-21	20-Nov-21		0	100%
PORIIILED.DRA1120-01	Construction of Manhole SMH011 (2nd Portion) (above +2.9mPD) (PMI052)	10	10	0	017/08(6	27-May-21 A	08-Jun-21	20-Nov-21	20-Nov-21		0	100%
PORIIILED.DRA1120-02	Construction of Manhole SMH012 (2nd Portion) (above +2.9mPD) (PMI052)	10	10	0	017/08(6	08-Jun-21 A	21-Jun-21	20-Nov-21	20-Nov-21		0	100%
PORIIILED.DRA1130-01	Construction of Drainage Pipe between SMH012 and SMH011	30	0	30	017/08(6	08-Nov-21	11-Dec-21	20-Nov-21	28-Dec-21	12	0	0%
PORIIILED.DRA1140	Laying of Water Main	45	0	45	017/08(6	13-Dec-21	09-Feb-22	28-Dec-21	23-Feb-22	12	0	0%
PORIIILED.DRA1150	Civil Provision for TCSS	20	0	20	017/08(6	10-Feb-22	04-Mar-22	23-Feb-22	18-Mar-22	12		0%
PORIIILED.DRA1160	Laying of Ducting for Road Lightings	20	0	20	017/08(6	10-Feb-22	04-Mar-22	23-Feb-22	18-Mar-22	12		0%
PORIIILED.DRA1170	Road Paving	40	0	40	017/08(6	08-Nov-21	23-Dec-21	26-Feb-22	14-Apr-22	89		0%
Construction of Semi Noise Enclosure (CH13360.1 to CH13482.1) (Portion II + III)		82	0	82	017/08(6	19-Nov-21	01-Mar-22	05-Jan-22	14-Apr-22	37		
PORIIILED.NE1020	Construction of Semi-Noise Enclosure CH13376.082 to CH13482.101 Main I	41	0	41	017/08(6	19-Nov-21	08-Jan-22	05-Jan-22	24-Feb-22	37	0	0%



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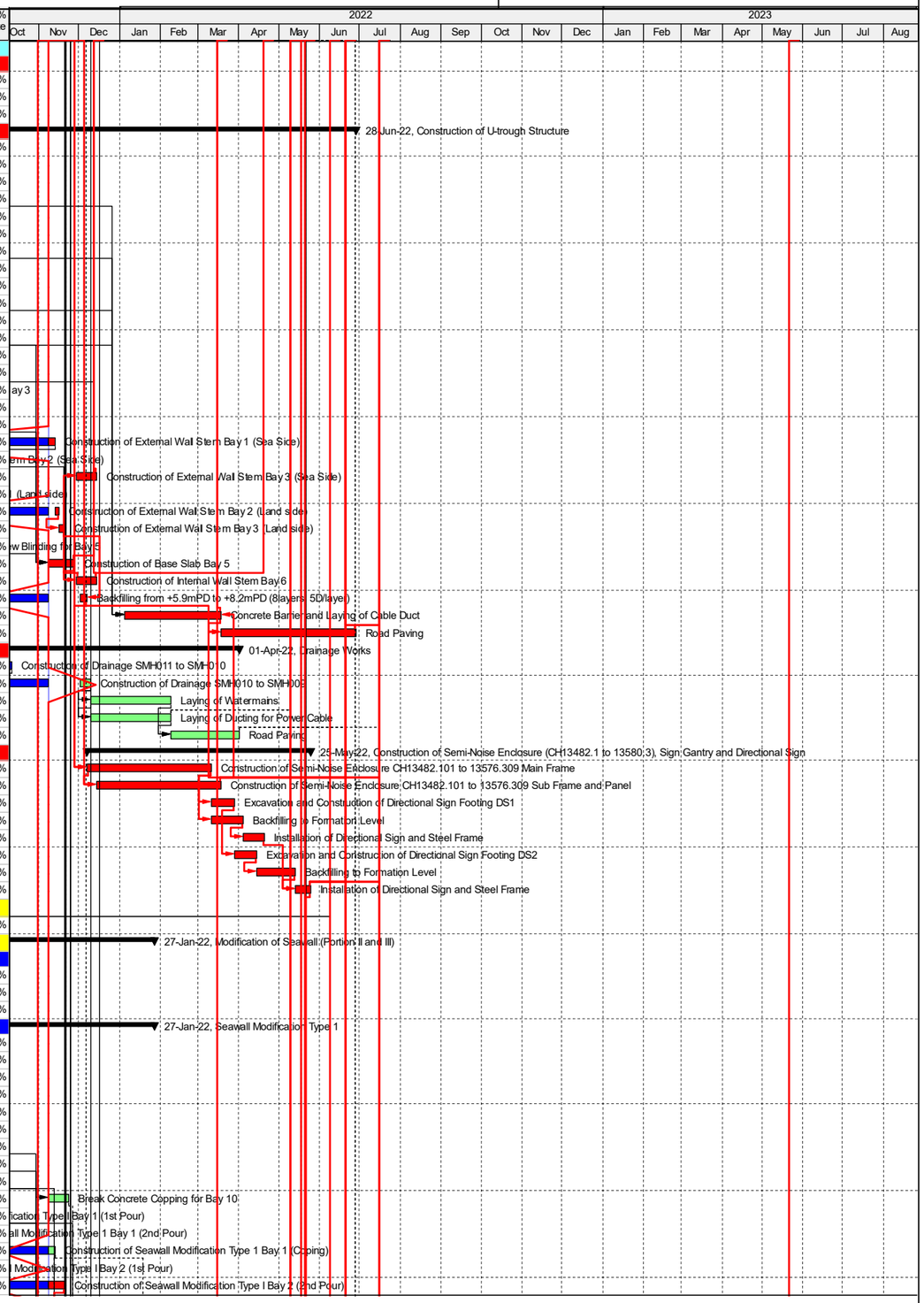
Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
Rig 6		0	0	0						0		
Construction of Alternative PBSH (40nos, 7D/pile, 1-2 rigs)		176	189	0	017/08(6	27-Aug-19 A	17-Apr-20	27-Aug-21	03-Sep-21			
PORIILUT.HP1010	Alternative PBSH (7D/pile, UP40,35,38,33,36,31,26,21,28,16,11,15,10,13,6	28	93	0	017/08(6	27-Aug-19 A	16-Dec-19	27-Aug-21	27-Aug-21		0	100%
PORIILUT.HP1020	Alternative PBSH (7D/pile, UP30,37,32,23,25,20,18,27,22,17,12,14,19,24,2	45	82	0	017/08(6	15-Oct-19 A	21-Jan-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.HP1410	Pile Loading Test (28D Concrete Cube + 14D Setup)	33	8	0	017/08(6	06-Apr-20 A	17-Apr-20	03-Sep-21	03-Sep-21		0	100%
Construction of U-trough Structure		637	488	187		16-Mar-20 A	28-Jun-22	28-Aug-21	30-Sep-23	375		
PORIILUT.ST1010	Excavation to Pile Cap Founding Level (+4.4mPD to +3.8mPD)(2000m3)	15	72	0	017/08(6	16-Mar-20 A	13-Jun-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1025	Trimming of Pile Head and Installation of Capping Plate	60	50	0	017/08(6	06-May-20 A	04-Jul-20 A	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1035	Review Design on U-trough Structure due to Additional Design Requriement	60	108	0	017/08(7	06-Jul-20 A	21-Oct-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1100	Construction of Base Slab Bay 1	18	16	0	017/08(6	03-Sep-20 A	21-Sep-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1105	Site Clearance for U-trough Bay 2 to Bay 5 (NCE119)	4	4	0	017/08(6	22-Oct-20 A	27-Oct-20	30-Sep-23	30-Sep-23		0	100%
PORIILUT.ST1107	Excavation to Revised Formation Level and Construction of New Blinding for	10	15	0	017/08(6	28-Oct-20 A	13-Nov-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1110	Construction of Base Slab Bay 2	18	14	0	017/08(6	14-Nov-20 A	30-Nov-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1115	Excavation to Revised Formation Level, Construction of New Blinding for Ba	10	30	0	017/08(6	30-Oct-20 A	03-Dec-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1117	Re-construction of Capping Plate for Bay 3	10	10	0	017/08(6	02-Dec-20 A	14-Dec-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1120	Construction of Base Slab Bay 3	18	12	0	017/08(6	15-Dec-20 A	30-Dec-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1125	Re-construction of Capping Plate for Bay 4	10	13	0	017/08(6	15-Dec-20 A	31-Dec-20	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1130	Construction of Base Slab Bay 4	18	9	0	017/08(6	07-Jan-21 A	16-Jan-21	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1150	Construction of Internal Wall Stem Bay 1	14	12	0	017/08(6	14-Apr-21 A	28-Apr-21	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1160	Construction of Internal Wall Stem Bay 2	14	14	0	017/08(6	22-Feb-21 A	09-Mar-21	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1170	Construction of Internal Wall Stem Bay 3	14	14	0	017/08(6	18-May-21 A	03-Jun-21	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1180	Construction of Internal Wall Stem Bay 4	11	11	0	017/08(6	01-Apr-21 A	17-Apr-21	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1190	Construction of Internal Wall Stem Bay 5	14	23	0	017/08(6	13-Apr-21 A	11-May-21	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1200	Construction of External Wall Stem Bay 1 (Sea Side)	14	151	6	017/08(6	08-May-21 A	13-Nov-21	28-Aug-21	03-Sep-21	-58	0	60%
PORIILUT.ST1210	Construction of External Wall Stem Bay 2 (Sea Side)	14	20	0	017/08(6	26-May-21 A	18-Jun-21	04-Sep-21	04-Sep-21		0	100%
PORIILUT.ST1220	Construction of External Wall Stem Bay 3 (Sea Side)	14	0	14	017/08(6	29-Nov-21	14-Dec-21	25-Sep-21	12-Oct-21	-53	0	0%
PORIILUT.ST1230	Construction of External Wall Stem Bay 1 (Land side)	14	14	0	017/08(6	03-May-21 A	18-May-21	04-Sep-21	04-Sep-21		0	100%
PORIILUT.ST1240	Construction of External Wall Stem Bay 2 (Land side)	14	114	2	017/08(6	23-Jun-21 A	16-Nov-21	04-Sep-21	06-Sep-21	-58	0	85.71%
PORIILUT.ST1241	Construction of External Wall Stem Bay 3 (Land side)	4	0	4	017/08(6	16-Nov-21	20-Nov-21	07-Sep-21	10-Sep-21	-58		0%
PORIILUT.ST1242	Excavation to Revised Formation Level, Construction of New Blinding for Ba	10	10	0	017/08(6	09-Mar-21 A	19-Mar-21	03-Sep-21	03-Sep-21		0	100%
PORIILUT.ST1243	Construction of Base Slab Bay 5	18	0	18	017/08(6	08-Nov-21	27-Nov-21	03-Sep-21	24-Sep-21	-53	0	0%
PORIILUT.ST1244	Construction of Internal Wall Stem Bay 6	14	0	14	017/08(6	29-Nov-21	14-Dec-21	25-Sep-21	12-Oct-21	-53	0	0%
PORIILUT.ST1250	Backfilling from +5.9mPD to +8.2mPD (8layers, 5D/layer)	80	111	4	017/08(6	26-Jun-21 A	07-Dec-21	24-Sep-21	28-Sep-21	-58	0	95%
PORIILUT.ST1260	Concrete Barrier and Laying of Cable Duct	60	0	60	017/08(6	04-Jan-22	18-Mar-22	26-Oct-21	06-Jan-22	-58		0%
PORIILUT.ST1270	Road Paving	80	0	80	017/08(6	18-Mar-22	28-Jun-22	07-Jan-22	14-Apr-22	-58		0%
Drainage Works		229	152	97	017/08(6	07-May-21 A	01-Apr-22	15-Dec-21	14-Apr-22	11		
PORIILUT.DRA2020	Construction of Drainage SMH011 to SMH010	45	130	0	017/08(6	07-May-21 A	12-Oct-21	15-Dec-21	15-Dec-21		0	100%
PORIILUT.DRA2030	Construction of Drainage SMH010 to SMH009	45	59	7	017/08(6	27-Aug-21 A	10-Dec-21	15-Dec-21	22-Dec-21	11	0	85%
PORIILUT.DRA2050	Laying of Watermains	45	0	45	017/08(6	10-Dec-21	08-Feb-22	23-Dec-21	19-Feb-22	11	0	0%
PORIILUT.DRA2060	Laying of Ducting for Power Cable	45	0	45	017/08(6	10-Dec-21	08-Feb-22	23-Dec-21	19-Feb-22	11		0%
PORIILUT.DRA2070	Road Paving	45	0	45	017/08(6	08-Feb-22	01-Apr-22	21-Feb-22	14-Apr-22	11		0%
Construction of Semi-Noise Enclosure (CH13482.1 to 13580.3), Sign Gantry and Directional Sign		133	0	133	017/08(6	07-Dec-21	25-May-22	29-Sep-21	14-Apr-22	-30		
PORIILUT.NB1020	Construction of Semi-Noise Enclosure CH13482.101 to 13576.309 Main Fra	75	0	75	017/08(6	07-Dec-21	11-Mar-22	29-Sep-21	29-Dec-21	-58	0	0%
PORIILUT.NB1030	Construction of Semi-Noise Enclosure CH13482.101 to 13576.309 Sub Frar	75	0	75	017/08(6	14-Dec-21	18-Mar-22	07-Oct-21	06-Jan-22	-58	0	0%
PORIILUT.NB1040	Excavation and Construction of Directional Sign Footing DS1	14	0	14	017/08(6	11-Mar-22	28-Mar-22	05-Feb-22	21-Feb-22	-30	0	0%
PORIILUT.NB1050	Backfilling to Formation Level	20	0	20	017/08(6	11-Mar-22	04-Apr-22	26-Feb-22	21-Mar-22	-12	0	0%
PORIILUT.NB1060	Installation of Directional Sign and Steel Frame	10	0	10	017/08(6	04-Apr-22	20-Apr-22	22-Mar-22	01-Apr-22	-12	0	0%
PORIILUT.NB1070	Excavation and Construction of Directional Sign Footing DS2	14	0	14	017/08(6	28-Mar-22	14-Apr-22	22-Feb-22	09-Mar-22	-30	0	0%
PORIILUT.NB1080	Backfilling to Formation Level	20	0	20	017/08(6	14-Apr-22	13-May-22	10-Mar-22	01-Apr-22	-30	0	0%
PORIILUT.NB1090	Installation of Directional Sign and Steel Frame	10	0	10	017/08(6	13-May-22	25-May-22	02-Apr-22	14-Apr-22	-30	0	0%
Tree Protection Works (Portion I, II and III)		88	70	0	017/08(6	02-May-19 A	25-Jul-19 A	14-Apr-22	14-Apr-22			
TP1020	Tree Transplant Works	88	70	0	017/08(6	02-May-19 A	25-Jul-19 A	14-Apr-22	14-Apr-22		0	100%
Modification of Seawall (Portion II and III)		857	868	67	017/08(6	01-Dec-18 A	27-Jan-22	23-Sep-21	30-Sep-23	495		
Weather Protection System		48	119	0	017/08(6	01-Dec-18 A	30-Apr-19	30-Sep-23	30-Sep-23			
SW1010	Site Trial for Weather Protection System	2	2	0	017/08(6	01-Dec-18 A	03-Dec-18	30-Sep-23	30-Sep-23		0	100%
SW1020	Installation of Temporary Wave Form Wall for Weather Protection (1st layer)	48	48	0	017/08(6	01-Feb-19 A	01-Apr-19	30-Sep-23	30-Sep-23		0	100%
SW1030	Installation of Temporary Wave Form Wall for Weather Protection (2nd layer)	14	21	0	017/08(6	02-Apr-19 A	30-Apr-19	30-Sep-23	30-Sep-23		0	100%
Seawall Modification Type 1		247	172	67	017/08(6	13-Apr-21 A	27-Jan-22	06-Nov-21	27-Jan-22	-1		
SW.WWI.1010	Break Concrete Copping for Bay 1	14	14	0	017/08(6	13-Apr-21 A	28-Apr-21	06-Nov-21	06-Nov-21			100%
SW.WWI.1020	Break Concrete Copping for Bay 2	14	14	0	017/08(6	16-Apr-21 A	03-May-21	06-Nov-21	06-Nov-21			100%
SW.WWI.1030	Break Concrete Copping for Bay 3	14	14	0	017/08(6	22-Apr-21 A	08-May-21	10-Nov-21	10-Nov-21			100%
SW.WWI.1040	Break Concrete Copping for Bay 4	14	14	0	017/08(6	19-Apr-21 A	05-May-21	10-Nov-21	10-Nov-21			100%
SW.WWI.1050	Break Concrete Copping for Bay 5	14	14	0	017/08(6	17-Apr-21 A	04-May-21	10-Nov-21	10-Nov-21			100%
SW.WWI.1060	Break Concrete Copping for Bay 6	14	14	0	017/08(6	26-Apr-21 A	12-May-21	10-Nov-21	10-Nov-21			100%
SW.WWI.1070	Break Concrete Copping for Bay 7	14	14	0	017/08(6	05-May-21 A	21-May-21	10-Nov-21	10-Nov-21			100%
SW.WWI.1080	Break Concrete Copping for Bay 8	14	14	0	017/08(6	14-May-21 A	31-May-21	10-Nov-21	10-Nov-21			100%
SW.WWI.1090	Break Concrete Copping for Bay 9	14	14	0	017/08(6	24-May-21 A	08-Jun-21	24-Nov-21	24-Nov-21			100%
SW.WWI.1100	Break Concrete Copping for Bay 10	14	0	14	017/08(6	08-Nov-21	23-Nov-21	03-Dec-21	20-Dec-21	23		0%
SW.WWI.1110	Construction of Seawall Modification Type I Bay 1 (1st Pour)	12	40	0	017/08(6	08-May-21 A	26-Jun-21 A	06-Nov-21	06-Nov-21			100%
SW.WWI.1111	Construction of Seawall Modification Type 1 Bay 1 (2nd Pour)	12	20	0	017/08(6	28-Jun-21 A	21-Jul-21 A	06-Nov-21	06-Nov-21			100%
SW.WWI.1112	Construction of Seawall Modification Type 1 Bay 1 (Coping)	6	36	6	017/08(6	24-Sep-21 A	13-Nov-21	13-Nov-21	20-Nov-21	6		0%
SW.WWI.1120	Construction of Seawall Modification Type I Bay 2 (1st Pour)	12	16	0	017/08(6	28-Jun-21 A	16-Jul-21 A	06-Nov-21	06-Nov-21			100%
SW.WWI.1121	Construction of Seawall Modification Type I Bay 2 (2nd Pour)	12	49	12	017/08(6	08-Sep-21 A	20-Nov-21	06-Nov-21	20-Nov-21	-1		0%



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

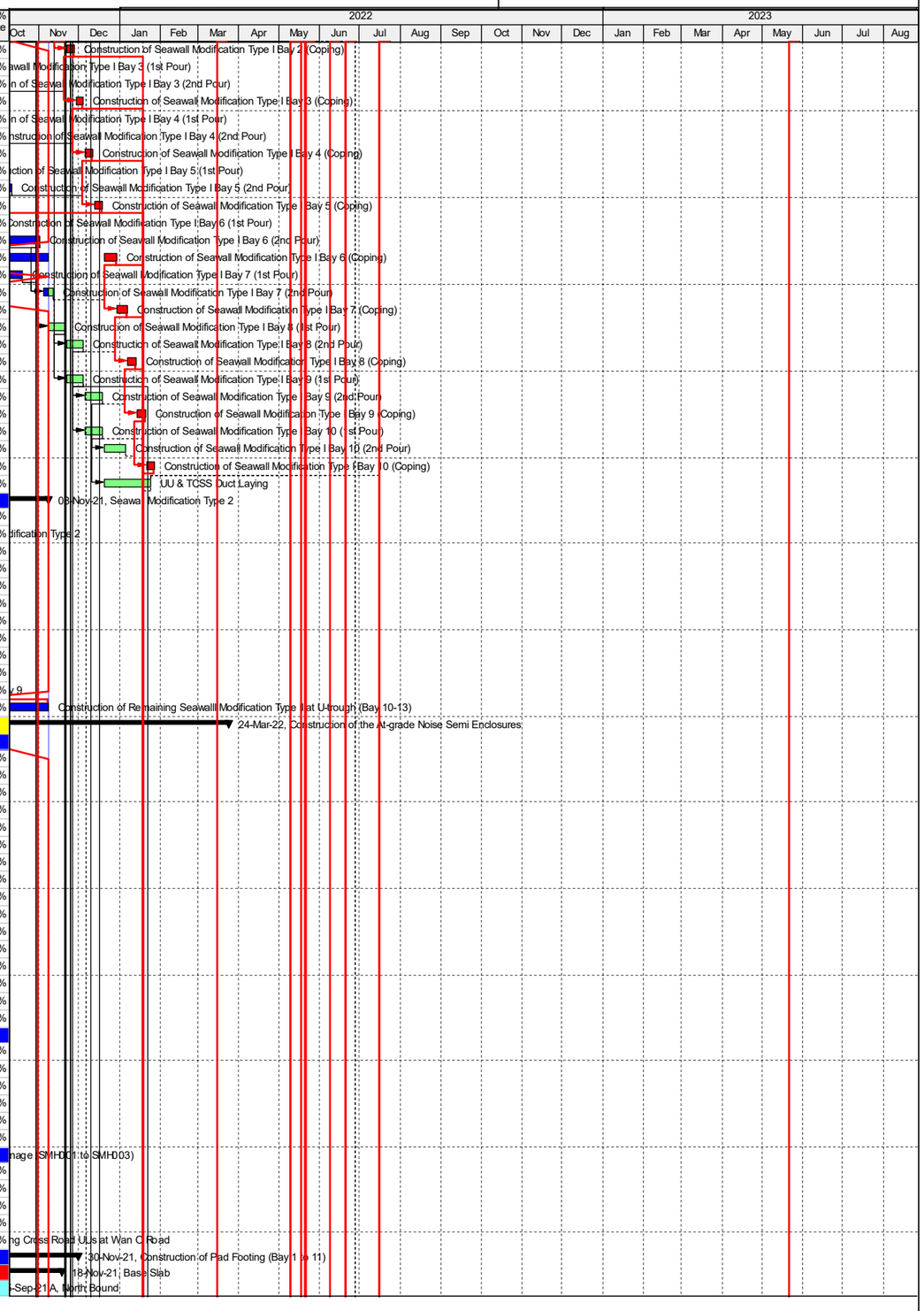
土木工程拓展署 Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

