JOB NO.: TCS00975/18

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

QUARTERLY ENVIRONMENTAL MONITORING AND AUDIT (EM&A) SUMMARY REPORT

(SEPTEMBER TO NOVEMBER 2020)

PREPARED FOR
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT (CEDD)

Date	Reference No.	Prepared By	Certified By
22 December 2020	TCS00975/18/600/R0506v1		
		Martin Li (Environmental Consultant)	Tam Tak Wing (Environmental Team Leader)

Version	Date	Remarks
1	22 December 2020	First Submission

Our ref: PL-202101069

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

2 February 2020

Dear Sir,

Contract No. NE/2017/07 & NE/2017/08
Cross Bay Link, Tseung Kwan O
Quarterly EM&A Report for September to November 2020

I refer to the email of ET concerning the Quarterly EM&A Report for September to November 2020 (Version 1) with Ref. No. TCS00975/18/600/R0506v1. I have no adverse comment on it and verify the captioned according to section 1.9 of Environmental Permit with No. EP-459-2013.

Yours faithfully,

Li Wai Ming Kevin
Independent Environmental Checker

cc. Mr. T.W. TAM (ETL)
Mr. Wilson CHUNG (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 This is the **8th** Quarterly EM&A report presenting the monitoring results and inspection findings for the reporting period from **1st September 2020** to **30th November 2020** (hereinafter 'the Reporting Period').

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES04 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		48
	24-Hr TSP		16
Construction Noise	Leq (30min) Daytime		26
	Leq (5min) Evening(Note 1)		20
Water Quality	Marine Water Sampling(Note 2) (Note 3)		0
Inspection / Audit	Contract 1	ET Regular Environmental Site Inspection	13
		Joint site audit with Project Consultant and IEC	3
	Contract 2	ET Regular Environmental Site Inspection	13
		Joint site audit with Project Consultant and IEC	3

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

ES05 No air quality monitoring exceedance was recorded in this Reporting Period. Three (3) daytime construction noise action level exceedance were recorded in the reporting period. In addition, eleven (11) sessions of evening additional construction noise Limit level exceedances were recorded in this Reporting Period. NOEs were issued to notify EPD, IEC, the Contractor and the Project Consultant. The statistics of environmental exceedance, NOE issued 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	**3**	0	Two project related	The Contractor was reminded to implement the noise mitigation measures as far as practicable to reduce noise impact to public. Besides, Permit to work system had been implemented to ensure Contractor and RSS were notified in advance of any construction work during restricted hours.
	Leq_{5min} Evening	0	**11**	Not project related	NA
Water Quality (Marine Water)	DO	0	0	--	--
	Turbidity	0	0	--	--
	SS	0	0	--	--

Note: NOE – Notification of Exceedance

ES06 For the evening construction noise monitoring limit level exceedances recorded in the reporting period, investigations were carried out and it was considered that the exceedances recorded are unlikely caused by the Project. Nevertheless, the Contractor was reminded to strictly follow the requirement stipulated in the applied CNP during evening works.

ENVIRONMENTAL COMPLAINT

ES07 Four (4) environmental complaint was recorded in this Reporting Period 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 Sep – 30 Nov 2020	1	3	12	Construction Noise and Wastewater	One Project Related
	2	1	5	Construction Noise	One Project Related

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES08 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 Sep – 30 Nov 2020	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 Sep – 30 Nov 2020	1	0	0	NA	NA
	2	0	0	NA	NA

SITE INSPECTION BY EXTERNAL PARTIES

ES09 No site inspection was undertaken by AFCD within the Reporting Period. However, EPD inspection were undertaken on 16 September 2020 and 28 October 2020.

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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 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.

1.1.4 This is the **8th** Quarterly EM&A report presenting the monitoring results and inspection findings for the reporting period from **1st September 2020** to **30th November 2020** (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	*Impact Monitoring Results*
Section 5	*Waste Management*
Section 6	*Site Inspections*
Section 7	*Landfill Gas Monitoring*
Section 8	*Environmental Complaints and Non-Compliance*
Section 9	*Implementation Status of Mitigation Measures*
Section 10	*Conclusions and Recommendations*

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 can be referred to Monthly Report.

2.2 CONSTRUCTION PROGRESS

2.2.1 3-month rolling construction program of 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:-

- 1 and 2 Stage of Pile caps concreting work at Portion II
- Precast pier installation work at Portion II
- Precast Box Girder installation at portion II
- Fabrication of bottom deck panels, top deck panels and diaphragm panels at Portion II
- 1,2, 3 and 4 round Deck segment assembly
- Precast shell and pier fabrication
- ABWF work, E&M Work and External Work on North Wing and South Wing
- E&M installation at Portion V
- 1, 2, 3 and 4 round arch rib segment assembly

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

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

- Pre-bored Socket H-Pile (Portion VI)
- Excavation (Portion III,VI)
- Drainage Installation (Portion VI)
- Footing construction(Portion VI)
- Excavation & RC works (Superstructure) (Portion III)
- RC construction for U-trough(Portion III)
- Sheet-pilling (Portion VI)
- Seawall modification
- Compensation tree planting work

2.3 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.3.1 All the documents required under Environmental Permit No. EP-459/2013 were submitted within the required timeframe. The details can be referred to the Monthly Report.

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/).

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)	Under Construction
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 5) (Southeast facade)	Available for resident occupation in November 2019
CNMS-2	Lohas Park Stage 1 (Planned Development in Area 86, Package 6) (Southeast facade)	Under Construction
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 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 Interim alternative location for air quality and noise monitoring

Location ID	Monitoring Parameter	Location
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-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

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

3.5.1 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 3-6, 3-7*** and ***3-8*** respectively.

Table 3-6 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
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 3-7 Action and Limit Levels for Construction Noise, dB(A)

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

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 3-8 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

Monitoring Station	Depth Average of SS (mg/L)			
	Action Level		Limit Level	
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	

3.5.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan as stated EM&A Manual.

4. IMPACT MONITORING RESULT

4.1 RESULTS OF AIR QUALITY MONITORING IN THE REPORTING MONTH

4.1.1 During the Reporting Period, ***48*** sessions of 1-hour TSP and ***16*** sessions of 24-hours TSP monitoring were carried out and the monitoring results are summarized in ***Table 4-1***. The relevant graphical plots are shown in ***Appendix E***.

Table 4-1 Summary of Air Quality Impact Monitoring Results

Monitoring Location	1-hour TSP (μg/m³)			24-hour TSP (μg/m³)		
	Min	Max	Average	Min	Max	Average
AMS-4	57	112	78			
Record Date	16-Sep-20	5-Nov-20	48 events			
AMS-5				30	181	125
Record Date				26-Sep-20	21-Nov-20	16 events

4.1.2 As shown in ***Table 4-1***, 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.

4.1.3 No adverse impact due to weather condition on the monitoring result was observed in reporting quarter. The summary of meteorological information for the Reporting Period is shown in ***Appendix F***.

4.2 RESULTS OF CONSTRUCTION NOISE MONITORING

4.2.1 ***13*** sessions of daytime construction noise monitoring and ***10*** sessions of evening construction noise monitoring were performed at the designated location CNMS-1 in the reporting period; and ***13*** sessions of daytime construction noise monitoring and ***10*** sessions of evening construction noise monitoring were performed at the interim alternative location CNMS-5 in the reporting period. The noise monitoring results at designated location CNMS-1 and interim alternative monitoring location CNMS-5 are summarized in ***Table 4-2*** and ***Table 4-3.*** The relevant graphical plots are shown in ***Appendix E***.

Table 4-2 Summary of Daytime Construction Noise Impact Monitoring Results

Monitoring Location	Leq, 30min (dB((A))		
	Min	Max	Average
CNMS-1	57.3	68.7	66.2
Record Date	28-Sep-20	10-Sep-20	13 sessions
CNMS-5	64.7	67.5	66.3
Record Date	28-Sep-20	4-Sep-20	13 sessions

4.2.2 All the measured daytime construction noise results were below 75dB(A) of the limit level acceptance criteria.

4.2.3 Three (3) environmental complaints regarding construction noise were received in the Report Period, therefore three (3) action level exceedances were registered in the reporting period.

Table 4-3 Summary of Evening Construction Noise Impact Monitoring Results

Monitoring Location	Leq, 5min (dB((A))		
	Min	Max	Average
CNMS-1	52.0	55.2	53.5
Record Date	4-Nov-20	24-Sep-20	10 sessions
CNMS-5	58.4	62.3	61.0
Record Date	24-Sep-20	29-Oct-20	10 sessions

4.2.4 A total of eleven (11) limit level evening noise monitoring exceedances were recorded in the reporting period due to the measured results were higher than 55dB(a) of the acceptance criteria.

Investigations were undertaken by ET accordingly and it was considered the exceedances recorded were unlikely due to the Project.

4.3 RESULTS OF WATER QUALITY MONITORING

4.3.1 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.

4.3.2 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.

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

5. WASTE MANAGEMENT

5.1 GENERAL WASTE MANAGEMENT

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

5.2 RECORDS OF WASTE QUANTITIES

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

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

5.2.2 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 5-1*** and ***5-2***.

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

Type of Waste	Contract No	Quantity			Disposal Location
		Sep 2020	Oct 2020	Nov 2020	
Total Generated C&D Materials (Inert) (in '000m^3)	1	0.264	0.624	0.462	TKO 137
	2	0.547	1.448	2.152	
Reused in this Project (Inert) (in '000m^3)	1	0	0	0	-
	2	0	0	0	-
Reused in other Projects (Inert) (in '000m^3)	1	0	0	0	-
	2	0	0	0	-
Disposal as Public Fill (Inert) (in '000m^3)	1	0.264	0.624	0.462	TKO 137
	2	0.547	1.448	2.152	
Imported Fill (‘000m^3)	1	0	0	0	-
	2	0.672	0.802	0.570	-

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

Type of Waste	Contract No	Quantity			Disposal Location
		Sep 2020	Oct 2020	Nov 2020	
Recycled Metal (‘000kg)	1	0	0	0	Licensed collector
	2	0	0.005	0.003	
Recycled Paper / Cardboard Packing (‘000kg)	1	0.121	0.096	0.089	Licensed collector
	2	0.045	0.050	0.050	
Recycled Plastic (‘000kg)	1	0	0	0	Licensed collector
	2	0.10	0. 15	0.005	
Chemical Wastes (‘000kg)	1	0	0	0	Licensed collector
	2	0	0.015	0	
General Refuses (‘000m^3)	1	0.173	0.229	0.228	NENT
	2	0.040	0.026	0.008	

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

6. SITE INSPECTION

6.1 REQUIREMENTS

6.1.1 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.

6.2 FINDINGS / DEFICIENCIES DURING THE REPORTING MONTH

Contract 1

6.2.1 In this Reporting Period, ***13*** events of weekly joint site inspection was carried out for Contract 1 to evaluate site environmental performance. The summaries of the findings during site inspection are presented in ***Table 6-1*** and the details of site inspection can be found in relevant EM&A monthly report.

Table 6-1 Summary of Site Observations of the Contract 1

Reporting Period	Date of site inspection	Nos. of Findings/ Deficiencies	Follow-Up Status
September 2020	2, 9, 16, 23 & 30 September 2020	5	Completed
October 2020	7, 14, 19 & 28 October 2020	6	Completed
November 2020	4, 10, 18 & 25 November 2020	7	Completed

6.2.2 In the Reporting Period, no non-compliance was recorded for Contract 1; however, ***18*** observations were recorded during the site inspections and the major findings were related to water quality and chemical management mitigation measures. Details of the findings of the inspection in the reporting period can be referred to the Monthly EM&A Report. The findings found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 2

6.2.3 In this Reporting Period, ***13*** events of weekly joint site inspection was carried out for Contract 2 to evaluate site environmental performance. The summaries of the findings during site inspection are presented in ***Table 6-2*** and the details of site inspection can be found in relevant EM&A monthly report.

Table 6-2 Summary of Site Observations of the Contract 2

Reporting Period	Date of site inspection	Nos. of Findings/ Deficiencies	Follow-Up Status
September 2020	2, 9, 16, 23 & 30 September 2020	3	Completed
October 2020	7, 14, 19 & 28 October 2020	2	Completed
November 2020	4, 11, 18 & 25 November 2020	5	Completed

6.2.4 In the Reporting Period, no non-compliance was recorded for Contract 2; however, ***10*** observations were recorded during the site inspections and the major findings were related to general housekeeping and chemical management mitigation measures. Details of the findings of the inspection in the reporting period can be referred to the Monthly EM&A Report. The findings found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

7. LANDFILL GAS MONITORING

7.1 GENERAL REQUIREMENT

7.1.1 Pursuant to Section 13 of the Project's EM&A Manual, Landfill gas monitoring shall perform during construction activities 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*.

7.1.2 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.

7.2 LIMIT LEVELS AND EVENT AND ACTION PLAN

7.2.1 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 7-1***.

Table 7-1 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%

7.2.2 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.

7.3 LANDFILL GAS MONITORING

7.3.1 In the Reporting Period, landfill gas monitoring was conducted at the zone Wan O Road which excavation work of Contract 2 was carried out.

7.3.2 There were a total of ***74*** days monitoring were carried by the Safety Officer or an approved and qualified persons. The results of landfill gas measurement are summarized in ***Table 7-2***.

Table 7-2 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%	0.1%
Oxygen	<19%	<18%	20.4%	21.0%
Carbon Dioxide	>0.5%	>1.5%	0.0%	0.2%

7.3.3 The measurement results shown that slightly methane concentration was detected, oxygen concentration measured was over 19.0 % and Carbon Dioxide was between 0.1% and 0.2 %. No exceedance was triggered and therefore no corrective action was required accordingly.

8. ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE

8.1 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

8.1.1 In the Reporting Period, four (4) environmental complaints were received with respect to the construction noise and water quality arising from the Project. Besides, no summons and prosecution under the EM&A Programme was lodged for the project. The statistical summary table of environmental complaint is presented in ***Tables 8-1, 8-2*** and ***8-3***. A summarized record of all complaints received was provided in ***Appendix H***.

Table 8-1 Statistical Summary of Environmental Complaints

Reporting Period	Contract	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
1 – 30 September 2020	1	2	11	Noise and Water
1 – 31 October 2020		1	12	Noise
1 – 30 November 2020		0	12	NA
1 – 30 September 2020	2	0	4	NA
1 – 31 October 2020		0	4	NA
1 – 30 November 2020		1	5	Noise

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Contract	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
1 – 30 September 2020	1	0	0	NA
1 – 31 October 2020		0	0	NA
1 – 30 November 2020		0	0	NA
1 – 30 September 2020	2	0	0	NA
1 – 31 October 2020		0	0	NA
1 – 30 November 2020		0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Contract	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
1 – 30 September 2020	1	0	0	NA
1 – 31 October 2020		0	0	NA
1 – 30 November 2020		0	0	NA
1 – 30 September 2020	2	0	0	NA
1 – 31 October 2020		0	0	NA
1 – 30 November 2020		0	0	NA

9. IMPLEMENTATION STATUS OF MITIGATION MEASURES

9.1 GENERAL REQUIREMENTS

9.1.1 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 I.***

9.1.2 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 9-1***.

Table 9-1 Environmental Mitigation Measures in the Reporting Period

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.

10. CONCLUSIONS AND RECOMMENDATIONS

10.1 CONCLUSIONS

10.1.1 This is the **8th** Quarterly EM&A report as presented the monitoring results and inspection findings for the reporting period from ***1st September 2020*** to ***30th November 2020.***

10.1.2 In the Reporting Period, three (3) daytime construction noise action level were recorded. In addition, eleven (11) sessions of evening additional construction noise monitoring results triggered the Limit Level. Investigation was undertaken by ET and it was considered that the evening construction noise limit level exceedances recorded are unlikely caused by the Project. However, two daytime construction noise action level exceedances triggered was Project related.

10.1.3 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.

10.1.4 No water quality monitoring was carried out in the reporting period.

10.1.5 In the Reporting Period, four (4) environmental complaints were received with respect to the construction noise and water quality arising from the Project. Investigation for the complaints were undertaken by ET and it is considered the complaints are not related to the Project.

10.1.6 No notification of summons or prosecution was received and recorded for the Project.

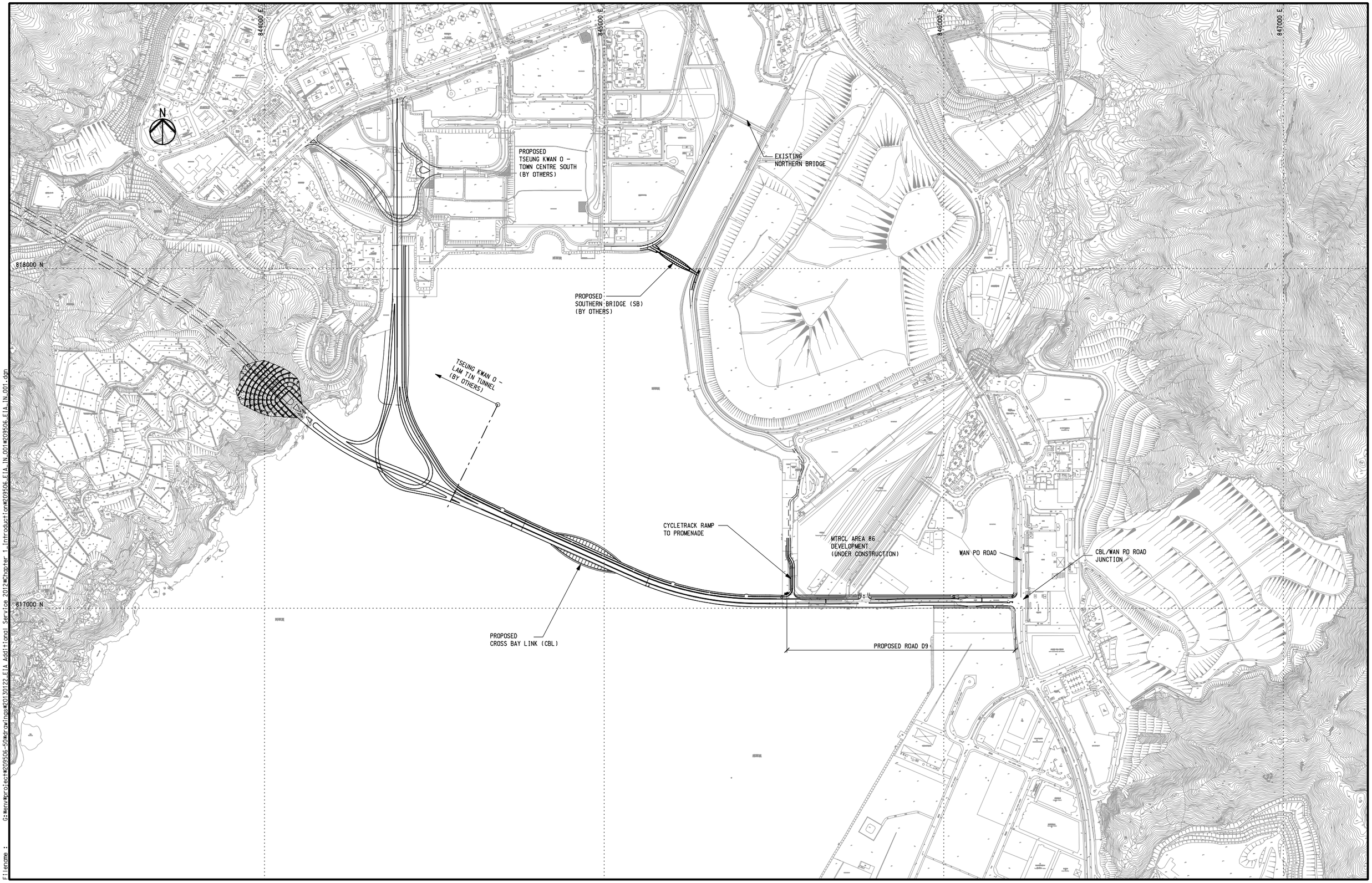
10.2 RECOMMENDATIONS

10.2.1 Due to the dry and windy season has begun in 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.

10.2.2 Construction noise would be the key environmental issue as Lohas Park Phase 4 was 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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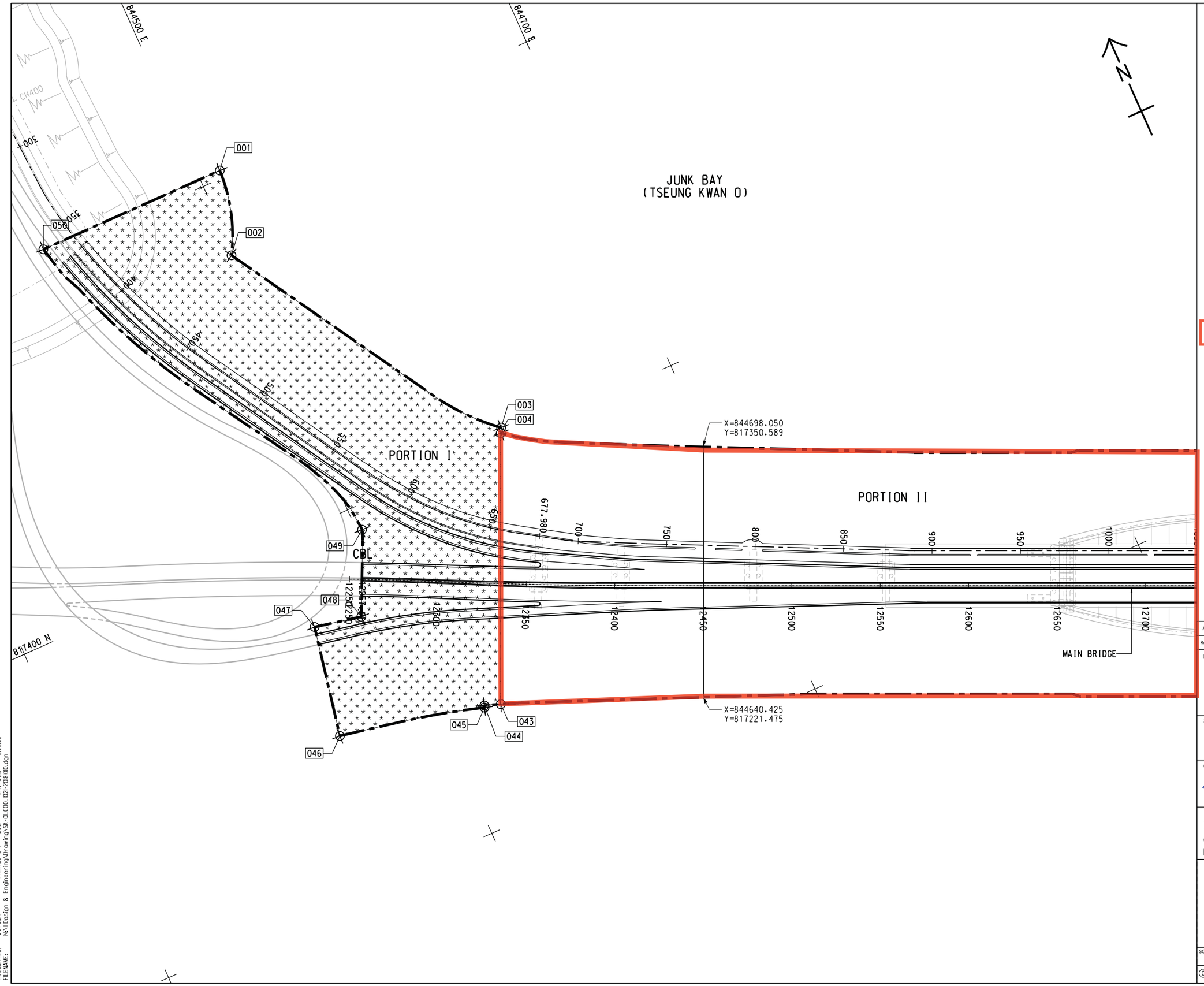
土木工程拓展署 Civil Engineering and Development Department	ARUP Ove Arup & Partners Hong Kong Limited	Job Title: **Agreement No. CE 43/2008(HY) Cross Bay Link, Tseung Kwan O – Investigation**
Drawing Title: GENERAL LAYOUT PLAN		

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
1 : 1000

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SETTING OUT POINTS		
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
048	844482.530	817341.743
049	844502.889	817386.445
050	844403.015	817604.422

845500 E

JUNK BAY
(TSEUNG KWAN O)

MTRC
TSEUNG KWAN O DEPOT

N

009
008
010
011
012
013
007
006
015
014
016
038
039
040
041
042
005

PORTION VII
PORTION III
PORTION II
PORTION IV

C101
CBL/CBL

X=845524.970
Y=816953.186

MAIN BRIDGE

將軍澳
JUNK BAY
(TSEUNG KWAN O)

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:

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

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SCALE @ A1

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NOTE:

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

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

LEGEND:

Works area under Contract 1

Works area under Contract 2

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

DRAWING NO:

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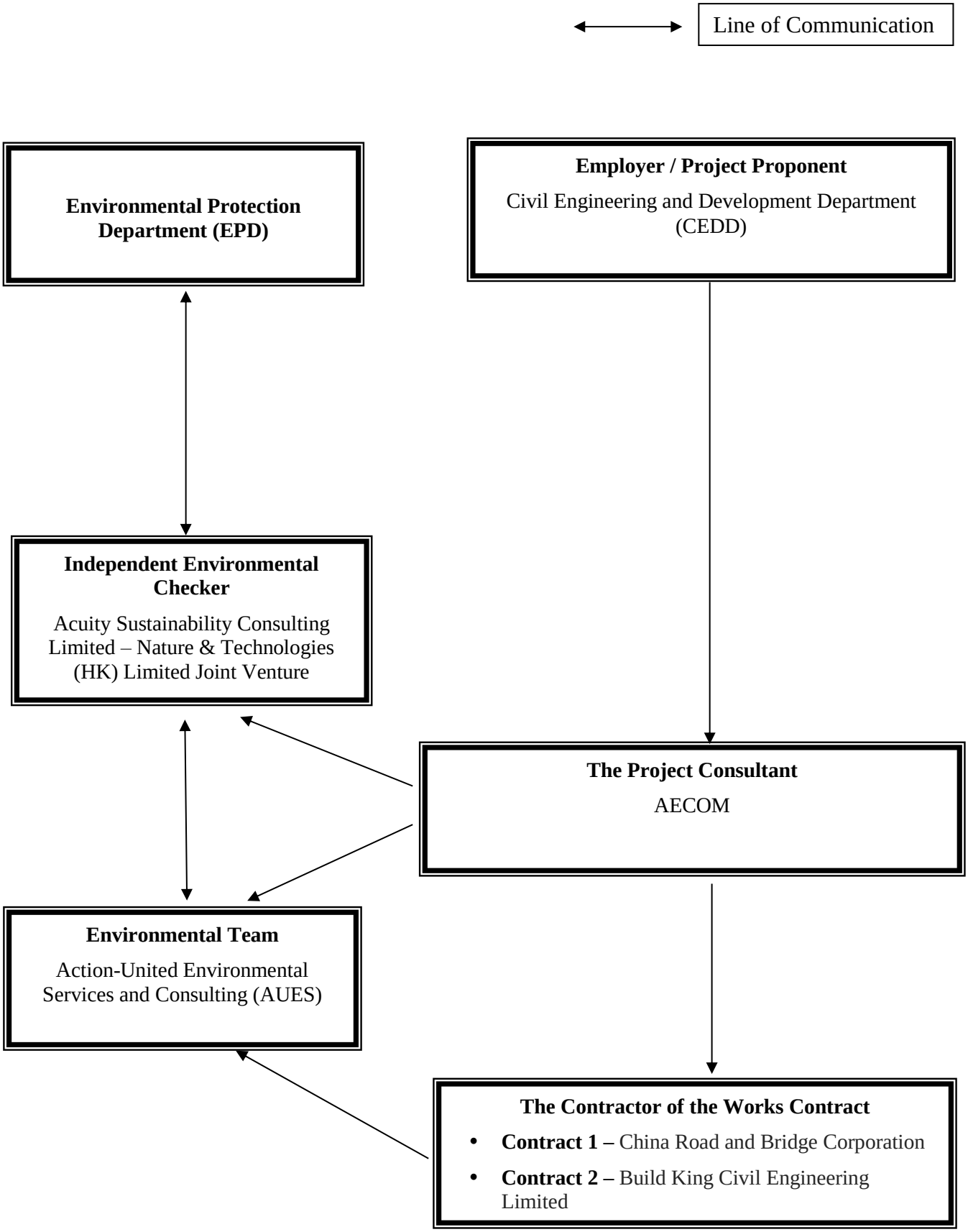
Appendix B

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	Calvin So	9724 6254	2283 1689
CRBC	Environmental Supervisor	Lila Lui	9790 5433	2283 1689
Build King	Site Agent	Stephen Leung	9071 7657	TBA
Build King	Environmental Officer	Michael Lam	6476 4299	TBA
Build King	Environmental Supervisor	Kenneth Hung	6170 9304	TBA

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

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	Planned Start	Finish	Planned Finish	Total Float	Activity % Complete	TRA	Variance - Finish Date
Cross Bay Link,Tseung Kwan O Main Bridge and Associated Works- Submission		1484	554	29-Jun-18 A	29-Jun-18	16-May-22	21-Jul-22	-93			66
Contractual Key Dates and Section of the Works		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
Contractual Key Dates		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
KDS1220	Key Date 1- Completion of all Works in Portion V of the Site necessary to comply with the requirements from FSD and CLP	0	0			12-Jan-21*	12-Jan-21	0	0%	0	0
Executive Summary Programme		1484	554	29-Jun-18 A	29-Jun-18	16-May-22	21-Jul-22	-93			66
ESP Section 1 of the Works- All Works within Portion I of the Site (Entrusted Works of TKOI Viaduct)		157	157	13-Jan-21	13-Jan-21	18-Jun-21	18-Jun-21	0			0
ESP10720	Pre-drilling Works	71	71	13-Jan-21	13-Jan-21	24-Mar-21	24-Mar-21	52	0%	0	0
ESP10740	Piling Works	140	140	30-Jan-21	30-Jan-21	18-Jun-21	18-Jun-21	0	0%	0	0
ESP Section 2 of Works-All Works within Portion II,III,IV and VI		1240	554	17-Sep-18 A	28-Feb-19	16-May-22	21-Jul-22	-93			66
ESP10920	CBL Main Bridge and Marine Viaduct	1240	554	17-Sep-18 A	28-Feb-19	16-May-22	21-Jul-22	-93	55.32%	0	66
ESP10980	Pile Cap	321	24	23-Jul-19 A	08-Aug-19	02-Dec-20	23-Jun-20	41	92.52%	0	-162
ESP11000	Pier	221	92	16-Mar-20 A	09-Mar-20	08-Feb-21	15-Oct-20	38	58.37%	0	-116
ESP11080	Concrete Bridge Decks	395	254	05-Jun-20 A	09-Jul-20	20-Jul-21	07-Aug-21	11	35.7%	0	18
ESP11160	E&M Works for CBL Main Bridge and Marine Viaduct	554	554	09-Nov-20	09-Oct-20	16-May-22	16-May-22	-93	0%	0	0
ESP Section 5 of the Works-All Works within Portion V (CBL E&M Plantroom)		343	65	22-Jan-20 A	13-Feb-20	12-Jan-21	20-Jan-21	0			8
ESP11280	Architectural & External Works	153	2	22-Jan-20 A	13-Feb-20	10-Nov-20	14-Jul-20	28	98.69%	0	-119
ESP11300	E&M Works and FSD Inspection	159	65	30-Jul-20 A	15-Aug-20	12-Jan-21	20-Jan-21	0	59.12%	0	8
ESP11310	Key Date 1- Completion of all Works in Portion V of the Site necessary to comply with the requirements from FSD and CLP	0	0			12-Jan-21*	12-Jan-21	0	0%	0	0
Access Date		0	0	13-Jan-21	13-Jan-21	13-Jan-21	13-Jan-21	0			0
ESP10060	Access Date of Portion I	0	0	13-Jan-21*	13-Jan-21			0	0%	0	0
Contractual Key Dates and Section of the Works		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
Key Dates		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
ESP10220	Key Date 1- Completion of all Works in Portion V of the Site necessary to comply with the requirements from FSD and CLP	0	0			12-Jan-21*	12-Jan-21	0	0%	0	0
Anticipated Key Dates and Section of the Works		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
Key Dates		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
ESP11360	Key Date 1- Completion of all Works in Portion V of the Site necessary to comply with the requirements from FSD and CLP	0	0			12-Jan-21*	12-Jan-21	0	0%	0	0
Preliminaries, Contractor's Design & Method Statement Submission & Approval		1253	336	29-Jun-18 A	29-Jun-18	10-Oct-21	02-Dec-21	16			53
ESP10400	Temporary Works Design	695	34	13-Aug-18 A	13-Aug-18	12-Dec-20	07-Jul-20	16	95.11%	0	-158
ESP10420	Method Statement Submission for Major Construction Works	736	52	27-Aug-18 A	27-Aug-18	30-Dec-20	31-Aug-20	20	92.93%	0	-121
ESP10440	Contractor's Design Submission and Approval	869	264	06-Aug-18 A	06-Aug-18	30-Jul-21	21-Dec-20	0	69.62%	0	-221
ESP10480	General Submission	843	30	29-Jun-18 A	29-Jun-18	08-Dec-20	18-Oct-20	35	96.44%	0	-51
ESP10500	Project Manager's Acceptance of Subcontractors	556	0	14-Aug-18 A	21-Feb-19	09-Nov-20	29-Aug-20	264	100%	0	-71
ESP10560	Procurement, Factory Acceptance Test, Delivery and Temporary Storage of Major E&M Equipment	0	136	13-May-20 A	09-Jun-20	24-Mar-21	09-Jun-20	216	0%	0	-289
ESP10570	Precasting of Precast Shell (TKOI Entrustment Works)	240	240	09-Nov-20	09-Oct-20	06-Jul-21	05-Jun-21	0	0%	0	-31
ESP10580	Precasting of Precast Segments (TKOI Entrustment Works)	359	336	16-Sep-20 A	09-Oct-20	10-Oct-21	02-Oct-21	0	6.41%	0	-8
ESP10620	Fabrication of Precast Box Girder	713	64	10-Nov-18 A	13-May-19	11-Jan-21	24-Apr-21	44	91.02%	0	103
ESP10640	Fabrication of Steel Arch Bridge and Side Spans	623	137	30-Aug-19 A	08-Apr-19	25-Mar-21	20-Dec-20	-99	78.01%	0	-95
ESP10660	Assembly of Steel Arch Bridge	418	150	12-Jul-20 A	11-Oct-20	07-Apr-21	02-Dec-21	-90	64.11%	0	239
ESP10680	Assembly of Side Spans	102	102	17-Jan-21	17-Jan-21	28-Apr-21	28-Apr-21	-99	0%	0	0
Access Date		0	0	13-Jan-21	13-Jan-21	13-Jan-21	13-Jan-21	0			0
PAD1010	Access To Portion I	0	0	13-Jan-21*	13-Jan-21			0	0%		0
Planned Key Dates and Section of the Works		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
Planned Key Dates		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
KDS1040	Key Date 1- Completion of all Works in Portion V of the Site necessary to comply with the requirements from FSD and CLP	0	0			12-Jan-21*	12-Jan-21	0	0%	0	0
Procurement and Manufacture E&M Equipments		237	111	13-May-20 A	09-Jun-20	24-Mar-21	20-Feb-21	175			-27
Procurement and Manufacture		237	111	13-May-20 A	09-Jun-20	24-Mar-21	20-Feb-21	175			-27
P-PC10120	Procurement and Manufacture of LV Switch Board	127	10	13-May-20 A	09-Jun-20	19-Nov-20	09-Nov-20	65	92.13%	0	-9
P-PC10160	Procurement and Manufacture of Generator	102	96	01-Jul-20 A	09-Jun-20	06-Mar-21	09-Oct-20	165	5.88%	0	-120
P-PC10180	Procurement and Manufacture of UPS	76	76	19-Dec-20	18-Nov-20	24-Mar-21	20-Feb-21	175	0%	0	-27
Preliminaries, Contractor's Design & Method Statement Submission & Approval		689	135	12-Jun-19 A	08-Jul-19	23-Mar-21	26-Apr-21	129			34
Temporary Works Design		141	30	13-Jan-20 A	10-Feb-20	12-Dec-20	22-Jul-20	13			-123
TDS2140	Design of temporary works for superstructure of steel bridge (incl. 35 days TRA)	141	30	13-Jan-20 A	10-Feb-20	12-Dec-20	22-Jul-20	13	78.72%	35	-123

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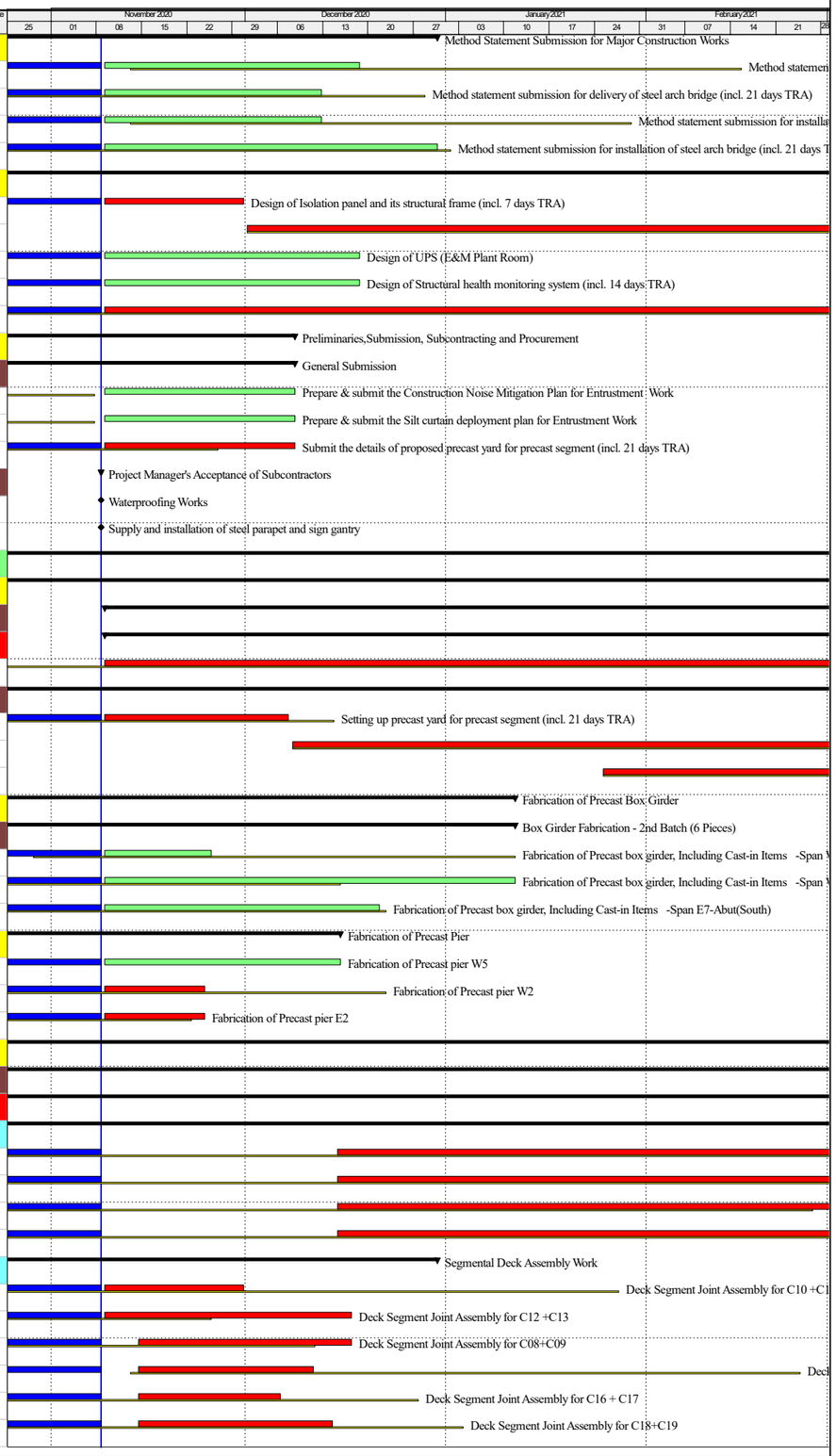
Contract No. NE/2017/07 Cross Bay Link, Tseng Kwan O - Main Bridge and Associated Works

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Planned Start	Finish	Planned Finish	Total Float	Activity % Complete	TRA	Variance - Finish Date
Method Statement Submission for Major Construction Works		124	45	15-Jul-19 A	24-Sep-20	30-Dec-20	15-Feb-21	17			40
MDS1220	Method statement submission for delivery of steel bridge deck of side span (incl. 35 days TRA)	81	35	15-Jul-19 A	13-Nov-20	18-Dec-20	15-Feb-21	27	56.79%	35	50
MDS1225	Method statement submission for delivery of steel arch bridge (incl. 21 days TRA)	82	30	15-Aug-19 A	24-Sep-20	12-Dec-20	28-Dec-20	22	63.41%	21	13
MDS1230	Method statement submission for installation of the steel bridge deck of side span (incl. 21 days TRA)	67	30	15-Jul-19 A	13-Nov-20	12-Dec-20	29-Jan-21	32	55.22%	21	41
MDS1270	Method statement submission for installation of steel arch bridge (incl. 21 days TRA)	82	45	15-Jul-19 A	29-Sep-20	30-Dec-20	01-Jan-21	17	45.12%	21	2
Contractor's Design Submission and Approval		689	135	12-Jun-19 A	08-Jul-19	23-Mar-21	26-Apr-21	96			34
CDS1120	Design of Isolation panel and its structural frame (incl. 7 days TRA)	97	19	19-Nov-19 A	27-Mar-20	30-Nov-20	17-Jul-20	0	80.41%	7	-116
CDS1140	Design of Functional lighting system,road lighting system,etc (incl. 7 days TRA)	97	97	01-Dec-20	01-Dec-20	23-Mar-21	23-Mar-21	0	0%	7	0
CDS1160	Design of UPS (E&M Plant Room)	284	40	09-Oct-19 A	02-Sep-19	18-Dec-20	11-Jun-20	191	85.92%	0	-190
CDS1200	Design of Structural health monitoring system (incl. 14 days TRA)	172	35	12-Jun-19 A	08-Jul-19	18-Dec-20	23-Jan-20	142	79.65%	14	-283
CDS1220	Design of SCADA system(SCADAS) (incl. 14 days TRA)	171	116	31-Mar-20 A	09-Oct-20	23-Mar-21	26-Apr-21	0	32.16%	14	29
Preliminaries,Submission, Subcontracting and Procurement		61	30	17-Sep-20 A	08-Oct-20	08-Dec-20	26-Nov-20	234			-12
General Submission		61	30	17-Sep-20 A	09-Oct-20	08-Dec-20	26-Nov-20	35			-12
P-GS1210	Prepare & submit the Construction Noise Mitigation Plan for Entrustment Work	30	30	09-Nov-20	09-Oct-20	08-Dec-20	07-Nov-20	35	0%	7	-31
P-GS1240	Prepare & submit the Silt curtain deployment plan for Entrustment Work	30	30	09-Nov-20	09-Oct-20	08-Dec-20	07-Nov-20	35	0%	7	-31
P-GS1680	Submit the details of proposed precast yard for precast segment (incl. 21 days TRA)	49	30	17-Sep-20 A	09-Oct-20	08-Dec-20	26-Nov-20	0	38.78%	21	-12
Project Manager's Acceptance of Subcontractors		0	0	08-Nov-20	08-Oct-20	08-Nov-20	08-Oct-20	264			-31
P-SP1540	Waterproofing Works	0	0			08-Nov-20	08-Oct-20	264	0%	0	-31
P-SP1580	Supply and installation of steel parapet and sign gantry	0	0			08-Nov-20	08-Oct-20	-21	0%	0	-31
Precasting & Fabrication Works		520	336	07-Jan-20 A	09-May-20	10-Oct-21	10-Oct-21	0			0
Fabrication of Precast Shell and Precast Segments		367	336	16-Sep-20 A	09-Oct-20	10-Oct-21	10-Oct-21	0			0
Precast Shell		240	240	09-Nov-20	09-Oct-20	06-Jul-21	05-Jun-21	0			-31
TKOI		240	240	09-Nov-20	09-Oct-20	06-Jul-21	05-Jun-21	0			-31
P-PS3145	Fabrication of Precast shell for pile cap of TKO entrustment work (total 17nos)	240	240	09-Nov-20	09-Oct-20	06-Jul-21	05-Jun-21	0	0%	21	-31
Precast Segments (TKOI Entrustment Works)		367	336	16-Sep-20 A	09-Oct-20	10-Oct-21	10-Oct-21	0			0
P-PF1140	Setting up precast yard for precast segment (incl. 21 days TRA)	67	29	16-Sep-20 A	09-Oct-20	07-Dec-20	14-Dec-20	0	56.72%	21	7
P-PF1160	Fabrication of Precast segments for TKOI Viaduct (total 255nos) (incl. 21 days TRA)	276	276	08-Dec-20	08-Dec-20	09-Sep-21	09-Sep-21	0	0%	21	0
P-PF1180	Pre-Stressing of Precast segments for TKOI Viaduct	259	259	25-Jan-21	25-Jan-21	10-Oct-21	10-Oct-21	0	0%	0	0
Fabrication of Precast Box Girder		95	64	23-Aug-20 A	09-Oct-20	11-Jan-21	11-Jan-21	44			0
Box Girder Fabrication - 2nd Batch (6 Pieces)		95	64	23-Aug-20 A	09-Oct-20	11-Jan-21	11-Jan-21	44			0
P-BG1385	Fabrication of Precast box girder, Including Cast-in Items -Span W4-W5(South)	75	17	23-Aug-20 A	29-Oct-20	25-Nov-20	11-Jan-21	90	77.33%	0	47
P-BG1407	Fabrication of Precast box girder, Including Cast-in Items -Span W2-W3(North)	68	64	13-Oct-20 A	09-Oct-20	11-Jan-21	15-Dec-20	44	5.88%	0	-27
P-BG1447	Fabrication of Precast box girder, Including Cast-in Items -Span E7-Abut(South)	75	43	20-Sep-20 A	09-Oct-20	21-Dec-20	22-Dec-20	38	42.67%	0	1
Fabrication of Precast Pier		228	37	24-Apr-20 A	09-May-20	15-Dec-20	22-Dec-20	38			7
P-PF1470	Fabrication of Precast pier W5	90	37	24-Apr-20 A	09-May-20	15-Dec-20	06-Aug-20	38	58.89%	0	-131
P-PF1480	Fabrication of Precast pier W2	75	16	11-Sep-20 A	09-Oct-20	24-Nov-20	22-Dec-20	-2	78.67%	0	28
P-PF1490	Fabrication of Precast pier E2	75	16	11-Aug-20 A	09-Sep-20	24-Nov-20	22-Nov-20	-19	78.67%	0	-2
Fabrication of Steel Arch Bridge and Side Spans		369	177	07-Jan-20 A	27-Jul-20	04-May-21	30-Jul-21	-37			87
Main Bridge Spans and Arch Rib Fabrication		301	177	15-May-20 A	27-Jul-20	04-May-21	23-May-21	-37			19
Full Assembly Work for Main Steel Span and Arch Rib		301	177	12-Jul-20 A	27-Jul-20	04-May-21	23-May-21	-37			19
Steel Bridge Sub-Element Installation Work		301	141	27-Jul-20 A	27-Jul-20	04-May-21	23-May-21	-37			19
P-SAB2221	Installation UnderDeck Maintenance Walkway	284	137	27-Jul-20 A	09-Aug-20	30-Apr-21	19-May-21	-37	51.76%		19
P-SAB2241	Walkway Installation	288	141	27-Jul-20 A	27-Jul-20	04-May-21	10-May-21	-37	51.04%		6
P-SAB2261	TMD Installation	215	79	08-Aug-20 A	27-Jul-20	04-Mar-21	26-Feb-21	-37	63.12%		-5
P-SAB2281	Dehumidification Installation for Steel Bridge	301	141	27-Jul-20 A	27-Jul-20	04-May-21	23-May-21	-37	53.16%		19
Segmental Deck Assembly Work		200	52	12-Jul-20 A	09-Aug-20	30-Dec-20	24-Feb-21	-90			56
P-SAB2081	Deck Segment Joint Assembly for C10 +C11	109	22	12-Jul-20 A	11-Oct-20	30-Nov-20	27-Jan-21	-90	79.82%		58
P-SAB2101	Deck Segment Joint Assembly for C12 +C13	109	39	27-Jul-20 A	09-Aug-20	17-Dec-20	25-Nov-20	-90	64.68%		-22
P-SAB2121	Deck Segment Joint Assembly for C08+C09	109	33	27-Jul-20 A	25-Aug-20	17-Dec-20	11-Dec-20	-90	69.72%		-6
P-SAB2141	Deck Segment Joint Assembly for C14 +C15	104	27	06-Aug-20 A	13-Nov-20	11-Dec-20	24-Feb-21	-90	74.04%		76
P-SAB2161	Deck Segment Joint Assembly for C16 + C17	110	22	14-Aug-20 A	09-Sep-20	06-Dec-20	27-Dec-20	-90	80%		22
P-SAB2181	Deck Segment Joint Assembly for C18+C19	114	30	27-Aug-20 A	12-Sep-20	14-Dec-20	03-Jan-21	-90	73.68%		21