Date	Revision	Checked	Approved
08-Mar-21	Monthly Programme Update (Mar 2021)	TL	StL
08-May-21	Monthly Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
SW.WWIL1122	Construction of Seawall Modification Type I Bay 2 (Coping)	6	0	6	017/08(6	22-Nov-21	27-Nov-21	20-Nov-21	27-Nov-21	-1		0%
SW.WWIL1130	Construction of Seawall Modification Type I Bay 3 (1st Pour)	12	12	0	017/08(6	16-Jul-21 A	30-Jul-21	10-Nov-21	10-Nov-21			100%
SW.WWIL1131	Construction of Seawall Modification Type I Bay 3 (2nd Pour)	12	23	0	017/08(6	30-Jul-21 A	27-Aug-21	19-Nov-21	19-Nov-21			100%
SW.WWIL1132	Construction of Seawall Modification Type I Bay 3 (Coping)	6	0	6	017/08(6	29-Nov-21	04-Dec-21	27-Nov-21	04-Dec-21	-1		0%
SW.WWIL1140	Construction of Seawall Modification Type I Bay 4 (1st Pour)	12	23	0	017/08(6	30-Jul-21 A	27-Aug-21	10-Nov-21	10-Nov-21			100%
SW.WWIL1141	Construction of Seawall Modification Type I Bay 4 (2nd Pour)	12	19	0	017/08(6	31-Aug-21 A	23-Sep-21	19-Nov-21	19-Nov-21			100%
SW.WWIL1142	Construction of Seawall Modification Type I Bay 4 (Coping)	6	0	6	017/08(6	06-Dec-21	11-Dec-21	04-Dec-21	11-Dec-21	-1		0%
SW.WWIL1150	Construction of Seawall Modification Type I Bay 5 (1st Pour)	12	7	0	017/08(6	31-Aug-21 A	08-Sep-21	10-Nov-21	10-Nov-21			100%
SW.WWIL1151	Construction of Seawall Modification Type I Bay 5 (2nd Pour)	12	17	0	017/08(6	20-Sep-21 A	12-Oct-21	19-Nov-21	19-Nov-21			100%
SW.WWIL1152	Construction of Seawall Modification Type I Bay 5 (Coping)	6	0	6	017/08(6	13-Dec-21	18-Dec-21	11-Dec-21	18-Dec-21	-1		0%
SW.WWIL1160	Construction of Seawall Modification Type I Bay 6 (1st Pour)	12	17	0	017/08(6	09-Sep-21 A	30-Sep-21	10-Nov-21	10-Nov-21			100%
SW.WWIL1161	Construction of Seawall Modification Type I Bay 6 (2nd Pour)	12	24	0	017/08(6	04-Oct-21 A	02-Nov-21	19-Nov-21	19-Nov-21			100%
SW.WWIL1162	Construction of Seawall Modification Type I Bay 6 (Coping)	6	107	7	017/08(6	02-Jul-21 A	29-Dec-21	18-Dec-21	29-Dec-21	-1		0%
SW.WWIL1170	Construction of Seawall Modification Type I Bay 7 (1st Pour)	12	12	0	017/08(6	05-Oct-21 A	20-Oct-21	10-Nov-21	10-Nov-21			100%
SW.WWIL1171	Construction of Seawall Modification Type I Bay 7 (2nd Pour)	12	2	4	017/08(6	05-Nov-21 A	11-Nov-21	19-Nov-21	24-Nov-21	11		66.67%
SW.WWIL1172	Construction of Seawall Modification Type I Bay 7 (Coping)	6	0	6	017/08(6	30-Dec-21	06-Jan-22	29-Dec-21	06-Jan-22	-1		0%
SW.WWIL1180	Construction of Seawall Modification Type I Bay 8 (1st Pour)	12	0	12	017/08(6	08-Nov-21	20-Nov-21	10-Nov-21	24-Nov-21	3		0%
SW.WWIL1181	Construction of Seawall Modification Type I Bay 8 (2nd Pour)	12	0	12	017/08(6	22-Nov-21	04-Dec-21	24-Nov-21	08-Dec-21	3		0%
SW.WWIL1182	Construction of Seawall Modification Type I Bay 8 (Coping)	6	0	6	017/08(6	07-Jan-22	13-Jan-22	06-Jan-22	13-Jan-22	-1		0%
SW.WWIL1190	Construction of Seawall Modification Type I Bay 9 (1st Pour)	12	0	12	017/08(6	22-Nov-21	04-Dec-21	24-Nov-21	08-Dec-21	3		0%
SW.WWIL1191	Construction of Seawall Modification Type I Bay 9 (2nd Pour)	12	0	12	017/08(6	06-Dec-21	18-Dec-21	08-Dec-21	22-Dec-21	3		0%
SW.WWIL1192	Construction of Seawall Modification Type I Bay 9 (Coping)	6	0	6	017/08(6	14-Jan-22	20-Jan-22	13-Jan-22	20-Jan-22	-1		0%
SW.WWIL1200	Construction of Seawall Modification Type I Bay 10 (1st Pour)	12	0	12	017/08(6	06-Dec-21	18-Dec-21	20-Dec-21	06-Jan-22	13		0%
SW.WWIL1201	Construction of Seawall Modification Type I Bay 10 (2nd Pour)	12	0	12	017/08(6	20-Dec-21	05-Jan-22	06-Jan-22	20-Jan-22	13		0%
SW.WWIL1202	Construction of Seawall Modification Type I Bay 10 (Coping)	6	0	6	017/08(6	21-Jan-22	27-Jan-22	20-Jan-22	27-Jan-22	-1		0%
SW.WWIL1212	UU & TCSS Duct Laying	28	0	28	017/08(6	20-Dec-21	24-Jan-22	22-Dec-21	27-Jan-22	3		0%
Seawall Modification Type 2		160	308	0	017/08(6	23-Oct-20 A	08-Nov-21	23-Sep-21	23-Sep-21	-36		
SW.WWIL1010	Starter Bar Construction on Seawall Coping for Seawall Modification Type 2	60	60	0	017/08(6	23-Oct-20 A	05-Jan-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1020	Installation of Steel Bracket at Seawall Coping for Construction of Seawall M	45	45	0	017/08(6	20-Nov-20 A	14-Jan-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1030	Construction of Seawall Modification Type II Bay 1	10	36	0	017/08(6	22-Dec-20 A	04-Feb-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1040	Construction of Seawall Modification Type II Bay 2	10	36	0	017/08(6	22-Dec-20 A	04-Feb-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1050	Construction of Seawall Modification Type II Bay 3	10	54	0	017/08(6	22-Dec-20 A	01-Mar-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1060	Construction of Seawall Modification Type II Bay 4	10	41	0	017/08(6	22-Dec-20 A	10-Feb-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1070	Construction of Seawall Modification Type II Bay 5	10	29	0	017/08(6	22-Dec-20 A	27-Jan-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1080	Construction of Seawall Modification Type II Bay 6	10	10	0	017/08(6	24-Feb-21 A	06-Mar-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1090	Construction of Seawall Modification Type II Bay 7	10	10	0	017/08(6	09-Mar-21 A	19-Mar-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1100	Construction of Seawall Modification Type II Bay 8	10	10	0	017/08(6	01-Apr-21 A	16-Apr-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1110	Construction of Seawall Modification Type II Bay 9	10	10	0	017/08(6	17-Apr-21 A	28-Apr-21	23-Sep-21	23-Sep-21			100%
SW.WWIL1120	Construction of Remaining Seawall Modification Type II at U-trough (Bay 10-	10	158	0	017/08(6	29-Apr-21 A	08-Nov-21	23-Sep-21	23-Sep-21	-36		100%
Construction of the At-grade Noise Semi Enclosures		779	667	112		09-Aug-19 A	24-Mar-22	27-Sep-21	30-Sep-23	450		
Construction of Northern Drainage (SMH003 to SMH008)		300	294	0	017/08(6	09-Aug-19 A	05-Aug-20	27-Sep-21	15-Dec-21			
PORIII.AG.1010	Excavation from +5.5mPD to +3.5mPD for SMH003 to SMH007 (inlcude Der	30	81	0	017/08(6	09-Aug-19 A	14-Nov-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1015	Road Diversion at XYZ Junction	10	10	0	017/08(6	14-Oct-19 A	24-Oct-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1020	Excavation of Drainage Trench (maximum up to +2.0mPD) for SMH003 to SI	7	48	0	017/08(6	12-Sep-19 A	10-Nov-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1030	Manhole Construction for SMH003 to SMH006 (14D/manhole, 2 teams)	28	36	0	017/08(6	16-Sep-19 A	29-Oct-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1035	Laying of Drainage Pipe SMH003 to SMH006	14	21	0	017/08(6	23-Oct-19 A	15-Nov-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1040	Backfilling of Drainage Trench for SMH003 to SMH006	14	21	0	017/08(6	23-Oct-19 A	15-Nov-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1042	Manhole Construction for SMH007 (14D/manhole)	14	7	0	017/08(6	14-Nov-19 A	21-Nov-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1044	Laying of Drainage Pipe SMH006 to SMH007	7	6	0	017/08(6	22-Nov-19 A	28-Nov-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1046	Backfilling of Drainage Trench for SMH006 to SMH007	14	6	0	017/08(6	22-Nov-19 A	28-Nov-19	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1047	Confirmation of Location of Manhole and Drainage Alignment	30	101	0	017/08(6	29-Nov-19 A	01-Apr-20	15-Dec-21	15-Dec-21	0		100%
PORIII.AG.1048	Sheet Piles Installation SMH008 Construction (~20m length)	3	6	0	017/08(6	26-Jun-20 A	03-Jul-20	15-Dec-21	15-Dec-21	0		100%
PORIII.AG.1048-01	Excavation to Formation Level for SMH008 Construction	3	3	0	017/08(6	04-Jul-20 A	07-Jul-20	15-Dec-21	15-Dec-21	0		100%
PORIII.AG.1048-02	Manhole Construction for SMH008 (14D/manhole)	14	16	0	017/08(6	08-Jul-20 A	25-Jul-20	15-Dec-21	15-Dec-21	0		100%
PORIII.AG.1048-03	Laying of Drainage Pipe SMH007 to SMH008	5	5	0	017/08(6	15-Jul-20 A	20-Jul-20	15-Dec-21	15-Dec-21	0		100%
PORIII.AG.1048-04	Backfilling of Drainage Trench for SMH007 to SMH008	10	4	0	017/08(6	01-Aug-20 A	05-Aug-20	15-Dec-21	15-Dec-21	0		100%
PORIII.AG.1050	Plate Load Test	7	5	0	017/08(6	05-Nov-19 A	09-Nov-19	27-Sep-21	27-Sep-21	0		100%
Construction of Southern Drainage (SMH201 to SMH202)		66	59	0		01-Feb-20 A	14-Apr-20	27-Sep-21	27-Sep-21			
PORIII.AG.1160-00	Home Quarantine due to Wuhan Pneumonia (NCE083)	14	14	0	017/08(7	01-Feb-20 A	14-Feb-20	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1160-01	Excavation for Construction of Manhole and Pipe Laying between SMH201 t	5	6	0	017/08(6	15-Feb-20 A	21-Feb-20	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1160-02	Manhole Construction and Pipe Laying between SMH201 to SMH202	14	25	0	017/08(6	22-Feb-20 A	21-Mar-20	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1160-020	Utilities Ducts Laying across Road D9 (South Portion)	20	1	0	017/08(6	26-Mar-20 A	26-Mar-20	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1160-03	Backfilling to Interim Formation Level (+5.5mPD)	15	7	0	017/08(6	24-Mar-20 A	31-Mar-20	27-Sep-21	27-Sep-21	0		100%
PORIII.AG.1200	Shifting of Site Vehicle Access to Seawall Side	7	8	0	017/08(6	01-Apr-20 A	14-Apr-20	27-Sep-21	27-Sep-21	0		100%
Construction of Northern Drainage (SMH001 to SMH003)		308	308	0	017/08(6	27-Apr-20 A	11-May-21	06-Nov-21	30-Sep-23			
PORIII.AG.1080	Excavation from +5.5mPD to +3.5mPD (inlcude Demolition of existing manh	10	16	0	017/08(6	27-Apr-20 A	16-May-20	06-Nov-21	06-Nov-21	0		100%
PORIII.AG.1090	Excavation of Drainage Trench (maximum up to +2.0mPD) for SMH001 to SI	7	2	0	017/08(6	18-May-20 A	19-May-20	06-Nov-21	06-Nov-21	0		100%
PORIII.AG.1100	Manhole Construction and pipe laying for SMH001 to SMH003 and Backfillin	30	24	0	017/08(6	21-May-20 A	17-Jun-20	06-Nov-21	06-Nov-21	0		100%
PORIII.AG.1102	Utilities Ducts Laying across Road D9 (Northern Portion)	32	53	0	017/08(6	26-Nov-20 A	29-Jan-21	30-Sep-23	30-Sep-23	0		100%
PORIII.AG.2000	Cable Laying and Decomissioning of Existing Cross Road UUs at Wan O Ro	50	50	0	017/08(6	09-Mar-21 A	11-May-21	30-Sep-23	30-Sep-23	0		100%
Construction of Pad Footing (Bay 1 to 11)		612	585	20		14-Nov-19 A	30-Nov-21	27-Sep-21	15-Dec-21	13		
Base Slab		597	578	10		14-Nov-19 A	18-Nov-21	27-Sep-21	15-Dec-21	23		
North Bound		554	553	0	017/08(6	14-Nov-19 A	25-Sep-21	27-Sep-21	15-Dec-21			



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

土木工程拓展署
Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

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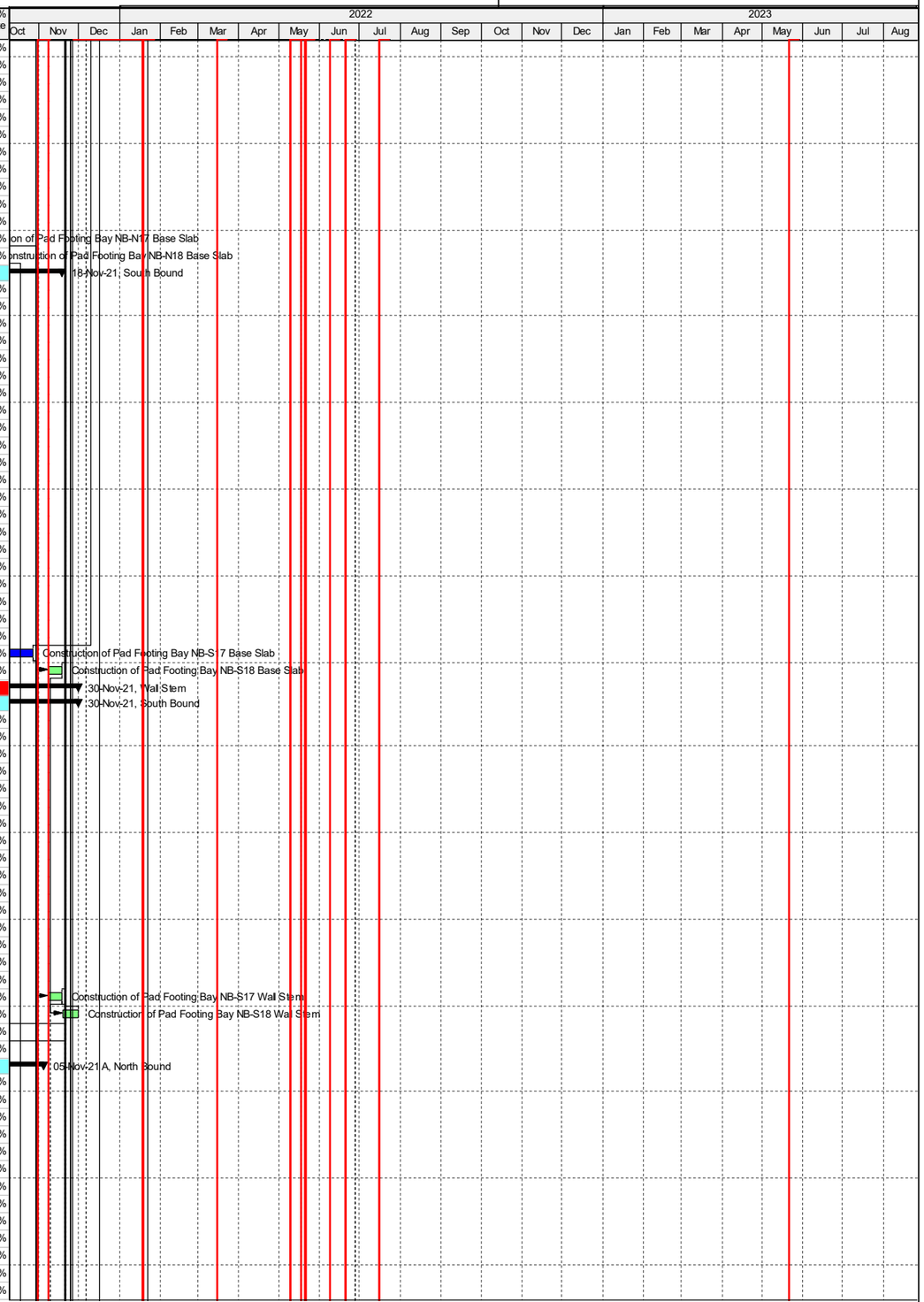
08-May-21	Monthy Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
PORIII.AG.1060-00	Construction of Blinding for Bay NB-N1 to N11	10	10	0	017/08(6	14-Nov-19 A	25-Nov-19	27-Sep-21	27-Sep-21		0	100%
PORIII.AG.1060-01	Construction of Pad Footing Bay NB-N7, 9, 11 Base Slab	15	19	0	017/08(6	26-Nov-19 A	17-Dec-19	27-Sep-21	27-Sep-21		0	100%
PORIII.AG.1060-04	Construction of Pad Footing Bay NB-N5, 8, 10 Base Slab	15	16	0	017/08(6	06-Dec-19 A	24-Dec-19	27-Sep-21	27-Sep-21		0	100%
PORIII.AG.1060-10	Construction of Pad Footing Bay NB-N3, 6 Base Slab	15	10	0	017/08(6	27-Dec-19 A	08-Jan-20	27-Sep-21	27-Sep-21		0	100%
PORIII.AG.1060-11	Construction of Pad Footing Bay NB-N2, 4 Base Slab	15	13	0	017/08(6	02-Jan-20 A	16-Jan-20	27-Sep-21	27-Sep-21		0	100%
PORIII.AG.1290	Construction of Pad Footing Bay NB-N1 Base Slab	10	7	0	017/08(6	02-Mar-20 A	09-Mar-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1410	Construction of Pad Footing Bay NB-N12 Base Slab	10	11	0	017/08(6	06-Jun-20 A	18-Jun-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1420	Construction of Pad Footing Bay NB-N13 Base Slab	10	8	0	017/08(6	19-Jun-20 A	29-Jun-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1430	Construction of Pad Footing Bay NB-N14 Base Slab	10	7	0	017/08(6	11-Jun-20 A	18-Jun-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1440	Construction of Pad Footing Bay NB-N15 Base Slab	10	13	0	017/08(6	20-Jun-20 A	07-Jul-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1450	Construction of Pad Footing Bay NB-N16 Base Slab	10	29	0	017/08(6	09-Jul-20 A	11-Aug-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1460	Construction of Pad Footing Bay NB-N17 Base Slab	12	49	0	017/08(6	05-Jul-21 A	31-Aug-21	27-Sep-21	27-Sep-21		0	100%
PORIII.AG.1470	Construction of Pad Footing Bay NB-N18 Base Slab	12	11	0	017/08(6	13-Sep-21 A	25-Sep-21	11-Dec-21	11-Dec-21		0	100%
South Bound		535	516	10		01-Feb-20 A	18-Nov-21	27-Sep-21	03-Dec-21	13		
PORIII.AG.1060-110	Excavation for Construction of Bay NB-N1, NB-S1-S6	10	9	0	017/08(6	10-Feb-20 A	19-Feb-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1060-111	Home Quarantine due to Wuhan Pneumonia (NCE083)	14	14	0	017/08(7	01-Feb-20 A	14-Feb-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1060-112	Plate Loading Test for NB-S1-S6	7	5	0	017/08(6	20-Feb-20 A	25-Feb-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1060-113	Construction of Blinding for Bay NB-S1-S6	10	4	0	017/08(6	26-Feb-20 A	29-Feb-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1060-12	Construction of Pad Footing Bay NB-S1, S3 Base Slab	15	8	0	017/08(6	29-Feb-20 A	09-Mar-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1300	Construction of Pad Footing Bay NB-S2 Base Slab	10	6	0	017/08(6	10-Mar-20 A	16-Mar-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1310	Construction of Pad Footing Bay NB-S4 Base Slab	10	6	0	017/08(6	10-Mar-20 A	16-Mar-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1320	Construction of Pad Footing Bay NB-S6 Base Slab	10	5	0	017/08(6	11-Mar-20 A	16-Mar-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1330	Excavation for Construction of Bay NB-S7-S11	5	10	0	017/08(6	17-Mar-20 A	27-Mar-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1340	Construction of Blinding for Bay NB-S7-S10	5	1	0	017/08(6	28-Mar-20 A	28-Mar-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1350	Construction of Pad Footing Bay NB-S5 Base Slab	10	19	0	017/08(6	19-Mar-20 A	14-Apr-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1360	Construction of Pad Footing Bay NB-S7 Base Slab	10	6	0	017/08(6	03-Apr-20 A	14-Apr-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1370	Construction of Pad Footing Bay NB-S8 Base Slab	10	10	0	017/08(6	16-Apr-20 A	27-Apr-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1380	Construction of Pad Footing Bay NB-S9 Base Slab	10	10	0	017/08(6	28-Apr-20 A	11-May-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1390	Construction of Pad Footing Bay NB-S10 Base Slab	10	10	0	017/08(6	19-May-20 A	29-May-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1400	Construction of Pad Footing Bay NB-S11 Base Slab	10	10	0	017/08(6	30-May-20 A	10-Jun-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1480	Construction of Pad Footing Bay NB-S12 Base Slab	10	8	0	017/08(6	19-Jun-20 A	29-Jun-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1490	Construction of Pad Footing Bay NB-S13 Base Slab	10	6	0	017/08(6	30-Jun-20 A	07-Jul-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1500	Construction of Pad Footing Bay NB-S14 Base Slab	10	7	0	017/08(6	08-Jul-20 A	15-Jul-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1510	Construction of Pad Footing Bay NB-S15 Base Slab	10	8	0	017/08(6	14-Sep-20 A	22-Sep-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1520	Construction of Pad Footing Bay NB-S16 Base Slab	10	9	0	017/08(6	02-Sep-20 A	11-Sep-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1530	Construction of Pad Footing Bay NB-S17 Base Slab	10	98	0	017/08(6	02-Jul-21 A	27-Oct-21	27-Sep-21	27-Sep-21		0	100%
PORIII.AG.1540	Construction of Pad Footing Bay NB-S18 Base Slab	10	0	10	017/08(6	08-Nov-21	18-Nov-21	23-Nov-21	03-Dec-21	13	0	0%
Wall Stem		512	485	20	017/08(6	17-Mar-20 A	30-Nov-21	20-Oct-21	15-Dec-21	13		
South Bound		505	205	20	017/08(6	19-Mar-20 A	30-Nov-21	06-Nov-21	15-Dec-21	13		
PORIII.AG.1550	Construction of Pad Footing Bay NB-S1 Wall Stem	10	23	0	017/08(6	19-Mar-20 A	18-Apr-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1560	Construction of Pad Footing Bay NB-S2 Wall Stem	10	36	0	017/08(6	24-Mar-20 A	11-May-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1570	Construction of Pad Footing Bay NB-S3 Wall Stem	10	29	0	017/08(6	20-Mar-20 A	27-Apr-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1580	Construction of Pad Footing Bay NB-S4 Wall Stem	10	52	0	017/08(6	24-Mar-20 A	29-May-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1590	Construction of Pad Footing Bay NB-S5 Wall Stem	10	14	0	017/08(6	12-Jun-20 A	29-Jun-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1600	Construction of Pad Footing Bay NB-S6 Wall Stem	10	23	0	017/08(6	15-May-20 A	10-Jun-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1610	Construction of Pad Footing Bay NB-S7 Wall Stem	10	47	0	017/08(6	20-May-20 A	15-Jul-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1620	Construction of Pad Footing Bay NB-S8 Wall Stem	10	27	0	017/08(6	19-May-20 A	18-Jun-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1630	Construction of Pad Footing Bay NB-S9 Wall Stem	10	54	0	017/08(6	20-May-20 A	23-Jul-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1640	Construction of Pad Footing Bay NB-S10 Wall Stem	10	24	0	017/08(6	01-Jun-20 A	29-Jun-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1650	Construction of Pad Footing Bay NB-S11 Wall Stem	10	27	0	017/08(6	30-Jun-20 A	31-Jul-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1660	Construction of Pad Footing Bay NB-S12 Wall Stem	10	21	0	017/08(6	18-Jul-20 A	11-Aug-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1670	Construction of Pad Footing Bay NB-S13 Wall Stem	10	9	0	017/08(6	14-Jul-20 A	23-Jul-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1680	Construction of Pad Footing Bay NB-S14 Wall Stem	10	7	0	017/08(6	24-Jul-20 A	31-Jul-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1690	Construction of Pad Footing Bay NB-S15 Wall Stem	10	7	0	017/08(6	29-Sep-20 A	08-Oct-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1700	Construction of Pad Footing Bay NB-S16 Wall Stem	10	12	0	017/08(6	15-Sep-20 A	28-Sep-20	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1710	Construction of Pad Footing Bay NB-S17 Wall Stem	10	0	10	017/08(6	08-Nov-21	18-Nov-21	23-Nov-21	03-Dec-21	13	0	0%
PORIII.AG.1720	Construction of Pad Footing Bay NB-S18 Wall Stem	10	0	10	017/08(6	19-Nov-21	30-Nov-21	04-Dec-21	15-Dec-21	13	0	0%
PORIII.AG.1910	Backfilling to Interim Formation Level (7 Layers, 5D/layer) for Bay 1 to 11	35	35	0	017/08(6	17-Jun-20 A	29-Jul-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1920	Backfilling to Interim Formation Level (7 Layers, 5D/layer) for Bay 12 to 16	35	35	0	017/08(6	15-Oct-20 A	25-Nov-20	15-Dec-21	15-Dec-21		0	100%
North Bound		512	485	0	017/08(6	17-Mar-20 A	05-Nov-21	20-Oct-21	15-Dec-21			
PORIII.AG.1730	Construction of Pad Footing Bay NB-N1 Wall Stem	10	25	0	017/08(6	17-Mar-20 A	18-Apr-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1740	Construction of Pad Footing Bay NB-N2 Wall Stem	10	30	0	017/08(6	31-Mar-20 A	11-May-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1750	Construction of Pad Footing Bay NB-N3 Wall Stem	10	32	0	017/08(6	17-Mar-20 A	27-Apr-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1760	Construction of Pad Footing Bay NB-N4 Wall Stem	10	46	0	017/08(6	31-Mar-20 A	29-May-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1770	Construction of Pad Footing Bay NB-N5 Wall Stem	10	77	0	017/08(6	31-Mar-20 A	07-Jul-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1780	Construction of Pad Footing Bay NB-N6 Wall Stem	10	56	0	017/08(6	31-Mar-20 A	10-Jun-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1790	Construction of Pad Footing Bay NB-N7 Wall Stem	10	84	0	017/08(6	31-Mar-20 A	15-Jul-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1800	Construction of Pad Footing Bay NB-N8 Wall Stem	10	132	0	017/08(6	02-Apr-20 A	11-Sep-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1810	Construction of Pad Footing Bay NB-N9 Wall Stem	10	89	0	017/08(6	02-Apr-20 A	23-Jul-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1820	Construction of Pad Footing Bay NB-N10 Wall Stem	10	118	0	017/08(6	02-Apr-20 A	26-Aug-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1830	Construction of Pad Footing Bay NB-N11 Wall Stem	10	96	0	017/08(6	02-Apr-20 A	31-Jul-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1840	Construction of Pad Footing Bay NB-N12 Wall Stem	10	36	0	017/08(6	16-Jul-20 A	26-Aug-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1850	Construction of Pad Footing Bay NB-N13 Wall Stem	10	23	0	017/08(6	16-Jul-20 A	11-Aug-20	15-Dec-21	15-Dec-21		0	100%



Actual Level of Effort
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CEDD 土木工程拓展署 Civil Engineering and Development Department

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Road D9 and Associated Works

Build King

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Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
PORIII.AG.1860	Construction of Pad Footing Bay NB-N14 Wal Stem	10	50	0	017/08(6	16-Jul-20 A	11-Sep-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1870	Construction of Pad Footing Bay NB-N15 Wal Stem	10	36	0	017/08(6	16-Jul-20 A	26-Aug-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1880	Construction of Pad Footing Bay NB-N16 Wal Stem	10	9	0	017/08(6	02-Sep-20 A	11-Sep-20	15-Dec-21	15-Dec-21		0	100%
PORIII.AG.1890	Construction of Pad Footing Bay NB-N17 Wal Stem	14	14	0	017/08(6	11-Oct-21 A	27-Oct-21	20-Oct-21	20-Oct-21		0	100%
PORIII.AG.1900	Construction of Pad Footing Bay NB-N18 Wal Stem	10	7	0	017/08(6	28-Oct-21 A	05-Nov-21	11-Dec-21	11-Dec-21		0	100%
Construction of Remaining South Drainage (SMH203 to SMH216)		112	0	112	017/08(6	08-Nov-21	24-Mar-22	08-Dec-21	24-Mar-22	-1		
PORIII.AG.1170	Construction of South Drainage SMH203 to SMH206	40	0	40	017/08(6	08-Nov-21	23-Dec-21	23-Dec-21	14-Feb-22	39	0	0%
PORIII.AG.1171	Construction of South Drainage SMH207 to SMH216	65	0	65	017/08(6	08-Nov-21	25-Jan-22	08-Dec-21	01-Mar-22	27		0%
PORIII.AG.1180	Construction of Roadworks	45	0	45	017/08(6	28-Jan-22	24-Mar-22	27-Jan-22	24-Mar-22	-1	0	0%
Construction of Semi-Noise Enclosure and Directional Sign		355	265	66	017/08(6	14-Dec-20 A	26-Feb-22	06-Nov-21	14-Apr-22	39		
PORIII.AG.1190	Construction of Semi-Noise Enclosure CH13635.3 to CH13878 Main Frame	75	199	0	017/08(6	08-Mar-21 A	07-Dec-21	10-Jan-22	10-Jan-22	27	0	100%
PORIII.AG.1210	Construction of Semi-Noise Enclosure CH13635.3 to CH13878 Sub-frame a	60	69	15	017/08(6	16-Aug-21 A	23-Dec-21	10-Jan-22	27-Jan-22	27	0	75%
PORIII.AG.1235	Diversion of Haul Road	14	21	0	017/08(6	14-Dec-20 A	09-Jan-21	06-Nov-21	06-Nov-21		0	100%
PORIII.AG.1240	Excavation and Construction of Directional Sign Footing DS3	14	14	0	017/08(6	22-May-21 A	07-Jun-21	15-Feb-22	15-Feb-22		0	100%
PORIII.AG.1250	Backfilling to Formation Level	20	20	0	017/08(6	08-Jun-21 A	02-Jul-21	15-Feb-22	15-Feb-22		0	100%
PORIII.AG.1260	Installation of Directional Sign and Steel Frame	10	106	6	017/08(6	03-Jul-21 A	03-Jan-22	15-Feb-22	21-Feb-22	39	0	40%
PORIII.AG.2010	Excavation and Construction of Directional Sign Footing DS7	14	0	14	017/08(6	04-Jan-22	19-Jan-22	22-Feb-22	09-Mar-22	39	0	0%
PORIII.AG.2020	Backfilling to Formation Level	20	0	20	017/08(6	20-Jan-22	15-Feb-22	10-Mar-22	01-Apr-22	39	0	0%
PORIII.AG.2021	Civil Provision for At-Grade Road South	30	0	30	017/08(6	06-Dec-21	12-Jan-22	20-Dec-21	27-Jan-22	13		0%
PORIII.AG.2030	Installation of Directional Sign and Steel Frame	10	0	10	017/08(6	16-Feb-22	26-Feb-22	02-Apr-22	14-Apr-22	39	0	0%
Wan O Road		898	735	163		20-May-19 A	30-May-22	27-Aug-21	30-Sep-23	399		
Footpath Excavation Permit		65	63	0		20-May-19 A	02-Aug-19	27-Aug-21	27-Sep-21			
Footpath North Bound		63	63	0	017/08(6	20-May-19 A	02-Aug-19	27-Aug-21	27-Aug-21			
TTA Phase 1 (TTA DWG: Q1004/WAOR/002A)		21	17	0	017/08(6	20-May-19 A	08-Jun-19	27-Aug-21	27-Aug-21			
TTA Phase 2 (TTA DWG: Q1004/WAOR/007A)		42	42	0	017/08(6	10-Jun-19 A	29-Jul-19	27-Aug-21	27-Aug-21			
TTA Phase 3 (TTA DWG: Q1004/WAOR/001A)		15	15	0	017/08(6	17-Jul-19 A	02-Aug-19	27-Aug-21	27-Aug-21			
Footpath South Bound		58	58	0	017/08(6	20-May-19 A	27-Jul-19	27-Aug-21	27-Aug-21			
TTA Phase 1 (TTA DWG: Q1004/WAOR/011)		16	14	0	017/08(6	20-May-19 A	04-Jun-19	27-Aug-21	27-Aug-21			
TTA Phase 2 (TTA DWG: Q1004/WAOR/004A)		15	16	0	017/08(6	05-Jun-19 A	24-Jun-19	27-Aug-21	27-Aug-21			
TTA Phase 3 (TTA DWG: Q1004/WAOR/012)		15	12	0	017/08(6	25-Jun-19 A	09-Jul-19	27-Aug-21	27-Aug-21			
TTA Phase 4 (TTA DWG: Q1004/WAOR/005)		16	16	0	017/08(6	10-Jul-19 A	27-Jul-19	27-Aug-21	27-Aug-21			
Other Works		21	18	0	017/08(7	16-Jul-19 A	02-Aug-19	27-Sep-21	27-Sep-21			
Carriage Way Excavation Permit		832	669	163		07-Aug-19 A	30-May-22	27-Aug-21	30-Sep-23	399		
TTA Stage 1		186	436	0		07-Aug-19 A	22-Jan-21	27-Aug-21	30-Sep-23			
TTA Stage 2		745	582	163		20-Nov-19 A	30-May-22	27-Aug-21	30-Sep-23	399		
WO.CA.TTA2010	Implementation of TTA Stage 2	1	1	0	017/08(7	05-Jan-20 A	05-Jan-20	27-Aug-21	27-Aug-21		0	100%
Northern Portion		686	563	123		12-Dec-19 A	07-Apr-22	27-Aug-21	30-Sep-23	439		
Predrilling Works (4nos, 10D/hole + 5D TRA, 1-3 rigs)		36	27	0	017/08(6	02-Mar-20 A	01-Apr-20	27-Aug-21	30-Sep-23			
WO.CA.TTA2NP.	Inspection Pit for Predrilling Works at Northern Roundabout	4	4	0	017/08(6	11-Mar-20 A	14-Mar-20	27-Aug-21	27-Aug-21		0	100%
WO.CA.TTA2NP.	Predrilling at Northern Roundabout of Wan O Road (PD80) (Rig5)	15	8	0	017/08(6	02-Mar-20 A	10-Mar-20	30-Sep-23	30-Sep-23		5	100%
WO.CA.TTA2NP.	Predrilling at Northern Roundabout of Wan O Road (PD77) (Rig5)	15	6	0	017/08(6	11-Mar-20 A	17-Mar-20	30-Sep-23	30-Sep-23		5	100%
WO.CA.TTA2NP.	Demobilization of Rig 5 off site	1	1	0	017/08(6	18-Mar-20 A	18-Mar-20	30-Sep-23	30-Sep-23		0	100%
WO.CA.TTA2NP.	Predrilling at Northern Roundabout of Wan O Road (PD76) (Rig3)	15	7	0	017/08(6	25-Mar-20 A	01-Apr-20	27-Aug-21	27-Aug-21		5	100%
PBSH Works		245	297	0		12-Dec-19 A	11-Dec-20	27-Sep-21	08-Oct-21			
WO.CA.TTA2NP.	Liasion with CLP and Shifting of CLP cables at Wan O Road Northern Footp	4	138	0	017/08(7	12-Dec-19 A	27-Apr-20	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Late Delivery of H-pile due to COVID-19 (NCE083)	30	81	0	017/08(7	29-Jan-20 A	18-Apr-20	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Review Design on PC60-64 (PMI044)	4	56	0	017/08(6	04-Mar-20 A	14-May-20	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Discovery of Uncharted CLP Concrete Surround, Liasion with CLP and Revie	30	94	0	017/08(6	11-Jun-20 A	30-Sep-20	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Construction of PBSH (23nos, Rig 2) (PC60, 61, 63-65)	76	199	0	017/08(6	15-Apr-20 A	10-Dec-20	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Review Design on PC57 & PC58 (PMI048)	60	50	0	017/08(6	11-Mar-20 A	14-May-20	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Construction of PBSH (7nos, Rig 2) (PC57-58)	30	76	0	017/08(6	04-Sep-20 A	04-Dec-20	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Construction of PBSH (8nos, Rig 1) (PC66-69)	31	168	0	017/08(6	12-May-20 A	28-Nov-20	08-Oct-21	08-Oct-21		0	100%
WO.CA.TTA2NP.	Construction of PBSH (8nos, Rig 1) (PC70-72)	46	90	0	017/08(6	29-Apr-20 A	15-Aug-20	08-Oct-21	08-Oct-21		0	100%
WO.CA.TTA2NP.	Construction of PBSH (14nos, Rig 1) (PC66-PC72)	60	118	0	017/08(6	24-Jul-20 A	11-Dec-20	08-Oct-21	08-Oct-21		0	100%
Excavation and Construction of RC Structure		157	252	4	017/08(6	31-Dec-20 A	11-Nov-21	27-Sep-21	12-Oct-21	-25		
WO.CA.TTA2NP.	Installation of Sheet pile at PC58	12	4	0	017/08(6	31-Dec-20 A	06-Jan-21	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Installation of Struts and Excavation to Pile Cap Level at PC58	13	7	0	017/08(6	09-Mar-21 A	17-Mar-21	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2NP.	Construction of Pile Cap PC58	14	46	0	017/08(6	09-Mar-21 A	07-May-21	27-Sep-21	27-Sep-21			100%
WO.CA.TTA2NP.	Backfill & removal of Waling, Strut & Sheet Pile for PC58	20	20	0	017/08(6	22-May-21 A	16-Jun-21	27-Sep-21	27-Sep-21			100%
WO.CA.TTA2NP.	Diversion of MOE	3	3	0	017/08(6	16-Jun-21 A	19-Jun-21	27-Sep-21	27-Sep-21			100%
WO.CA.TTA2NP.	Concrete Block Installation as Lateral Support on top of Box Culvert	25	25	0	017/08(6	09-Mar-21 A	10-Apr-21	08-Oct-21	08-Oct-21		0	100%
WO.CA.TTA2NP.	Construction of ELS (PC60-PC72)	120	124	0	017/08(6	15-Mar-21 A	16-Aug-21	08-Oct-21	08-Oct-21		0	100%
WO.CA.TTA2NP.	Construction of Pile Caps (PC60-PC72, 14D/cap, 3teams)	90	151	4	017/08(6	08-May-21 A	11-Nov-21	08-Oct-21	12-Oct-21	-25	0	95.56%
Remaining Works		119	0	119	017/08(6	12-Nov-21	07-Apr-22	13-Oct-21	14-Apr-22	6		
WO.CA.TTA2NP.	Construction of Road and Drains (include backfilling to formation level)	45	0	45	017/08(6	29-Nov-21	22-Jan-22	20-Oct-21	10-Dec-21	-34	0	0%
WO.CA.TTA2NP.	Removal of Sheet Piles (PC60-PC72)	11	0	11	017/08(6	12-Nov-21	24-Nov-21	13-Oct-21	26-Oct-21	-25	0	0%
WO.CA.TTA2NP.	Construction of Watermains, Irrigation, Power Cable Ducting, Civil Provision c	75	0	75	017/08(6	25-Nov-21	26-Feb-22	14-Dec-21	18-Mar-22	17	0	0%
WO.CA.TTA2NP.	Construction of Semi-Noise Enclosure CH13878.6 to CH14021.2 Main Fram	45	0	45	017/08(6	30-Nov-21	24-Jan-22	05-Jan-22	02-Mar-22	29	0	0%
WO.CA.TTA2NP.	Construction of Semi-Noise Enclosure CH13878.6 to CH14021.2 Sub-Frame	45	0	45	017/08(6	16-Dec-21	12-Feb-22	21-Jan-22	18-Mar-22	29	0	0%
WO.CA.TTA2NP.	Construction of Road Kerb, Road Paving and Road Marking at Northern Car	30	0	30	017/08(6	24-Jan-22	02-Mar-22	11-Dec-21	18-Jan-22	-34	0	0%
WO.CA.TTA2NP.	Construction of Road Paving, Traffic Sign, Street Lighting	30	0	30	017/08(6	03-Mar-22	07-Apr-22	19-Jan-22	25-Feb-22	-34	0	0%
WO.CA.TTA2NP.	Make Good of Carriage Way and Road Marking	14	0	14	017/08(6	14-Feb-22	01-Mar-22	29-Mar-22	14-Apr-22	37		0%
Southern Portion and Central Barrier		745	582	163		20-Nov-19 A	30-May-22	27-Aug-21	30-Sep-23	399		
Predrilling Works (16nos, 10D/hole + 5D TRA, 1-3 rigs)		133	125	0		20-Nov-19 A	24-Apr-20	27-Aug-21	30-Sep-23			
WO.CA.TTA2SP.	Set Back Existing Kerb along Sourthern Portion	30	17	0	017/08(6	09-Jan-20 A	31-Jan-20	30-Sep-23	30-Sep-23		0	100%

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

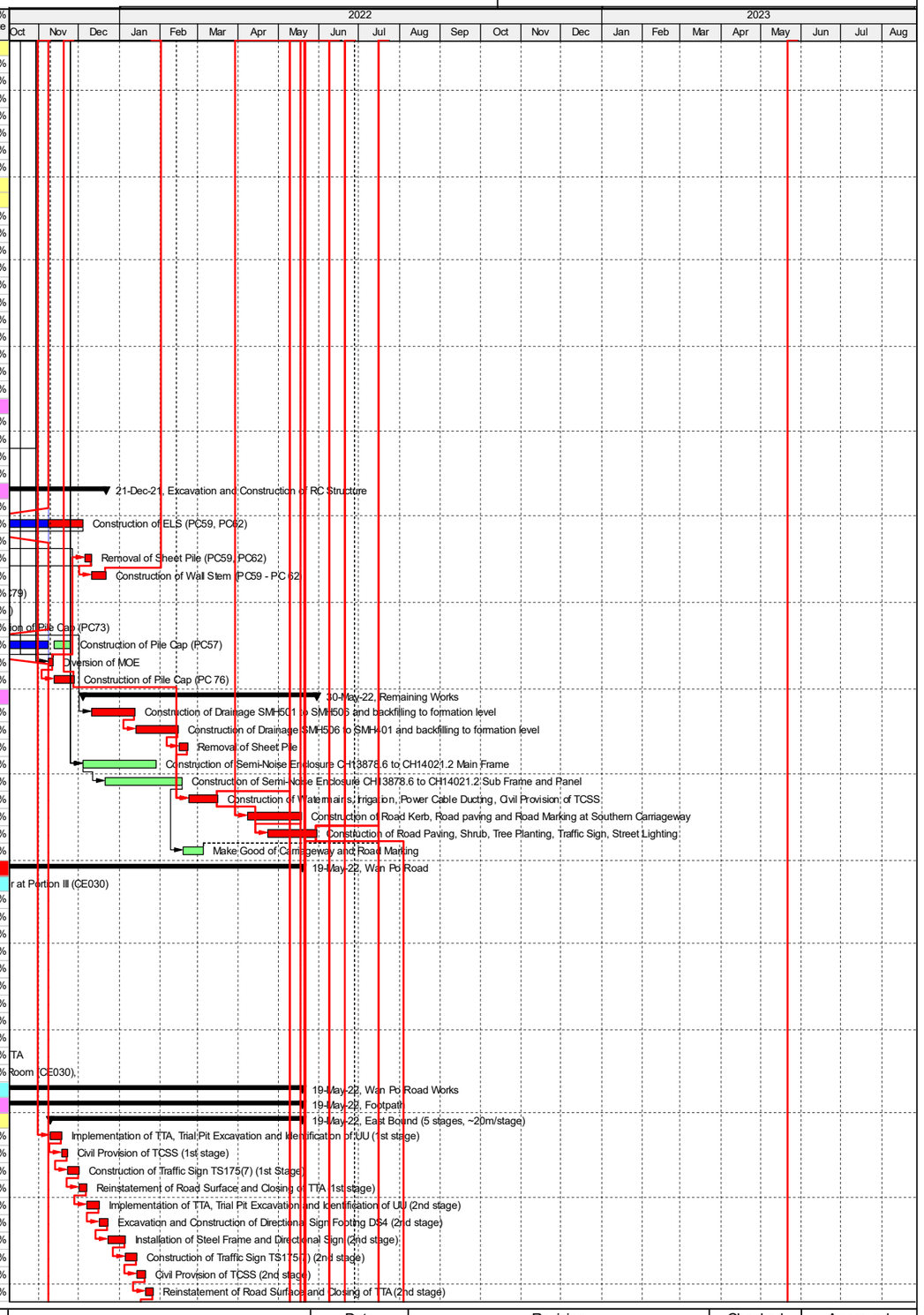
土木工程拓展署 Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

Date	Revision	Checked	Approved
08-Mar-21	Monthly Programme Update (Mar 2021)	TL	StL
08-May-21	Monthy Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
Rig 5		81	73	0	017/08(6	20-Nov-19 A	19-Feb-20	27-Aug-21	30-Sep-23			
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD112)	15	8	0	017/08(6	20-Nov-19 A	28-Nov-19	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD113)	15	6	0	017/08(6	29-Nov-19 A	05-Dec-19	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD114)	15	7	0	017/08(6	06-Dec-19 A	13-Dec-19	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Idling of Predrill Rig for PD114 by Sub-contractor	3	3	0	017/08(6	14-Dec-19 A	17-Dec-19	30-Sep-23	30-Sep-23		0	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD120)	15	7	0	017/08(6	12-Feb-20 A	19-Feb-20	30-Sep-23	30-Sep-23		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD111)	15	7	0	017/08(6	16-Jan-20 A	23-Jan-20	30-Sep-23	30-Sep-23		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD82)	15	8	0	017/08(6	03-Feb-20 A	11-Feb-20	30-Sep-23	30-Sep-23		5	100%
Rig 2		0	0	0						0		
Rig 3		121	113	0	017/08(6	04-Dec-19 A	24-Apr-20	27-Aug-21	27-Aug-21			
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD115)	15	5	0	017/08(6	04-Dec-19 A	09-Dec-19	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD116)	15	20	0	017/08(6	24-Dec-19 A	18-Jan-20	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Idling of Predrill Rig for PD116 by Sub-contractor	4	14	0	017/08(6	27-Dec-19 A	13-Jan-20	27-Aug-21	27-Aug-21		0	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD117)	15	4	0	017/08(6	20-Jan-20 A	23-Jan-20	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD118)	15	5	0	017/08(6	03-Feb-20 A	07-Feb-20	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD119)	15	6	0	017/08(6	08-Feb-20 A	14-Feb-20	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD121)	15	7	0	017/08(6	17-Feb-20 A	24-Feb-20	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD122)	15	8	0	017/08(6	24-Feb-20 A	03-Mar-20	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD83)	15	11	0	017/08(6	12-Mar-20 A	24-Mar-20	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD79)	15	7	0	017/08(6	17-Apr-20 A	24-Apr-20	27-Aug-21	27-Aug-21		5	100%
WO.CA.TTA2	Predrilling at Central Barrier of Wan O Road (PD78)	15	9	0	017/08(6	02-Apr-20 A	16-Apr-20	27-Aug-21	27-Aug-21		5	100%
PBSH Works		331	300	0		29-Jan-20 A	28-Jan-21	27-Sep-21	11-Oct-21			
WO.CA.TTA2SP.	Late Delivery of H-pile due to COVID-19 (NCE083)	30	81	0	017/08(7	29-Jan-20 A	18-Apr-20	08-Oct-21	08-Oct-21		0	100%
WO.CA.TTA2SP.	Construction of PBSH (25nos, Rig 1) (PC73 to PC81)	75	233	0	017/08(6	03-Mar-20 A	11-Dec-20	08-Oct-21	08-Oct-21		0	100%
WO.CA.TTA2SP.	Construction of PBSH (12nos, Rig 2) (PC59 & PC62)	45	83	0	017/08(6	01-Sep-20 A	09-Dec-20	27-Sep-21	27-Sep-21		0	100%
WO.CA.TTA2SP.	Pile Loading Test	21	9	0	017/08(6	19-Jan-21 A	28-Jan-21	11-Oct-21	11-Oct-21		0	100%
Excavation and Construction of RC Structure		246	245	38	017/08(6	09-Jan-21 A	21-Dec-21	27-Sep-21	14-Jan-22	18		
WO.CA.TTA2SP.	Installation of Sheet Piles (PC59, PC62)	18	13	0	017/08(6	09-Jan-21 A	23-Jan-21	11-Oct-21	11-Oct-21		0	100%
WO.CA.TTA2SP.	Construction of ELS (PC59, PC62)	24	89	24	017/08(6	23-Jul-21 A	04-Dec-21	11-Oct-21	08-Nov-21	-23	0	0%
WO.CA.TTA2SP.	Construction of Pile Caps (PC59, PC62)	14	34	0	017/08(6	19-Mar-21 A	04-May-21	09-Nov-21	09-Nov-21			100%
WO.CA.TTA2SP.	Removal of Sheet Pile (PC59, PC62)	5	0	5	017/08(6	06-Dec-21	10-Dec-21	09-Nov-21	13-Nov-21	-23		0%
WO.CA.TTA2SP.	Construction of Wall Stem (PC59 - PC 62)	9	0	9	017/08(6	11-Dec-21	21-Dec-21	15-Nov-21	24-Nov-21	-23		0%
WO.CA.TTA2SP.	Construction of Pile Caps (PC74, PC77 and PC79)	18	64	0	017/08(6	04-Feb-21 A	28-Apr-21	23-Nov-21	23-Nov-21			100%
WO.CA.TTA2SP.	Construction of Pile Cap (PC75, PC78, PC80)	26	26	0	017/08(6	30-Mar-21 A	04-May-21	23-Nov-21	23-Nov-21			100%
WO.CA.TTA2SP.	Construction of Pile Cap (PC73)	14	11	0	017/08(6	19-Aug-21 A	01-Sep-21	23-Nov-21	23-Nov-21			100%
WO.CA.TTA2SP.	Construction of Pile Cap (PC57)	14	105	11	017/08(6	05-Jul-21 A	25-Nov-21	31-Dec-21	14-Jan-22	41		20%
WO.CA.TTA2SP.	Diversion of MOE	4	0	4	017/08(6	08-Nov-21	11-Nov-21	27-Sep-21	30-Sep-21	-34		0%
WO.CA.TTA2SP.	Construction of Pile Cap (PC 76)	14	0	14	017/08(6	12-Nov-21	27-Nov-21	02-Oct-21	19-Oct-21	-34		0%
Remaining Works		140	0	140	017/08(6	04-Dec-21	30-May-22	23-Nov-21	14-Apr-22	-34		
WO.CA.TTA2SP.	Construction of Drainage SMH501 to SMH506 and backfilling to formation le	25	0	25	017/08(6	11-Dec-21	12-Jan-22	23-Nov-21	21-Dec-21	-16	0	0%
WO.CA.TTA2SP.	Construction of Drainage SMH506 to SMH401 and backfilling to formation le	25	0	25	017/08(6	13-Jan-22	14-Feb-22	22-Dec-21	22-Jan-22	-16	0	0%
WO.CA.TTA2SP.	Removal of Sheet Pile	6	0	6	017/08(6	15-Feb-22	21-Feb-22	24-Jan-22	29-Jan-22	-16	0	0%
WO.CA.TTA2SP.	Construction of Semi-Noise Enclosure CH13878.6 to CH14021.2 Main Fram	45	0	45	017/08(6	04-Dec-21	28-Jan-22	15-Jan-22	11-Mar-22	33	0	0%
WO.CA.TTA2SP.	Construction of Semi-Noise Enclosure CH13878.6 to CH14021.2 Sub Frame	45	0	45	017/08(6	21-Dec-21	17-Feb-22	04-Feb-22	28-Mar-22	33	0	0%
WO.CA.TTA2SP.	Construction of Watermains, Irrigation, Power Cable Ducting, Civil Provision c	20	0	20	017/08(6	22-Feb-22	16-Mar-22	31-Jan-22	25-Feb-22	-16	0	0%
WO.CA.TTA2SP.	Construction of Road Kerb, Road paving and Road Marking at Southern Car	30	0	30	017/08(6	08-Apr-22	18-May-22	26-Feb-22	01-Apr-22	-34	0	0%
WO.CA.TTA2SP.	Construction of Road Paving, Shrub, Tree Planting, Traffic Sign, Street Lighti	30	0	30	017/08(6	23-Apr-22	30-May-22	10-Mar-22	14-Apr-22	-34	0	0%
WO.CA.TTA2SP.	Make Good of Carriageway and Road Marking	14	0	14	017/08(6	18-Feb-22	05-Mar-22	29-Mar-22	14-Apr-22	33		0%
Wan Po Road		648	492	152	017/08(6	11-Mar-20 A	19-May-22	11-Sep-21	30-Sep-23	408		
Laying of Cable Duct and Earthing Conductor at Portion III (CE030)		307	305	0	017/08(6	11-Mar-20 A	20-Mar-21	30-Sep-23	30-Sep-23			
WO1250	Liasion with C1 and CLP for Cable Duct and Earth Conductor at Wan Po Ro	90	110	0	017/08(6	11-Mar-20 A	25-Jul-20	30-Sep-23	30-Sep-23		0	100%
WO1255	Subtletting and Acceptance of Quotation for TTA	90	110	0	017/08(6	11-Mar-20 A	25-Jul-20	30-Sep-23	30-Sep-23		0	100%
WO1257	Application and Approval of TTA	20	6	0	017/08(6	27-Jul-20 A	01-Aug-20	30-Sep-23	30-Sep-23		0	100%
WO1258	Application of Road Work Advice	10	12	0	017/08(6	03-Aug-20 A	15-Aug-20	30-Sep-23	30-Sep-23		0	100%
WO1259	Set up TTA	1	1	0	017/08(6	17-Aug-20 A	17-Aug-20	30-Sep-23	30-Sep-23		0	100%
WO1269	Site Clearance	5	5	0	017/08(6	18-Aug-20 A	22-Aug-20	30-Sep-23	30-Sep-23		0	100%
WO1279	Excavation for Ducting Works	7	6	0	017/08(6	24-Aug-20 A	29-Aug-20	30-Sep-23	30-Sep-23		0	100%
WO1289	Delivery of GI Duct	10	9	0	017/08(6	31-Aug-20 A	09-Sep-20	30-Sep-23	30-Sep-23		0	100%
WO1299	Ducting Works	9	9	0	017/08(6	10-Sep-20 A	19-Sep-20	30-Sep-23	30-Sep-23		0	100%
WO1309	Backfilling, Reinstatement of Road Works and Closing of TTA	6	6	0	017/08(6	15-Mar-21 A	20-Mar-21	30-Sep-23	30-Sep-23		0	100%
WO1319	Handover to C1 for Power Energization of the E&M Plant Room (CE030)	0	0	0	017/08(6		20-Mar-21		30-Sep-23		0	100%
Wan Po Road Works		267	113	152	017/08(6	24-Jun-21 A	19-May-22	11-Sep-21	18-Mar-22	-47		
Footpath		267	113	152	017/08(6	24-Jun-21 A	19-May-22	11-Sep-21	18-Mar-22	-47		
East Bound (5 stages, ~20m/stage)		152	0	152	017/08(6	09-Nov-21	19-May-22	11-Sep-21	18-Mar-22	-47		
WP1140	Implementation of TTA, Trial Pit Excavation and Identification of UU (1st stag	8	0	8	017/08(6	09-Nov-21	18-Nov-21	11-Sep-21	21-Sep-21	-47	0	0%
WP1150	Civil Provision of TCSS (1st stage)	3	0	3	017/08(6	18-Nov-21	22-Nov-21	21-Sep-21	25-Sep-21	-47	0	0%
WP1160	Construction of Traffic Sign TS175(7) (1st Stage)	8	0	8	017/08(6	22-Nov-21	01-Dec-21	25-Sep-21	06-Oct-21	-47	0	0%
WP1170	Reinstatement of Road Surface and Closing of TTA (1st stage)	5	0	5	017/08(6	01-Dec-21	07-Dec-21	06-Oct-21	12-Oct-21	-47	0	0%
WP1180	Implementation of TTA, Trial Pit Excavation and Identification of UU (2nd sta	8	0	8	017/08(6	07-Dec-21	16-Dec-21	12-Oct-21	22-Oct-21	-47	0	0%
WP1190	Excavation and Construction of Directional Sign Footing DS4 (2nd stage)	6	0	6	017/08(6	16-Dec-21	23-Dec-21	22-Oct-21	29-Oct-21	-47	0	0%
WP1200	Installation of Steel Frame and Directional Sign (2nd stage)	8	0	8	017/08(6	23-Dec-21	05-Jan-22	29-Oct-21	08-Nov-21	-47	0	0%
WP1210	Construction of Traffic Sign TS175(7) (2nd stage)	8	0	8	017/08(6	05-Jan-22	14-Jan-22	08-Nov-21	17-Nov-21	-47	0	0%
WP1220	Civil Provision of TCSS (2nd stage)	5	0	5	017/08(6	14-Jan-22	20-Jan-22	17-Nov-21	23-Nov-21	-47	0	0%
WP1230	Reinstatement of Road Surface and Closing of TTA (2nd stage)	5	0	5	017/08(6	20-Jan-22	26-Jan-22	23-Nov-21	29-Nov-21	-47	0	0%