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08-Nov-20	Monthly updated on 08 November 2020		

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

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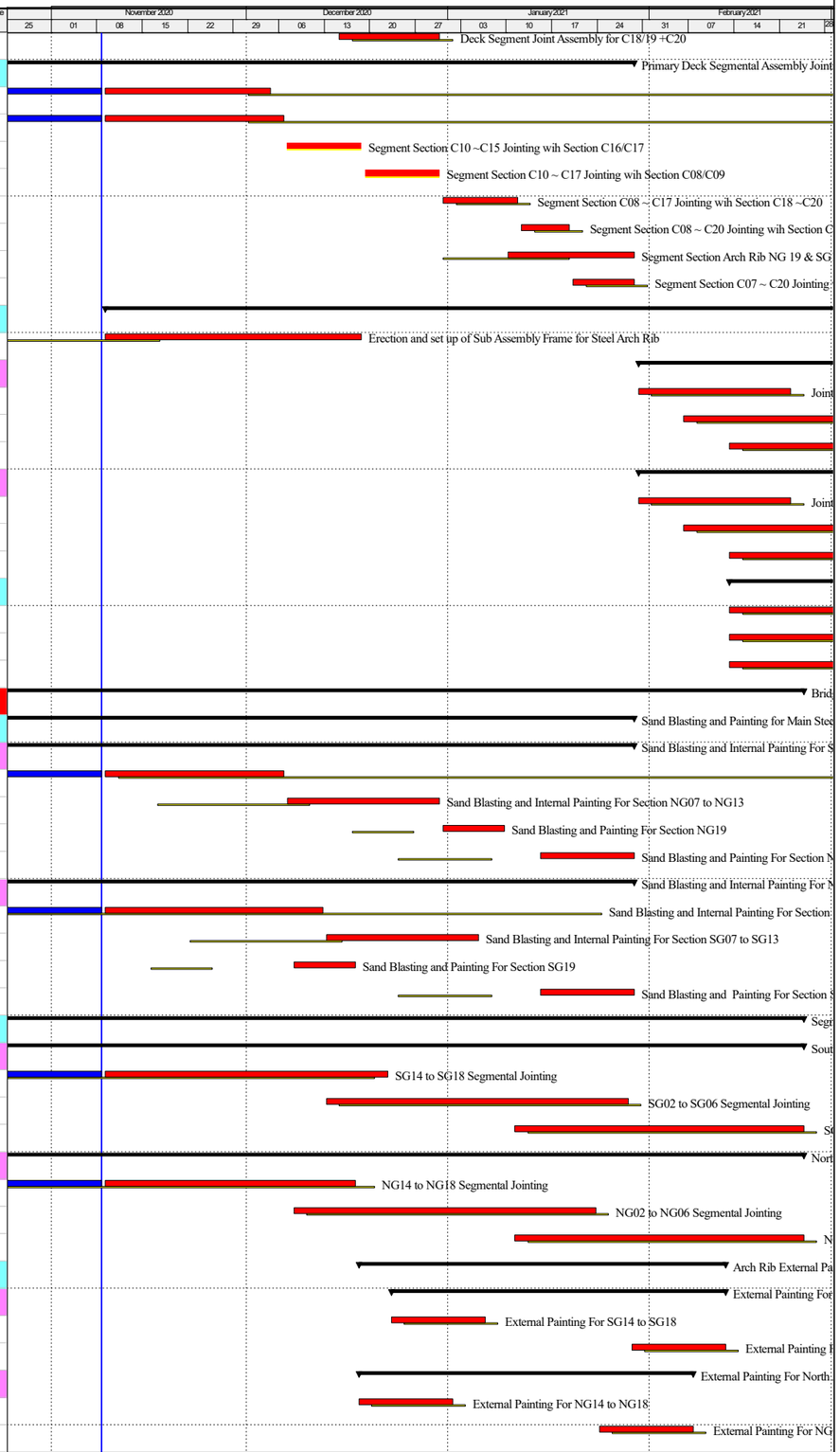
P-SAB2201	Deck Segment Joint Assembly for C18/19 +C20	16	16	15-Dec-20	17-Dec-20	30-Dec-20	01-Jan-21	-90	0%		2
Primary Deck Segmental Assembly Jointing		113	82	28-Jul-20 A	01-Dec-20	29-Jan-21	23-Mar-21	-90			53
P-SAB2301	Segment Section C10/C11 Jointing wih Section C12/13	113	26	28-Jul-20 A	01-Dec-20	04-Dec-20	23-Mar-21	-90	76.99%		109
P-SAB2321	Segment Section C10 ~C13 Jointing wih Section C14/C15	108	28	27-Aug-20 A	01-Dec-20	06-Dec-20	18-Mar-21	-90	74.07%		102
P-SAB2341	Segment Section C10 ~C15 Jointing wih Section C16/C17	12	12	07-Dec-20	07-Dec-20	18-Dec-20	18-Dec-20	-90	0%		0
P-SAB2361	Segment Section C10 ~ C17 Jointing wih Section C08/C09	12	12	19-Dec-20	19-Dec-20	30-Dec-20	30-Dec-20	-90	0%		0
P-SAB2381	Segment Section C08 ~ C17 Jointing wih Section C18 ~C20	12	12	31-Dec-20	02-Jan-21	11-Jan-21	13-Jan-21	-90	0%		2
P-SAB2401	Segment Section C08 ~ C20 Jointing wih Section C07	8	8	12-Jan-21	14-Jan-21	19-Jan-21	21-Jan-21	-90	0%		2
P-SAB2421	Segment Section Arch Rib NG 19 & SG19 with Section C 21	20	20	10-Jan-21	31-Dec-20	29-Jan-21	19-Jan-21	-90	0%		-10
P-SAB2441	Segment Section C07 ~ C20 Jointing wih Section C21	10	10	20-Jan-21	22-Jan-21	29-Jan-21	31-Jan-21	-90	0%		2
Arch Rib Full Assembly Work		119	119	09-Nov-20	09-Oct-20	07-Mar-21	09-Mar-21	-90			2
P-SAB1481	Erection and set up of Sub Assembly Frame for Steel Arch Rib	40	40	09-Nov-20	09-Oct-20	18-Dec-20	17-Nov-20	-48	0%		-31
North Arch Rib Full Assembly and Jointing Work To Steel Deck		37	37	30-Jan-21	01-Feb-21	07-Mar-21	09-Mar-21	-90			2
P-SAB2501	Jointing of North Arch Rib NG01 to Steel Deck	24	24	30-Jan-21	01-Feb-21	22-Feb-21	24-Feb-21	-90	0%		2
P-SAB2521	Jointing of North Arch Rib NG14 ~ NG18 to Steel Deck	30	30	06-Feb-21	08-Feb-21	07-Mar-21	09-Mar-21	-90	0%		2
P-SAB2541	Jointing of North Arch Rib NG02 ~ NG06 to Steel Deck and North Arch Rib	20	20	13-Feb-21	15-Feb-21	04-Mar-21	06-Mar-21	-90	0%		2
South Arch Rib Full Assembly and Jointing Work To Steel Deck		37	37	30-Jan-21	01-Feb-21	07-Mar-21	09-Mar-21	-90			2
P-SAB2601	Jointing of South Arch Rib SG01 to Steel Deck	24	24	30-Jan-21	01-Feb-21	22-Feb-21	24-Feb-21	-90	0%		2
P-SAB2621	Jointing of South Arch Rib SG14 ~ SG18 to Steel Deck	30	30	06-Feb-21	08-Feb-21	07-Mar-21	09-Mar-21	-90	0%		2
P-SAB2641	Jointing of South Arch Rib SG02 ~ SG06 to Steel Deck and South Arch Rib	20	20	13-Feb-21	15-Feb-21	04-Mar-21	06-Mar-21	-90	0%		2
Sub-Element Installation Work for Main Span		50	50	13-Feb-21	15-Feb-21	03-Apr-21	05-Apr-21	-90			2
P-SAB2761	Track Installation for the Inspection Gantry Maintenance Work	50	50	13-Feb-21	15-Feb-21	03-Apr-21	05-Apr-21	-90	0%		2
P-SAB2781	Steel Bridge Walkway Installation	50	50	13-Feb-21	15-Feb-21	03-Apr-21	05-Apr-21	-90	0%		2
P-SAB2801	Installation of Dehumidification System for Main Span	50	50	13-Feb-21	15-Feb-21	03-Apr-21	05-Apr-21	-90	0%		2
Bridge Arch Rib		247	108	01-Jul-20 A	09-Aug-20	24-Feb-21	12-Apr-21	-90			47
Sand Blasting and Painting for Main Steel Bridge Arch Rib		231	82	18-Jul-20 A	25-Aug-20	29-Jan-21	12-Apr-21	-90			73
Sand Blasting and Internal Painting For South Arch Rib		153	82	18-Jul-20 A	11-Nov-20	29-Jan-21	12-Apr-21	-90			73
P-SAB1661	Sand Blasting and Internal Painting For Section NG02 to NG06	153	28	18-Jul-20 A	11-Nov-20	06-Dec-20	12-Apr-21	-89	81.7%		127
P-SAB1681	Sand Blasting and Internal Painting For Section NG07 to NG13	24	24	07-Dec-20	17-Nov-20	30-Dec-20	10-Dec-20	-79	0%		-20
P-SAB1682	Sand Blasting and Painting For Section NG19	10	10	31-Dec-20	17-Dec-20	09-Jan-21	26-Dec-20	-90	0%		-14
P-SAB1683	Sand Blasting and Painting For Section NG01	15	15	15-Jan-21	24-Dec-20	29-Jan-21	07-Jan-21	-90	0%		-22
Sand Blasting and Internal Painting For North Arch Rib		158	82	18-Jul-20 A	25-Aug-20	29-Jan-21	24-Jan-21	-90			-5
P-SAB1761	Sand Blasting and Internal Painting For Section SG02 to SG06	153	34	18-Jul-20 A	25-Aug-20	12-Dec-20	24-Jan-21	-90	77.78%		43
P-SAB1781	Sand Blasting and Internal Painting For Section SG07 to SG13	24	24	13-Dec-20	22-Nov-20	05-Jan-21	15-Dec-20	-85	0%		-21
P-SAB1782	Sand Blasting and Painting For Section SG19	10	10	08-Dec-20	16-Nov-20	17-Dec-20	25-Nov-20	-67	0%		-22
P-SAB1783	Sand Blasting and Painting For Section SG01	15	15	15-Jan-21	24-Dec-20	29-Jan-21	07-Jan-21	-90	0%		-22
Segmental Arch Rib Jointing		200	108	09-Aug-20 A	09-Aug-20	24-Feb-21	26-Feb-21	-90			2
South Arch Rib Segmental Jointing		200	108	09-Aug-20 A	09-Aug-20	24-Feb-21	26-Feb-21	-90			2
P-SAB1881	SG14 to SG18 Segmental Jointing	134	44	09-Aug-20 A	09-Aug-20	22-Dec-20	20-Dec-20	-90	67.16%		-2
P-SAB1901	SG02 to SG06 Segmental Jointing	47	47	13-Dec-20	15-Dec-20	28-Jan-21	30-Jan-21	-90	0%		2
P-SAB1921	SG07 to SG13 Segmental Jointing	45	45	11-Jan-21	13-Jan-21	24-Feb-21	26-Feb-21	-90	0%		2
North Arch Rib Segmental Jointing		200	108	09-Aug-20 A	09-Aug-20	24-Feb-21	26-Feb-21	-90			2
P-SAB1821	NG14 to NG18 Segmental Jointing	134	39	09-Aug-20 A	09-Aug-20	17-Dec-20	20-Dec-20	-90	70.9%		3
P-SAB1841	NG02 to NG06 Segmental Jointing	47	47	08-Dec-20	10-Dec-20	23-Jan-21	25-Jan-21	-90	0%		2
P-SAB1861	NG07 to NG13 Segmental Jointing	45	45	11-Jan-21	13-Jan-21	24-Feb-21	26-Feb-21	-90	0%		2
Arch Rib External Painiting		57	57	18-Dec-20	20-Dec-20	12-Feb-21	14-Feb-21	-90			2
External Painting For South Arch Rib		52	52	23-Dec-20	25-Dec-20	12-Feb-21	14-Feb-21	-90			2
P-SAB2021	External Painting For SG14 to SG18	15	15	23-Dec-20	25-Dec-20	06-Jan-21	08-Jan-21	-68	0%		2
P-SAB2041	External Painting For SG02 to SG06	15	15	29-Jan-21	31-Jan-21	12-Feb-21	14-Feb-21	-90	0%		2
External Painting For North Arch Rib		52	52	18-Dec-20	20-Dec-20	07-Feb-21	09-Feb-21	-85			2
P-SAB1961	External Painting For NG14 to NG18	15	15	18-Dec-20	20-Dec-20	01-Jan-21	03-Jan-21	-63	0%		2
P-SAB1981	External Painting For NG02 to NG06	15	15	24-Jan-21	26-Jan-21	07-Feb-21	09-Feb-21	-85	0%		2



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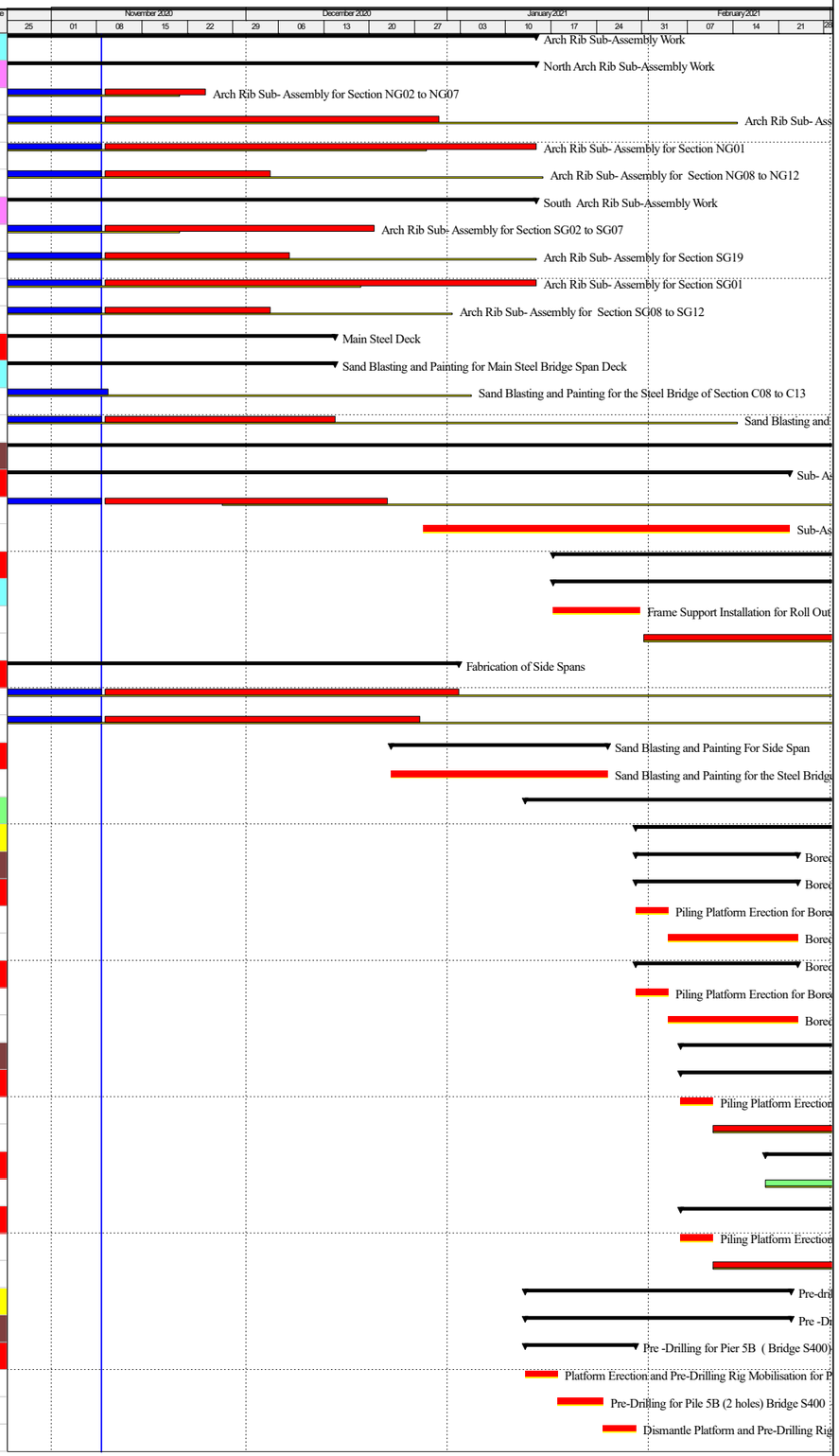
Arch Rib Sub-Assembly Work		190	67	01-Jul-20 A	09-Aug-20	14-Jan-21	14-Feb-21	-90			31
North Arch Rib Sub-Assembly Work		190	67	01-Jul-20 A	09-Aug-20	14-Jan-21	14-Feb-21	-90			31
P-SAB1382	Arch Rib Sub- Assembly for Section NG02 to NG07	104	16	30-Jul-20 A	09-Aug-20	24-Nov-20	20-Nov-20	-90	84.62%		-4
P-SAB1401	Arch Rib Sub- Assembly for Section NG19	170	52	01-Jul-20 A	29-Aug-20	30-Dec-20	14-Feb-21	-90	69.41%		46
P-SAB1441	Arch Rib Sub- Assembly for Section NG01	122	67	25-Aug-20 A	29-Aug-20	14-Jan-21	28-Dec-20	-90	45.08%		-17
P-SAB1461	Arch Rib Sub- Assembly for Section NG08 to NG12	126	26	01-Jul-20 A	12-Sep-20	04-Dec-20	15-Jan-21	-77	79.37%		42
South Arch Rib Sub-Assembly Work		159	67	01-Jul-20 A	09-Aug-20	14-Jan-21	14-Jan-21	-90			0
P-SAB1520	Arch Rib Sub- Assembly for Section SG02 to SG07	104	42	30-Jul-20 A	09-Aug-20	20-Dec-20	20-Nov-20	-90	59.62%		-30
P-SAB1521	Arch Rib Sub- Assembly for Section SG19	159	29	12-Jul-20 A	09-Aug-20	07-Dec-20	14-Jan-21	-90	81.76%		38
P-SAB1561	Arch Rib Sub- Assembly for Section SG01	122	67	25-Aug-20 A	19-Aug-20	14-Jan-21	18-Dec-20	-90	45.08%		-27
P-SAB1581	Arch Rib Sub- Assembly for Section SG08 to SG12	126	26	01-Jul-20 A	29-Aug-20	04-Dec-20	01-Jan-21	-77	79.37%		28
Main Steel Deck		190	36	15-May-20 A	09-Aug-20	14-Dec-20	14-Feb-21	-91			62
Sand Blasting and Painting for Main Steel Bridge Span Deck		190	36	15-May-20 A	09-Aug-20	14-Dec-20	14-Feb-21	-91			62
P-SAB1201	Sand Blasting and Painting for the Steel Bridge of Section C08 to C13	149	0	15-May-20 A	09-Aug-20	09-Nov-20 A	04-Jan-21		100%		56
P-SAB1221	Sand Blasting and Painting for the Steel Bridge of Section C14 to C21	160	36	09-Jul-20 A	08-Sep-20	14-Dec-20	14-Feb-21	-91	77.5%		62
Sides Span Fabrication		356	138	07-Jan-20 A	09-Aug-20	26-Mar-21	30-Jul-21	-99			126
Sub- Assembly of Side Spans		160	106	16-Jul-20 A	27-Nov-20	22-Feb-21	05-May-21	-99			72
P-SAB1161	Sub-Assembly Work for Section of C01 to C07 Main Deck of Steel bridge	160	44	16-Jul-20 A	27-Nov-20	22-Dec-20	05-May-21	-99	72.5%		134
P-SAB1181	Sub-Assembly Work for Section of C23 to C28 Main Deck of Steel bridge	57	57	28-Dec-20	28-Dec-20	22-Feb-21	22-Feb-21	-99	0%		0
Full Assembly Work for Sides Span		69	69	17-Jan-21	17-Jan-21	26-Mar-21	26-Mar-21	-99			0
East Side Span Assembly Work		69	69	17-Jan-21	17-Jan-21	26-Mar-21	26-Mar-21	-99			0
P-SAB2880	Frame Support Installation for Roll Out and Delivery	14	14	17-Jan-21	17-Jan-21	30-Jan-21	30-Jan-21	-99	0%		0
P-SAB2881	Full Assembly and Touch up of East Side Span C01 to C06	55	55	31-Jan-21	31-Jan-21	26-Mar-21	26-Mar-21	-99	0%		0
Fabrication of Side Spans		356	55	07-Jan-20 A	09-Aug-20	02-Jan-21	30-Jul-21	-99			209
P-SAB1041	Steel Deck Fabrication for Section C01 to C07	356	55	07-Jan-20 A	09-Aug-20	02-Jan-21	30-Jul-21	-99	84.55%		209
P-SAB1061	Steel Deck Fabrication for Section C23 to C28	202	49	09-Jun-20 A	31-Aug-20	27-Dec-20	20-Mar-21	-99	75.74%		83
Sand Blasting and Painting For Side Span		34	34	23-Dec-20	23-Dec-20	25-Jan-21	25-Jan-21	-99			0
P-SAB1241	Sand Blasting and Painting for the Steel Bridge of Section C01 to C07	34	34	23-Dec-20	23-Dec-20	25-Jan-21	25-Jan-21	-99	0%		0
Section 1 of the Works- All Works within Portion I of the Site (Entrusted Works of TKOI Viaduct)		137	137	13-Jan-21	13-Jan-21	30-May-21	30-May-21	6			0
Bored Piling Works		120	120	30-Jan-21	30-Jan-21	30-May-21	30-May-21	6			0
Bored Piling Construction Group 1 - 2 Nos. Bored Piling Rig		25	25	30-Jan-21	30-Jan-21	24-Feb-21	24-Feb-21	0			0
Bored Piling Construction for Pile 5B (Bridge S400) - 1no.Piling Rig		25	25	30-Jan-21	30-Jan-21	24-Feb-21	24-Feb-21	0			0
S1-BP-10010	Piling Platform Erection for Bored Pile 5B	5	5	30-Jan-21	30-Jan-21	04-Feb-21	04-Feb-21	0	0%		0
S1-BP-10020	Bored Piling Construction for Pile 5B - Bridge S400 (2 Piles) - 1 Piling Rig	20	20	04-Feb-21	04-Feb-21	24-Feb-21	24-Feb-21	0	0%		0
Bored Piling Construction for Pile 9B (Bridge CT) - 1no.Piling Rig		25	25	30-Jan-21	30-Jan-21	24-Feb-21	24-Feb-21	0			0
S1-BP-10040	Piling Platform Erection for Bored Pile 9B	5	5	30-Jan-21	30-Jan-21	04-Feb-21	04-Feb-21	0	0%		0
S1-BP-10050	Bored Piling Construction for Pile 9B - Bridge CT (2Piles) - 1 Piling Rig	20	20	04-Feb-21	04-Feb-21	24-Feb-21	24-Feb-21	0	0%		0
Bored Piling Construction Group 2 - 2 Nos. Bored Piling Rig		113	113	06-Feb-21	06-Feb-21	30-May-21	30-May-21	6			0
Bored Piling Construction for Pile 5D (Bridge S400) - 1no.Piling Rig		25	25	06-Feb-21	06-Feb-21	03-Mar-21	03-Mar-21	0			0
S1-BP-10220	Piling Platform Erection for Bored Pile 5D	5	5	06-Feb-21	06-Feb-21	11-Feb-21	11-Feb-21	0	0%		0
S1-BP-10230	Bored Piling Construction for Pile 5D - Bridge S400 (2 Piles) - 1 Piling Rig	20	20	11-Feb-21	11-Feb-21	03-Mar-21	03-Mar-21	0	0%		0
Bored Pile Test		100	100	19-Feb-21	19-Feb-21	30-May-21	30-May-21	6			0
S1-BP-10400	Group 2 Bored Pile Test and Dismantle All Platform	100	100	19-Feb-21	19-Feb-21	30-May-21	30-May-21	6	0%		0
Bored Piling Construction for Pile 9D (Bridge CT) - 1no.Piling Rig		25	25	06-Feb-21	06-Feb-21	03-Mar-21	03-Mar-21	0			0
S1-BP-10250	Piling Platform Erection for Bored Pile 9D	5	5	06-Feb-21	06-Feb-21	11-Feb-21	11-Feb-21	0	0%		0
S1-BP-10260	Bored Piling Construction for Pile 9D - Bridge CT (2 Piles) - 1 Piling Rig	20	20	11-Feb-21	11-Feb-21	03-Mar-21	03-Mar-21	0	0%		0
Pre-drilling Works		41	41	13-Jan-21	13-Jan-21	23-Feb-21	23-Feb-21	52			0
Pre -Drilling Construction Group 1 - 4 Nos. Pre-Drilling Rigs		41	41	13-Jan-21	13-Jan-21	23-Feb-21	23-Feb-21	16			0
Pre -Drilling for Pier 5B (Bridge S400)- 2 Nos. Drilling Rigs		17	17	13-Jan-21	13-Jan-21	30-Jan-21	30-Jan-21	0			0
S1-PD-10010	Platform Erection and Pre-Drilling Rig Mobilisation for Pre - Drilling Work For Pile 5B	5	5	13-Jan-21	13-Jan-21	18-Jan-21	18-Jan-21	0	0%		0
S1-PD-10020	Pre-Drilling for Pile 5B (2 holes) Bridge S400 - 2 Drilling Rigs	7	7	18-Jan-21	18-Jan-21	25-Jan-21	25-Jan-21	0	0%		0
S1-PD-10030	Dismantle Platform and Pre-Drilling Rig from Pile 5B and Relocate to Pile 5C	5	5	25-Jan-21	25-Jan-21	30-Jan-21	30-Jan-21	0	0%		0