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

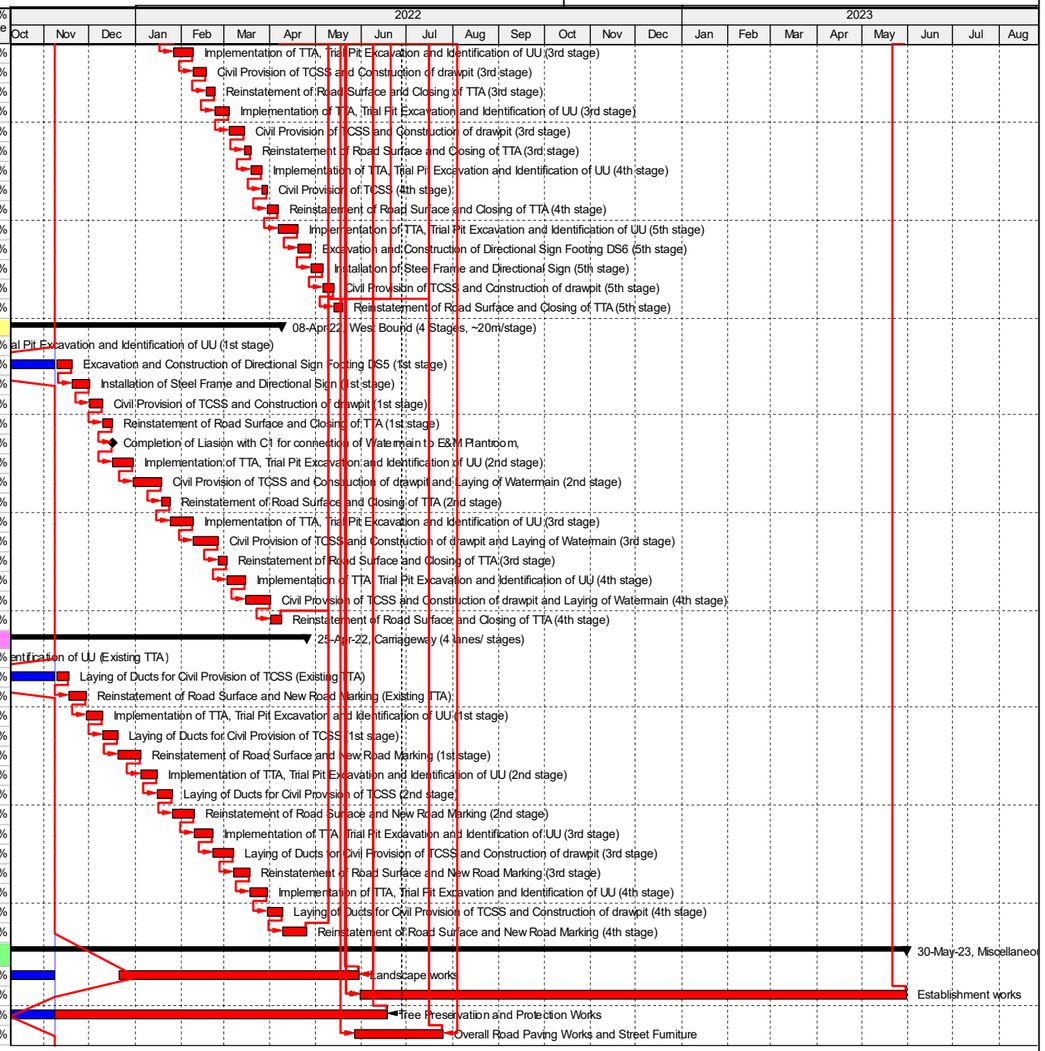
土木工程拓展署
Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

Date	Revision	Checked	Approved
08-Mar-21	Monthly Programme Update (Mar 2021)	TL	StL
08-May-21	Monthy Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
WP1240	Implementation of TTA, Trial Pit Excavation and Identification of UU (3rd stag	8	0	8	017/08(6	26-Jan-22	08-Feb-22	29-Nov-21	08-Dec-21	-47	0	0%
WP1250	Civil Provision of TCSS and Construction of drawpit (3rd stage)	8	0	8	017/08(6	08-Feb-22	17-Feb-22	08-Dec-21	17-Dec-21	-47	0	0%
WP1260	Reinstatement of Road Surface and Closing of TTA (3rd stage)	5	0	5	017/08(6	17-Feb-22	23-Feb-22	17-Dec-21	23-Dec-21	-47	0	0%
WP1270	Implementation of TTA, Trial Pit Excavation and Identification of UU (3rd stag	8	0	8	017/08(6	23-Feb-22	04-Mar-22	23-Dec-21	05-Jan-22	-47	0	0%
WP1280	Civil Provision of TCSS and Construction of drawpit (3rd stage)	8	0	8	017/08(6	04-Mar-22	14-Mar-22	05-Jan-22	14-Jan-22	-47	0	0%
WP1290	Reinstatement of Road Surface and Closing of TTA (3rd stage)	5	0	5	017/08(6	14-Mar-22	19-Mar-22	14-Jan-22	20-Jan-22	-47	0	0%
WP1300	Implementation of TTA, Trial Pit Excavation and Identification of UU (4th stag	6	0	6	017/08(6	19-Mar-22	26-Mar-22	20-Jan-22	27-Jan-22	-47	0	0%
WP1310	Civil Provision of TCSS (4th stage)	3	0	3	017/08(6	26-Mar-22	30-Mar-22	27-Jan-22	31-Jan-22	-47	0	0%
WP1320	Reinstatement of Road Surface and Closing of TTA (4th stage)	5	0	5	017/08(6	30-Mar-22	06-Apr-22	31-Jan-22	09-Feb-22	-47	0	0%
WP1330	Implementation of TTA, Trial Pit Excavation and Identification of UU (5th stag	8	0	8	017/08(6	06-Apr-22	19-Apr-22	09-Feb-22	18-Feb-22	-47	0	0%
WP1340	Excavation and Construction of Directional Sign Footing DS6 (5th stage)	8	0	8	017/08(6	19-Apr-22	28-Apr-22	18-Feb-22	28-Feb-22	-47	0	0%
WP1350	Installation of Steel Frame and Directional Sign (5th stage)	6	0	6	017/08(6	28-Apr-22	06-May-22	28-Feb-22	07-Mar-22	-47	0	0%
WP1370	Civil Provision of TCSS and Construction of drawpit (5th stage)	5	0	5	017/08(6	06-May-22	13-May-22	07-Mar-22	12-Mar-22	-47	0	0%
WP1380	Reinstatement of Road Surface and Closing of TTA (5th stage)	5	0	5	017/08(6	13-May-22	19-May-22	12-Mar-22	18-Mar-22	-47	0	0%
West Bound (4 Stages, ~20m/stage)		237	113	122	017/08(6	24-Jun-21 A	08-Apr-22	20-Oct-21	18-Mar-22	-17		
WP1390	Implementation of TTA, Trial Pit Excavation and Identification of UU (1st stage	10	10	0	017/08(6	24-Jun-21 A	06-Jul-21 A	20-Oct-21	20-Oct-21		0	100%
WP1400	Excavation and Construction of Directional Sign Footing DS5 (1st stage)	10	103	9	017/08(6	07-Jul-21 A	19-Nov-21	20-Oct-21	30-Oct-21	-17	0	10%
WP1410	Installation of Steel Frame and Directional Sign (1st stage)	10	0	10	017/08(6	19-Nov-21	01-Dec-21	30-Oct-21	11-Nov-21	-17	0	0%
WP1420	Civil Provision of TCSS and Construction of drawpit (1st stage)	8	0	8	017/08(6	01-Dec-21	10-Dec-21	11-Nov-21	20-Nov-21	-17	0	0%
WP1430	Reinstatement of Road Surface and Closing of TTA (1st stage)	5	0	5	017/08(6	10-Dec-21	16-Dec-21	20-Nov-21	26-Nov-21	-17	0	0%
WP1440	Completion of Liasion with C1 for connection of Watermain to E&M Plantroo	0	0	0	017/08(6		16-Dec-21		26-Nov-21	-17	0	0%
WP1450	Implementation of TTA, Trial Pit Excavation and Identification of UU (2nd stag	10	0	10	017/08(6	16-Dec-21	30-Dec-21	26-Nov-21	08-Dec-21	-17	0	0%
WP1460	Civil Provision of TCSS and Construction of drawpit and Laying of Watermair	15	0	15	017/08(6	30-Dec-21	18-Jan-22	08-Dec-21	28-Dec-21	-17	0	0%
WP1470	Reinstatement of Road Surface and Closing of TTA (2nd stage)	5	0	5	017/08(6	18-Jan-22	24-Jan-22	28-Dec-21	04-Jan-22	-17	0	0%
WP1480	Implementation of TTA, Trial Pit Excavation and Identification of UU (3rd stag	10	0	10	017/08(6	24-Jan-22	08-Feb-22	04-Jan-22	15-Jan-22	-17	0	0%
WP1490	Civil Provision of TCSS and Construction of drawpit and Laying of Watermair	15	0	15	017/08(6	08-Feb-22	25-Feb-22	15-Jan-22	05-Feb-22	-17	0	0%
WP1500	Reinstatement of Road Surface and Closing of TTA (3rd stage)	5	0	5	017/08(6	25-Feb-22	03-Mar-22	05-Feb-22	11-Feb-22	-17	0	0%
WP1510	Implementation of TTA, Trial Pit Excavation and Identification of UU (4th stag	10	0	10	017/08(6	03-Mar-22	15-Mar-22	11-Feb-22	23-Feb-22	-17	0	0%
WP1520	Civil Provision of TCSS and Construction of drawpit and Laying of Watermair	15	0	15	017/08(6	15-Mar-22	01-Apr-22	23-Feb-22	12-Mar-22	-17	0	0%
WP1530	Reinstatement of Road Surface and Closing of TTA (4th stage)	5	0	5	017/08(6	01-Apr-22	08-Apr-22	12-Mar-22	18-Mar-22	-17	0	0%
Carriageway (4 lanes/ stages)		248	113	133	017/08(6	24-Jun-21 A	25-Apr-22	06-Oct-21	18-Mar-22	-28		
WP1000	Trial Pit Excavation and Identification of UU (Existing TTA)	10	10	0	017/08(6	24-Jun-21 A	06-Jul-21 A	06-Oct-21	06-Oct-21		0	100%
WP1010	Laying of Ducts for Civil Provision of TCSS (Existing TTA)	8	103	7	017/08(6	07-Jul-21 A	17-Nov-21	06-Oct-21	15-Oct-21	-28	0	12.5%
WP1015	Reinstatement of Road Surface and New Road Marking (Existing TTA)	10	0	10	017/08(6	17-Nov-21	29-Nov-21	15-Oct-21	27-Oct-21	-28	0	0%
WP1020	Implementation of TTA, Trial Pit Excavation and Identification of UU (1st stag	10	0	10	017/08(6	29-Nov-21	10-Dec-21	27-Oct-21	08-Nov-21	-28	0	0%
WP1030	Laying of Ducts for Civil Provision of TCSS (1st stage)	8	0	8	017/08(6	10-Dec-21	20-Dec-21	08-Nov-21	17-Nov-21	-28	0	0%
WP1090	Reinstatement of Road Surface and New Road Marking (1st stage)	10	0	10	017/08(6	20-Dec-21	04-Jan-22	17-Nov-21	29-Nov-21	-28	0	0%
WP1550	Implementation of TTA, Trial Pit Excavation and Identification of UU (2nd stag	10	0	10	017/08(6	04-Jan-22	15-Jan-22	29-Nov-21	10-Dec-21	-28	0	0%
WP1560	Laying of Ducts for Civil Provision of TCSS (2nd stage)	8	0	8	017/08(6	15-Jan-22	25-Jan-22	10-Dec-21	20-Dec-21	-28	0	0%
WP1570	Reinstatement of Road Surface and New Road Marking (2nd stage)	10	0	10	017/08(6	25-Jan-22	09-Feb-22	20-Dec-21	04-Jan-22	-28	0	0%
WP1580	Implementation of TTA, Trial Pit Excavation and Identification of UU (3rd stag	10	0	10	017/08(6	09-Feb-22	21-Feb-22	04-Jan-22	15-Jan-22	-28	0	0%
WP1590	Laying of Ducts for Civil Provision of TCSS and Construction of drawpit (3rd s	12	0	12	017/08(6	21-Feb-22	07-Mar-22	15-Jan-22	29-Jan-22	-28	0	0%
WP1600	Reinstatement of Road Surface and New Road Marking (3rd stage)	10	0	10	017/08(6	07-Mar-22	18-Mar-22	29-Jan-22	14-Feb-22	-28	0	0%
WP1610	Implementation of TTA, Trial Pit Excavation and Identification of UU (4th stag	10	0	10	017/08(6	18-Mar-22	30-Mar-22	14-Feb-22	25-Feb-22	-28	0	0%
WP1620	Laying of Ducts for Civil Provision of TCSS and Construction of drawpit (4th s	8	0	8	017/08(6	30-Mar-22	09-Apr-22	25-Feb-22	07-Mar-22	-28	0	0%
WP1630	Reinstatement of Road Surface and New Road Marking (4th stage)	10	0	10	017/08(6	09-Apr-22	25-Apr-22	07-Mar-22	18-Mar-22	-28	0	0%
Miscellaneous Works (Portion I, II and III)		1249	790	459		09-Mar-19 A	30-May-23	07-Sep-21	14-Apr-23	-37		
MISC4010	Landscape works	321	153	161	017/08(7	08-Jun-21 A	30-May-22	05-Nov-21	14-Apr-22	-46	0	50%
MISC4020	Establishment works	365	0	365	017/08(7	31-May-22	30-May-23	15-Apr-22	14-Apr-23	-46	0	0%
MISC4030	Tree Preservation and Protection Works	939	790	178	017/08(6	09-Mar-19 A	18-Jun-22	07-Sep-21	14-Apr-22	-49	0	81%
MISC4040	Overall Road Paving Works and Street Furniture	49	0	49	017/08(6	27-May-22	25-Jul-22	26-May-22	25-Jul-22	-1	0	0%



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

土木工程拓展署
Civil Engineering and Development Department

Contract No.: NE/2017/08
Cross Bay Link, Tseung Kwan O
Road D9 and Associated Works

Build King

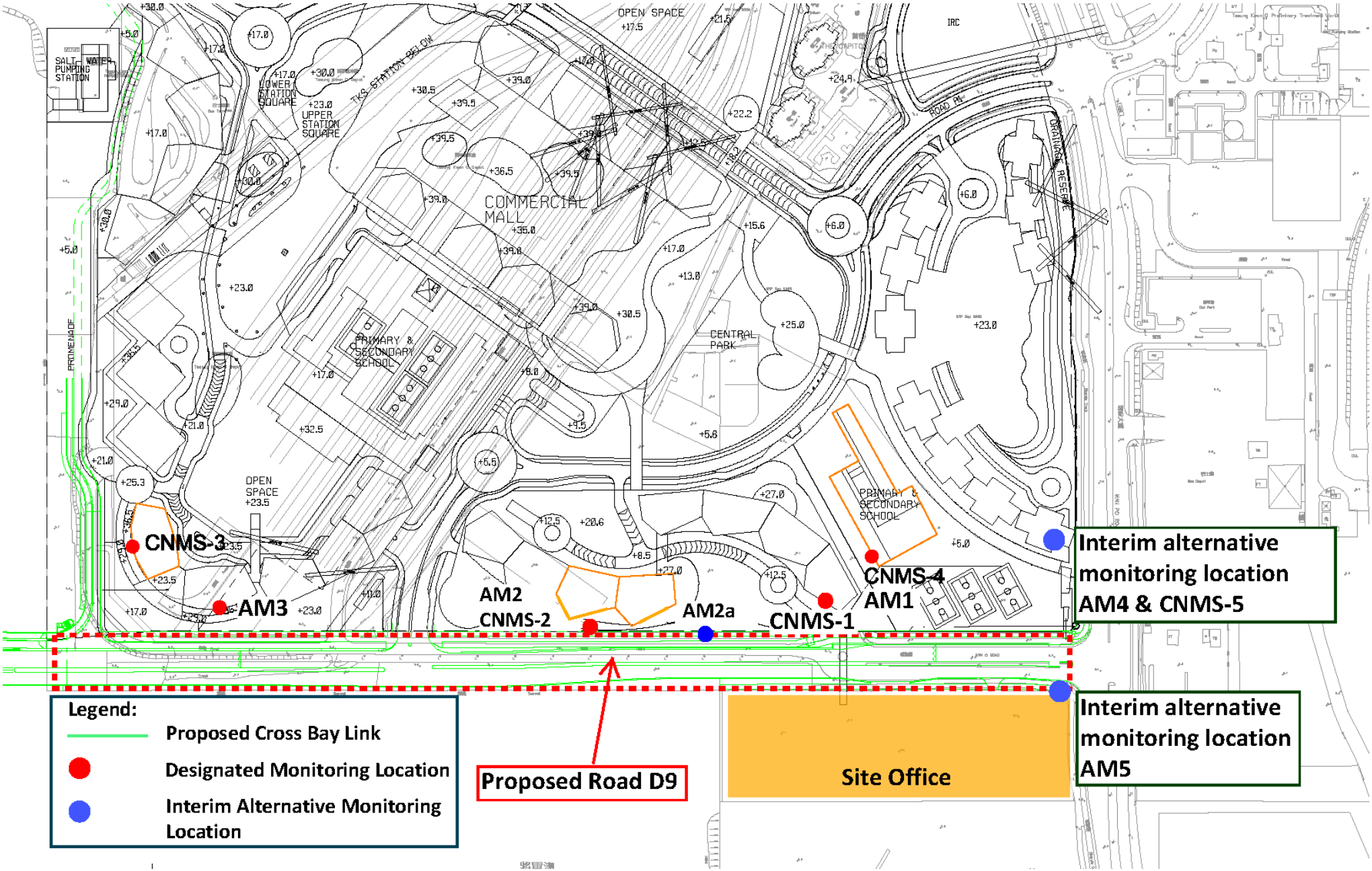
Date	Revision	Checked	Approved
08-Mar-21	Monthly Programme Update (Mar 2021)	TL	StL
08-May-21	Monthy Programme Update (May 2021)	CkT	StL
08-Jul-21	Monthly Programme Update (Jul 2021)	CKT	StL
16-Sep-21	Acceleration Programme	CKT	Stl

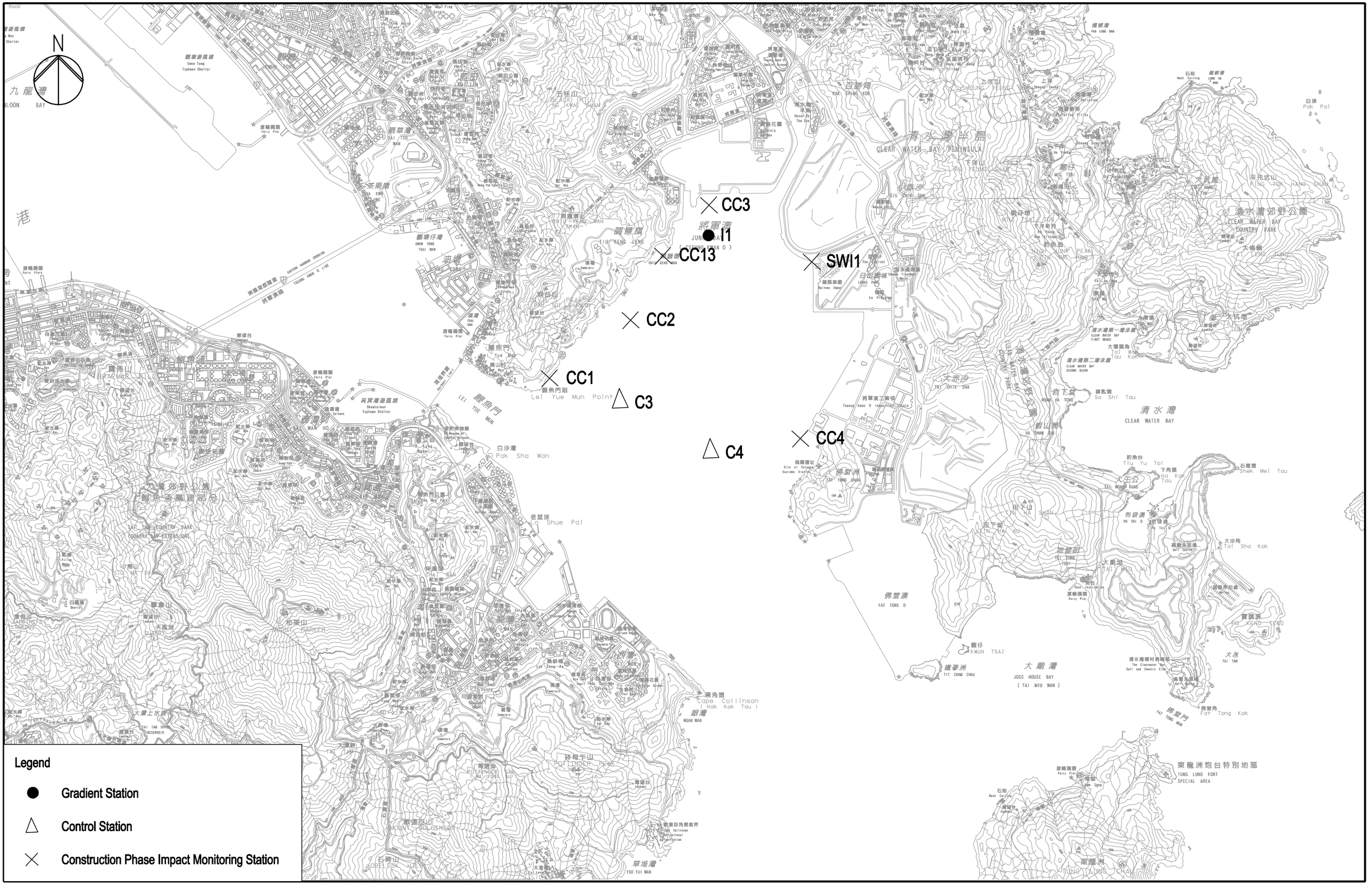
Appendix D

Monitoring Location
(Air Quality, Noise and Water Quality)

CEDD Contract Agreement No. EDO/04/2018 -
Environmental Team for Cross Bay Link, Tseung Kwan O
Designated and Interim Alternative Air Quality and Noise Monitoring Location

AUES





Legend

● Gradient Station

△ Control Station

╳ Construction Phase Impact Monitoring Station

Printed by : HKGTRA014 3/11/2013
Filename : G:\env\project\209506-50\drawings\20130305_EMA\209506_EMA_WQ_001.dgn

土木工程拓展署
Civil Engineering and
Development Department

ARUP Ove Arup & Partners
Hong Kong Limited

Job Title
Agreement No. CE 43/2008(HY)
Cross Bay Link, Tseung Kwan O - Investigation

Drawing Title
Locations of Water Quality
Monitoring Stations

Rev.	Description	Date
C	THIRD ISSUE	03/13
B	SECOND ISSUE	01/13
A	FIRST ISSUE	03/11

Drawn GL
Date 03/13
Checked JP
Approved ST
Scale 1:30000 (A3)
Drawing No. 209506/EMA/WQ/001
Status FINAL
Rev. C

Appendix E

Event and Action Plan

EVENT	ACTION			
	Environmental Team (ET)	**Independent Environmental Checker (IEC)**	**Project Consultant**	**Contractor**
ACTION LEVEL				
Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and Project Consultant; 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.
Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and Project Consultant; 3. Advise the Project Consultant 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 Project Consultant; 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 exceedance in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IEC within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

EVENT	ACTION			
	Environmental Team (ET)	**Independent Environmental Checker (IEC)**	**Project Consultant**	**Contractor**
LIMIT LEVEL				
Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform Project Consultant, Contractor, IEC 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 Project Consultant 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 Project Consultant 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; Implement the agreed proposals; 4. Amend proposal if appropriate.