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

CRBC
Three Month Rolling Programme

Date	Revision	Checked	Approved
08-Nov-20	Monthly updated on 08 November 2020		

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

ActivityID	ActivityName	Original Duration	Remaining Duration	Start	Planned Start	Finish	Planned Finish	Total Float	Activity % Complete	TRA	Variance - Finish Date
Pre -Drilling for Pier 9B (Bridge CT) - 2 Nos. Drilling Rigs		17	17	13-Jan-21	13-Jan-21	30-Jan-21	30-Jan-21	0			0
S1-PD-10040	Platform Erection and Pre-Drilling Rig Mobilisation for Pre - Drilling Work For Pile 9B	5	5	13-Jan-21	13-Jan-21	18-Jan-21	18-Jan-21	0	0%		0
S1-PD-10050	Pre-Drilling for Pile 9B (2 holes) Bridge CT - 2 Drilling Rigs	7	7	18-Jan-21	18-Jan-21	25-Jan-21	25-Jan-21	0	0%		0
S1-PD-10060	Dismantle Platform and Pre-Drilling Rig from Pile 9B and Relocate to Pile 9C	5	5	25-Jan-21	25-Jan-21	30-Jan-21	30-Jan-21	0	0%		0
Pre -Drilling for Pier 5C (Bridge S400)- 2 Nos. Drilling Rigs		12	12	30-Jan-21	30-Jan-21	11-Feb-21	11-Feb-21	13			0
S1-PD-10070	Pre-Drilling for Pile 5C (2 holes) Bridge S400 - 2 Drilling Rigs	7	7	30-Jan-21	30-Jan-21	06-Feb-21	06-Feb-21	13	0%		0
S1-PD-10080	Dismantle Platform and Pre-Drilling Rig from Pile 5C and Relocate to Pile 5F	5	5	06-Feb-21	06-Feb-21	11-Feb-21	11-Feb-21	13	0%		0
Pre -Drilling for Pier 9C (Bridge CT) - 2 Nos. Drilling Rigs		12	12	30-Jan-21	30-Jan-21	11-Feb-21	11-Feb-21	13			0
S1-PD-10090	Pre-Drilling for Pile 9C (2 holes) Bridge CT - 2 Drilling Rigs	7	7	30-Jan-21	30-Jan-21	06-Feb-21	06-Feb-21	13	0%		0
S1-PD-10100	Dismantle Platform and Pre-Drilling Rig from Pile 9C and Relocate to Pile 9F	5	5	06-Feb-21	06-Feb-21	11-Feb-21	11-Feb-21	13	0%		0
Pre -Drilling for Pier 5F (Bridge S400)- 2 Nos. Drilling Rigs		12	12	11-Feb-21	11-Feb-21	23-Feb-21	23-Feb-21	16			0
S1-PD-10110	Pre-Drilling for Pile 5F (2 holes) Bridge S400 - 2 Drilling Rigs	7	7	11-Feb-21	11-Feb-21	18-Feb-21	18-Feb-21	16	0%		0
S1-PD-10120	Dismantle Platform and Pre-Drilling Rig from Pile 5F and Relocate to Pile 5H	5	5	18-Feb-21	18-Feb-21	23-Feb-21	23-Feb-21	16	0%		0
Pre -Drilling for Pier 9F (Bridge CT) - 2 Nos. Drilling Rigs		12	12	11-Feb-21	11-Feb-21	23-Feb-21	23-Feb-21	16			0
S1-PD-10130	Pre-Drilling for Pile 9F (2 holes) Bridge CT - 2 Drilling Rigs	7	7	11-Feb-21	11-Feb-21	18-Feb-21	18-Feb-21	16	0%		0
S1-PD-10140	Dismantle Platform and Pre-Drilling Rig from Pile 9F and Relocate to Pile 9H	5	5	18-Feb-21	18-Feb-21	23-Feb-21	23-Feb-21	16	0%		0
Pre -Drilling Construction Group 2 - 2 Nos Pre-Drilling Rigs		38	38	13-Jan-21	13-Jan-21	20-Feb-21	20-Feb-21	55			0
Pre -Drilling for Pier 5D (Bridge S400)- 1 No. Drilling Rig		24	24	13-Jan-21	13-Jan-21	06-Feb-21	06-Feb-21	0			0
S1-PD-10230	Platform Erection and Pre-Drilling Rig Mobilisation for Pre - Drilling Work For Pile 5D	5	5	13-Jan-21	13-Jan-21	18-Jan-21	18-Jan-21	0	0%		0
S1-PD-10240	Pre-Drilling for Pile 5D (2 holes) Bridge S400 - 1 Drilling Rig	14	14	18-Jan-21	18-Jan-21	01-Feb-21	01-Feb-21	0	0%		0
S1-PD-10250	Dismantle Platform and Pre-Drilling Rig from Pile 5D and Relocate to Pile 5E	5	5	01-Feb-21	01-Feb-21	06-Feb-21	06-Feb-21	0	0%		0
Pre -Drilling for Pier 9D (Bridge CT)- 1 No. Drilling Rig		24	24	13-Jan-21	13-Jan-21	06-Feb-21	06-Feb-21	0			0
S1-PD-10260	Platform Erection and Pre-Drilling Rig Mobilisation for Pre - Drilling Work For Pile 9D	5	5	13-Jan-21	13-Jan-21	18-Jan-21	18-Jan-21	0	0%		0
S1-PD-10270	Pre-Drilling for Pile 9D (2 holes) Bridge CT - 1 Drilling Rigs	14	14	18-Jan-21	18-Jan-21	01-Feb-21	01-Feb-21	0	0%		0
S1-PD-10280	Dismantle Platform and Pre-Drilling Rig from Pile 9D and Relocate to Pile 9E	5	5	01-Feb-21	01-Feb-21	06-Feb-21	06-Feb-21	0	0%		0
Pre -Drilling for Pier 5E (Bridge S400)- 1 No. Drilling Rig		14	14	06-Feb-21	06-Feb-21	20-Feb-21	20-Feb-21	55			0
S1-PD-10290	Pre-Drilling for Pile 5E (2 holes) Bridge S400 - 1 Drilling Rig	14	14	06-Feb-21	06-Feb-21	20-Feb-21	20-Feb-21	55	0%		0
Pre -Drilling for Pier 9E (Bridge CT)- 1 No. Drilling Rig		14	14	06-Feb-21	06-Feb-21	20-Feb-21	20-Feb-21	41			0
S1-PD-10310	Pre-Drilling for Pile 9E (2 holes) Bridge CT - 2 Drilling Rigs	14	14	06-Feb-21	06-Feb-21	20-Feb-21	20-Feb-21	41	0%		0
Section 2 of Works-All Works within Portion II,III,IV and VI		423	204	28-Oct-19 A	09-Mar-20	19-Jul-21	11-Aug-21	10			20
CBL Main Bridge and Marine Viaduct		423	204	28-Oct-19 A	09-Mar-20	19-Jul-21	11-Aug-21	10			20
Pile Cap		231	21	05-Nov-19 A	09-Mar-20	02-Dec-20	16-Nov-20	32			-14
Pile Cap (C Side Cap) for Pier E1		21	13	08-Oct-20 A	09-Oct-20	23-Nov-20	03-Nov-20	40			-17
S2-PC2463	Rebar fixing and Concreting -E1 (C - Side Cap)	21	13	08-Oct-20 A	09-Oct-20	23-Nov-20	03-Nov-20	40	38.1%	0	-17
Pile Cap (C Side Cap) for Pier W1		21	21	09-Nov-20	09-Oct-20	02-Dec-20	03-Nov-20	32			-25
S2-PC2744	Rebar fixing and Concreting -W1 (C - Side Cap)	21	21	09-Nov-20	09-Oct-20	02-Dec-20	03-Nov-20	32	0%	0	-25
Pile Cap for Pier E2		32	0	17-Aug-20 A	09-Oct-20	16-Sep-20 A	16-Nov-20				49
S2-PC2340	Rebar fixing and 1st stage Concreting -E2	10	0	17-Aug-20 A	09-Oct-20	02-Sep-20 A	20-Oct-20		100%	0	39
S2-PC2900	Concrete Curing and Construction joints work before Pier Erection -E2	12	0	03-Sep-20 A	03-Nov-20	16-Sep-20 A	16-Nov-20		100%	0	49
Pile Cap for Pier E4		12	0	05-Nov-19 A	09-Mar-20	18-Nov-20 A	21-Mar-20				-196
S2-PC2800	Concrete Curing and Construction Joints Work before Pier Erection -E4	12	0	05-Nov-19 A	09-Mar-20	18-Nov-20 A	21-Mar-20		100%	0	-196
Pier (Precast Pier under CSD)		121	76	01-Sep-20 A	14-Sep-20	08-Feb-21	10-Feb-21	30			2
Pier Erection with Crane Barge 1000 Tons		102	57	01-Sep-20 A	14-Sep-20	16-Jan-21	31-Dec-20	4			-13
Pier W2		37	37	02-Dec-20	03-Dec-20	16-Jan-21	31-Dec-20	-16			-13
S2-PR3040	Installation of Pier -W2	4	4	02-Dec-20	03-Dec-20	05-Dec-20	07-Dec-20	-2	0%	0	1
S2-PR3060	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -W2	14	14	23-Dec-20	08-Dec-20	11-Jan-21	23-Dec-20	-16	0%	0	-13
S2-PR3080	Installation of temp. bearing/jacking system -W2	5	5	12-Jan-21	24-Dec-20	16-Jan-21	31-Dec-20	-16	0%	0	-13
Pier E2		23	23	02-Dec-20	19-Nov-20	30-Dec-20	15-Dec-20	-2			-11
S2-PR3360	Installation of Pier -E2	4	4	02-Dec-20	19-Nov-20	05-Dec-20	23-Nov-20	-16	0%	0	-11
S2-PR3380	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -E2	14	14	07-Dec-20	24-Nov-20	22-Dec-20	09-Dec-20	-16	0%	0	-11
S2-PR3400	Installation of temp. bearing/ jacking system-E2	5	5	23-Dec-20	10-Dec-20	30-Dec-20	15-Dec-20	-2	0%	0	-11
Pier E3		60	15	01-Sep-20 A	14-Sep-20	25-Nov-20	27-Oct-20	46			-25

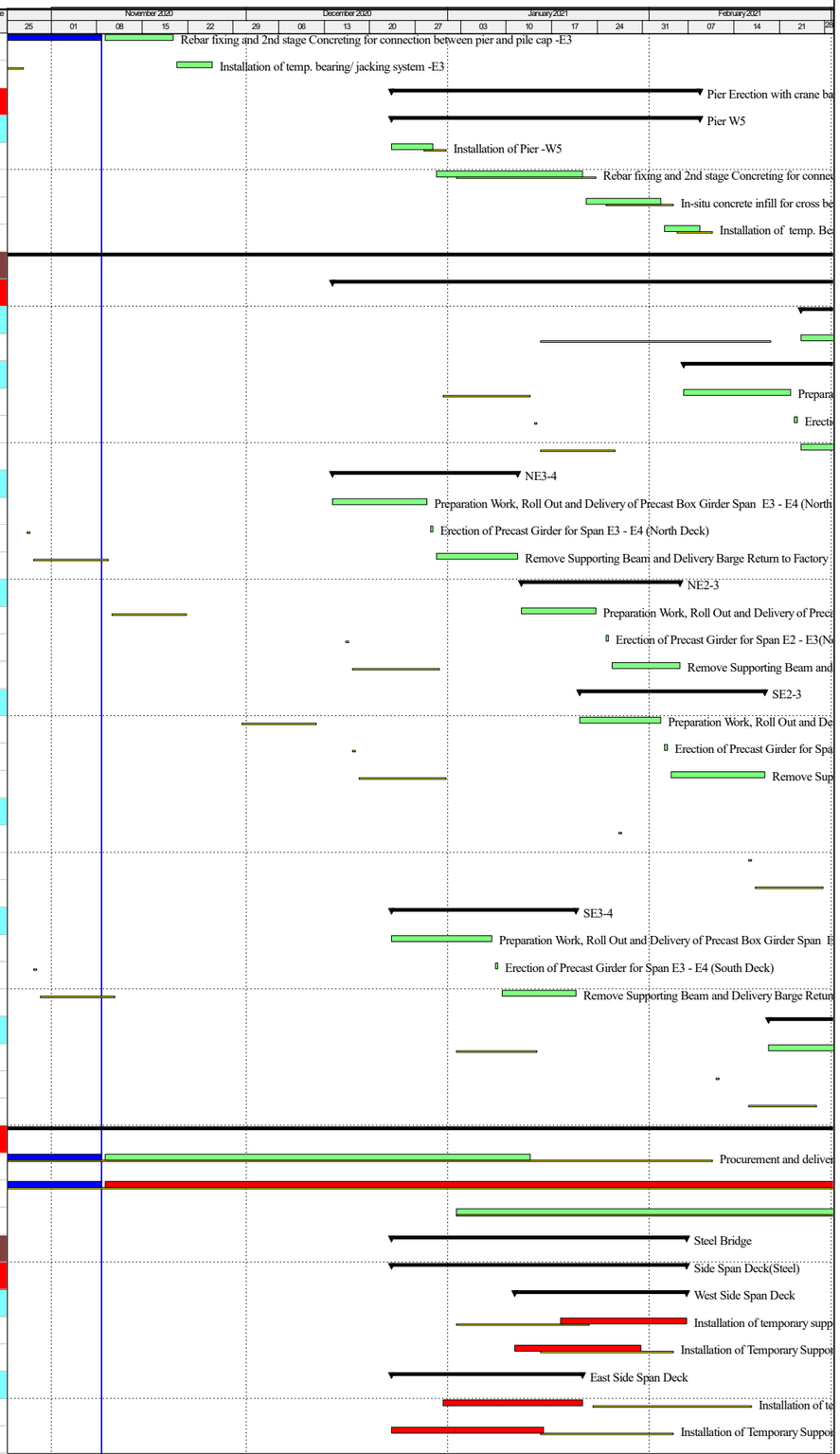
Remaining Level of Effort | Remaining Work | Milestone
Primary Baseline | Critical Remaining Work | Summary
Actual Work | Baseline Milestone

CRBC
Three Month Rolling Programme

Date	Revision	Checked	Approved
08-Nov-20	Monthly updated on 08 November 2020		

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	Planned Start	Finish	Planned Finish	Total Float	Activity % Complete	TRA	Variance - Finish Date
S2-PR3440	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -E3	14	10	01-Sep-20 A	14-Sep-20	19-Nov-20	29-Sep-20	46	28.57%	0	-41
S2-PR3460	Installation of temp. bearing/ jacking system -E3	5	5	20-Nov-20	21-Oct-20	25-Nov-20	27-Oct-20	46	0%	0	-25
Pier Erection with crane barge 4000 Tons		38	38	23-Dec-20	28-Dec-20	08-Feb-21	10-Feb-21	30			2
Pier W5		38	38	23-Dec-20	28-Dec-20	08-Feb-21	10-Feb-21	30			2
S2-PR3300	Installation of Pier -W5	4	4	23-Dec-20	28-Dec-20	29-Dec-20	31-Dec-20	30	0%	0	2
S2-PR3320	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -W5	19	19	30-Dec-20	02-Jan-21	21-Jan-21	23-Jan-21	30	0%	0	2
S2-PR3330	In-situ concrete infill for cross beam -W5	10	10	22-Jan-21	25-Jan-21	02-Feb-21	04-Feb-21	30	0%	0	2
S2-PR3340	Installation of temp. Bearing/jacking system -W5	5	5	03-Feb-21	05-Feb-21	08-Feb-21	10-Feb-21	30	0%	0	2
Concrete Bridge Decks		326	204	28-Oct-19 A	09-Jul-20	19-Jul-21	11-Aug-21	10			20
Delivery and Erection of Precast Girder for Marine Viaduct		84	84	14-Dec-20	09-Oct-20	27-Mar-21	27-Feb-21	26			-24
Remaining Works of East Side of Precast Girder		28	28	24-Feb-21	15-Jan-21	27-Mar-21	19-Feb-21	26			-31
S2-CB2950	Construction of in-situ diaphragm at Pier E3 ,Pier E4,Pier E5,Pier E6	28	28	24-Feb-21	15-Jan-21	27-Mar-21	19-Feb-21	26	0%	0	-31
SE7-A		22	22	06-Feb-21	31-Dec-20	06-Mar-21	26-Jan-21	20			-31
S2-CB2320	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E7 - Abut. EA(South Deck)	11	11	06-Feb-21	31-Dec-20	22-Feb-21	13-Jan-21	20	0%	0	-31
S2-CB2330	Erection of precast girder for span E7 - Abutment EA(South Deck)	1	1	23-Feb-21	14-Jan-21	23-Feb-21	14-Jan-21	20	0%	0	-31
S2-CB2340	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	24-Feb-21	15-Jan-21	06-Mar-21	26-Jan-21	20	0%	0	-31
NE3-4		22	22	14-Dec-20	09-Oct-20	11-Jan-21	09-Nov-20	20			-51
S2-CB2350	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E3 - E4 (North Deck)	11	11	14-Dec-20	09-Oct-20	28-Dec-20	21-Oct-20	20	0%	0	-55
S2-CB2360	Erection of Precast Girder for Span E3 - E4 (North Deck)	1	1	29-Dec-20	28-Oct-20	29-Dec-20	28-Oct-20	20	0%	0	-51
S2-CB2370	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	30-Dec-20	29-Oct-20	11-Jan-21	09-Nov-20	20	0%	0	-51
NE2-3		22	22	12-Jan-21	10-Nov-20	05-Feb-21	30-Dec-20	20			-31
S2-CB2410	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E2 - E3(North Deck)	11	11	12-Jan-21	10-Nov-20	23-Jan-21	21-Nov-20	20	0%	0	-51
S2-CB2420	Erection of Precast Girder for Span E2 - E3(North Deck)	1	1	25-Jan-21	16-Dec-20	25-Jan-21	16-Dec-20	20	0%	0	-31
S2-CB2430	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	26-Jan-21	17-Dec-20	05-Feb-21	30-Dec-20	20	0%	0	-31
SE2-3		22	22	21-Jan-21	30-Nov-20	18-Feb-21	31-Dec-20	13			-38
S2-CB2440	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E2 - E3 (South Deck)	11	11	21-Jan-21	30-Nov-20	02-Feb-21	11-Dec-20	13	0%	0	-42
S2-CB2450	Erection of Precast Girder for Span E2 - E3 (South Deck)	1	1	03-Feb-21	17-Dec-20	03-Feb-21	17-Dec-20	13	0%	0	-38
S2-CB2460	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	04-Feb-21	18-Dec-20	18-Feb-21	31-Dec-20	13	0%	0	-38
SW5-4		12	12	08-Mar-21	27-Jan-21	20-Mar-21	27-Feb-21	20			-18
S2-CB2530	Preparation Work, Roll Out and Delivery of Precast Box Girder Span W4 - W5 (South Deck)	1	1	08-Mar-21	27-Jan-21	08-Mar-21	27-Jan-21	20	0%	0	-31
S2-CB2540	Erection of Precast Girder for Span W4 - W5 (South Deck)	1	1	09-Mar-21	16-Feb-21	09-Mar-21	16-Feb-21	20	0%	0	-18
S2-CB2550	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	10-Mar-21	17-Feb-21	20-Mar-21	27-Feb-21	20	0%	0	-18
SE3-4		22	22	23-Dec-20	09-Oct-20	20-Jan-21	10-Nov-20	13			-58
S2-CB2380	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E3 - E4 (South Deck)	11	11	23-Dec-20	09-Oct-20	07-Jan-21	21-Oct-20	13	0%	0	-63
S2-CB2390	Erection of Precast Girder for Span E3 - E4 (South Deck)	1	1	08-Jan-21	29-Oct-20	08-Jan-21	29-Oct-20	13	0%	0	-58
S2-CB2400	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	09-Jan-21	30-Oct-20	20-Jan-21	10-Nov-20	13	0%	0	-58
NW5-4		22	22	19-Feb-21	02-Jan-21	16-Mar-21	26-Feb-21	13			-15
S2-CB2290	Preparation Work, Roll Out and Delivery of Precast Box Girder Span W4 - W5 (North Deck)	11	11	19-Feb-21	02-Jan-21	03-Mar-21	14-Jan-21	13	0%	0	-38
S2-CB2300	Erection of Precast Girder for Span W4 - W5 (North Deck)	1	1	04-Mar-21	11-Feb-21	04-Mar-21	11-Feb-21	13	0%	0	-15
S2-CB2310	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	05-Mar-21	16-Feb-21	16-Mar-21	26-Feb-21	13	0%	0	-15
Procurement and Delivery		326	204	28-Oct-19 A	09-Jul-20	19-Jul-21	11-Aug-21	10			20
S2-CB2485	Procurement and delivery of bearing system	180	54	28-Oct-19 A	09-Jul-20	13-Jan-21	10-Feb-21	121	70%	0	24
S2-CB2486	Procurement and delivery of fabricated movement joints	180	160	20-Oct-20 A	09-Oct-20	26-May-21	20-May-21	0	11.11%	0	-5
S2-CB2488	Procurement and delivery of bituminous materials	180	160	03-Sep-21 A	02-Jan-21	19-Jul-21	11-Aug-21	10	11.11%	0	20
Steel Bridge		37	37	23-Dec-20	02-Jan-21	06-Feb-21	16-Feb-21	-7			5
Side Span Deck(Steel)		37	37	23-Dec-20	02-Jan-21	06-Feb-21	16-Feb-21	-7			5
West Side Span Deck		24	24	11-Jan-21	02-Jan-21	06-Feb-21	04-Feb-21	-7			-2
S2-SS2000	Installation of temporary support bracket at Pier W2	18	18	18-Jan-21	02-Jan-21	06-Feb-21	22-Jan-21	-16	0%	0	-13
S2-SS2005	Installation of Temporary Support Tower at Pier W1	18	18	11-Jan-21	15-Jan-21	30-Jan-21	04-Feb-21	-1	0%	0	4
East Side Span Deck		23	23	23-Dec-20	15-Jan-21	21-Jan-21	16-Feb-21	-2			19
S2-SS2105	Installation of temporary support bracket at Pier E2	18	18	31-Dec-20	23-Jan-21	21-Jan-21	16-Feb-21	-2	0%	0	19
S2-SS2110	Installation of Temporary Support Tower at Pier E1	18	18	23-Dec-20	15-Jan-21	15-Jan-21	04-Feb-21	3	0%	0	17



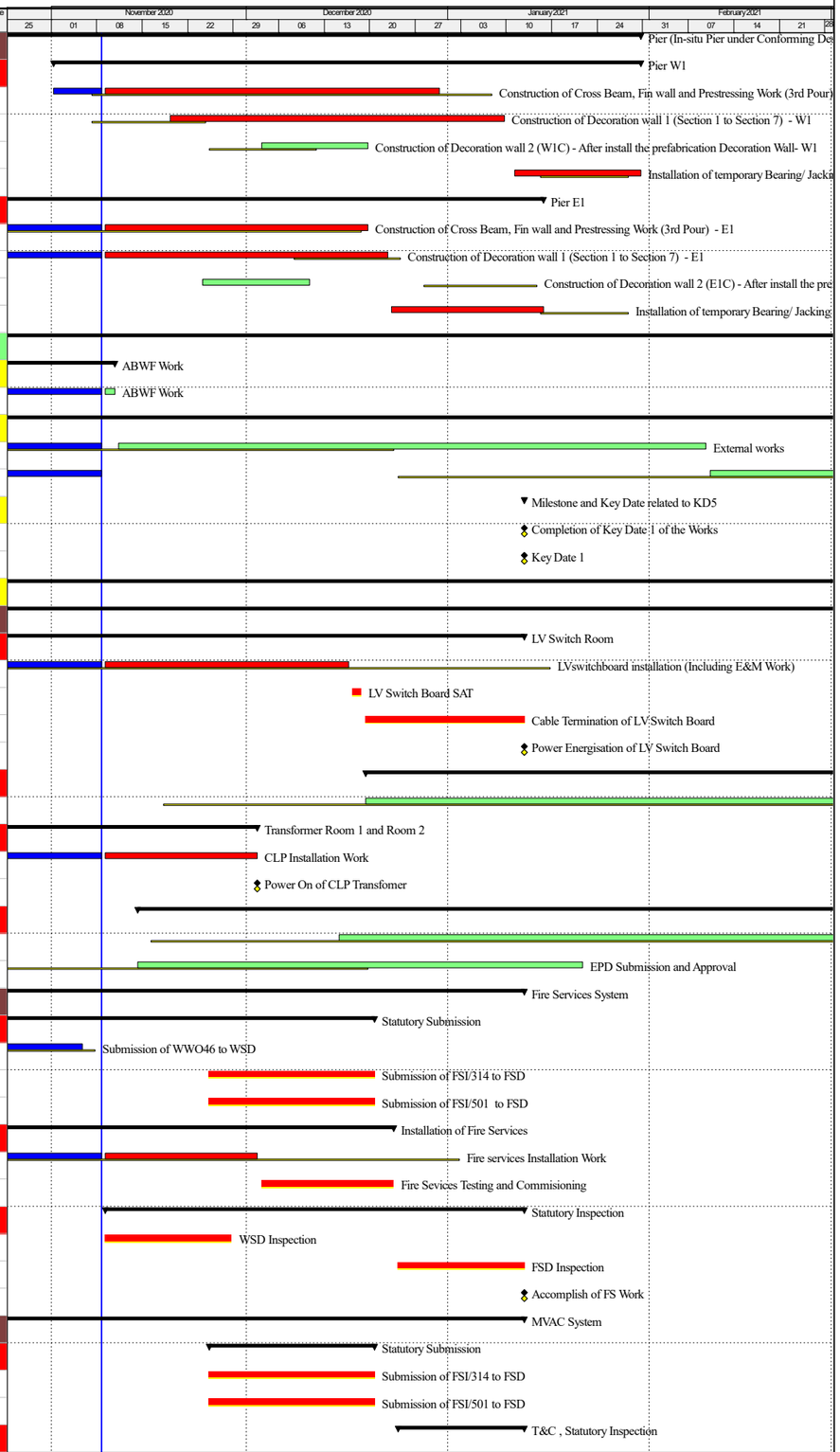
Remaining Level of Effort
Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Baseline Milestone
Milestone
Summary

CRBC
Three Month Rolling Programme

Date	Revision	Checked	Approved
08-Nov-20	Monthly updated on 08 November 2020		

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

ActivityID	ActivityName	Original Duration	Remaining Duration	Start	Planned Start	Finish	Planned Finish	Total Float	Activity % Complete	TRA	Variance - Finish Date
Pier (In-situ Pier under Conforming Design)		84	69	20-Sep-20 A	21-Oct-20	30-Jan-21	28-Jan-21	-1			-2
Pier W1		69	69	01-Nov-20 A	07-Nov-20	30-Jan-21	28-Jan-21	-1			-2
S2-PR3860	Construction of Cross Beam, Fin wall and Prestressing Work (3rd Pour) - W1	50	43	01-Nov-20 A	07-Nov-20	30-Dec-20	07-Jan-21	-1	14%	0	6
S2-PR3900	Construction of Decoration wall 1 (Section 1 to Section 7) - W1	42	42	19-Nov-20	07-Nov-20	09-Jan-21	24-Nov-20	-1	0%	0	-37
S2-PR3920	Construction of Decoration wall 2 (W1C) - After install the prefabrication Decoration Wall- W1	15	15	03-Dec-20	25-Nov-20	19-Dec-20	11-Dec-20	32	0%	0	-7
S2-PR3940	Installation of temporary Bearing/ Jacking System and Access Ladder	18	18	11-Jan-21	15-Jan-21	30-Jan-21	28-Jan-21	-1	0%	0	-2
Pier E1		71	56	20-Sep-20 A	21-Oct-20	15-Jan-21	28-Jan-21	12			11
S2-PR3495	Construction of Cross Beam, Fin wall and Prestressing Work (3rd Pour) - E1	50	36	20-Sep-20 A	21-Oct-20	19-Dec-20	18-Dec-20	3	28%	0	-1
S2-PR3510	Construction of Decoration wall 1 (Section 1 to Section 7) - E1	42	38	12-Oct-20 A	08-Dec-20	22-Dec-20	24-Dec-20	3	9.52%	0	2
S2-PR3525	Construction of Decoration wall 2 (E1C) - After install the prefabrication Decoration Wall- E1	15	15	24-Nov-20	28-Dec-20	10-Dec-20	14-Jan-21	40	0%	0	27
S2-PR3530	Installation of temporary Bearing/ Jacking System and Access Ladder	18	18	23-Dec-20	15-Jan-21	15-Jan-21	28-Jan-21	3	0%	0	11
Section 5 of the Works-All Works within Portion V (CBL E&M Plantroom)		440	167	22-Jan-20 A	10-Feb-20	24-Apr-21	20-Mar-21	188			-35
ABWF Work		131	2	22-Jan-20 A	10-Feb-20	10-Nov-20	20-Jul-20	24			-94
S5-PR2080	ABWF Work	131	2	22-Jan-20 A	10-Feb-20	10-Nov-20	20-Jul-20	24	98.47%	0	-94
Remianing Work		150	125	30-Jul-20 A	07-Sep-20	15-Apr-21	10-Mar-21	162			-28
S5-PR2120	External works	90	75	30-Jul-20 A	07-Sep-20	09-Feb-21	23-Dec-20	162	16.67%	0	-38
S5-PR2200	Water works,pluming and drainage works	60	50	30-Jul-20 A	24-Dec-20	15-Apr-21	10-Mar-21	162	16.67%	0	-28
Milestone and Key Date related to KD5		0	0	12-Jan-21	12-Jan-21	12-Jan-21	12-Jan-21	0			0
S5-PR2260	Completion of Key Date 1 of the Works	0	0			12-Jan-21	12-Jan-21	0	0%	0	0
S5-PR2280	Key Date 1	0	0			12-Jan-21*	12-Jan-21	0	0%	0	0
Major Services System		286	167	25-Jun-20 A	13-Jul-20	24-Apr-21	20-Mar-21	188			-35
Electrical System		234	135	25-Jun-20 A	13-Jul-20	24-Apr-21	20-Mar-21	154			-27
LV Switch Room		82	53	02-Oct-20 A	09-Oct-20	12-Jan-21	16-Jan-21	0			4
S5-PR2440	LVswitchboard installation (Including E&M Work)	82	33	02-Oct-20 A	09-Oct-20	16-Dec-20	16-Jan-21	0	59.76%	0	24
S5-PR2460	LV Switch Board SAT	2	2	17-Dec-20	17-Dec-20	18-Dec-20	18-Dec-20	0	0%	0	0
S5-PR2470	Cable Termination of LV Switch Board	18	18	19-Dec-20	19-Dec-20	12-Jan-21	12-Jan-21	0	0%	0	0
S5-PR2480	Power Energisation of LV Switch Board	0	0			12-Jan-21	12-Jan-21	0	0%	0	0
UPS Room		100	100	19-Dec-20	18-Nov-20	24-Apr-21	20-Mar-21	151			-27
S5-PR2580	UPS Installation (Including E&M Work)	100	100	19-Dec-20	18-Nov-20	24-Apr-21	20-Mar-21	151	0%	0	-27
Transformer Room 1 and Room 2		120	21	25-Jun-20 A	13-Jul-20	02-Dec-20	02-Dec-20	0			0
S5-PR2400	CLP Installation Work	75	21	25-Jun-20 A	13-Jul-20	02-Dec-20	09-Oct-20	0	72%	0	-45
S5-PR2420	Power On of CLP Transfomer	0	0			02-Dec-20	02-Dec-20	0	0%	0	0
Generator Room		116	116	14-Nov-20	15-Oct-20	08-Apr-21	06-Mar-21	168			-25
S5-PR2500	Generator Installation (Including E&M Work)	90	90	15-Dec-20	16-Nov-20	08-Apr-21	06-Mar-21	165	0%	0	-25
S5-PR2550	EPD Submission and Approval	56	56	14-Nov-20	15-Oct-20	21-Jan-21	19-Dec-20	228	0%	0	-25
Fire Services System		96	65	28-Sep-20 A	09-Oct-20	12-Jan-21	12-Jan-21	0			0
Statutory Submission		42	26	12-Oct-20 A	09-Oct-20	20-Dec-20	20-Dec-20	3			0
S5-PR2660	Submission of WWO46 to WSD	30	0	12-Oct-20 A	09-Oct-20	05-Nov-20 A	07-Nov-20		100%	0	2
S5-PR2680	Submission of FSI/314 to FSD	26	26	25-Nov-20	25-Nov-20	20-Dec-20	20-Dec-20	3	0%	0	0
S5-PR2700	Submission of FSI/501 to FSD	26	26	25-Nov-20	25-Nov-20	20-Dec-20	20-Dec-20	3	0%	0	0
Installation of Fire Services		70	39	28-Sep-20 A	09-Oct-20	23-Dec-20	02-Jan-21	0			6
S5-PR2740	Fire services Installation Work	70	21	28-Sep-20 A	09-Oct-20	02-Dec-20	02-Jan-21	0	70%	0	24
S5-PR2760	Fire Sevices Testing and Commisioning	18	18	03-Dec-20	03-Dec-20	23-Dec-20	23-Dec-20	0	0%	0	0
Statutory Inspection		53	53	09-Nov-20	09-Nov-20	12-Jan-21	12-Jan-21	0			0
S5-PR2800	WSD Inspection	18	18	09-Nov-20	09-Nov-20	28-Nov-20	28-Nov-20	3	0%	0	0
S5-PR2820	FSD Inspection	14	14	24-Dec-20	24-Dec-20	12-Jan-21	12-Jan-21	0	0%	0	0
S5-PR3020	Accomplish of FS Work	0	0			12-Jan-21	12-Jan-21	0	0%	0	0
MVAC System		96	65	28-Sep-20 A	09-Oct-20	12-Jan-21	12-Jan-21	0			0
Statutory Submission		26	26	25-Nov-20	25-Nov-20	20-Dec-20	20-Dec-20	3			0
S5-PR2940	Submission of FSI/314 to FSD	26	26	25-Nov-20	25-Nov-20	20-Dec-20	20-Dec-20	3	0%	0	0
S5-PR2960	Submission of FSI/501 to FSD	26	26	25-Nov-20	25-Nov-20	20-Dec-20	20-Dec-20	3	0%	0	0
T&C , Statutory Inspection		14	14	24-Dec-20	24-Dec-20	12-Jan-21	12-Jan-21	0			0



Remaining Level of Effort
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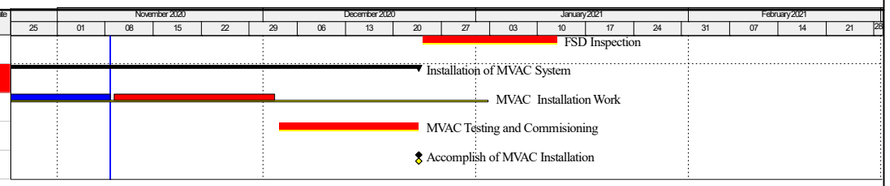
Date	Revision	Checked	Approved
08-Nov-20	Monthly updated on 08 November 2020		

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	Planned Start	Finish	Planned Finish	Total Float	Activity % Complete	TRA	Variance - Finish Date
S5-PR3000	FSD Inspection	14	14	24-Dec-20	24-Dec-20	12-Jan-21	12-Jan-21	0	0%	0	0
Installation of MVAC System		70	39	28-Sep-20 A	09-Oct-20	23-Dec-20	02-Jan-21	0			6
S5-PR2840	MVAC Installation Work	70	21	28-Sep-20 A	09-Oct-20	02-Dec-20	02-Jan-21	0	70%	0	24
S5-PR2900	MVAC Testing and Commisioning	18	18	03-Dec-20	03-Dec-20	23-Dec-20	23-Dec-20	0	0%	0	0
S5-PR2920	Accomplish of MVAC Installation	0	0			23-Dec-20	23-Dec-20	0	0%	0	0



Remaining Level of Effort
Primary Baseline
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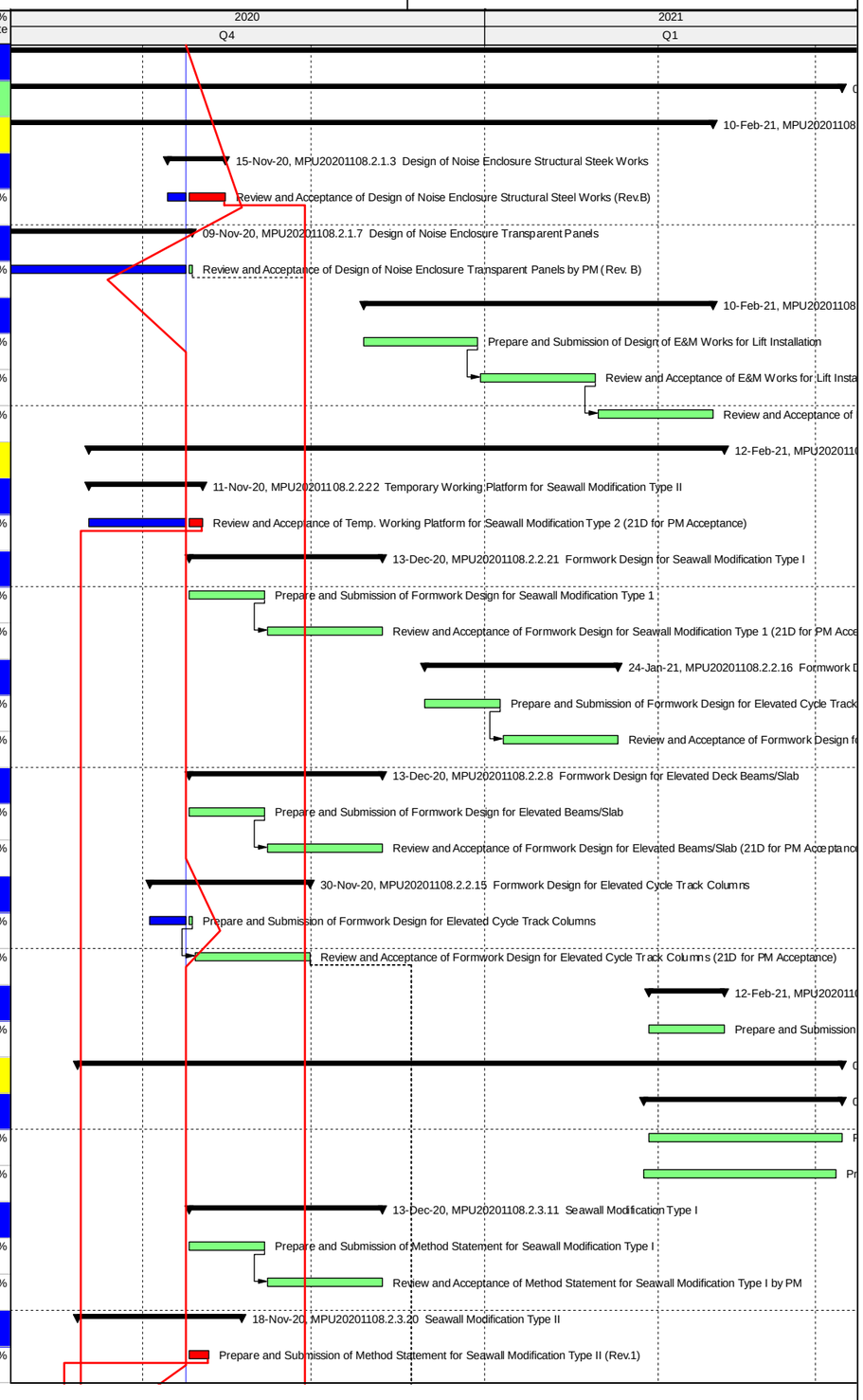
Date	Revision	Checked	Approved
08-Nov-20	Monthly updated on 08 November 2020		