EVENT	ACTION			
	Environmental Team (ET)	**Independent Environmental Checker (IEC)**	**Project Consultant**	**Contractor**
LIMIT LEVEL				
Exceedance for two or more consecutive samples	1. Notify IEC, Project Consultant, 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 possible mitigation to be implemented; 6. Arrange meeting with IEC and Project Consultant to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Project Consultant informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst Project Consultant, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the Project Consultant accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. In consultation with the IEC, agree with the 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.	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. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the Project Consultant until the exceedance is abated.

EVENT	ACTION			
	Environmental Team (ET)	**Independent Environmental Checker (IEC)**	**Project Consultant**	**Contractor**
Action Level	1. Notify IEC and contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, Project Consultant and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the Project Consultant accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented	1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.
Limit Level	1. Identify source; 2. Inform IEC, Project Consultant, EPD and Contractor; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, Project Consultant and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Project Consultant informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst Project Consultant, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the Project Consultant accordingly; 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 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.	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. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the Project Consultant until the exceedance is abated.

EVENT	ACTION			
	Environmental Team (ET)	**Independent Environmental Checker (IEC)**	**Project Consultant**	**Contractor**
Action level being exceeded by one sampling day at water sensitive receiver(s)	1. Identify the source(s) of impact by comparing the results with those collected at the gradient stations and the control stations as appropriate; 2. If exceedance is found to be caused by the marine works, repeat *in-situ* measurement to confirm findings; 3. Inform IEC and contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. If exceedance occurs at WSD salt water intake, inform WSD; 6. Discuss mitigation measures with IEC and Contractor; 7. Repeat measurement on next day of exceedance.	1. Discuss mitigation measures with ET and Contractor; 2. Review proposal on mitigation measures submitted by Contractor and advise the Project Consultant accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss proposed mitigation measures with IEC; 2. Make agreement on the mitigation proposal.	1. Inform the Project Consultant and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Amend working methods if appropriate; 5. Discuss with ET and IEC and propose mitigation measures to IEC and Project Consultant; 6. Implement the agree mitigation measures.
Action level being exceeded by two or more consecutive sampling days at water sensitive receiver(s)	1. Identify the source(s) of impact by comparing the results with those collected at the gradient stations and the control stations as appropriate; 2. If exceedance is found to be caused by the marine works, repeat *in-situ* measurement to confirm findings; 3. Inform IEC and contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, and Contractor; 6. Ensure mitigation measures are	1. Discuss mitigation measures with ET and Contractor; 2. Review proposal on mitigation measures submitted by Contractor and advise the Project Consultant accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss proposed mitigation measures with IEC; 2. Make agreement on the mitigation proposal; 3. Assess the effectiveness of the implemented mitigation measures.	1. Inform the Project Consultant and confirm notification of the noncompliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Discuss with ET, IEC and Project Consultant and propose mitigation measures to IEC and Project Consultant within 3 working

EVENT	ACTION			
	Environmental Team (ET)	**Independent Environmental Checker (IEC)**	**Project Consultant**	**Contractor**
	implemented; 7. Prepare to increase the monitoring frequency to daily; 8. If exceedance occurs at WSD salt water intake, inform WSD; 9. Repeat measurement on next day of exceedance.			days; 5. Implement the agreed mitigation measures.
Limit level being exceeded by one sampling day at water sensitive receiver(s)	1. Identify the source(s) of impact by comparing the results with those collected at the gradient stations and the control stations as appropriate; 2. If exceedance is found to be caused by the marine works, repeat *in-situ* measurement to confirm findings; 3. Inform IEC, contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. If exceedance occurs at WSD salt water intake, inform WSD. 8. ET should contact AFCD if the limit level is exceeded by one sampling day or two or more consecutive sampling days at water sensitive receiver(s).	1.Discuss mitigation measures with ET and Contractor; 2. Review proposal on mitigation measures submitted by Contractor and advise the Project Consultant accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss proposed mitigation measures with IEC, ET and Contractor; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures.	1. Inform the Project Consultant and confirm notification of the noncompliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Discuss with ET, IEC and Project Consultant and submit proposal of mitigation measures to IEC and Project Consultant within 3 working days of notification; 5. Implement the agreed mitigation measures.
Limit level being exceeded by two or more	1. Identify the source(s) of impact by comparing the results with those collected at the gradient stations and the	1. Discuss mitigation measures with ET and Contractor;	1. Discuss proposed mitigation measures with IEC, ET and Contractor;	1. Inform the Project Consultant and confirm notification of the

EVENT	ACTION			
	Environmental Team (ET)	**Independent Environmental Checker (IEC)**	**Project Consultant**	**Contractor**
consecutive sampling days at water sensitive receiver(s)	control stations as appropriate; 2. If exceedance is found to be caused by the marine works, repeat *in-situ* measurement to confirm findings; 3. Inform IEC, contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, and Contractor; 6. Ensure mitigation measures are implemented; 7. Prepare to increase the monitoring frequency to daily; 8. If exceedance occurs at WSD salt water intake, inform WSD; 9. Repeat measurement on next day of exceedance.	2. Review proposal on mitigation measures submitted by Contractor and advise the Project Consultant accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures; 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level.	noncompliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment and consider changes of working methods; 4. Discuss with ET, IEC and Project Consultant and submit proposal of mitigation measures to IEC and Project Consultant within 3 working days of notification; 5. Implement the agreed mitigation measures; 6. As directed by the Engineer, to slow down or to stop all or part of the construction activities.

Appendix F

Impact Monitoring Schedule of the Reporting Month and Coming Month

Impact Monitoring Schedule for the reporting month – October 2022

Date		Noise Monitoring (Leq30min)	Air Quality Monitoring	
			1-Hour TSP	24-Hour TSP
Sat	1-Oct-22			
Sun	2-Oct-22			
Mon	3-Oct-22	✓	✓	
Tue	4-Oct-22			
Wed	5-Oct-22			
Thu	6-Oct-22			✓
Fri	7-Oct-22		✓	
Sat	8-Oct-22			
Sun	9-Oct-22			
Mon	10-Oct-22			
Tue	11-Oct-22			
Wed	12-Oct-22			✓
Thu	13-Oct-22	✓	✓	
Fri	14-Oct-22			
Sat	15-Oct-22			
Sun	16-Oct-22			
Mon	17-Oct-22			
Tue	18-Oct-22			✓
Wed	19-Oct-22	✓	✓	
Thu	20-Oct-22			
Fri	21-Oct-22			
Sat	22-Oct-22			
Sun	23-Oct-22			
Mon	24-Oct-22			✓
Tue	25-Oct-22	✓	✓	
Wed	26-Oct-22			
Thu	27-Oct-22			
Fri	28-Oct-22			
Sat	29-Oct-22			✓
Sun	30-Oct-22			
Mon	31-Oct-22	✓	✓	

✓	Monitoring Day
	Sunday or Public Holiday

Impact Monitoring Schedule for coming month – November 2022

Date		Noise Monitoring (Leq30min)	Air Quality Monitoring	
			1-Hour TSP	24-Hour TSP
Tue	1-Nov-22			
Wed	2-Nov-22			
Thu	3-Nov-22			
Fri	4-Nov-22			✓
Sat	5-Nov-22		✓	
Sun	6-Nov-22			
Mon	7-Nov-22			
Tue	8-Nov-22			
Wed	9-Nov-22			
Thu	10-Nov-22			✓
Fri	11-Nov-22	✓	✓	
Sat	12-Nov-22			
Sun	13-Nov-22			
Mon	14-Nov-22			
Tue	15-Nov-22			
Wed	16-Nov-22			✓
Thu	17-Nov-22	✓	✓	
Fri	18-Nov-22			
Sat	19-Nov-22			
Sun	20-Nov-22			
Mon	21-Nov-22			
Tue	22-Nov-22			✓
Wed	23-Nov-22	✓	✓	
Thu	24-Nov-22			
Fri	25-Nov-22			
Sat	26-Nov-22			
Sun	27-Nov-22			
Mon	28-Nov-22			✓
Tue	29-Nov-22	✓	✓	
Wed	30-Nov-22			

✓	Monitoring Day
	Sunday or Public Holiday

Appendix G

Calibration Certificates of Equipment and Accreditation Laboratory Certificate

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location : Near Lohas Park Phase 6 — Date of Calibration: 1-Sep-22
Location ID : AM2a — Next Calibration Date: 1-Nov-22
Name and Model: TISCH HVS Model TE-5170 — Technician: Eric

CONDITIONS

Sea Level Pressure (hPa)	1007.9	Corrected Pressure (mm Hg)	755.925
Temperature (°C)	29.4	Temperature (K)	302

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	1.99838
Model->	5025A	Qstd Intercept ->	-0.00903
Serial # ->	1612		

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected
18	5.90	5.90	11.8	1.706	56	55.04
13	4.30	4.30	8.6	1.457	50	49.14
10	3.50	3.50	7.0	1.315	44	43.24
7	2.40	2.40	4.8	1.090	36	35.38
5	1.40	1.40	2.8	0.834	29	28.50

LINEAR REGRESSION
Slope = 31.4548
Intercept = 1.9832
Corr. coeff. = 0.9966

Calculations :

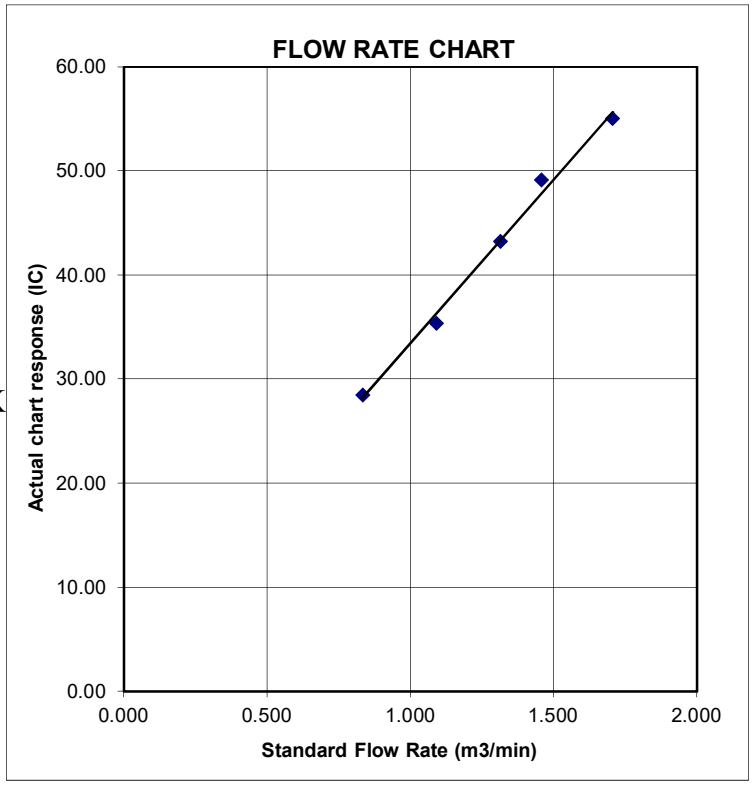
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

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 : Junction of Wan Po Road and Wan O Road Date of Calibration: 1-Sep-22
Location ID : AM5 Next Calibration Date: 1-Nov-22
Name and Model: TISCH HVS Model TE-5170 Technician: Eric

CONDITIONS

Sea Level Pressure (hPa)	1007.9	Corrected Pressure (mm Hg)	755.925
Temperature (°C)	29.4	Temperature (K)	302

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	1.99838
Model->	5025A	Qstd Intercept ->	-0.00903
Serial # ->	1612		

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.00	6.00	12.0	1.721	59	57.99	Slope = 25.4168
13	4.40	4.40	8.8	1.474	52	51.11	Intercept = 13.9245
10	2.60	2.60	5.2	1.134	43	42.26	Corr. coeff. = 0.9992
7	1.80	1.80	3.6	0.945	39	38.33	
5	1.30	1.30	2.6	0.803	35	34.40	

Calculations :

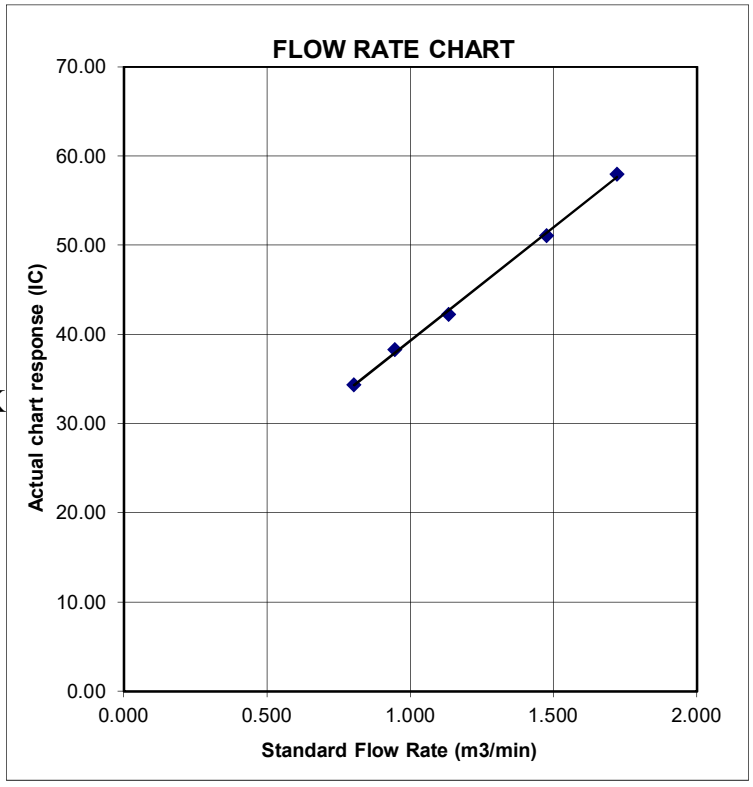
Qstd = 1/m[Sqrt(H20(Pa/Pstd)(Tstd/Ta))-b]
IC = I[Sqrt(Pa/Pstd)(Tstd/Ta)]

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 27, 2022

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	December 27, 2021	**Rootsmeter S/N:** 438320	**Ta:** 295	°K
Operator:	Jim Tisch		**Pa:** 740.4	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1612**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.3890	3.2	2.00
2	3	4	1	0.9760	6.4	4.00
3	5	6	1	0.8740	7.9	5.00
4	7	8	1	0.8320	8.8	5.50
5	9	10	1	0.6870	12.7	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)
0.9799	0.7055	1.4029	0.9957	0.7168	0.8927
0.9756	0.9996	1.9841	0.9914	1.0157	1.2624
0.9736	1.1140	2.2183	0.9893	1.1320	1.4114
0.9724	1.1688	2.3265	0.9881	1.1876	1.4803
0.9673	1.4079	2.8059	0.9828	1.4306	1.7853
QSTD	**m=**	**1.99838**	**QA**	**m=**	**1.25135**
	b=	**-0.00903**		**b=**	**-0.00574**
	r=	**0.99999**		**r=**	**0.99999**

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)467-900

ALS Technichem (HK) Pty Ltd

ALS Laboratory Group

ANALYTICAL CHEMISTRY & TESTING SERVICES

SUB-CONTRACTING REPORT

CONTACT	:	MR BEN TAM	WORK ORDER	:	**HK2210526**
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	:	18-MAR-2022
			DATE OF ISSUE	:	28-MAR-2022
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.**
- **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 is the Final Report and supersedes any preliminary report with this batch 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	:	HK2210526
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.
HK2210526-001	S/N: 3Y6501	AIR	18-Mar-2022	S/N: 3Y6501

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	3Y6501
Equipment Ref:	EQ111

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018 & HVS 019
Last Calibration Date:	5 November 2021 & 13 December 2021

Equipment Verification Results:

Verification Date: 20 December 2021 & 7 January 2022

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)
7 Jan 22	2hr	11:55 ~ 13:55	18.6	1021.6	55.1	2574	21.5
7 Jan 22	2hr27mins	14:23 ~ 16:50	18.6	1021.6	54.8	2671	18.2
7 Jan 22	2hr09mins	16:50 ~ 18:59	18.6	1021.6	56.5	2811	21.8
20 Dec 21*	45mins	10:15 ~ 11:00	20.5	1008.7	472.0	10069	223.8
20 Dec 21*	31mins	11:05 ~ 11:36	20.5	1008.7	187.2	2054	67.1

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

Sensitivity Adjustment Scale Setting (Before Calibration) 657 (CPM)

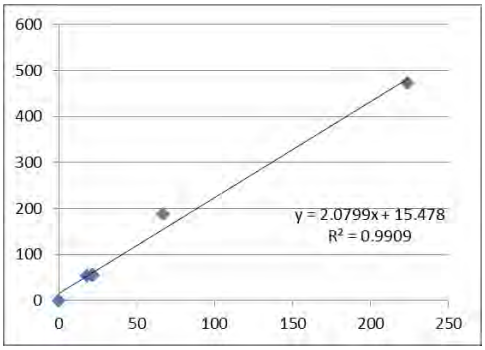
Sensitivity Adjustment Scale Setting (After Calibration) 657 (CPM)

Linear Regression of Y or X

Slope (K-factor): 2.0799 (µg/m^3)/CPM

Correlation Coefficient (R) 0.9954

Date of Issue 15 January 2022



Remarks:

1. Strong Correlation (R>0.8)
2. Factor 2.0799 (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 : 15 January 2022

QC Reviewer : Ben Tam Signature : Date : 15 January 2022

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	5-Nov-21
Location ID :	Calibration Room	Next Calibration Date:	5-Feb-22

CONDITIONS

Sea Level Pressure (hPa)	1012.5	Corrected Pressure (mm Hg)	759.375
Temperature (°C)	25.6	Temperature (K)	299

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10574
Model->	5025A	Qstd Intercept ->	-0.00985
Calibration Date->	19-Jan-21	Expiry Date->	18-Jan-22

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.2	6.2	12.4	1.675	52	51.93	Slope = 24.2092
13	5	5	10.0	1.504	48	47.93	Intercept = 10.8881
10	3.9	3.9	7.8	1.329	42	41.94	Corr. coeff. = 0.9959
8	2.5	2.5	5.0	1.065	36	35.95	
5	1.0	1.0	2.0	0.675	28	27.96	

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)

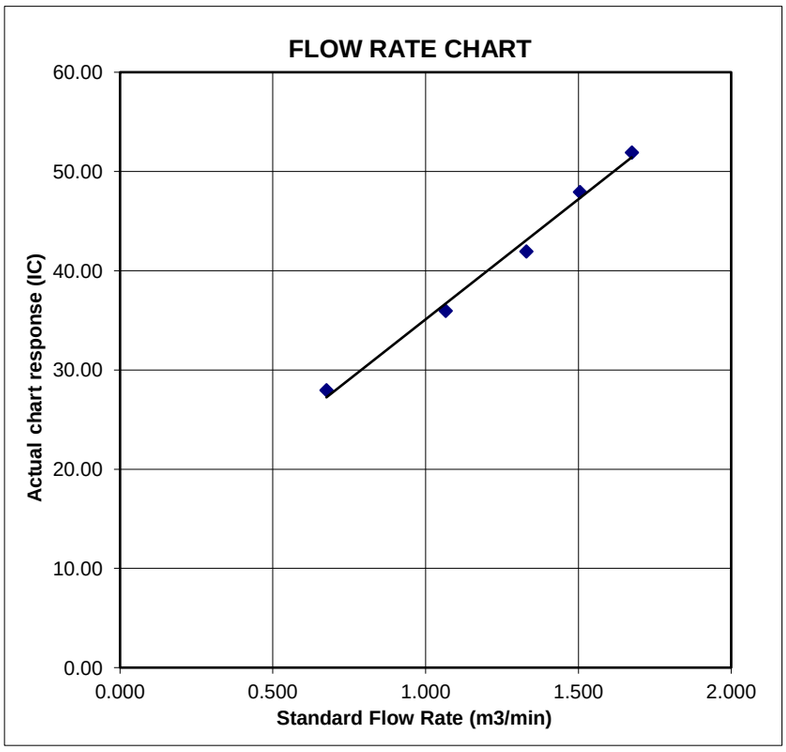
m = sampler slope

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:	13-Dec-21
Location ID :	Calibration Room	Next Calibration Date:	13-Mar-22

CONDITIONS

Sea Level Pressure (hPa)	1014.3	Corrected Pressure (mm Hg)	760.725
Temperature (°C)	24.0	Temperature (K)	297

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10574
Model->	5025A	Qstd Intercept ->	-0.00985
Calibration Date->	19-Jan-21	Expiry Date->	18-Jan-22

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.2	6.2	12.4	1.681	52	52.11	Slope = 36.4525
13	4.9	4.9	9.8	1.495	44	44.10	Intercept = -9.0200
10	3.7	3.7	7.4	1.299	40	40.09	Corr. coeff. = 0.9943
8	2.4	2.4	4.8	1.047	30	30.06	
5	1.5	1.5	3.0	0.829	20	20.04	

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)

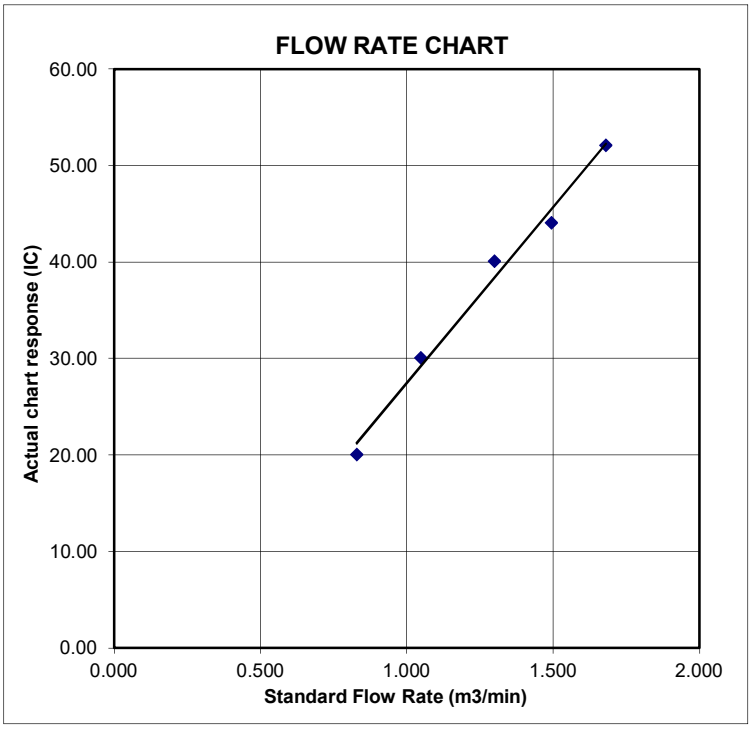
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
January 19, 2022

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	January 19, 2021	**Rootsmeter S/N:** 438320	**Ta:** 294	°K
Operator:	Jim Tisch		**Pa:** 755.1	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1941**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4830	3.2	2.00
2	3	4	1	1.0420	6.4	4.00
3	5	6	1	0.9290	8.0	5.00
4	7	8	1	0.8840	8.8	5.50
5	9	10	1	0.7340	12.9	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)
1.0029	0.6762	1.4192	0.9958	0.6715	0.8824
0.9986	0.9583	2.0071	0.9915	0.9516	1.2479
0.9965	1.0726	2.2440	0.9894	1.0650	1.3952
0.9954	1.1260	2.3535	0.9883	1.1180	1.4633
0.9899	1.3487	2.8385	0.9829	1.3391	1.7648
QSTD	**m=**	**2.10574**	**QA**	**m=**	**1.31858**
	b=	**-0.00985**		**b=**	**-0.00612**
	r=	**0.99992**		**r=**	**0.99992**

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	:	**HK2210525**
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	:	18-MAR-2022
		DATE OF ISSUE	:	28-MAR-2022
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.**
- **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 is the Final Report and supersedes any preliminary report with this batch 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	:	HK2210525
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.
HK2210525-001	S/N: 366410	AIR	18-Mar-2022	S/N: 366410

Equipment Verification Report (TSP)

Equipment Calibrated:

Type:	Laser Dust monitor
Manufacturer:	Sibata LD-3B
Serial No.	366410
Equipment Ref:	EQ110

Standard Equipment:

Standard Equipment:	Higher Volume Sampler (TSP)
Location & Location ID:	AUES office (calibration room)
Equipment Ref:	HVS 018 & HVS 019
Last Calibration Date:	5 November 2021 & 13 December 2021

Equipment Verification Results:

Verification Date: 20 December 2021 & 7 January 2022

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)
7 Jan 22	2hr	11:55 ~ 13:55	18.6	1021.6	55.1	2677	22.3
7 Jan 22	2hr27mins	14:23 ~ 16:50	18.6	1021.6	54.8	2561	17.4
7 Jan 22	2hr09mins	16:50 ~ 18:59	18.6	1021.6	56.5	2711	21.0
20 Dec 21*	45mins	10:15 ~ 11:00	20.5	1008.7	472.0	9461	210.2
20 Dec 21*	31mins	11:05 ~ 11:36	20.5	1008.7	187.2	4011	131.1

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

Sensitivity Adjustment Scale Setting (Before Calibration) 674 (CPM)

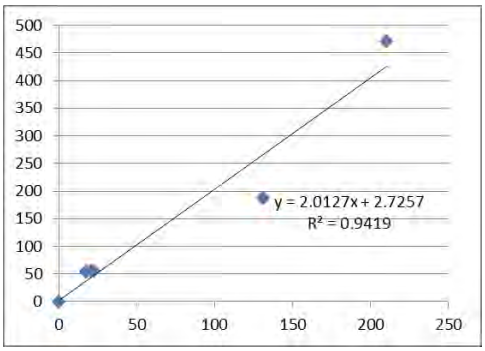
Sensitivity Adjustment Scale Setting (After Calibration) 674 (CPM)

Linear Regression of Y or X

Slope (K-factor): 2.0127 (µg/m^3)/CPM

Correlation Coefficient (R) 0.9705

Date of Issue 15 January 2022



Remarks:

1. Strong Correlation (R>0.8)
2. Factor 2.0127 (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 : 15 January 2022

QC Reviewer : Ben Tam Signature : Date : 15 January 2022

TSP SAMPLER CALIBRATION CALCULATION SPREADSHEET

Location :	Gold King Industrial Building, Kwai Chung	Date of Calibration:	5-Nov-21
Location ID :	Calibration Room	Next Calibration Date:	5-Feb-22