Contract 2

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	alendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
MPU20201108 NE/2017/08 Programme Update (Nov 2020)		939.0	549.0	493.0		02-Jan-19 A	11-Jul-22	31-Jul-20	28-Mar-22	-82.5		
MPU20201108.2 Design and Method Statement, Material Submissions		264.0	147.0	117.0	(7days)	15-Jun-20 A	05-Mar-21	28-Sep-20	23-Jul-21	139.5		
MPU20201108.2.1 Contractor's Design		128.0	34.0	94.0	(7days)	06-Oct-20 A	10-Feb-21	28-Sep-20	24-May-21	103.0		
MPU20201108.2.1.3 Design of Noise Enclosure Structural Steek Works		21.0	4.0	7.0	(7days)	05-Nov-20 A	15-Nov-20	28-Sep-20	05-Oct-20	-41.5		
PD1093	Review and Acceptance of Design of Noise Enclosure Structural Steel Works (Rev.B)	21.0	4.0	7.0	(7days)	05-Nov-20 A	15-Nov-20	28-Sep-20	05-Oct-20	-41.5	0	66.67%
MPU20201108.2.1.7 Design of Noise Enclosure Transparent Panels		21.0	34.0	1.0	(7days)	06-Oct-20 A	09-Nov-20	04-Feb-21	05-Feb-21	87.5		
PD1110	Review and Acceptance of Design of Noise Enclosure Transparent Panels by PM (Rev. B)	21.0	34.0	1.0	(7days)	06-Oct-20 A	09-Nov-20	04-Feb-21	05-Feb-21	87.5	0	95.24%
MPU20201108.2.1.4 Design of E&M Works for Lift Installation		63.0	0.0	63.0	(7days)	10-Dec-20	10-Feb-21	23-Mar-21	24-May-21	103.0		
PD1040	Prepare and Submission of Design of E&M Works for Lift Installation	21.0	0.0	21.0	(7days)	10-Dec-20	30-Dec-20	23-Mar-21	12-Apr-21	103.0	0	0%
PD1043	Review and Acceptance of E&M Works for Lift Installation (21D for PM Acceptance)	21.0	0.0	21.0	(7days)	31-Dec-20	20-Jan-21	13-Apr-21	03-May-21	103.0	0	0%
PD1047	Review and Acceptance of E&M Works for Lift Installation (21D for HyD Acceptance)	21.0	0.0	21.0	(7days)	21-Jan-21	10-Feb-21	04-May-21	24-May-21	103.0	0	0%
MPU20201108.2.2 Temporary Works Design		114.0	18.0	96.0	(7days)	22-Oct-20 A	12-Feb-21	14-Oct-20	11-May-21	88.0		
MPU20201108.2.2.22 Temporary Working Platform for Seawall Modification Type II		21.0	18.0	3.0	(7days)	22-Oct-20 A	11-Nov-20	14-Oct-20	17-Oct-20	-25.5		
TW1520	Review and Acceptance of Temp. Working Platform for Seawall Modification Type 2 (21D for PM Acceptance)	21.0	18.0	3.0	(7days)	22-Oct-20 A	11-Nov-20	14-Oct-20	17-Oct-20	-25.5	0	85.71%
MPU20201108.2.2.21 Formwork Design for Seawall Modification Type I		35.0	0.0	35.0	(7days)	09-Nov-20	13-Dec-20	25-Jan-21	01-Mar-21	77.5		
TW1490	Prepare and Submission of Formwork Design for Seawall Modification Type 1	14.0	0.0	14.0	(7days)	09-Nov-20	22-Nov-20	25-Jan-21	08-Feb-21	77.5	0	0%
TW1500	Review and Acceptance of Formwork Design for Seawall Modification Type 1 (21D for PM Acceptance)	21.0	0.0	21.0	(7days)	23-Nov-20	13-Dec-20	08-Feb-21	01-Mar-21	77.5	0	0%
MPU20201108.2.2.16 Formwork Design for Elevated Cycle Track Decking		35.0	0.0	35.0	(7days)	21-Dec-20	24-Jan-21	07-Apr-21	11-May-21	107.0		
TW1390	Prepare and Submission of Formwork Design for Elevated Cycle Track Decking	14.0	0.0	14.0	(7days)	21-Dec-20	03-Jan-21	07-Apr-21	20-Apr-21	107.0	0	0%
TW1400	Review and Acceptance of Formwork Design for Elevated Cycle Track Decking (21D for PM Acceptance)	21.0	0.0	21.0	(7days)	04-Jan-21	24-Jan-21	21-Apr-21	11-May-21	107.0	0	0%
MPU20201108.2.2.8 Formwork Design for Elevated Deck Beams/Slab		35.0	0.0	35.0	(7days)	09-Nov-20	13-Dec-20	19-Dec-20	23-Jan-21	40.5		
TW1230	Prepare and Submission of Formwork Design for Elevated Beams/Slab	14.0	0.0	14.0	(7days)	09-Nov-20*	22-Nov-20	19-Dec-20	02-Jan-21	40.5	0	0%
TW1240	Review and Acceptance of Formwork Design for Elevated Beams/Slab (21D for PM Acceptance)	21.0	0.0	21.0	(7days)	23-Nov-20	13-Dec-20	02-Jan-21	23-Jan-21	40.5	0	0%
MPU20201108.2.2.15 Formwork Design for Elevated Cycle Track Columns		29.0	7.0	22.0	(7days)	02-Nov-20 A	30-Nov-20	05-Feb-21	26-Feb-21	88.0		
TW1370	Prepare and Submission of Formwork Design for Elevated Cycle Track Columns	14.0	7.0	1.0	(7days)	02-Nov-20 A	09-Nov-20	05-Feb-21	05-Feb-21	88.0	0	92.86%
TW1380	Review and Acceptance of Formwork Design for Elevated Cycle Track Columns (21D for PM Acceptance)	21.0	0.0	21.0	(7days)	10-Nov-20	30-Nov-20	06-Feb-21	26-Feb-21	88.0	0	0%
MPU20201108.2.2.13 Formwork and Falsework Design for Construction of Lift Tower		14.0	0.0	14.0	(7days)	30-Jan-21	12-Feb-21	20-Apr-21	03-May-21	80.0		
TW1330	Prepare and Submission of Formwork Design for Lift Tower	14.0	0.0	14.0	(7days)	30-Jan-21	12-Feb-21	20-Apr-21	03-May-21	80.0	0	0%
MPU20201108.2.3 Method Statement for Major Construction Works		137.0	20.0	117.0	(7days)	20-Oct-20 A	05-Mar-21	07-Oct-20	24-May-21	80.0		
MPU20201108.2.3.10 Construction of Lift Tower		36.0	0.0	36.0	(7days)	29-Jan-21	05-Mar-21	20-Apr-21	24-May-21	80.0		
MS1100	Prepare and Submission of Method Statement for Construction of Lift Tower (21D for PM Accpetance)	35.0	0.0	35.0	(7days)	30-Jan-21	05-Mar-21	20-Apr-21	24-May-21	80.0	0	0%
MS1150	Prepare and Submission of Method Statement for Installation of Lift (21D for PM Acceptance)	35.0	0.0	35.0	(7days)	29-Jan-21	04-Mar-21	20-Apr-21	24-May-21	81.0	0	0%
MPU20201108.2.3.11 Seawall Modification Type I		35.0	0.0	35.0	(7days)	09-Nov-20	13-Dec-20	25-Jan-21	01-Mar-21	77.5		
MS1350	Prepare and Submission of Method Statement for Seawall Modification Type I	14.0	0.0	14.0	(7days)	09-Nov-20	22-Nov-20	25-Jan-21	08-Feb-21	77.5		0%
MS1540	Review and Acceptance of Method Statement for Seawall Modification Type I by PM	21.0	0.0	21.0	(7days)	23-Nov-20	13-Dec-20	08-Feb-21	01-Mar-21	77.5		0%
MPU20201108.2.3.20 Seawall Modification Type II		24.0	20.0	10.0	(7days)	20-Oct-20 A	18-Nov-20	07-Oct-20	17-Oct-20	-32.5		
MS1555	Prepare and Submission of Method Statement for Seawall Modification Type II (Rev.1)	4.0	0.0	4.0	(7days)	09-Nov-20	12-Nov-20	07-Oct-20	11-Oct-20	-32.5		0%



Actual Level of Effort
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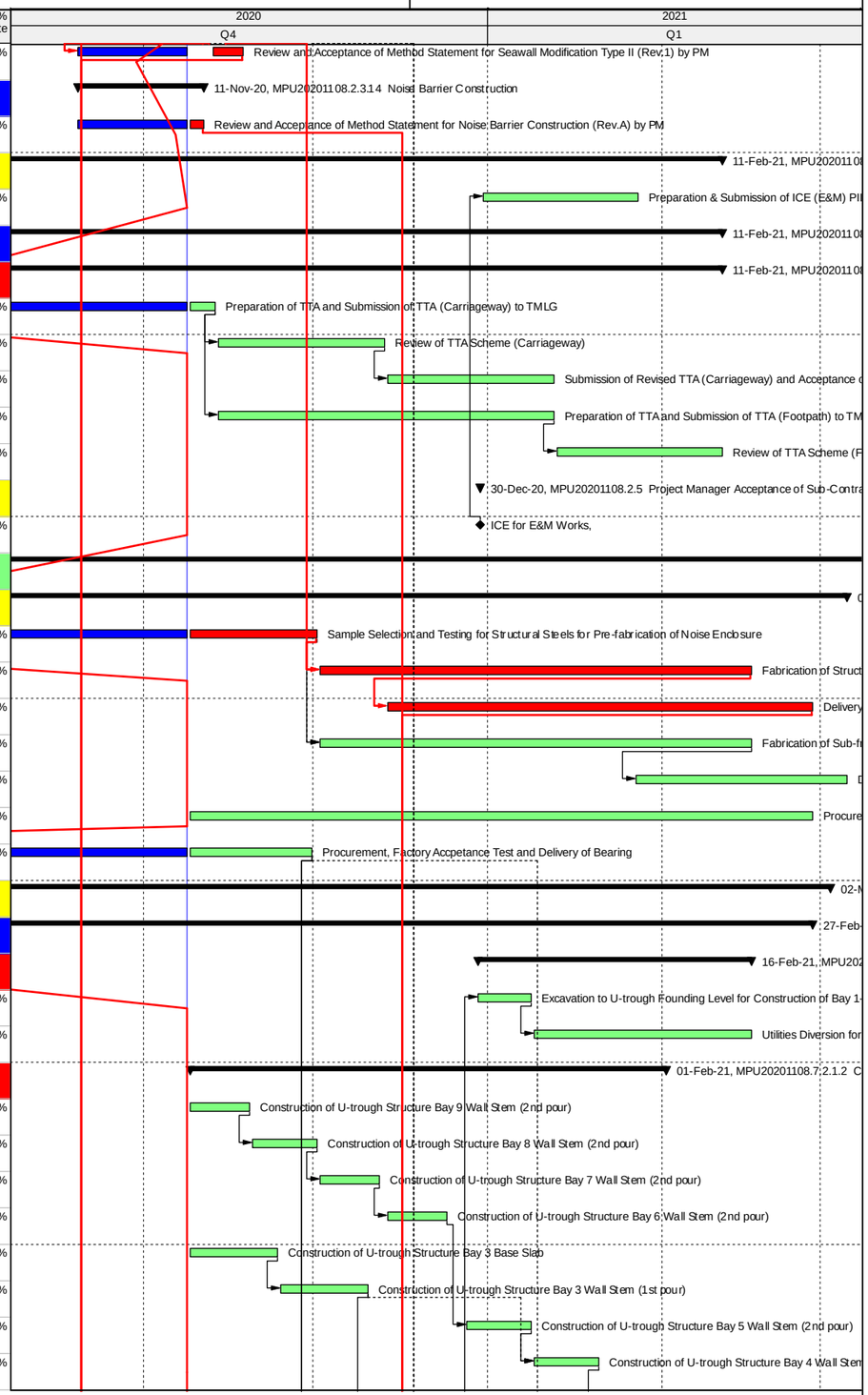
MPU (Nov-20)
Page 1

Date	Revision	Checked	Approved
08-Nov-20	Monthly Programme Update (Nov 2020)	TL	StL

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	alendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
MS1560	Review and Acceptance of Method Statement for Seawall Modification Type II (Rev.1) by PM	21.0	20.0	6.0	(7days)	20-Oct-20 A	18-Nov-20	11-Oct-20	17-Oct-20	-32.5		71.43%
MPU20201108.2.3.14 Noise Barrier Construction		21.0	20.0	3.0	(7days)	20-Oct-20 A	11-Nov-20	19-Oct-20	22-Oct-20	-20.5		
MS1530	Review and Acceptance of Method Statement for Noise Barrier Construction (Rev.A) by PM	21.0	20.0	3.0	(7days)	20-Oct-20 A	11-Nov-20	19-Oct-20	22-Oct-20	-20.5	0	85.71%
MPU20201108.2.4 General Submissions		242.0	147.0	95.0	(7days)	15-Jun-20 A	11-Feb-21	10-Nov-20	23-Jul-21	161.5		
GS1165	Preparation & Submission of ICE (E&M) PII Policy	28.0	0.0	28.0	(7days)	31-Dec-20	27-Jan-21	27-Apr-21	24-May-21	117.0	0	0%
MPU20201108.2.4.1 TTA and XP Submission		242.0	147.0	95.0	(7days)	15-Jun-20 A	11-Feb-21	10-Nov-20	23-Jul-21	161.5		
MPU20201108.2.4.1.3 Wan Po Road		242.0	147.0	95.0	(7days)	15-Jun-20 A	11-Feb-21	10-Nov-20	23-Jul-21	161.5		
GS2000	Preparation of TTA and Submission of TTA (Carriageway) to TMLG	80.0	147.0	5.0	(7days)	15-Jun-20 A	13-Nov-20	10-Nov-20	15-Nov-20	1.5	0	93.75%
GS2010	Review of TTA Scheme (Carriageway)	30.0	0.0	30.0	(7days)	14-Nov-20	13-Dec-20	24-May-21	23-Jun-21	191.5	0	0%
GS2020	Submission of Revised TTA (Carriageway) and Acceptance of TTA in TMLG	30.0	0.0	30.0	(7days)	14-Dec-20	12-Jan-21	23-Jun-21	23-Jul-21	191.5	0	0%
GS2500	Preparation of TTA and Submission of TTA (Footpath) to TMLG	60.0	0.0	60.0	(7days)	14-Nov-20	12-Jan-21	15-Nov-20	14-Jan-21	1.5	0	0%
GS2510	Review of TTA Scheme (Footpath)	30.0	0.0	30.0	(7days)	13-Jan-21	11-Feb-21	14-Jan-21	13-Feb-21	1.5	0	0%
MPU20201108.2.5 Project Manager Acceptance of Sub-Contractors		0.0	0.0	0.0	(7days)	30-Dec-20	30-Dec-20	30-Dec-20	30-Dec-20	0.0		
SC1040	ICE for E&M Works	0.0	0.0	0.0	(7days)		30-Dec-20*		30-Dec-20	0.0	0	0%
MPU20201108.7 Construction Works		438.0	307.0	125.0		28-Oct-19 A	13-Apr-21	31-Jul-20	27-Oct-21	161.5		
MPU20201108.7.1 Preliminaries		338.0	243.0	95.0		14-Jan-20 A	05-Mar-21	09-Sep-20	12-May-21	53.5		
PREL1130-02	Sample Selection and Testing for Structural Steels for Pre-fabrication of Noise Enclosure	33.0	108.0	20.0	(6days)	02-Jul-20 A	01-Dec-20	09-Sep-20	05-Oct-20	-48.5	0	39.39%
PREL1130-12	Fabrication of Structural Elements for Noise Enclosure	60.0	0.0	60.0	(6days)	02-Dec-20	16-Feb-21	05-Oct-20	15-Dec-20	-48.5	0	0%
PREL1130-22	Delivery of Structural Elements for At-grade Road Noise Enclosure	60.0	0.0	60.0	(6days)	14-Dec-20	27-Feb-21	16-Oct-20	29-Dec-20	-48.5	0	0%
PREL1140-01	Fabrication of Sub-frame and PMMA Panels for Noise Enclosure	60.0	0.0	60.0	(6days)	02-Dec-20	16-Feb-21	05-Feb-21	23-Apr-21	53.5	0	0%
PREL1140-21	Delivery of Sub-frame and PMMA Panels for Noise Enclosure	30.0	0.0	30.0	(6days)	27-Jan-21	05-Mar-21	06-Apr-21	12-May-21	53.5	0	0%
PREL1150-00	Procurement, factory acceptance test for Lift	90.0	0.0	90.0	(6days)	09-Nov-20	27-Feb-21	23-Dec-20	16-Apr-21	38.0	0	0%
PREL1250	Procurement, Factory Accpetance Test and Delivery of Bearing	80.0	300.0	22.0	(7days)	14-Jan-20 A	30-Nov-20	15-Dec-20	06-Jan-21	36.5	0	72.5%
MPU20201108.7.2 Construction Works of Portion I		118.0	27.0	92.0	(6days)	07-Oct-20 A	02-Mar-21	11-Sep-20	27-Oct-21	194.5		
MPU20201108.7.2.1 Cycle Track - U-trough		116.0	27.0	90.0	(6days)	07-Oct-20 A	27-Feb-21	16-Mar-21	27-Oct-21	196.5		
MPU20201108.7.2.1.1 Excavation to U-tough Level(+5.0mPD to +4.4mPD) (700m3)		38.0	0.0	38.0	(6days)	30-Dec-20	16-Feb-21	03-Jul-21	17-Aug-21	148.5		
PORI.UT.EX1050	Excavation to U-trough Founding Level for Construction of Bay 1-2 (+5.0mPD to +4.4mPD)	8.0	0.0	8.0	(6days)	30-Dec-20	08-Jan-21	03-Jul-21	13-Jul-21	148.5	0	0%
PORI.UT.EX1060	Utilities Diversion for Bay 1-2	30.0	0.0	30.0	(6days)	09-Jan-21	16-Feb-21	13-Jul-21	17-Aug-21	148.5	0	0%
MPU20201108.7.2.1.2 Construction of U-trough Structure (9 Bays, 27D/Bay, 1 Team)		70.0	0.0	70.0	(6days)	09-Nov-20	01-Feb-21	12-May-21	27-Oct-21	216.5		
PORI.UT.ST1010-23	Construction of U-trough Structure Bay 9 Wall Stem (2nd pour)	10.0	0.0	10.0	(6days)	09-Nov-20	19-Nov-20	03-Aug-21	14-Aug-21	216.5	0	0%
PORI.UT.ST1010-33	Construction of U-trough Structure Bay 8 Wall Stem (2nd pour)	10.0	0.0	10.0	(6days)	20-Nov-20	01-Dec-20	14-Aug-21	26-Aug-21	216.5	0	0%
PORI.UT.ST1010-43	Construction of U-trough Structure Bay 7 Wall Stem (2nd pour)	10.0	0.0	10.0	(6days)	02-Dec-20	12-Dec-20	26-Aug-21	07-Sep-21	216.5	0	0%
PORI.UT.ST1010-53	Construction of U-trough Structure Bay 6 Wall Stem (2nd pour)	10.0	0.0	10.0	(6days)	14-Dec-20	24-Dec-20	07-Sep-21	18-Sep-21	216.5	0	0%
PORI.UT.ST1040-21	Construction of U-trough Structure Bay 3 Base Slab	14.0	0.0	14.0	(6days)	09-Nov-20	24-Nov-20	12-May-21	29-May-21	148.5	0	0%
PORI.UT.ST1040-51	Construction of U-trough Structure Bay 3 Wall Stem (1st pour)	14.0	0.0	14.0	(6days)	25-Nov-20	10-Dec-20	29-May-21	16-Jun-21	148.5	0	0%
PORI.UT.ST1040-61	Construction of U-trough Structure Bay 5 Wall Stem (2nd pour)	10.0	0.0	10.0	(6days)	28-Dec-20	08-Jan-21	18-Sep-21	02-Oct-21	216.5	0	0%
PORI.UT.ST1040-71	Construction of U-trough Structure Bay 4 Wall Stem (2nd pour)	10.0	0.0	10.0	(6days)	09-Jan-21	20-Jan-21	02-Oct-21	15-Oct-21	216.5	0	0%



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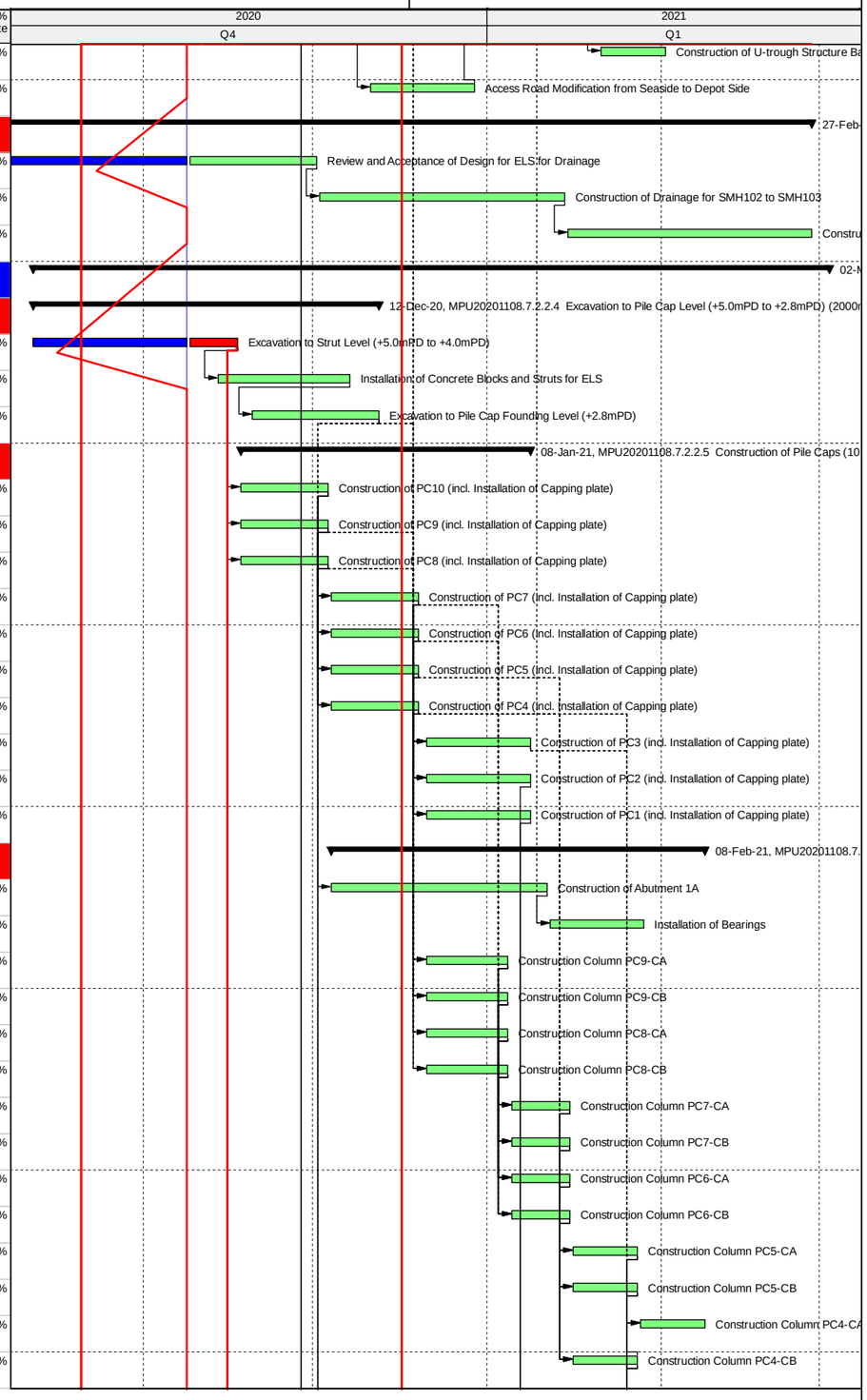
PORI.UT.ST1040-81	Construction of U-trough Structure Bay 3 Wall Stem (2nd pour)	10.0	0.0	10.0	(6days)	21-Jan-21	01-Feb-21	15-Oct-21	27-Oct-21	216.5	0	0%
PORI.UT.ST1050	Access Road Modification from Seaside to Depot Side	14.0	0.0	14.0	(6days)	11-Dec-20	29-Dec-20	16-Jun-21	03-Jul-21	148.5	0	0%
MPU20201108.7.2.1.4 Remaining Works		116.0	27.0	90.0	(6days)	07-Oct-20 A	27-Feb-21	16-Mar-21	07-Jul-21	103.5		
PORI.UT.1055	Review and Acceptance of Design for ELS for Drainage	30.0	27.0	20.0	(6days)	07-Oct-20 A	01-Dec-20	16-Mar-21	12-Apr-21	103.5		33.33%
PORI.UT.1060	Construction of Drainage for SMH102 to SMH103	35.0	0.0	35.0	(6days)	02-Dec-20	14-Jan-21	12-Apr-21	25-May-21	103.5	0	0%
PORI.UT.1070	Construction of Drainage for SMH103 to SMH104	35.0	0.0	35.0	(6days)	15-Jan-21	27-Feb-21	25-May-21	07-Jul-21	103.5	0	0%
MPU20201108.7.2.2 Elevated Cycle Track		115.0	23.0	92.0	(6days)	12-Oct-20 A	02-Mar-21	11-Sep-20	11-May-21	56.0		
MPU20201108.7.2.2.4 Excavation to Pile Cap Level (+5.0mPD to +2.8mPD) (2000m3)		53.0	23.0	30.0	(6days)	12-Oct-20 A	12-Dec-20	11-Sep-20	04-Jan-21	16.0		
PORI.ED.EX1030	Excavation to Strut Level (+5.0mPD to +4.0mPD)	8.0	23.0	8.0	(6days)	12-Oct-20 A	17-Nov-20	11-Sep-20	21-Sep-20	-46.5	0	0%
PORI.ED.EX1040	Installation of Concrete Blocks and Struts for ELS	20.0	0.0	20.0	(6days)	14-Nov-20	07-Dec-20	03-Dec-20	28-Dec-20	16.0		0%
PORI.ED.EX1060	Excavation to Pile Cap Founding Level (+2.8mPD)	20.0	0.0	20.0	(6days)	20-Nov-20	12-Dec-20	09-Dec-20	04-Jan-21	16.0		0%
MPU20201108.7.2.2.5 Construction of Pile Caps (10 PC, 14D/Cap, 4teams)		42.0	0.0	42.0	(6days)	18-Nov-20	08-Jan-21	20-Nov-20	06-Apr-21	69.0		
PORI.ED.PC1010	Construction of PC10 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	18-Nov-20	03-Dec-20	20-Nov-20	05-Dec-20	2.0		0%
PORI.ED.PC1020	Construction of PC9 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	18-Nov-20	03-Dec-20	20-Nov-20	05-Dec-20	2.0		0%
PORI.ED.PC1030	Construction of PC8 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	18-Nov-20	03-Dec-20	20-Nov-20	05-Dec-20	2.0		0%
PORI.ED.PC1040	Construction of PC7 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	04-Dec-20	19-Dec-20	21-Dec-20	08-Jan-21	14.0		0%
PORI.ED.PC1050	Construction of PC6 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	04-Dec-20	19-Dec-20	21-Dec-20	08-Jan-21	14.0		0%
PORI.ED.PC1060	Construction of PC5 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	04-Dec-20	19-Dec-20	21-Dec-20	08-Jan-21	14.0		0%
PORI.ED.PC1070	Construction of PC4 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	04-Dec-20	19-Dec-20	21-Dec-20	08-Jan-21	14.0		0%
PORI.ED.PC1080	Construction of PC3 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	21-Dec-20	08-Jan-21	18-Mar-21	06-Apr-21	69.0		0%
PORI.ED.PC1090	Construction of PC2 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	21-Dec-20	08-Jan-21	09-Jan-21	25-Jan-21	14.0		0%
PORI.ED.PC1100	Construction of PC1 (incl. Installation of Capping plate)	14.0	0.0	14.0	(6days)	21-Dec-20	08-Jan-21	09-Jan-21	25-Jan-21	14.0		0%
MPU20201108.7.2.2.6 Construction of Columns and Abutment (16pcs, 10D/column, 4 teams)		54.0	0.0	54.0	(6days)	04-Dec-20	08-Feb-21	27-Feb-21	11-May-21	72.0		
PORI.ED.CP1010	Construction of Abutment 1A	30.0	0.0	30.0	(6days)	04-Dec-20	11-Jan-21	16-Mar-21	22-Apr-21	81.0	0	0%
PORI.ED.CP1020	Installation of Bearings	15.0	0.0	15.0	(6days)	12-Jan-21	28-Jan-21	23-Apr-21	11-May-21	81.0	0	0%
PORI.ED.CP1030	Construction Column PC9-CA	10.0	0.0	10.0	(6days)	21-Dec-20	04-Jan-21	27-Feb-21	10-Mar-21	53.0		0%
PORI.ED.CP1040	Construction Column PC9-CB	10.0	0.0	10.0	(6days)	21-Dec-20	04-Jan-21	27-Feb-21	10-Mar-21	53.0		0%
PORI.ED.CP1050	Construction Column PC8-CA	10.0	0.0	10.0	(6days)	21-Dec-20	04-Jan-21	27-Feb-21	10-Mar-21	53.0		0%
PORI.ED.CP1060	Construction Column PC8-CB	10.0	0.0	10.0	(6days)	21-Dec-20	04-Jan-21	27-Feb-21	10-Mar-21	53.0		0%
PORI.ED.CP1070	Construction Column PC7-CA	10.0	0.0	10.0	(6days)	05-Jan-21	15-Jan-21	11-Mar-21	22-Mar-21	53.0		0%
PORI.ED.CP1080	Construction Column PC7-CB	10.0	0.0	10.0	(6days)	05-Jan-21	15-Jan-21	11-Mar-21	22-Mar-21	53.0		0%
PORI.ED.CP1090	Construction Column PC6-CA	10.0	0.0	10.0	(6days)	05-Jan-21	15-Jan-21	11-Mar-21	22-Mar-21	53.0		0%
PORI.ED.CP1095	Construction Column PC6-CB	10.0	0.0	10.0	(6days)	05-Jan-21	15-Jan-21	11-Mar-21	22-Mar-21	53.0		0%
PORI.ED.CP1100	Construction Column PC5-CA	10.0	0.0	10.0	(6days)	16-Jan-21	27-Jan-21	23-Mar-21	06-Apr-21	53.0		0%
PORI.ED.CP1110	Construction Column PC5-CB	10.0	0.0	10.0	(6days)	16-Jan-21	27-Jan-21	23-Mar-21	06-Apr-21	53.0		0%
PORI.ED.CP1120	Construction Column PC4-CA	10.0	0.0	10.0	(6days)	28-Jan-21	08-Feb-21	07-Apr-21	17-Apr-21	53.0		0%
PORI.ED.CP1130	Construction Column PC4-CB	10.0	0.0	10.0	(6days)	16-Jan-21	27-Jan-21	23-Mar-21	06-Apr-21	53.0		0%



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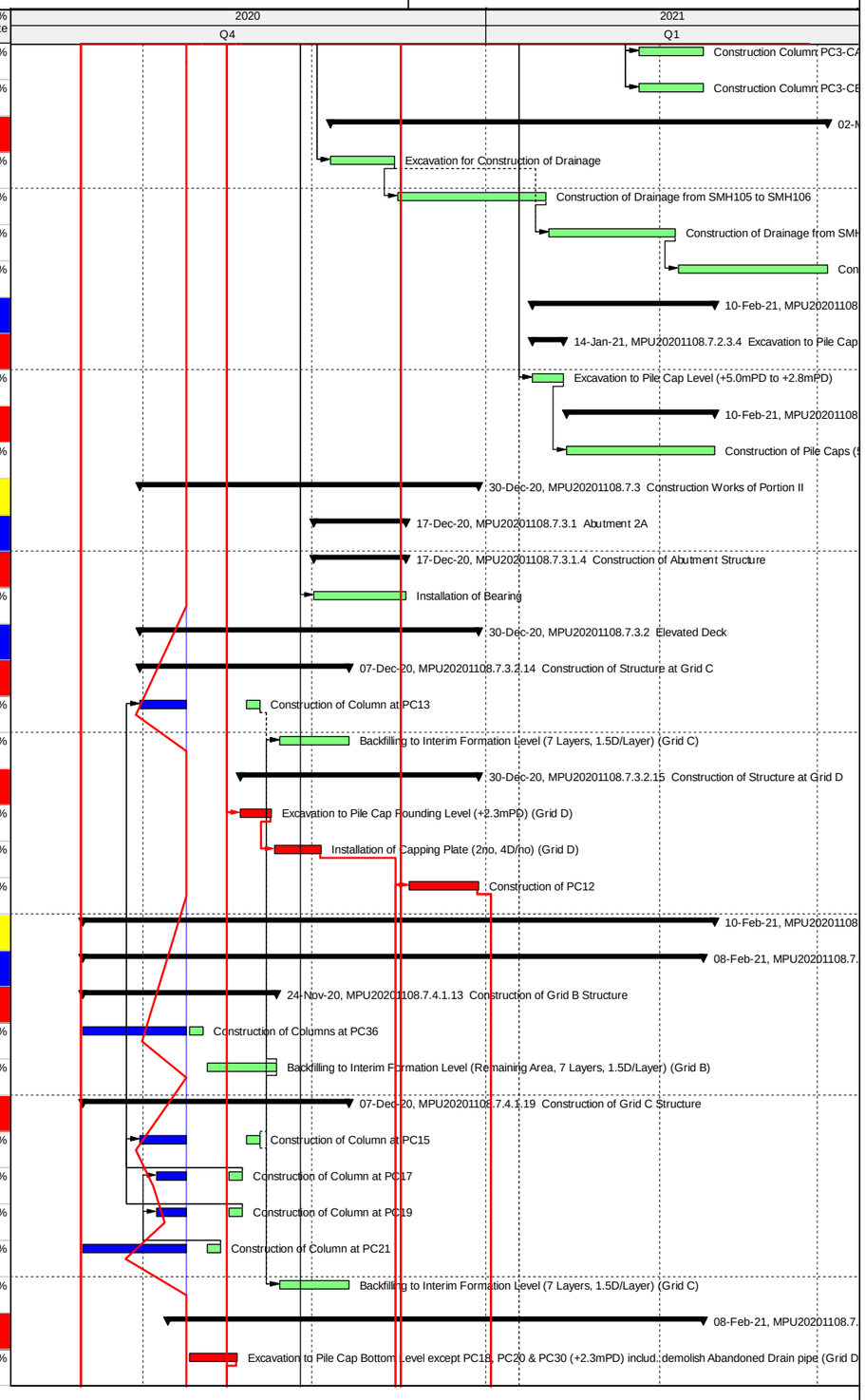
PORI.ED.CP1140	Construction Column PC3-CA	10.0	0.0	10.0	(6days)	28-Jan-21	08-Feb-21	07-Apr-21	17-Apr-21	53.0		0%
PORI.ED.CP1150	Construction Column PC3-CB	10.0	0.0	10.0	(6days)	28-Jan-21	08-Feb-21	07-Apr-21	17-Apr-21	53.0		0%
MPU20201108.7.2.2.9 Drainage Works		70.0	0.0	70.0	(6days)	04-Dec-20	02-Mar-21	07-Dec-20	04-Mar-21	2.0		
PORI.ED.DRA1015	Excavation for Construction of Drainage	10.0	0.0	10.0	(6days)	04-Dec-20	15-Dec-20	07-Dec-20	17-Dec-20	2.0		0%
PORI.ED.DRA1020	Construction of Drainage from SMH105 to SMH106	20.0	0.0	20.0	(6days)	16-Dec-20	11-Jan-21	18-Dec-20	13-Jan-21	2.0		0%
PORI.ED.DRA1030	Construction of Drainage from SMH106 to SMH107	20.0	0.0	20.0	(6days)	12-Jan-21	03-Feb-21	14-Jan-21	05-Feb-21	2.0		0%
PORI.ED.DRA1040	Construction of Drainage from SMH107 to SMH108	20.0	0.0	20.0	(6days)	04-Feb-21	02-Mar-21	06-Feb-21	04-Mar-21	2.0		0%
MPU20201108.7.2.3 Lift and Staircase		28.0	0.0	28.0	(6days)	09-Jan-21	10-Feb-21	26-Jan-21	02-Mar-21	14.0		
MPU20201108.7.2.3.4 Excavation to Pile Cap Level (+5.0mPD to +2.8mPD)		5.0	0.0	5.0	(6days)	09-Jan-21	14-Jan-21	26-Jan-21	30-Jan-21	14.0		
PORI.LS.EX1010	Excavation to Pile Cap Level (+5.0mPD to +2.8mPD)	5.0	0.0	5.0	(6days)	09-Jan-21	14-Jan-21	26-Jan-21	30-Jan-21	14.0	0	0%
MPU20201108.7.2.3.5 Construction of Pile Caps (5 PC, 14D/Cap, 3teams)		23.0	0.0	23.0	(6days)	15-Jan-21	10-Feb-21	01-Feb-21	02-Mar-21	14.0		
PORI.LS.PC1000	Construction of Pile Caps (5PC, 14D/cap, 3 teams)	23.0	0.0	23.0	(6days)	15-Jan-21	10-Feb-21	01-Feb-21	02-Mar-21	14.0	0	0%
MPU20201108.7.3 Construction Works of Portion II		50.0	7.0	35.0	(6days)	31-Oct-20 A	30-Dec-20	21-Sep-20	23-Jan-21	19.5		
MPU20201108.7.3.1 Abutment 2A		15.0	0.0	15.0	(6days)	01-Dec-20	17-Dec-20	06-Jan-21	23-Jan-21	28.5		
MPU20201108.7.3.1.4 Construction of Abutment Structure		15.0	0.0	15.0	(6days)	01-Dec-20	17-Dec-20	06-Jan-21	23-Jan-21	28.5		
PORII.AB.ST1040	Installation of Bearing	15.0	0.0	15.0	(6days)	01-Dec-20	17-Dec-20	06-Jan-21	23-Jan-21	28.5	0	0%
MPU20201108.7.3.2 Elevated Deck		50.0	7.0	35.0	(6days)	31-Oct-20 A	30-Dec-20	21-Sep-20	23-Jan-21	19.5		
MPU20201108.7.3.2.14 Construction of Structure at Grid C		32.0	7.0	16.0	(6days)	31-Oct-20 A	07-Dec-20	19-Nov-20	23-Jan-21	37.5		
PORII.ED.GC1040	Construction of Column at PC13	10.0	7.0	3.0	(6days)	31-Oct-20 A	21-Nov-20	19-Nov-20	23-Nov-20	0.5	0	70%
PORII.ED.GC1050	Backfilling to Interim Formation Level (7 Layers, 1.5D/Layer) (Grid C)	11.0	0.0	11.0	(6days)	25-Nov-20	07-Dec-20	11-Jan-21	23-Jan-21	37.5	0	0%
MPU20201108.7.3.2.15 Construction of Structure at Grid D		35.0	0.0	35.0	(6days)	18-Nov-20	30-Dec-20	21-Sep-20	19-Oct-20	-59.5		
PORII.ED.GD1000	Excavation to Pile Cap Founding Level (+2.3mPD) (Grid D)	5.0	0.0	5.0	(6days)	18-Nov-20	23-Nov-20	21-Sep-20	26-Sep-20	-46.5	0	0%
PORII.ED.GD1010	Installation of Capping Plate (2no, 4D/no) (Grid D)	8.0	0.0	8.0	(6days)	24-Nov-20	02-Dec-20	26-Sep-20	08-Oct-20	-46.5	0	0%
PORII.ED.GD1020	Construction of PC12	9.0	0.0	9.0	(6days)	18-Dec-20	30-Dec-20	08-Oct-20	19-Oct-20	-59.5	0	0%
MPU20201108.7.4 Construction Works of Portion III		93.0	15.0	78.0	(6days)	21-Oct-20 A	10-Feb-21	31-Jul-20	23-Jan-21	-15.5		
MPU20201108.7.4.1 Construction of Elevated Deck and Abutment 2B		91.0	15.0	76.0	(6days)	21-Oct-20 A	08-Feb-21	10-Aug-20	23-Jan-21	-13.5		
MPU20201108.7.4.1.13 Construction of Grid B Structure		29.0	15.0	14.0	(6days)	21-Oct-20 A	24-Nov-20	09-Nov-20	11-Jan-21	37.5		
PORIII.ED.GB.1080	Construction of Columns at PC36	10.0	15.0	3.0	(6days)	21-Oct-20 A	11-Nov-20	09-Nov-20	12-Nov-20	0.5	0	70%
PORIII.ED.GB.1140	Backfilling to Interim Formation Level (Remaining Area, 7 Layers, 1.5D/Layer) (Grid B)	11.0	0.0	11.0	(6days)	12-Nov-20	24-Nov-20	28-Dec-20	11-Jan-21	37.5		0%
MPU20201108.7.4.1.19 Construction of Grid C Structure		40.0	15.0	22.0	(6days)	21-Oct-20 A	07-Dec-20	12-Nov-20	23-Jan-21	37.5		
PORIII.ED.GC.1050	Construction of Column at PC15	10.0	7.0	3.0	(6days)	31-Oct-20 A	21-Nov-20	19-Nov-20	23-Nov-20	0.5	0	70%
PORIII.ED.GC.1060	Construction of Column at PC17	10.0	5.0	3.0	(6days)	03-Nov-20 A	18-Nov-20	16-Nov-20	19-Nov-20	0.5	0	70%
PORIII.ED.GC.1070	Construction of Column at PC19	10.0	5.0	3.0	(6days)	03-Nov-20 A	18-Nov-20	16-Nov-20	19-Nov-20	0.5	0	70%
PORIII.ED.GC.1080	Construction of Column at PC21	10.0	15.0	3.0	(6days)	21-Oct-20 A	14-Nov-20	12-Nov-20	16-Nov-20	0.5	0	70%
PORIII.ED.GC.1140	Backfilling to Interim Formation Level (7 Layers, 1.5D/Layer) (Grid C)	11.0	0.0	11.0	(6days)	25-Nov-20	07-Dec-20	11-Jan-21	23-Jan-21	37.5	0	0%
MPU20201108.7.4.1.20 Construction of Grid D Structure		79.0	3.0	76.0	(6days)	05-Nov-20 A	08-Feb-21	10-Aug-20	10-Nov-20	-74.5		
PORIII.ED.GD.0180	Excavation to Pile Cap Bottom Level except PC18, PC20 & PC30 (+2.3mPD) includ. demolish Abandoned Drain pipe (Grid D)	8.0	0.0	8.0	(6days)	09-Nov-20	17-Nov-20	27-Aug-20	05-Sep-20	-59.5	0	0%