CONDITIONS

Sea Level Pressure (hPa)	1012.5	Corrected Pressure (mm Hg)	759.375
Temperature (°C)	25.6	Temperature (K)	299

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10574
Model->	5025A	Qstd Intercept ->	-0.00985
Calibration Date->	19-Jan-21	Expiry Date->	18-Jan-22

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.2	6.2	12.4	1.675	52	51.93	Slope = 24.2092
13	5	5	10.0	1.504	48	47.93	Intercept = 10.8881
10	3.9	3.9	7.8	1.329	42	41.94	Corr. coeff. = 0.9959
8	2.5	2.5	5.0	1.065	36	35.95	
5	1.0	1.0	2.0	0.675	28	27.96	

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)

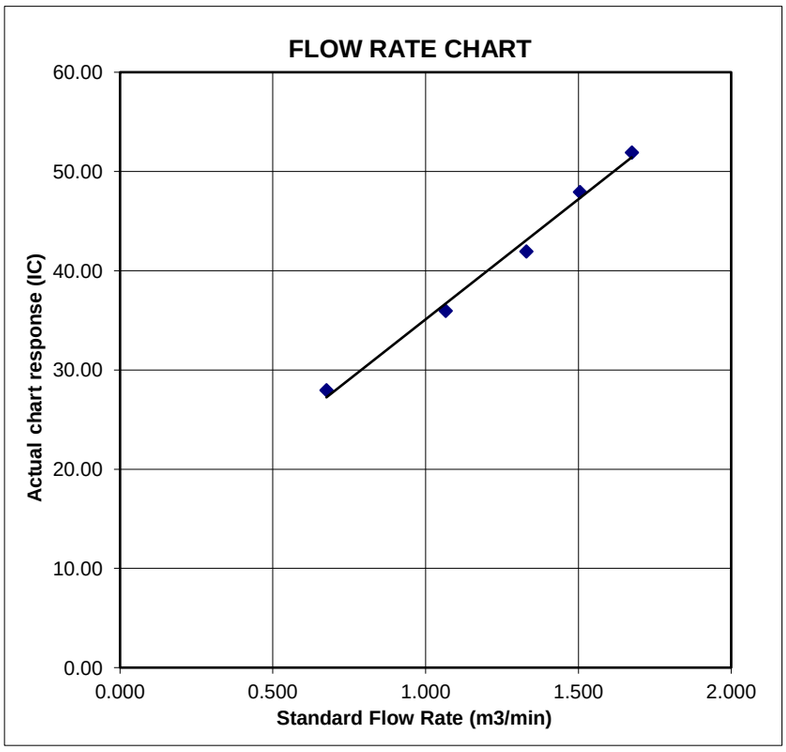
m = sampler slope

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:	13-Dec-21
Location ID :	Calibration Room	Next Calibration Date:	13-Mar-22

CONDITIONS

Sea Level Pressure (hPa)	1014.3	Corrected Pressure (mm Hg)	760.725
Temperature (°C)	24.0	Temperature (K)	297

CALIBRATION ORIFICE

Make->	TISCH	Qstd Slope ->	2.10574
Model->	5025A	Qstd Intercept ->	-0.00985
Calibration Date->	19-Jan-21	Expiry Date->	18-Jan-22

CALIBRATION

Plate No.	H20 (L) (in)	H2O (R) (in)	H20 (in)	Qstd (m3/min)	I (chart)	IC corrected	LINEAR REGRESSION
18	6.2	6.2	12.4	1.681	52	52.11	Slope = 36.4525
13	4.9	4.9	9.8	1.495	44	44.10	Intercept = -9.0200
10	3.7	3.7	7.4	1.299	40	40.09	Corr. coeff. = 0.9943
8	2.4	2.4	4.8	1.047	30	30.06	
5	1.5	1.5	3.0	0.829	20	20.04	

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)

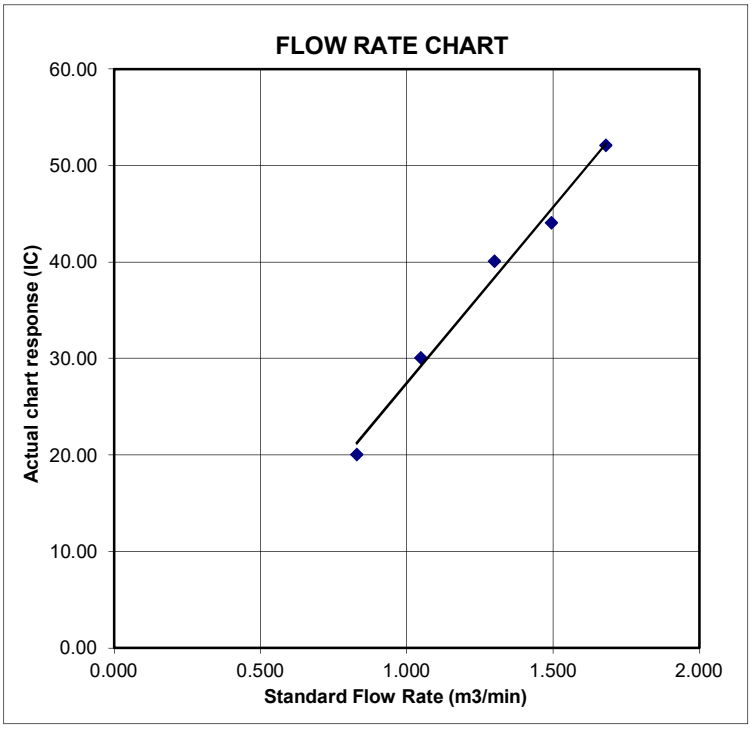
m = sampler slope

b = sampler intercept

I = chart response

Tav = daily average temperature

Pav = daily average pressure



TISCH Environmental

RECALIBRATION DUE DATE:
January 19, 2022

Certificate of Calibration

Calibration Certification Information				
Cal. Date:	January 19, 2021	**Rootsmeter S/N:** 438320	**Ta:** 294	°K
Operator:	Jim Tisch		**Pa:** 755.1	mm Hg
Calibration Model #:	TE-5025A	**Calibrator S/N:** **1941**		

Run	Vol. Init (m3)	Vol. Final (m3)	ΔVol. (m3)	ΔTime (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1	2	1	1.4830	3.2	2.00
2	3	4	1	1.0420	6.4	4.00
3	5	6	1	0.9290	8.0	5.00
4	7	8	1	0.8840	8.8	5.50
5	9	10	1	0.7340	12.9	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)
1.0029	0.6762	1.4192	0.9958	0.6715	0.8824
0.9986	0.9583	2.0071	0.9915	0.9516	1.2479
0.9965	1.0726	2.2440	0.9894	1.0650	1.3952
0.9954	1.1260	2.3535	0.9883	1.1180	1.4633
0.9899	1.3487	2.8385	0.9829	1.3391	1.7648
QSTD	**m=**	**2.10574**	**QA**	**m=**	**1.31858**
	b=	**-0.00985**		**b=**	**-0.00612**
	r=	**0.99992**		**r=**	**0.99992**

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

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

Certificate of Calibration
校正證書

Certificate No. : C216478
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-2189) Date of Receipt / 收件日期 : 25 October 2021

Description / 儀器名稱 : Sound Calibrator (EQ087)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NC-74
Serial No. / 編號 : 34657231
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 : 9 November 2021

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
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 : Cheuk
K P Cheuk
Project Engineer

Certified By 核證 :
K C Lee
Engineer

Date of Issue 簽發日期 : 10 November 2021

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. : C216478
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	C213954
CL281	Multifunction Acoustic Calibrator	AV210017
TST150A	Measuring Amplifier	C201309

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	94.1	± 0.3	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	Mfr's Spec.	Uncertainty of Measured Value (Hz)
1	1.001	1 kHz ± 1 %	± 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.

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. : C216479
證書編號

ITEM TESTED / 送檢項目 (Job No. / 序引編號 : IC21-2189) Date of Receipt / 收件日期 : 25 October 2021

Description / 儀器名稱 : Sound Level Meter (EQ016)
Manufacturer / 製造商 : Rion
Model No. / 型號 : NL-52
Serial No. / 編號 : 00464681
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 : 9 November 2021

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only.
The results do not exceed manufacturer's specification.
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 : Cheuk
K P Cheuk
Project Engineer

Certified By 核證 :
K C Lee
Engineer

Date of Issue 簽發日期 : 10 November 2021

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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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. : C216479
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	C210084
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 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	L_A	A	Fast	94.00	1	93.6	± 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	93.6 (Ref.)
				104.00		103.6
				114.00		113.6

IEC 61672 Class 1 Spec. : ± 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 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq. (kHz)		
30 - 130	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. : C216479
證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	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	90.4	-3.2 ± 1.4
					1 kHz	93.6	Ref.
					2 kHz	94.8	+1.2 ± 1.6
					4 kHz	94.6	+1.0 ± 1.6
					8 kHz	92.6	-1.1 (+2.1 ; -3.1)
					16 kHz	85.7	-6.6 (+3.5 ; -17.0)

6.3.2 C-Weighting

UUT Setting				Applied Value		UUT Reading (dB)	IEC 61672 Class 1 Spec. (dB)
Range (dB)	Function	Frequency Weighting	Time Weighting	Level (dB)	Freq.		
30 - 130	L_C	C	Fast	94.00	63 Hz	92.7	-0.8 ± 1.5
					125 Hz	93.4	-0.2 ± 1.5
					250 Hz	93.6	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	92.8	-0.8 ± 1.6
					8 kHz	90.7	-3.0 (+2.1 ; -3.1)
					16 kHz	83.7	-8.5 (+3.5 ; -17.0)

Certificate of Calibration
校正證書

Certificate No. : C216479
證書編號

Remarks : - UUT Microphone Model No. : UC-59 & S/N : 17434

- Mfr's Spec. : 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.

Hong Kong Accreditation Service
香港認可處

Certificate of Accreditation
認可證書

This is to certify that
特此證明

ALS TECHNICHEM (HK) PTY LIMITED

11/F, Chung Shun Knitting Centre, 1-3 Wing Yip Street, Kwai Chung, New Territories, Hong Kong
香港新界葵涌永業街1-3號忠信針織中心11樓

is accredited by the Hong Kong Accreditation Service (HKAS) to ISO/IEC 17025:2017
for performing specific laboratory activities as listed in the scope of accreditation within the test category of
獲香港認可處根據ISO/IEC 17025:2017認可
進行載於認可範圍內下述測試類別中的指定實驗所活動

Environmental Testing
環境測試

This accreditation to ISO/IEC 17025:2017 demonstrates technical competence for a defined scope and the implementation of a management system relevant to laboratory operation (see joint IAF-ILAC-ISO Communiqué).
此項 ISO/IEC 17025:2017 的認可資格證明此實驗所具備指定範疇內所須的技術能力並實施一套與實驗所運作相關的管理體系(見國際認可論壇、國際實驗所認可合作組織及國際標準化組織的聯合公報)。

The common seal of HKAS is affixed hereto by the authority of the HKAS Executive
現經香港認可處執行機關授權在此蓋上香港認可處的印章

SHUM Wai-leung, Executive Administrator
執行幹事 沈偉良
Issue Date : 28 February 2020
簽發日期：二零二零年二月二十八日

Registration Number : HOKLAS 066
註冊號碼：

Date of First Registration : 15 September 1995
首次註冊日期：一九九五年九月十五日

This certificate is issued subject to the terms and conditions laid down by HKAS
本證書按照香港認可處訂立的條款及條件發出

L001934

FIREMARK

Calibration Certificate for Gas-Pro

Number: CCP/81901

Customer Name: Tops Instruments Supplies Co.
Address: Unit 1-5, 20/F., Midas Plaza,
1 Tai Yau Street, Sanpokong, Hong Kong.
Detector Model: Crowcon Gas-Pro Portable Gas Detector
Serial Number: 548062/01-001

		Alarm Level Settings			
Sensor Type	**Measuring Range**	**Alarm 1**	**Alarm 2**	**Test Gas**	**Result**
CH4	0 to 100%LEL	20	40	57%LEL	Passed
CO (Dual Toxic)	0 to 500ppm	30	100	100ppm	Passed
H2S (Dual Toxic)	0 to 100ppm	5	10	25ppm	Passed
O2	0 to 25%vol	19.5	23.5	18.0%vol	Passed
CO2	0 to 5%vol	0.5	1.5	2%vol	Passed

Next Calibration Date: 7th June 2023

Remarks:

1. The above equipment has been calibrated in accordance with the methods and procedures set out in Crowcon's LRQA validated ISO9001 quality manual.
2. The test equipment used has been calibrated and is traceable to national standards. Standard Calibration gas mixtures have been prepared in accordance with BS EN ISO 6145-1-2008. This Gas Detector must be used in accordance to the instruction manual.

Authorized Signature

FireMark Hong Kong 瑞志香港有限公司 Ltd.

Technical Department
Date: 8th June 2022

FireMark Hong Kong Limited
Flat A, 11/F., Hop Hing Industrial Building, 704 Castle Peak Road, Lai Chi Kok, Kowloon, Hong Kong.
Tel : (852) 2751 8871 Fax : (852) 2751 8806

Appendix H

Database of Monitoring Results

Air Quality – 24 Hour TSP

24-hour TSP Monitoring Data for AM2a

DATE	SAMPLE NUMBER	ELAPSED TIME			CHART READING			AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WEIGHT (g)		DUST WEIGHT COLLECTED	24-hr TSP (µg/m³)
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(℃)	(hPa)	(m³/min)	(std m³)	INITIAL	FINAL	(g)	
6-Oct-22	28803	26413.02	26437.02	1440.00	41	41	41.0	28.9	1015	1.23	1776	2.6187	2.7422	0.1235	70
12-Oct-22	28659	26437.02	26461.02	1440.00	41	41	41.0	25.2	1015.4	1.24	1787	2.6870	2.7939	0.1069	60
18-Oct-22	28830	26461.02	26485.02	1440.00	48	48	48.0	25.4	1014.5	1.46	2106	2.7622	2.9937	0.2315	110
24-Oct-22	28249	26485.02	26508.02	1440.00	48	48	48.0	25.2	1016.1	1.46	2109	2.7739	3.0098	0.2359	112
29-Oct-22	28853	26509.02	26533.02	1440.00	48	48	48.0	25.5	1014.2	1.46	2106	2.6075	2.7456	0.1381	66

24-hour TSP Monitoring Data for AM5

DATE	SAMPLE NUMBER	ELAPSED TIME			CHART READING			AVG TEMP	AVG AIR PRESS	STANDARD FLOW RATE	AIR VOLUME	FILTER WEIGHT (g)		DUST WEIGHT COLLECTED	24-hr TSP (µg/m³)
		INITIAL	FINAL	(min)	MIN	MAX	AVG	(℃)	(hPa)	(m³/min)	(std m³)	INITIAL	FINAL	(g)	
6-Oct-22	28804	20056.90	20080.90	1440.00	47	48	47.5	28.9	1015	1.31	1887	2.6048	2.7360	0.1312	70
12-Oct-22	28661	20080.90	20104.90	1440.00	49	49	49.0	25.2	1015.4	1.38	1989	2.6936	2.9177	0.2241	113
18-Oct-22	28831	20104.90	20128.90	1440.00	52	52	52.0	25.4	1014.5	1.50	2157	2.7618	3.0556	0.2938	136
24-Oct-22	28248	20128.9	20152.9	1440.00	55	55	55.0	25.2	1016.1	1.62	2330	2.7852	3.1896	0.4044	174
29-Oct-22	28772	20152.90	20176.90	1440.00	52	52	52.0	25.5	1014.2	1.50	2156	2.6593	2.9404	0.2811	130

Construction Noise

Daytime Noise Measurement Results (dB) at CNMS1

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	
3-Oct-22	10:19	67.6	69.8	62.8	69.0	71.3	63.8	67.9	69.7	65.0	67.6	71.0	64.0	67.1	70.4	63.5	70.5	72.5	65.6	68.6
13-Oct-22	10:37	68.6	70.8	63.8	70.0	72.3	64.8	68.9	70.7	66.0	68.6	72.0	65.0	68.1	71.4	64.5	71.5	73.5	66.6	69.4
19-Oct-22	13:52	69.9	72.1	65.1	71.3	73.6	66.1	72.2	74.0	69.3	69.9	73.3	66.3	69.4	72.7	65.8	72.8	74.8	67.9	71.1
25-Oct-22	9:24	68.4	71.8	64.8	67.9	71.2	64.3	71.3	73.3	66.4	68.4	70.6	63.6	69.8	72.1	64.6	68.7	70.5	65.8	69.2
31-Oct-22	14:27	63.5	65.7	61.1	61.9	63.0	60.2	62.5	66.8	55.0	61.6	63.0	60.3	64.2	66.8	60.4	63.4	66.0	60.6	62.9

Daytime Noise Measurement Results (dB) at CNMS2

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	
3-Oct-22	10:57	61.1	62.5	59.8	63.7	66.3	59.9	62.9	65.5	60.1	63.0	65.2	60.6	61.4	62.5	59.7	62.0	66.3	54.5	62.4
13-Oct-22	11:15	63.7	65.1	62.4	66.3	68.9	62.5	65.5	68.1	62.7	65.6	67.8	63.2	64.0	65.1	62.3	64.6	68.9	57.1	65.0
19-Oct-22	14:25	64.5	65.9	63.2	67.1	69.7	63.3	66.3	68.9	63.5	66.4	68.6	64.0	64.8	65.9	63.1	65.4	69.7	57.9	65.8
25-Oct-22	11:01	64.3	66.5	61.9	62.7	63.8	61.0	63.3	67.6	55.8	62.4	63.8	61.1	65.0	67.6	61.2	64.2	66.8	61.4	63.7
31-Oct-22	15:15	63.4	65.1	61.0	62.7	63.7	60.6	63.2	65.2	60.1	60.5	60.2	58.6	69.0	72.1	61.0	64.0	67.2	58.2	64.7

Daytime Noise Measurement Results (dB) at CNMS5

Date	Start Time	1st Leq (5min)			2nd Leq (5min)			3rd Leq (5min)			4th Leq (5min)			5th Leq (5min)			6th Leq (5min)			Leq30min, dB(A)
		Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	Leq, dB(A)	L10, dB(A)	L90, dB(A)	
3-Oct-22	9:23	63.4	65.9	60.9	62.7	63.4	61.4	65.2	67.9	61.4	63.7	65.4	61.9	64.2	65.9	62.4	61	61.4	59.9	63.6
13-Oct-22	9:51	64.5	67.0	62.0	63.8	64.5	62.5	66.3	69.0	62.5	64.8	66.5	63.0	65.3	67.0	63.5	62.1	62.5	61.0	64.7
19-Oct-22	9:42	66.2	69.5	62.4	65.7	68.8	61.5	65.6	68.9	61.2	64.9	67.6	61.6	64.7	67.3	60.6	65.2	68.1	61.7	65.4
25-Oct-22	10:23	63.1	65.8	59.8	62.9	65.5	58.8	63.4	66.3	59.9	64.4	67.7	60.6	63.9	67	59.7	63.8	67.1	59.4	63.6
31-Oct-22	13:31	63.6	65.3	61.8	62.1	65.8	62.3	60.9	61.3	59.8	63.3	65.8	60.8	62.6	63.3	61.3	65.1	67.8	61.3	63.1

Landfill Gas Monitoring Results (Wan O Road)

Monitoring Location	Date	Time	Weather	Temperature (°C)	Methane (%)			Oxygen (%)			Carbon Dioxide (%)		
					Measurement Result	Action Level	Limit Level	Measurement Result	Action Level	Limit Level	Measurement Result	Action Level	Limit Level
Wan O Road	3/10/2022	8:30	Sunny	28	0	10	20	20.7	19	18	0	0.5	1.5
	3/10/2022	14:00		33	0	10	20	20.3	19	18	0	0.5	1.5
	5/10/2022	8:30	Sunny	28	0	10	20	20.6	19	18	0	0.5	1.5
	5/10/2022	14:00		34	0	10	20	20.7	19	18	0	0.5	1.5
	6/10/2022	8:30	Sunny	28	0	10	20	20.6	19	18	0	0.5	1.5
	6/10/2022	14:00		31	0	10	20	20.7	19	18	0	0.5	1.5
	7/10/2022	8:30	Rainy	26	0	10	20	20.6	19	18	0	0.5	1.5
	7/10/2022	14:00		32	0	10	20	20.7	19	18	0	0.5	1.5
	8/10/2022	8:30	Sunny	26	0	10	20	20.7	19	18	0	0.5	1.5
	8/10/2022	14:00		30	0	10	20	20.7	19	18	0	0.5	1.5
	10/10/2022	8:30	Sunny	22	0	10	20	20.7	19	18	0	0.5	1.5
	10/10/2022	14:00		27	0	10	20	20.7	19	18	0	0.5	1.5
	10/11/2022	8:30	Sunny	21	0	10	20	20.7	19	18	0	0.5	1.5
	10/11/2022	14:00		28	0	10	20	20.7	19	18	0	0.5	1.5
	10/12/2022	8:30	Sunny	22	0	10	20	20.7	19	18	0	0.5	1.5
	10/12/2022	14:00		30	0	10	20	20.7	19	18	0	0.5	1.5
	13/10/2022	8:30	Sunny	23	0	10	20	20.7	19	18	0	0.5	1.5
	13/10/2022	14:00		30	0	10	20	20.7	19	18	0	0.5	1.5
	14/10/2022	8:30	Sunny	25	0	10	20	20.7	19	18	0	0.5	1.5
	14/10/2022	14:00		31	0	10	20	20.7	19	18	0	0.5	1.5
	15/10/2022	8:30	Sunny	24	0	10	20	20.7	19	18	0	0.5	1.5
	15/10/2022	14:00		32	0	10	20	20.7	19	18	0	0.5	1.5
	17/10/2022	8:30	Sunny	17	0	10	20	20.7	19	18	0	0.5	1.5
	17/10/2022	14:00		29	0	10	20	20.7	19	18	0	0.5	1.5
	18/10/2022	8:30	Sunny	17	0	10	20	20.7	19	18	0	0.5	1.5
	18/10/2022	14:00		27	0	10	20	20.6	19	18	0	0.5	1.5
	19/10/2022	8:30	Sunny	18	0	10	20	20.7	19	18	0	0.5	1.5
	19/10/2022	14:00		26	0	10	20	20.6	19	18	0	0.5	1.5
	20/10/2022	8:30	Sunny	23	0	10	20	20.7	19	18	0	0.5	1.5
	20/10/2022	14:00		27	0	10	20	20.7	19	18	0	0.5	1.5
	21/10/2022	8:30	Sunny	23	0	10	20	20.7	19	18	0	0.5	1.5
	21/10/2022	14:00		29	0	10	20	20.7	19	18	0	0.5	1.5
	22/10/2022	8:30	Sunny	23	0	10	20	20.7	19	18	0	0.5	1.5
	22/10/2022	14:00		30	0	10	20	20.7	19	18	0	0.5	1.5
	24/10/2022	8:30	Sunny	24	0	10	20	20.7	19	18	0	0.5	1.5
	24/10/2022	14:00		27	0	10	20	20.7	19	18	0	0.5	1.5
	25/10/2022	8:30	Sunny	23	0	10	20	20.7	19	18	0	0.5	1.5
	25/10/2022	14:00		26	0	10	20	20.7	19	18	0	0.5	1.5
	26/10/2022	8:00	Sunny	22	0	10	20	20.7	19	18	0	0.5	1.5
	26/10/2022	14:00		27	0	10	20	20.7	19	18	0	0.5	1.5
	27/10/2022	8:30	Sunny	22	0	10	20	20.7	19	18	0	0.5	1.5
	27/10/2022	14:00		28	0	10	20	20.7	19	18	0	0.5	1.5
	28/10/2022	8:30	Sunny	23	0	10	20	20.7	19	18	0	0.5	1.5
	28/10/2022	14:00		30	0	10	20	20.7	19	18	0	0.5	1.5
	29/10/2022	8:00	Sunny	26	0	10	20	20.7	19	18	0	0.5	1.5
	29/10/2022	14:00		30	0	10	20	20.7	19	18	0	0.5	1.5
	31/10/2022	8:30	Sunny	25	0	10	20	20.7	19	18	0	0.5	1.5
	31/10/2022	14:00		27	0	10	20	20.7	19	18	0	0.5	1.5

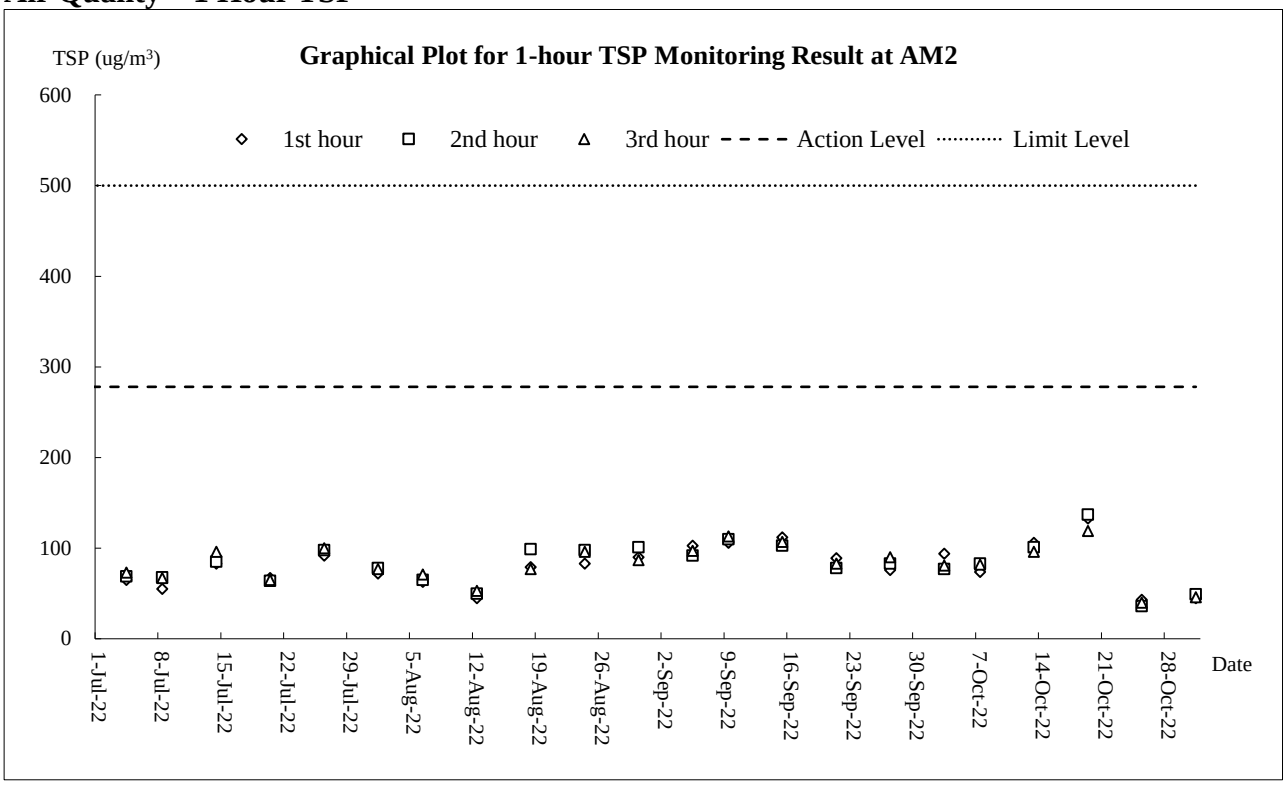
Remark:

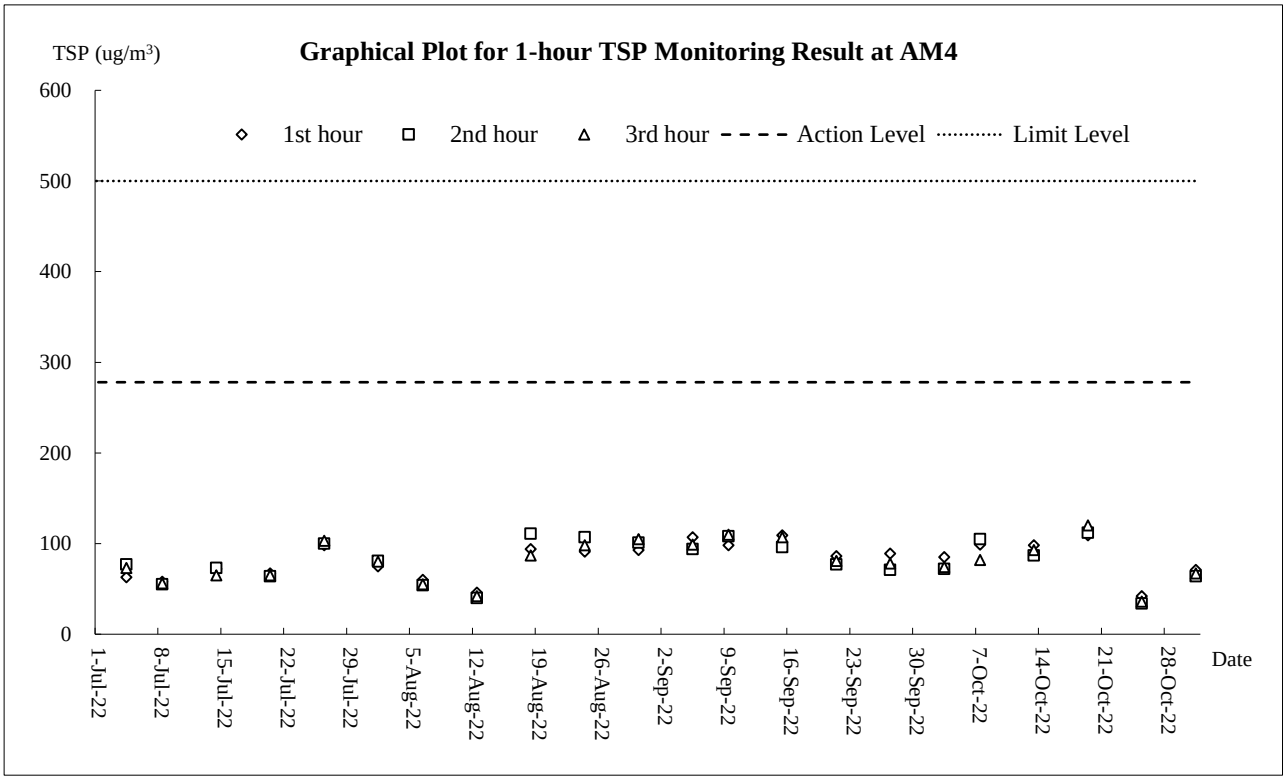
Parameter	Criteria	Measurement
Oxygen	Action Level	< 19%
	Limit Level	< 18%
Methane	Action Level	> 10% LEL (> 0.5% v/v)
	Limit Level	> 20% LEL (>1% v/v)
Carbon Dioxide	Action Level	> 0.5%
	Limit Level	> 1.5%

Appendix I

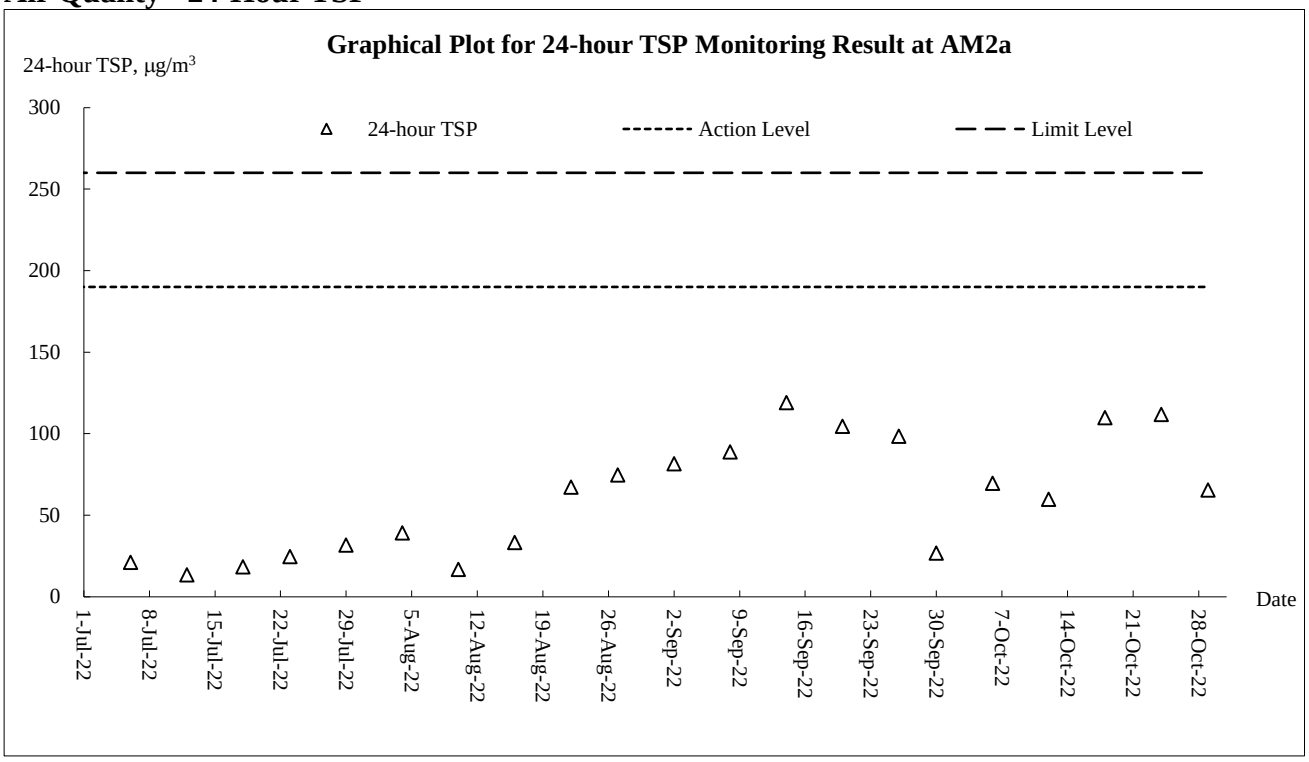
Graphical Plots of Monitoring Results

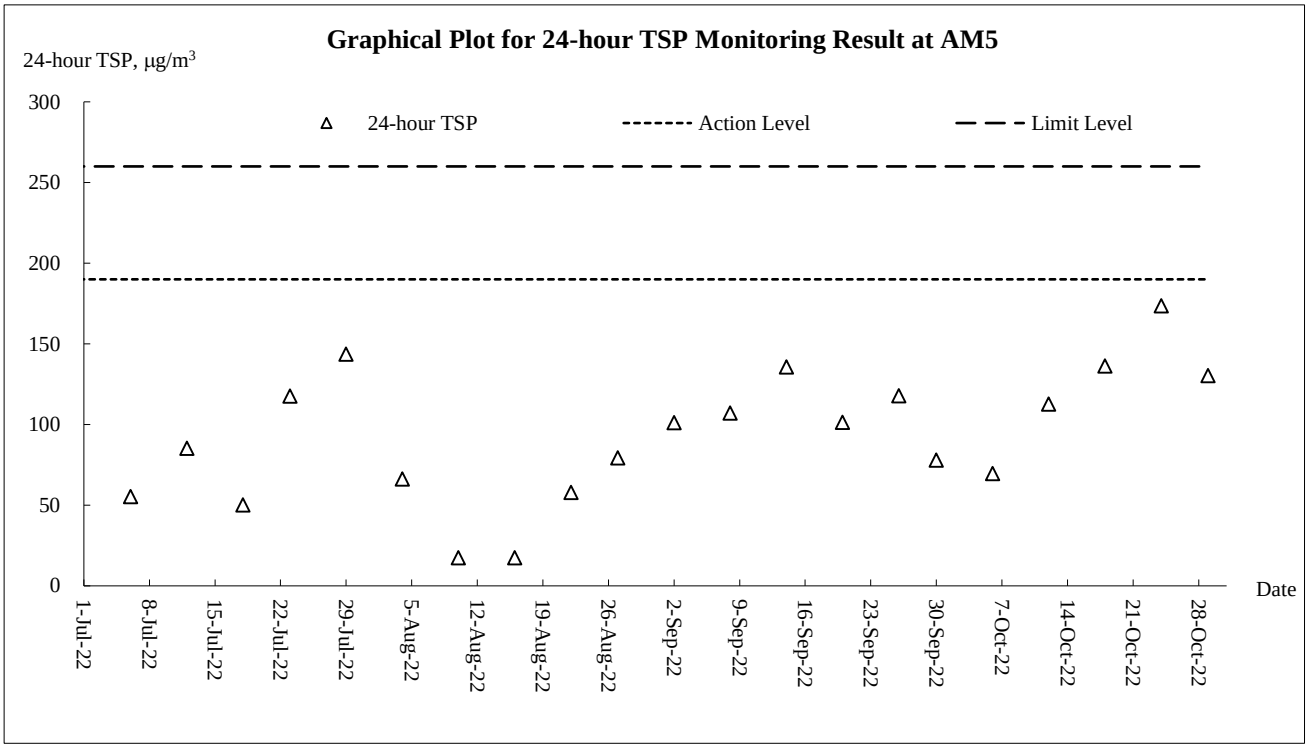
Air Quality – 1 Hour TSP



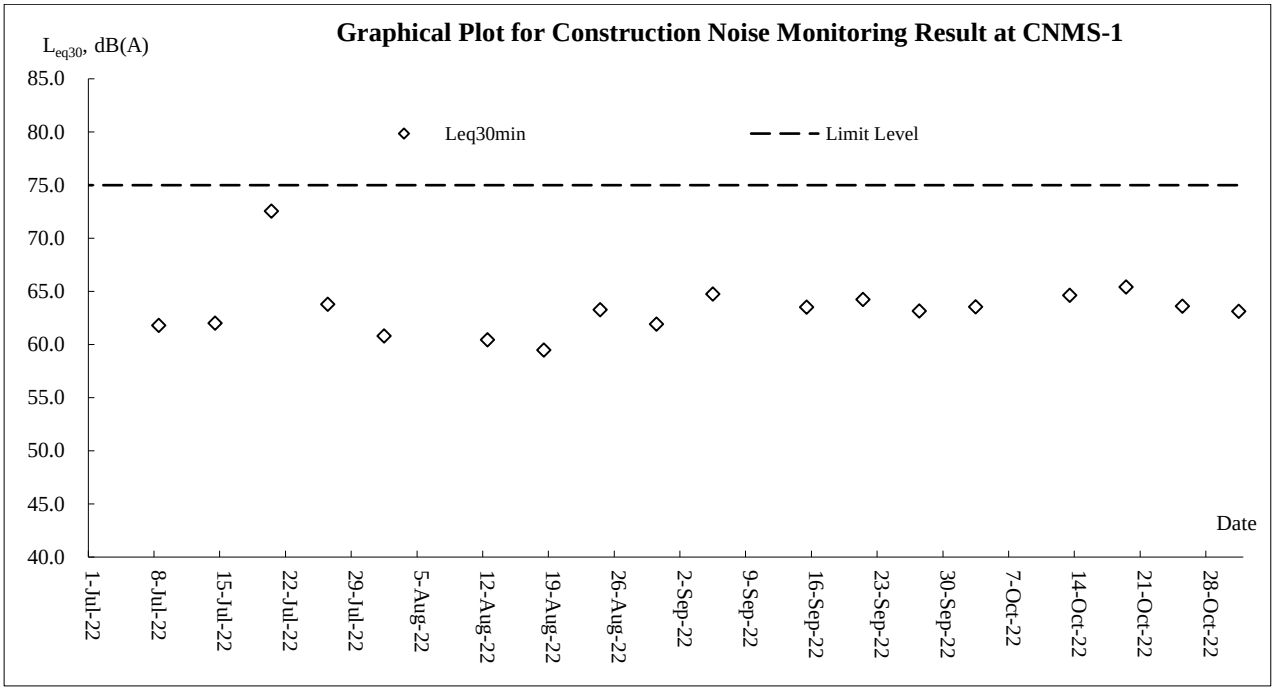


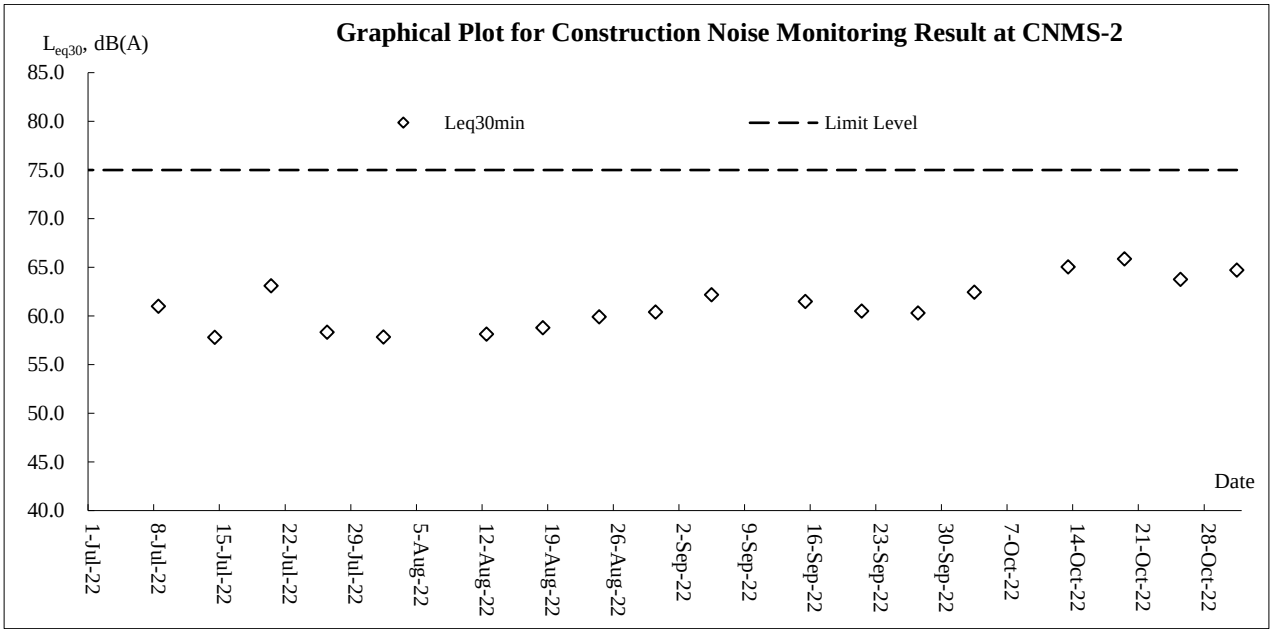
Air Quality - 24-Hour TSP

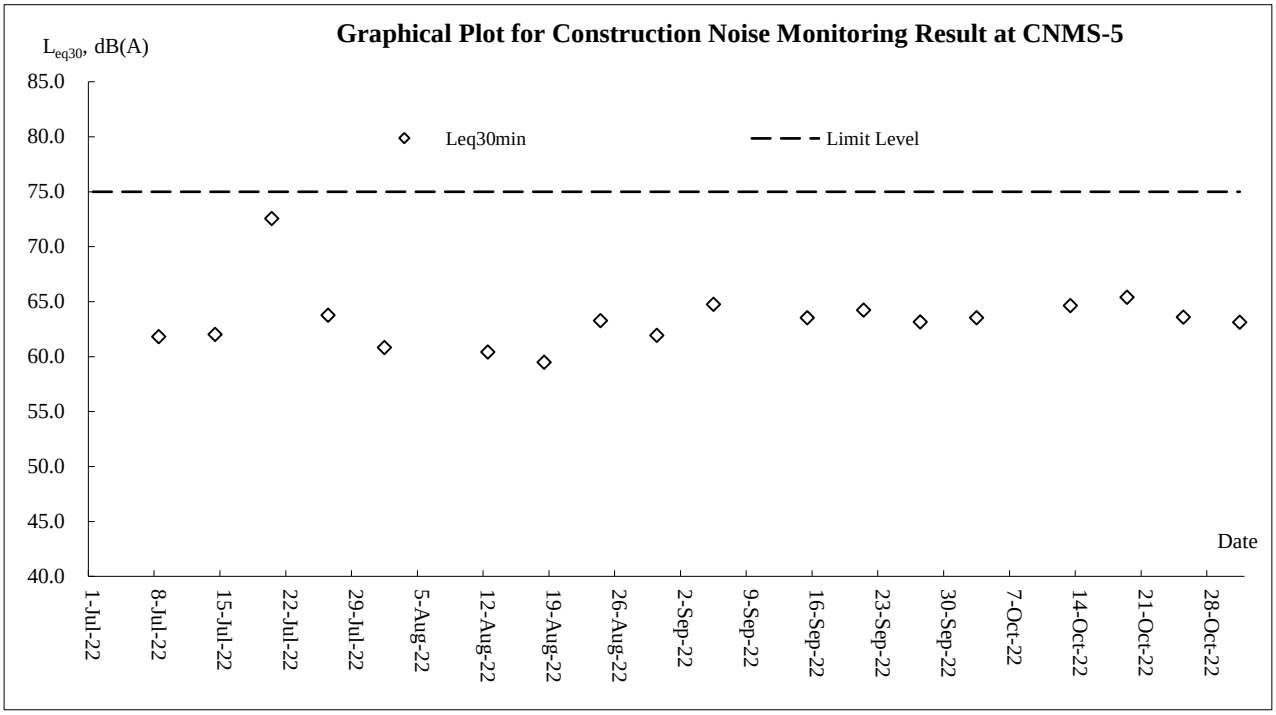




Construction Noise






Graphical Plot for Construction Noise Monitoring Result at CNMS-5
L_{eq30}, dB(A)
85.0
80.0
75.0
70.0
65.0
60.0
55.0
50.0
45.0
40.0
Leq30min
Limit Level
Date
1-Jul-22
8-Jul-22
15-Jul-22
22-Jul-22
29-Jul-22
5-Aug-22
12-Aug-22
19-Aug-22
26-Aug-22
2-Sep-22
9-Sep-22
16-Sep-22
23-Sep-22
30-Sep-22
7-Oct-22
14-Oct-22
21-Oct-22
28-Oct-22

Appendix J

Meteorological Data

Date		Weather	Total Rainfall (mm)	Tseung Kwan O Station			
				Mean Air Temp. (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction (degree)
1-Oct-22	Sat	Sunny intervals in the afternoon.	2.6	27.5	7.2	87.5	S/SE
2-Oct-22	Sun	Moderate to fresh easterly winds	Trace	28.5	8.7	87.0	E/NE
3-Oct-22	Mon	Sunny periods and a few showers.	0	28.8	8.1	81.0	E/NE
4-Oct-22	Tue	Moderate to fresh easterly winds	0	28.6	6	78.5	E/SE
5-Oct-22	Wed	Mainly fine apart from one or two showers.	Trace	28.1	9.5	74.0	E/NE
6-Oct-22	Thu	Moderate to fresh easterly winds,	Trace	28.7	9.7	74.7	E/NE
7-Oct-22	Fri	Moderate to fresh east to northeasterly winds.	22.8	28.3	8.7	75.7	E/SE
8-Oct-22	Sat	Sunny periods in the afternoon.	Trace	26.8	10	73.5	E/NE
9-Oct-22	Sun	Mainly cloudy with one or two showers tonight	4.8	27.1	9.7	69.0	E/NE
10-Oct-22	Mon	Mainly fine and very dry.	0	23.9	9.5	59.2	E/NE
11-Oct-22	Tue	Fine and very dry.	0	23.0	8.7	53.0	E/NE
12-Oct-22	Wed	Sunny and very dry in the afternoon.	0	23.8	7.0	60.0	E/NE
13-Oct-22	Thu	Mainly fine and dry.	0	25.5	7.5	65.5	E/NE
14-Oct-22	Fri	Cloudy periods tonight.	0	26.8	10.0	64.5	E/NE
15-Oct-22	Sat	Moderate to fresh east to northeasterly winds	0	26.2	8.0	66.7	N
16-Oct-22	Sun	Fine and dry.	0	27.8	13	51.0	N
17-Oct-22	Mon	Mainly cloudy with one or two showers.	Trace	27.9	14.2	46.2	N/NE
18-Oct-22	Tue	Cloudy with occasional rain.	19.7	21.1	17.5	68.0	NE
19-Oct-22	Wed	Sunny periods. Dry during the day.	0	21.2	10	65.5	N/NE
20-Oct-22	Thu	Sunny periods. Fresh easterly winds	0	23.5	11.2	67.5	E/NE
21-Oct-22	Fri	Fine. Dry in the afternoon.	0	24.8	9	66.2	E/NE
22-Oct-22	Sat	Moderate to fresh east to northeasterly winds.	Trace	25.7	8.7	69.0	E/NE
23-Oct-22	Sun	Moderate to fresh easterly winds	0	27.2	9.5	64.5	E/NE
24-Oct-22	Mon	Mainly fine and dry.	0	25.6	10	72.5	E/NE
25-Oct-22	Tue	Fine and dry	0	23.8	13	61.5	E/NE
26-Oct-22	Wed	Fine. Dry in the afternoon.	0	23.7	7.5	64.2	E/NE
27-Oct-22	Thu	Fine and dry. Moderate easterly winds	0	24.8	8.7	68.5	E/NE
28-Oct-22	Fri	Fine and dry. Moderate east to northeasterly winds	0	25.9	7.5	66.5	E/NE
29-Oct-22	Sat	Moderate east to northeasterly winds, fresh offshore.	0	25.7	7.5	68.5	E/NE
30-Oct-22	Sun	Dry with sunny periods.	0	25.2	11.5	60	N/NE
31-Oct-22	Mon	Fresh northerly winds, strong offshore	0	25.1	15	55	N/NE

Appendix K

Waste Flow Table

Contract 1

Monthly Summary Waste Flow Table for 2022 (year)

Name of Person completing the record: Sedo Sze (EO)

Project : Cross Bay Link, TKO, Main Bridge and Associated Works

Contract No.: NE/2017/07

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	0.162	0.000	0.000	0.000	0.162	0.000	0.000	0.171	0.000	0.000	0.768
Feb	0.066	0.000	0.000	0.000	0.066	0.000	0.000	0.210	0.000	0.000	0.513
Mar	0.306	0.000	0.000	0.000	0.306	0.000	0.000	0.163	0.000	0.000	0.750
Apr	0.126	0.000	0.000	0.000	0.126	0.000	0.000	0.182	0.000	0.000	0.552
May	0.054	0.000	0.000	0.000	0.054	0.000	0.000	0.194	0.000	0.000	0.600
Jun	0.306	0.000	0.000	0.000	0.306	0.000	0.000	0.158	0.000	0.000	0.439
Sub-total	1.020	0.000	0.000	0.000	1.020	0.000	0.000	1.078	0.000	0.000	3.623
Jul	0.102	0.000	0.000	0.000	0.102	0.000	0.000	0.204	0.000	0.000	0.422
Aug	0.246	0.000	0.000	0.000	0.246	0.000	0.000	0.168	0.000	0.000	0.784
Sep	0.096	0.000	0.000	0.000	0.096	0.000	0.000	0.195	0.000	0.000	1.450
Oct	0.012	0.000	0.000	0.000	0.012	0.000	0.000	0.150	0.000	0.000	1.011
Nov	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Dec	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	1.476	0.000	0.000	0.000	1.476	0.000	0.000	1.795	0.000	0.000	7.290

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.

Contract 2

Monthly Summary Waste Flow Table for 2022 Year

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Borken Concrete	Reused in the Contract	Reused in other Projects	Disposal as Public Fill	Imported Fill	Metals	Paper / Cardboard Packaging	Plastics (See note 3)	Chemical Waste	Other, e.g. general refuse
	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000m^3]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000kg]	[in '000m^3]
Jan	2.835	0.000	0.000	0.000	2.835	0.530	0.000	0.000	0.000	0.000	0.160
Feb	0.199	0.000	0.000	0.000	0.199	1.049	0.000	0.000	0.000	0.000	0.048
Mar	0.298	0.000	0.000	0.000	0.298	0.780	0.000	0.000	0.000	0.000	0.072
Apr	0.348	0.000	0.000	0.000	0.348	0.567	0.000	0.000	0.000	0.000	0.067
May	0.251	0.000	0.000	0.000	0.251	0.422	0.000	0.000	0.000	0.000	0.110
June	1.642	0.000	0.000	0.000	1.642	0.468	0.000	0.000	0.000	0.000	0.052
SUB-TOTAL	5.573	0.000	0.000	0.000	5.573	3.816	0.000	0.000	0.000	0.000	0.509
Jul	0.965	0.000	0.000	0.000	0.965	1.590	0.000	0.000	0.000	0.000	0.070
Aug	0.692	0.000	0.000	0.000	0.692	0.453	0.000	0.000	0.000	0.000	0.070
Sep	0.649	0.000	0.000	0.000	0.649	0.358	0.000	0.000	0.000	0.000	0.143
Oct	0.912	0.000	0.000	0.000	0.912	0.061	0.000	0.000	0.000	0.000	0.068
Nov											
Dec											
TOTAL	8.790	0.000	0.000	0.000	8.790	6.278	0.000	0.000	0.000	0.000	0.861

Note: Conversion to 1000m^3 for general refuse is weight in 1000kg multiply by 0.002

Conversion to 1000m^3 for Inert C&D is weight in 1000kg multiply by 0.0005

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

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

Assume the loaded volume of a dump truck for internal inert waste transfer is 17.9 m^3

Appendix L

Implementation Record of Water Mitigation Measures in the Reporting Month

Water Quality Mitigation Measures under NE/2017/07 (Contract 1)	
 Treatment facilities was installed at site to treat the site generated water prior discharge.	

Water Quality Mitigation Measures under NE/2017/08 (Contract 2)	
 Treatment facilities was installed at site to treat the site generated water prior discharge.	

Appendix M

Implementation Schedule for Environmental Mitigation Measures

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
Dust Impact (Contraction Phase)						
S5.5.5.1	Regular watering under good site practice shall be adopted. In accordance with the "Control of Open Fugitive Dust Sources" (USEPA AP-42), watering once per hour on exposed worksites and haul road is recommended to achieve dust removal efficiency of 91.7%.	Good construction site practices to control the dust impact on the nearby sensitive receivers to within the relevant criteria	All construction sites	Contractor	Construction stage	• APCO (Cap. 311); and • Air Pollution Control (Construction Dust) Regulation
S5.5.5.3	The following dust suppression measures shall also be incorporated by the Contractor to control the dust nuisance throughout the construction phase: • Any excavated or stockpiled dusty material shall 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 shall be wetted with water and cleared from the surface of roads; • A stockpile of dusty material shall not extend beyond the pedestrian barriers, fencing or traffic cones; • The load of dusty materials on a vehicle leaving a construction site shall 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 shall 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 shall be paved with concrete, bituminous materials or hardcores; • When there are open excavation and reinstatement works, hoarding of not less than 2.4m high shall 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 to the construction site that is within 30m of a vehicle entrance or exit shall be kept clear	Good construction site practices to control the dust impact on the nearby sensitive receivers to within the relevant criteria	All construction sites	Contractor	Construction stage	• APCO (Cap. 311); and • Air Pollution Control (Construction Dust) Regulation

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	of dusty materials; • Surfaces where any pneumatic or power driven drilling, cutting, polishing or other mechanical breaking operation takes place shall be sprayed with water or a dust suppression chemical continuously; • Any area that involves demolition activities shall be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; • Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting shall 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 shall be totally enclosed by impervious sheeting; • Exposed earth shall be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shortcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies.					
S5.5.5.4	For the barging facilities at the site compound, the following good site practice is required: • All road surfaces within the barging facilities shall be paved. • Vehicles should pass through designated wheel wash facilities. • Continuous water spray shall be installed at the loading point.	Good construction site practices to control the dust impact on the nearby sensitive receivers to within the relevant criteria	Site compound	Contractor	Construction stage	• APCO (Cap. 311); and • Air Pollution Control (Construction Dust) Regulation
S5.5.5.5	An audit and monitoring programme during the construction phase should be implemented by the Contractor to ensure that the construction dust impacts are controlled to within the HKAQO. Detailed requirements for the audit and monitoring programmes are given separately in the EM&A manual.	Monitor the 1-Hour and 24-Hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period	Selected representative dust monitoring station (**Drawing no. 209506/EMA/ AIR/001**)	Contractor	Construction stage	• APCO (Cap. 311); and • Air Pollution Control (Construction Dust) Regulation
Noise Impact (Contraction Phase)						

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
S6.6.4.3	Good site practice and noise management techniques: • Only well-maintained plant shall be operated on-site and the plant shall be serviced regularly during the construction programme; • Machines and plant (such as trucks, cranes) that are in intermittent use shall be shut down between work periods or throttled down to a minimum; • Plant known to emit noise strongly in one direction, where possible, shall be orientated so that the noise is directed away from nearby NSRs; • Silencers or mufflers on construction equipment shall be properly fitted and maintained during the construction works; • Mobile plant shall be sited as far away from NSRs as possible and practicable; and • Material stockpiles, site office and other structures shall be effectively utilised, where practicable, to screen noise from on-site construction activities.	To minimize construction noise impact arising from the Project on the affected NSRs	All construction sites	Contractor	Construction stage	• Annex 5, TM-EIAO
S6.6.4.5-6	Use of quiet powered mechanical equipment and working methods	Reduce noise levels of plant items	All construction sites	Contractor	Construction stage	• Annex 5, TM-EIAO
S6.6.4.7	Install site hoarding at the site boundaries between noisy construction activities and NSRs	Reduce the construction noise levels at low-level zone of NSRs through partial screening	All construction sites	Contractor	Construction stage	• Annex 5, TM-EIAO
S6.6.4.8-11	Use of temporary or movable noise barriers and full enclosure for relatively fixed plant source	Screen the noisy plant items to be used at all construction sites	For plant items listed in Table 6.7 and Appendix 6.1 of the EIA report at all construction sites	Contractor	Construction stage	• Annex 5, TM-EIAO
	Implement a noise monitoring programme under the EM&A manual	Monitor the construction noise levels at the selected representative locations	Selected representative noise monitoring stations (**Drawing no. 209506/EMA/NS/001** & **209506/EMA/NS/002**)	Contractor	Construction stage	• Annex 5, TM-EIAO
S6.7.3.1	Partial enclosures along Road D9 and application of low noise surfacing material along CBL and Road D9	To minimize road traffic noise impact arising from the CBL and Road D9 on the affected NSRs	CBL and Road D9 (**Drawing no. 209506/EMA/NS/003**)	CEDD/ Contractor	During operational stage	• Annex 5, TM-EIAO

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
Water Quality Impact (Contraction Phase)						
S8.6.4.3	Marine Piling and Pile Excavation Works Marine piling and pile excavation works shall be undertaken in such a manner as to minimize re-suspension of sediments. Standard good practice measures shall be implemented, including the following requirements: • All marine piling and pile excavation works shall be conducted within a floating single silt curtain. • Mechanical closed grabs (with a size of5m3) shall be designed and maintained to avoid spillage and should seal tightly while being lifted. • Barges shall have tight fitting seals to their bottom openings to prevent leakage of material. • Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes. • Loading of barges shall be controlled to prevent splashing of dredged material to the surrounding water. Barges shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation. • Excess material shall be cleaned from the decks and exposed fittings of barges before the vessel is moved. • Adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action. • All vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash. • The works shall not cause foam, oil, grease, litter or other objectionable matter to be present in the water within and adjacent to the works site.	To control potential impacts from marine piling and pile excavation works	During marine piling and pile excavation works	Contractor	Construction stage	• TM-EIAO; and • WPCO
S8.6.4.4	Construction Site Runoff In accordance with the Practice Note for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN 1/94), construction phase mitigation measures, where appropriate, shall include the following: • The design of efficient silt removal facilities shall be based on the guidelines in Appendix A1 of ProPECC PN 1/94. The	Control potential water quality impacts from construction site run-off	All construction sites	Contractor	Construction stage	• TM-EIAO; and • WPCO

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	detailed design of the sand/silt traps shall be undertaken by the contractor prior to the commencement of construction; • Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m3 shall be covered with tarpaulin or similar fabric during rainstorms. Measures shall be taken to prevent the washing away of construction materials, soil, silt or debris into any marine water bodies; • All vehicles and plant shall 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 shall be provided at every construction site exit where practicable. Wash-water shall 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 shall be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains; • Construction solid waste, debris and rubbish on site shall be collected, handled and disposed of properly to avoid water quality impacts; • All fuel tanks and storage areas shall 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 shall be carried out in order to prevent any malpractices. Notices shall be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds.					
S8.6.4.6	Sewage from workforce • Portable chemical toilets and sewage holding tanks shall be provided for handling the construction sewage generated by the workforce; • A licensed contractor shall be employed to provide	Control potential water quality impacts from sewage	All construction sites	Contractor	Construction stage	• TM-EIAO; and • WPCO

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.					
	Monitoring Implement a marine water quality monitoring programme under the EM&A on level of suspended solids (SS) / turbidity and dissolved oxygen (DO) shall be carried out.	Control potential water quality impacts from marine piling and pile excavation works	Selected monitoring stations (**Drawing no. 209506/EMA/WQ/001**)	Contractor	Construction station	• TM-EIAO; and • WPCO
S8.7.3.2	**Operational phase – Runoff from road surface** Proper drainage systems with silt traps and oil interceptors shall be installed, maintained and cleaned at regular intervals.	Control potential water quality impacts from road surface runoff	CBL and Road D9	Contractor	Construction and operational stage	• TM-EIAO; and • WPCO
Waste Management (Contraction Phase)						
S9.5.2	**Good Site Practices** Recommendations for good site practices: • Nomination of an approved personnel to be responsible for the implementation of good site practices, arrangements for collection and effective deposal to an appropriate facility of all wastes generated at the site; • Training of site personnel in proper waste management and chemical handling procedures; • Provision of sufficient waste disposal points and regular collection for disposal; • Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre; • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and • Implementation of a recording system for the amount of wastes generated/recycled and disposal sites.	Good site practices which ensure waste generated during construction phase is properly managed	All construction sites	Contractor	Construction stage	• Waste Disposal Ordinance (Cap. 54); • ETWB TCW No. 19/2005

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
S9.5.4	**Waste Reduction Measures** Recommendations for achieving waste reduction include: • On-site reuse of any material excavated as far as practicable; • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of material and their proper disposal; • Collection of aluminum cans and waste paper by individual collectors during construction should be encouraged. Separately labelled recycling bins should also be provided to segregate these wastes from other general refuse by the workforce; • Recycling of any unused chemicals and those with remaining functional capacity as far as possible; • Prevention of the potential damage or contamination to the construction materials though proper storage and good site practices; • Planning and stocking of construction materials should be made carefully to minimize amount of waste generated avoid unnecessary generation of waste; and • Training on the importance of appropriate waste management procedures, including waste reduction, reuse and recycling should be provided to workers.	To reduce amount of waste generated during construction phase	All construction sites	Contractor	Construction stage	• Waste Disposal Ordinance (Cap. 54); • ETWB TCW No. 19/2005
S9.5.5-6	**Storage, Collection and Transportation of Waste** Recommendations for proper storage include: • 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 being washed away and to reduce wind-blown litter; and • Different locations should be designated to stockpile each material to enhance reuse. With respect to the collection and transportation of waste from the construction works, the following is recommended: • Remove waste in a timely manner; • Employ trucks with cover or enclosed containers for waste transportations; • Obtain relevant waste disposal permits from the appropriate	To reduce the environmental implications of improper storage	All construction sites	Contractor	Construction stage	• Waste Disposal Ordinance (Cap. 54); • ETWB TCW No. 19/2005

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	authorities; and • Disposal of waste should be done at licensed waste disposal facilities.					
S9.5.8-11	**C&D Materials** The following mitigation measures shall be implemented in handling the waste: • Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement; • Carry out on-site sorting; • Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified; • Disposal of the C&D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final disposal sites to the Project Proponent and get its approval before implementation; • Standard formwork or pre-fabrication order to minimise the arising of C&D materials. The use of more durable formwork or plastic facing for the construction works should be considered. Metal hoarding should be used to enhance the possibility of recycling. The purchasing of construction materials will be carefully planned in order to avoid over ordering and wastage; and • The Contractor should recycle as much of the C&D materials as possible on-site. Public fill and C&D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage.	Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal	All construction sites	Contractor	Construction stage	• Waste Disposal Ordinance (Cap. 54); • ETWB TCW No. 19/2005 • ETWB TCW No. 06/2010
S9.5.13	**Excavated Marine Sediments** During transportation and disposal of the excavated marine sediments, the following measures shall be taken to minimize potential environmental impacts: • Bottom opening of barges should be fitted with tight fitting	To minimize potential impacts on water quality	All construction sites where applicable	Contractor	Construction stage	• ETWBTC (Works) No. 34/2002

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	seals to prevent leakage of material. Excess material should be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved; • Monitoring of the barge loading should be conducted to ensure that loss of material does not take place during transportation; • Transport barges or vessels should be equipped with automatic self-monitoring devices as specified by the DEP; and • Barges should not be filled to a level that would cause the overflow of materials or sediment-laden water during loading or transportation.					
S9.5.14-17	For those processes which generate chemical waste, the Contractor shall identify any alternatives that generate reduced quantities or even no chemical waste, or less dangerous types of chemical waste. If chemical waste is produced at the construction site, the Contractor is required to register with EPD as chemical waste producers. Chemical waste shall be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows. Containers used for storage of chemical wastes shall: • Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; • Have a capacity of less than 450 L unless the specification have been approved by EPD; and • Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations. The storage area for chemical wastes shall: • Be clearly labelled and used solely for the storage of chemical wastes; • Be enclosed on at least 3 sides; • Have an impermeable floor and bunding of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is greatest;	To ensure proper management of chemical waste	All construction sites	Contractor	Construction stage	• Waste Disposal (Chemical Waste) (General) Regulation; • Code of Practice on the Packaging, Labelling and Storage of Chemical Waste

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	• Have adequate ventilation; • Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste, if necessary); and • Be arranged so that incompatible materials are adequately separated. Disposal of chemical waste shall: • Be via a licensed waste collector; and • Be to a facility licensed to receive chemical waste, such as the CWTC which also offers a chemical waste collection service and can supply the necessary storage containers; or • Be to a re-user of the waste, under approval from EPD.					
S9.5.18	**Sewage** An adequate number of portable toilets shall be provided for the on-site construction workers. Any waste shall be transferred to a sewage treatment works by a licensed collector.	Proper handling of sewage from worker to avoid odour, pest and litter impacts	All construction sites	Contractor	Construction stage	• Waste Disposal Ordinance (Cap. 54)
S9.5.19	**General Refuse** General refuse generated on-site shall be stored in enclosed bins or compaction units separately from construction and chemical wastes. Recycling bins shall also be provided to encourage recycling. A reputable waste collector shall be employed by the Contractor to remove general refuse from the site on a daily basis separately from the construction and chemical wastes. Burning of refuse on construction sites is prohibited by law.	Minimize production of general refuse and avoid odour, pest and litter impacts	All construction sites	Contractor	Construction stage	• Waste Disposal Ordinance (Cap. 54)
S10.7.2.4	Good Site Practices – The integrity and effectiveness of all silt curtains shall be regularly inspected. Effluent monitoring should be incorporated to make sure that the discharged effluent from construction sites meets the relevant effluent discharge guidelines.	To minimize potential impacts on water quality and protect marine communities within Junk Bay	All construction sites	Contractor	Construction stage	• TM-EIAO; and • WPCO
S10.7.2.5	Site runoff control – For works on land, standard site runoff control measures will be established and strictly enforced to ensure that discharge of contaminated or silt-laden runoff into marine waters is minimized.	To minimize potential impacts on water quality and protect marine communities within Junk Bay	All construction sites	Contractor	Construction stage	• TM-EIAO; and • WPCO
S10.9.1.1	The marine water quality monitoring programme recommended in Chapter 8 of this EIA report and this EMIS would also serve to protect the marine communities inside Junk Bay.	To minimize potential impacts on water quality and protect marine	Selected monitoring stations (**Drawing no. 209506/EMA/WQ/001**)	Contractor	Construction stage	• TM-EIAO; and • WPCO

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
		communities within Junk Bay				
S11.6.2.2	Good Site Practices: – The integrity and effectiveness of all silt curtains should be regularly inspected. Effluent monitoring shall be incorporated to make sure that the discharged effluent from construction sites meets the relevant effluent discharge guidelines.	To minimize potential impacts on water quality and protect fishery resources	All construction sites	Contractor	Construction stage	• TM-EIAO; and • WPCO
S11.6.2.3	Site runoff control - For works on land, standard site runoff control measures will be established and strictly enforced to ensure that discharge of contaminated or silt-laden runoff is minimized.	To minimize potential impacts on water quality and protect fishery resources	All construction sites	Contractor	Construction stage	• TM-EIAO; and • WPCO
S11.8.1.1	The marine water quality monitoring programme recommended in Chapter 8 of this EIA report and this EMIS would also serve to protect the fishery resources.	To minimize potential impacts on water quality and protect fishery resources	Selected monitoring stations (**Drawing no. 209506/EMA/WQ/001**)	Contractor	Construction stage	• TM-EIAO; and • WPCO
Landscape and Visual						
S13.8.1.2	The following mitigation measures should be implemented in the construction stage • CM1 – The construction area and contractor's temporary works areas should be minimized to avoid impacts on adjacent landscape. • CM2 – Reduction of construction period to practical minimum. • CM3 – Topsoil, where identified, should be stripped and stored for re-use in the construction of the soft landscape works, where the soil material meets acceptable criteria and where practical. The Contract Specification shall include storage and reuse of topsoil as appropriate. • CM4 – Existing trees on boundary of the Project Area shall 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. (Tree protection measures will be detailed at Tree Removal Application stage).	Minimize effects of landscape and visual impacts	Work site/during construction	Funded and implemented by CEDD	Construction stage	

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	• CM5 – Trees unavoidably affected by the works shall be transplanted where practical. Trees should be transplanted straight to their final receptor site and not held in a temporary nursery. A detailed Tree Transplanting Specification shall be provided in the Contract Specification, if applicable. Sufficient time for necessary tree root and crown preparation periods shall be allowed in the project programme. • CM6 – Advance screen planting to proposed roads and associated structures. • CM7 – hydroseeding or sheeting of soil stockpiles with visually unobtrusive material (in earth tone). • CM8 – Screening of construction works by hoardings/noise barriers around works area in visually unobtrusive colours, to screen Works. • CM9 – Control night-time lighting and glare by hooding all lights. • CM10 – Ensure no run-off into water body adjacent to the Project Area. • CM11 – Avoidance of excessive height and bulk of buildings and structures					
S13.8.1.2	OM1 – Compensatory tree planting for all felled trees shall be provided to the satisfaction of relevant Government departments. Required numbers and locations of compensatory trees shall be determined and agreed separately with Government during the Tree Felling Application process under ETWBTC 3/2006.	Minimize effects of landscape and visual impacts	Within the site boundary of the proposed works	Funded and implemented by CEDD. Maintained by CEDD and LCSD.	Design, construction and operational stages	
S13.8.1.2	The following mitigation measures should be implemented in the operational stage: • OM2 – A continuous belt of screen planting along the roads. Planting of the belt of trees shall be carried out as advance works ahead of other site formation and building works. • OM3 – Maximise soft landscape of the site, where space permits, roadside berms /slope treatment works should be created. • OM4 – During detailed design, refine structure layout to create a planting strips along the roads to enhance greenery. • OM5 – Use appropriate (visually unobtrusive and	Minimize effects of landscape and visual impacts	CBL and Road D9/during construction and operation	Funded and implemented by CEDD. Maintained by CEDD and LCSD.	Design, construction and operational stages	

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	non-reflective) building materials and colours, and aesthetic design in built structures. • OM6 – Streetscape elements (e.g. paving, signage, street furniture, lighting etc.) shall be sensitively designed in a manner that responds to the local context, and minimizes potential negative landscape and visual impacts. Lighting units should be directional and minimize unnecessary light spill. • OM7 – Avoidance of excessive height and bulk of buildings and structures					
Landfill Gas						
S14.7.5	Precautionary measures The following guidance has been extracted from the EPD's Landfill Gas Hazard Assessment Guidance Note Guidance to ensure a robust and comprehensive set of measures to protect workers are provided. • During all works, safety procedures shall be implemented to minimize the risks of fires and explosions, asphyxiation of workers (especially in confined space) and toxicity effects resulting from contact with contaminated soils and groundwater. • Safety officers who are specifically trained with regard to LFG and leachate related hazards and the appropriate actions to take in adverse circumstances shall be present on all worksites throughout the works. • All personnel who work on site and all visitors to the site shall be made aware of the possibility of ignition of gas in the vicinity of the works, the possible presence of contaminated water and the need to avoid physical contact with it. • Those staff who work in, or have responsibility for "at risk" areas, including all excavation workers, supervisors and engineers working within the consultation zone, shall receive appropriate training on working in areas susceptible to LFG hazards. • Enhanced personal hygiene practices including washing thoroughly after working and eating only in "clean" areas shall be adopted where contact may have been made with any groundwater which is thought to be contaminated with	Health and safety of the workers	Construction sites within 250m Consultation Zone (**Drawing no. 209506/EMA/LFG/001**)	Contractor	Construction stage	• Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	leachate. • Ground level construction plant shall be fitted with vertical exhausts at least 0.6m above ground level and with spark arrestors. • During piping assembly or ducting construction, all valves/seals shall be closed immediately after installation. As construction progresses, all valves/seals should be closed as installed to prevent the migration of gases through the pipeline/conduit. All piping /ducting shall be capped at the end of each working day. • Mobile offices, equipment stores, mess rooms etc. shall be located on an area which has been proven to be gas free (by survey with portable gas detectors) and ongoing monitoring shall be carried out to ensure that these areas remain gas free. Alternatively, such buildings shall be raised clear of the ground. If buildings are raised clear of the ground, the minimum, clear separation distance (as measured from the highest point on the ground surface to the underside of the lowest floor joist) shall be 500mm. However, in this case, it is highly recommended that all the site offices, equipment stores and mess rooms should be located outside the 250m Consultation Zone. • Smoking and naked flames shall be prohibited within confined spaces. "No Smoking" and "No Naked Flame" notices in Chinese and English shall be posted prominently around the construction site. Safety notices shall be posted warning of the potential hazards. • Welding, flame-cutting or other hot works may only be carried out in confined spaces when controlled by a "permit to work" procedure, properly authorized by the Safety Office. The permit to work procedure shall set down clearly the requirements for continuous monitoring of methane, carbon dioxide and oxygen throughout the period during which the hot works are in progress. The procedure shall also require the presence of an appropriately qualified person who shall be responsible for reviewing the gas measurements as they are made, and who shall have executive responsibility for suspending the work in the event of					

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	unacceptable or hazardous conditions. Only those workers who are appropriately trained and fully aware of the potentially hazardous conditions which may arise shall be permitted to carry out hot works in confined areas. • During the construction works, adequate fire extinguishers and breathing apparatus sets shall be made available on site and appropriate training given in their use.					
S14.7.6	**Landfill gas monitoring** The following monitoring shall be undertaken when construction works are carried out in confined space within the 250m Consultation Zone: • The works area shall be monitored for methane, carbon dioxide and oxygen using appropriately calibrated portable gas detection equipment. The monitoring requirements and procedures specified in Paragraphs 8.23 to 8.28 of EPD's Guidance Note shall be followed. The monitoring frequency and areas to be monitored shall be set down prior to commencement of the works. Depending on the results of the measurements, actions required will vary. As a minimum these shall encompass the actions specified in Table 14.6 of the EIA report. • When portable monitoring equipment is used, the frequency and areas to be monitored should be set down prior to commencement of the works either by the Safety Officer or by an appropriately qualified person. • All measurements shall be made with the monitoring tube located not more than 10mm from the surface. • A standard form, detailing the location, time of monitoring and equipment used together with the gas concentrations measured, shall be used when undertaking manual monitoring to ensure that all relevant data are recorded. • If methane (flammable gas) or carbon dioxide concentrations are in excess of the trigger levels or that of oxygen is below the level specified in the Emergency Management in the following section, then evacuation shall be initiated.	Health and safety of the workers	Confined space of construction sites within 250m Consultation Zone	Contractor	Construction stage	• Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97)
S14.7.8-9	**Emergency management** In the event of the trigger levels specified in Table 14.6 of the EIA report being exceeded, a person, such as the Safety	Health and safety of the workers	Confined space of construction sites within 250m Consultation Zone	Contractor	Construction stage	• Landfill Gas Hazard Assessment

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				Agent	Stage	
	Officer, shall be nominated, with deputies, to be responsible for dealing with any emergency which may occur due to LFG. In an emergency situation the nominated person, or his deputies, shall have the necessary authority and shall ensure that the confined space is evacuated and the necessary works implemented for reducing the concentrations of gas.					Guidance Note (EPD/TR8/97)
S14.7.16	**Protection measures – Operational phase** • An assumed presence of landfill gas shall be adopted at all times by maintenance workers; • all maintenance workers inspecting any manhole shall be fully trained in the issue of LFG hazard; • any manhole which is large enough to permit to access to personnel shall be subject to entry safety procedure; • Code of Practice on Safety and Health at Work in Confined Spaces shall be followed to ensures compliance with the Factories and Industrial Undertakings (Confined Spaces) Regulations of the Factories and Industrial Undertakings Ordinance; • a strictly regulated "work permit procedure" shall be implemented and the relevant safety procedures must be rigidly followed; and • Adequate communication with maintenance staff shall be maintained with respect to LFG.	Health and safety of the workers	Utility maintenance areas within 250m Consultation Zone/during operational period	Utility companies	Operational stage	• Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97); and • Code of Practice on Safety and Health at Work in Confined Space
S14.7.17	**General recommended precautionary & protection measures – Operational phase** LGF surveillance exercise shall be undertaken by the utility companies at the utility manholes/inspection chambers. The surveillance exercise shall be undertaken for the duration of the site occupancy, or until such time that EPD agree that surveillance is no longer required and this shall be based on all the available monitoring data for methane, carbon dioxide and oxygen.	Health and safety of the workers	Utility maintenance areas within 250m Consultation Zone/during operational period	Utility companies	Operational stage	• Landfill Gas Hazard Assessment Guidance Note (EPD/TR8/97); and • Code of Practice on Safety and Health at Work in Confined Space