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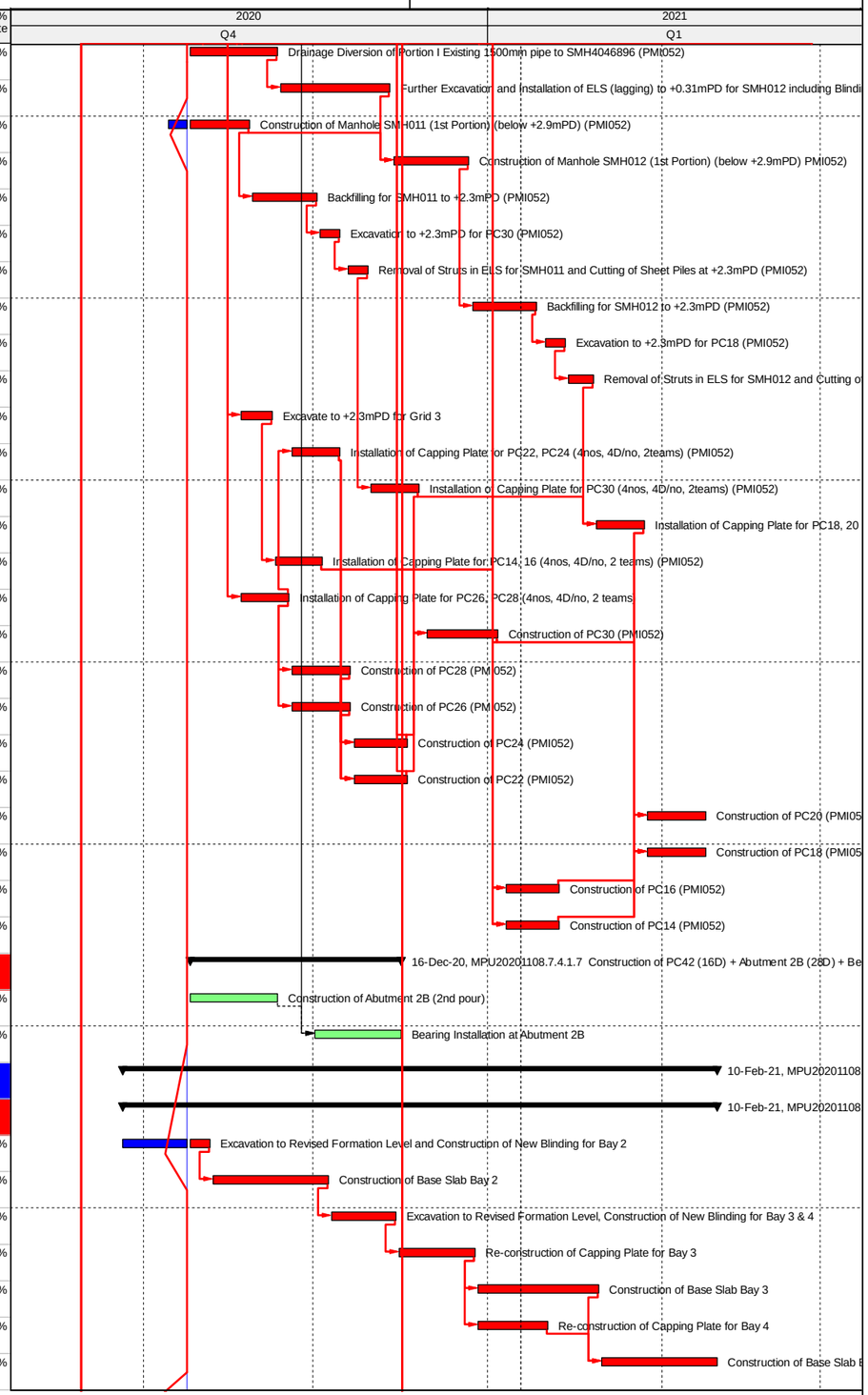
PORIII.ED.GD.0200	Drainage Diversion of Portion I Existing 1500mm pipe to SMH4046896 (PMI052)	14.0	0.0	14.0	(6days)	09-Nov-20	24-Nov-20	10-Aug-20	26-Aug-20	-74.5	0	0%
PORIII.ED.GD.0220	Further Excavation and Installation of ELS (lagging) to +0.31mPD for SMH012 including Blinding (NCE108, PMI052)	17.0	0.0	17.0	(6days)	25-Nov-20	14-Dec-20	26-Aug-20	15-Sep-20	-74.5	0	0%
PORIII.ED.GD.0230	Construction of Manhole SMH011 (1st Portion) (below +2.9mPD) (PMI052)	10.0	3.0	10.0	(6days)	05-Nov-20 A	19-Nov-20	25-Aug-20	05-Sep-20	-61.5	0	0%
PORIII.ED.GD.0240	Construction of Manhole SMH012 (1st Portion) (below +2.9mPD) PMI052)	10.0	0.0	10.0	(6days)	15-Dec-20	28-Dec-20	15-Sep-20	26-Sep-20	-74.5	0	0%
PORIII.ED.GD.0250	Backfilling for SMH011 to +2.3mPD (PMI052)	10.0	0.0	10.0	(6days)	20-Nov-20	01-Dec-20	05-Sep-20	17-Sep-20	-61.5	0	0%
PORIII.ED.GD.0250-01	Excavation to +2.3mPD for PC30 (PMI052)	4.0	0.0	4.0	(6days)	02-Dec-20	05-Dec-20	17-Sep-20	22-Sep-20	-61.5	0	0%
PORIII.ED.GD.0260	Removal of Struts in ELS for SMH011 and Cutting of Sheet Piles at +2.3mPD (PMI052)	4.0	0.0	4.0	(6days)	07-Dec-20	10-Dec-20	22-Sep-20	26-Sep-20	-61.5	0	0%
PORIII.ED.GD.0270	Backfilling for SMH012 to +2.3mPD (PMI052)	10.0	0.0	10.0	(6days)	29-Dec-20	09-Jan-21	26-Sep-20	10-Oct-20	-74.5	0	0%
PORIII.ED.GD.0270-01	Excavation to +2.3mPD for PC18 (PMI052)	4.0	0.0	4.0	(6days)	11-Jan-21	14-Jan-21	10-Oct-20	15-Oct-20	-74.5	0	0%
PORIII.ED.GD.0280	Removal of Struts in ELS for SMH012 and Cutting of Sheet Piles at +2.3mPD (PMI052)	4.0	0.0	4.0	(6days)	15-Jan-21	19-Jan-21	15-Oct-20	20-Oct-20	-74.5	0	0%
PORIII.ED.GD.0310	Excavate to +2.3mPD for Grid 3	5.0	0.0	5.0	(6days)	18-Nov-20	23-Nov-20	03-Oct-20	09-Oct-20	-37.5	0	0%
PORIII.ED.GD.1010-02	Installation of Capping Plate for PC22, PC24 (4nos, 4D/no, 2teams) (PMI052)	8.0	0.0	8.0	(6days)	27-Nov-20	05-Dec-20	16-Sep-20	25-Sep-20	-58.5	0	0%
PORIII.ED.GD.1010-03	Installation of Capping Plate for PC30 (4nos, 4D/no, 2teams) (PMI052)	8.0	0.0	8.0	(6days)	11-Dec-20	19-Dec-20	26-Sep-20	08-Oct-20	-61.5	0	0%
PORIII.ED.GD.1010-04	Installation of Capping Plate for PC18, 20 (4nos, 4D/no, 2teams) (PMI052)	8.0	0.0	8.0	(6days)	20-Jan-21	28-Jan-21	20-Oct-20	30-Oct-20	-74.5	0	0%
PORIII.ED.GD.1010-05	Installation of Capping Plate for PC14, 16 (4nos, 4D/no, 2 teams) (PMI052)	8.0	0.0	8.0	(6days)	24-Nov-20	02-Dec-20	09-Oct-20	19-Oct-20	-37.5	0	0%
PORIII.ED.GD.1010-06	Installation of Capping Plate for PC26, PC28 (4nos, 4D/no, 2 teams)	8.0	0.0	8.0	(6days)	18-Nov-20	26-Nov-20	05-Sep-20	15-Sep-20	-59.5	0	0%
PORIII.ED.GD.1020	Construction of PC30 (PMI052)	9.0	0.0	9.0	(6days)	21-Dec-20	02-Jan-21	08-Oct-20	19-Oct-20	-61.5	0	0%
PORIII.ED.GD.1021	Construction of PC28 (PMI052)	9.0	0.0	9.0	(6days)	27-Nov-20	07-Dec-20	15-Sep-20	25-Sep-20	-59.5	0	0%
PORIII.ED.GD.1022	Construction of PC26 (PMI052)	9.0	0.0	9.0	(6days)	27-Nov-20	07-Dec-20	15-Sep-20	25-Sep-20	-59.5	0	0%
PORIII.ED.GD.1023	Construction of PC24 (PMI052)	9.0	0.0	9.0	(6days)	08-Dec-20	17-Dec-20	25-Sep-20	08-Oct-20	-59.5	0	0%
PORIII.ED.GD.1024	Construction of PC22 (PMI052)	9.0	0.0	9.0	(6days)	08-Dec-20	17-Dec-20	25-Sep-20	08-Oct-20	-59.5	0	0%
PORIII.ED.GD.1025	Construction of PC20 (PMI052)	9.0	0.0	9.0	(6days)	29-Jan-21	08-Feb-21	30-Oct-20	10-Nov-20	-74.5	0	0%
PORIII.ED.GD.1026	Construction of PC18 (PMI052)	9.0	0.0	9.0	(6days)	29-Jan-21	08-Feb-21	30-Oct-20	10-Nov-20	-74.5	0	0%
PORIII.ED.GD.1027	Construction of PC16 (PMI052)	9.0	0.0	9.0	(6days)	04-Jan-21	13-Jan-21	19-Oct-20	30-Oct-20	-61.5	0	0%
PORIII.ED.GD.1028	Construction of PC14 (PMI052)	9.0	0.0	9.0	(6days)	04-Jan-21	13-Jan-21	19-Oct-20	30-Oct-20	-61.5	0	0%
MPU20201108.7.4.1.7 Construction of PC42 (16D) + Abutment 2B (28D) + Bearing Installation (14D)		33.0	0.0	33.0	(6days)	09-Nov-20	16-Dec-20	18-Dec-20	23-Jan-21	29.5		
PORIII.AB2B.1010-01	Construction of Abutment 2B (2nd pour)	14.0	0.0	14.0	(6days)	09-Nov-20	24-Nov-20	18-Dec-20	07-Jan-21	34.5	0	0%
PORIII.AB2B.1020	Bearing Installation at Abutment 2B	14.0	0.0	14.0	(6days)	01-Dec-20	16-Dec-20	07-Jan-21	23-Jan-21	29.5	0	0%
MPU20201108.7.4.2 Construction of U-trough Structure		88.0	10.0	78.0	(6days)	28-Oct-20 A	10-Feb-21	31-Jul-20	03-Nov-20	-82.5		
MPU20201108.7.4.2.6 Construction of U-trough Structure		88.0	10.0	78.0	(6days)	28-Oct-20 A	10-Feb-21	31-Jul-20	03-Nov-20	-82.5		
PORIII.UT.ST1107	Excavation to Revised Formation Level and Construction of New Blinding for Bay 2	10.0	10.0	4.0	(6days)	28-Oct-20 A	12-Nov-20	31-Jul-20	05-Aug-20	-82.5	0	60%
PORIII.UT.ST1110	Construction of Base Slab Bay 2	18.0	0.0	18.0	(6days)	13-Nov-20	03-Dec-20	05-Aug-20	26-Aug-20	-82.5	0	0%
PORIII.UT.ST1115	Excavation to Revised Formation Level, Construction of New Blinding for Bay 3 & 4	10.0	0.0	10.0	(6days)	04-Dec-20	15-Dec-20	26-Aug-20	07-Sep-20	-82.5	0	0%
PORIII.UT.ST1117	Re-construction of Capping Plate for Bay 3	10.0	0.0	10.0	(6days)	16-Dec-20	29-Dec-20	07-Sep-20	18-Sep-20	-82.5	0	0%
PORIII.UT.ST1120	Construction of Base Slab Bay 3	18.0	0.0	18.0	(6days)	30-Dec-20	20-Jan-21	18-Sep-20	12-Oct-20	-82.5	0	0%
PORIII.UT.ST1125	Re-construction of Capping Plate for Bay 4	10.0	0.0	10.0	(6days)	30-Dec-20	11-Jan-21	28-Sep-20	12-Oct-20	-74.5	0	0%
PORIII.UT.ST1130	Construction of Base Slab Bay 4	18.0	0.0	18.0	(6days)	21-Jan-21	10-Feb-21	12-Oct-20	03-Nov-20	-82.5	0	0%



Actual Level of Effort
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Date	Revision	Checked	Approved
08-Nov-20	Monthly Programme Update (Nov 2020)	TL	StL

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	alendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
MPU20201108.7.5 Modification of Seawall (Portion II and III)		80.0	13.0	80.0	(6days)	23-Oct-20 A	26-Feb-21	17-Oct-20	23-Jan-21	-26.5		
MPU20201108.7.5.3 Seawall Modification Type 2		80.0	13.0	80.0	(6days)	23-Oct-20 A	26-Feb-21	17-Oct-20	23-Jan-21	-26.5		
SW.WWII.1000	Construction of Seawall Modification Type 2 (2 teams, <15m per bay)	80.0	13.0	80.0	(6days)	23-Oct-20 A	26-Feb-21	17-Oct-20	23-Jan-21	-26.5	0	0%
MPU20201108.7.6 Construction of the At-grade Noise Semi Enclosures		244.0	119.0	125.0	(6days)	17-Jun-20 A	13-Apr-21	10-Sep-20	06-Mar-21	-29.5		
MPU20201108.7.6.7 Construction of Northern Drainage (SMH001 to SMH003)		82.0	0.0	82.0	(6days)	09-Nov-20	18-Feb-21	10-Sep-20	18-Dec-20	-47.5		
PORIII.AG.1102	Utilities Ducts Laying across Road D9 (Northern Portion)	32.0	0.0	32.0	(6days)	09-Nov-20	15-Dec-20	10-Sep-20	20-Oct-20	-47.5	0	0%
PORIII.AG.2000	Cable Laying and Decomissioning of Existing Cross Road UUs at Wan O Road	50.0	0.0	50.0	(6days)	16-Dec-20	18-Feb-21	20-Oct-20	18-Dec-20	-47.5	0	0%
MPU20201108.7.6.3 Construction of Pad Footing (Bay 1 to 11)		171.0	119.0	52.0	(6days)	17-Jun-20 A	11-Jan-21	15-Sep-20	06-Mar-21	43.5		
MPU20201108.7.6.3.3 Base Slab		30.0	0.0	30.0	(6days)	23-Nov-20	29-Dec-20	15-Jan-21	23-Feb-21	43.5		
MPU20201108.7.6.3.3.1 North Bound		30.0	0.0	30.0	(6days)	23-Nov-20	29-Dec-20	15-Jan-21	23-Feb-21	43.5		
PORIII.AG.1460	Construction of Pad Footing Bay NB-N17 Base Slab	10.0	0.0	10.0	(6days)	23-Nov-20	03-Dec-20	15-Jan-21	27-Jan-21	43.5	0	0%
PORIII.AG.1470	Construction of Pad Footing Bay NB-N18 Base Slab	10.0	0.0	10.0	(6days)	16-Dec-20	29-Dec-20	08-Feb-21	23-Feb-21	43.5	0	0%
MPU20201108.7.6.3.4 Wall Stem		171.0	119.0	52.0	(6days)	17-Jun-20 A	11-Jan-21	15-Sep-20	06-Mar-21	43.5		
MPU20201108.7.6.3.4.2 South Bound		134.0	119.0	30.0	(6days)	17-Jun-20 A	12-Dec-20	15-Sep-20	22-Oct-20	-43.5		
PORIII.AG.1910	Backfilling to Interim Formation Level (7 Layers, 5D/layer) for Bay 1 to 11	35.0	119.0	20.0	(6days)	17-Jun-20 A	01-Dec-20	26-Sep-20	22-Oct-20	-33.5	0	42.86%
PORIII.AG.1920	Backfilling to Interim Formation Level (7 Layers, 5D/layer) for Bay 12 to 16	35.0	20.0	30.0	(6days)	15-Oct-20 A	12-Dec-20	15-Sep-20	22-Oct-20	-43.5	0	14.29%
MPU20201108.7.6.3.4.1 North Bound		30.0	0.0	30.0	(6days)	04-Dec-20	11-Jan-21	27-Jan-21	06-Mar-21	43.5		
PORIII.AG.1890	Construction of Pad Footing Bay NB-N17 Wall Stem	10.0	0.0	10.0	(6days)	04-Dec-20	15-Dec-20	27-Jan-21	08-Feb-21	43.5	0	0%
PORIII.AG.1900	Construction of Pad Footing Bay NB-N18 Wall Stem	10.0	0.0	10.0	(6days)	30-Dec-20	11-Jan-21	23-Feb-21	06-Mar-21	43.5	0	0%
MPU20201108.7.6.4 Construction of Semi-Noise Enclosure and Directional Sign		90.0	0.0	90.0	(6days)	19-Dec-20	13-Apr-21	22-Oct-20	09-Feb-21	-48.5		
PORIII.AG.1190	Construction of Semi-Noise Enclosure CH13532.187 to CH13878 Main Frame	90.0	0.0	90.0	(6days)	19-Dec-20	13-Apr-21	22-Oct-20	09-Feb-21	-48.5	0	0%
MPU20201108.7.8 Wan O Road		407.0	307.0	94.0	(6days)	28-Oct-19 A	04-Mar-21	27-Aug-20	13-Mar-21	7.5		
MPU20201108.7.8.2 Carriage Way Excavation Permit		407.0	307.0	94.0	(6days)	28-Oct-19 A	04-Mar-21	27-Aug-20	13-Mar-21	7.5		
MPU20201108.7.8.2.1 TTA Stage 1		38.0	307.0	18.0	(6days)	28-Oct-19 A	12-Dec-20	10-Sep-20	03-Oct-20	-59.5		
WO.CA.TTA1030	UU Diversion and Installation of Sheet Pile at Northern Footpath (Except Roundabout)	38.0	307.0	18.0	(6days)	28-Oct-19 A	12-Dec-20	10-Sep-20	03-Oct-20	-59.5	0	52.63%
MPU20201108.7.8.2.3 TTA Stage 2		297.0	204.0	94.0	(6days)	03-Mar-20 A	04-Mar-21	27-Aug-20	13-Mar-21	7.5		
MPU20201108.7.8.2.3.1 Northern Portion		265.0	171.0	94.0	(6days)	15-Apr-20 A	04-Mar-21	27-Aug-20	18-Dec-20	-59.5		
MPU20201108.7.8.2.3.1.2 PBSH Works		148.0	171.0	12.0	(6days)	15-Apr-20 A	21-Nov-20	27-Aug-20	09-Nov-20	-11.5		
WO.CA.TTA2NP.1150	Construction of PBSH (23nos, Rig 2) (PC60, 61, 63-65)	76.0	171.0	7.0	(6days)	15-Apr-20 A	16-Nov-20	02-Sep-20	10-Sep-20	-54.5	0	90.79%
WO.CA.TTA2NP.1150-02	Construction of PBSH (7nos, Rig 2) (PC57-58)	30.0	53.0	12.0	(6days)	04-Sep-20 A	21-Nov-20	24-Oct-20	09-Nov-20	-11.5	0	60%
WO.CA.TTA2NP.1150-03	Construction of PBSH (8nos, Rig 1) (PC66-69)	31.0	150.0	5.0	(6days)	12-May-20 A	21-Nov-20	04-Sep-20	10-Sep-20	-59.5	0	83.87%
WO.CA.TTA2NP.1170	Construction of PBSH (14nos, Rig 1) (PC66-PC72)	60.0	89.0	7.0	(6days)	24-Jul-20 A	16-Nov-20	27-Aug-20	04-Sep-20	-59.5	0	88.33%
MPU20201108.7.8.2.3.1.3 Excavation and Construction of RC Structure		73.0	0.0	73.0	(6days)	03-Dec-20	04-Mar-21	03-Oct-20	18-Dec-20	-59.5		
WO.CA.TTA2NP.1060	Installation of Sheet pile at Roundabout Northern Portion	12.0	0.0	12.0	(6days)	03-Dec-20	16-Dec-20	19-Nov-20	03-Dec-20	-11.5	0	0%
WO.CA.TTA2NP.1065	Installation of Struts and Excavation to Pile Cap Level at Roundabout Northern Portion	13.0	0.0	13.0	(6days)	17-Dec-20	04-Jan-21	03-Dec-20	18-Dec-20	-11.5	0	0%
WO.CA.TTA2NP.1067	Concrete Block Installation as Lateral Support on top of Box Culvert	25.0	0.0	25.0	(6days)	14-Dec-20	14-Jan-21	03-Oct-20	03-Nov-20	-59.5	0	0%
WO.CA.TTA2NP.1070	Construction of ELS (Northern Footpath)	39.0	0.0	39.0	(6days)	15-Jan-21	04-Mar-21	03-Nov-20	18-Dec-20	-59.5	0	0%

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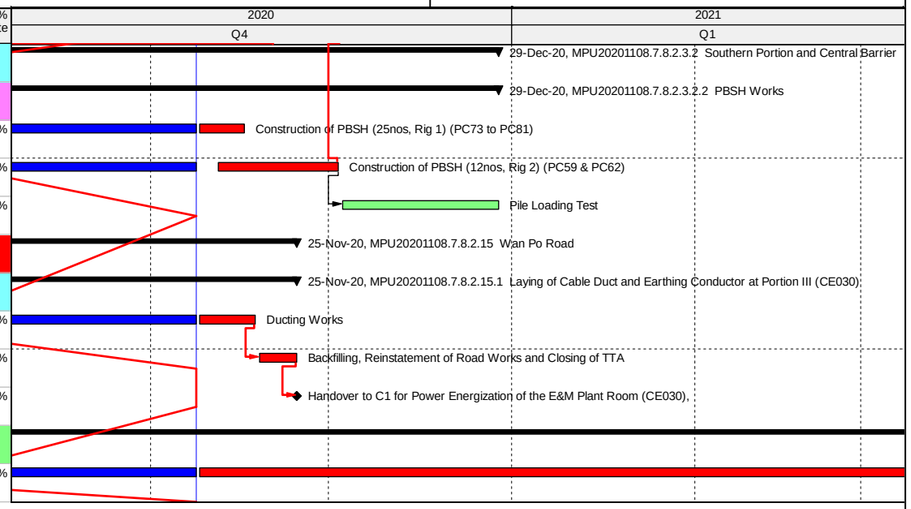
Date	Revision	Checked	Approved
08-Nov-20	Monthly Programme Update (Nov 2020)	TL	StL

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	alendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
MPU20201108.7.8.2.3.2 Southern Portion and Central Barrier		245.0	204.0	42.0	(6days)	03-Mar-20 A	29-Dec-20	27-Aug-20	13-Mar-21	59.5		
MPU20201108.7.8.2.3.2.2 PBSH Works		245.0	204.0	42.0	(6days)	03-Mar-20 A	29-Dec-20	27-Aug-20	13-Mar-21	59.5		
WO.CA.TTA2SP.1310	Construction of PBSH (25nos, Rig 1) (PC73 to PC81)	75.0	204.0	7.0	(6days)	03-Mar-20 A	16-Nov-20	27-Aug-20	04-Sep-20	-59.5	0	90.67%
WO.CA.TTA2SP.1320	Construction of PBSH (12nos, Rig 2) (PC59 & PC62)	45.0	56.0	18.0	(6days)	01-Sep-20 A	02-Dec-20	29-Oct-20	19-Nov-20	-11.5	0	60%
WO.CA.TTA2SP.1330	Pile Loading Test	21.0	0.0	21.0	(6days)	03-Dec-20	29-Dec-20	17-Feb-21	13-Mar-21	59.5	0	0%
MPU20201108.7.8.2.15 Wan Po Road		63.0	48.0	15.0	(6days)	10-Sep-20 A	25-Nov-20	14-Sep-20	30-Sep-20	-45.0		
MPU20201108.7.8.2.15.1 Laying of Cable Duct and Earthing Conductor at Portion III (CE030)		63.0	48.0	15.0	(6days)	10-Sep-20 A	25-Nov-20	14-Sep-20	30-Sep-20	-45.0		
WO1299	Ducting Works	9.0	48.0	9.0	(6days)	10-Sep-20 A	18-Nov-20	14-Sep-20	23-Sep-20	-45.0	0	0%
WO1309	Backfilling, Reinstatement of Road Works and Closing of TTA	6.0	0.0	6.0	(6days)	19-Nov-20	25-Nov-20	24-Sep-20	30-Sep-20	-45.0	0	0%
WO1319	Handover to C1 for Power Energization of the E&M Plant Room (CE030)	0.0	0.0	0.0	(6days)		25-Nov-20*		30-Sep-20	-45.0	0	0%
MPU20201108.8 Miscellaneous Works (Portion I, II and III)		939.0	549.0	493.0	(6days)	02-Jan-19 A	11-Jul-22	31-Jul-20	28-Mar-22	-82.5		
MISC4030	Tree Preservation and Protection Works	939.0	549.0	493.0	(6days)	02-Jan-19 A	11-Jul-22	31-Jul-20	28-Mar-22	-82.5	0	47.5%



Actual Level of Effort
Actual Work
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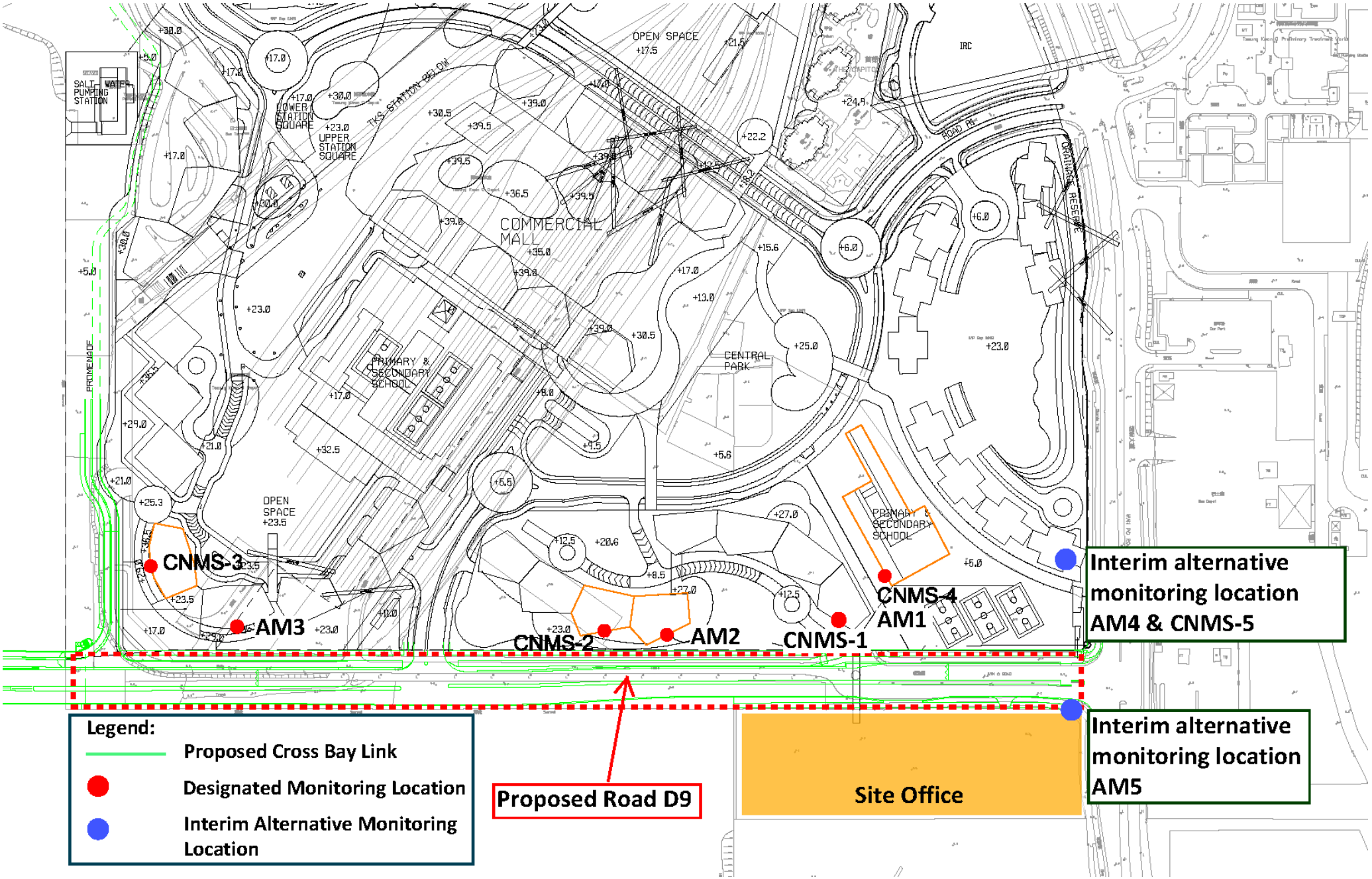
08-Nov-20	Monthly Programme Update (Nov 2020)	TL	StL

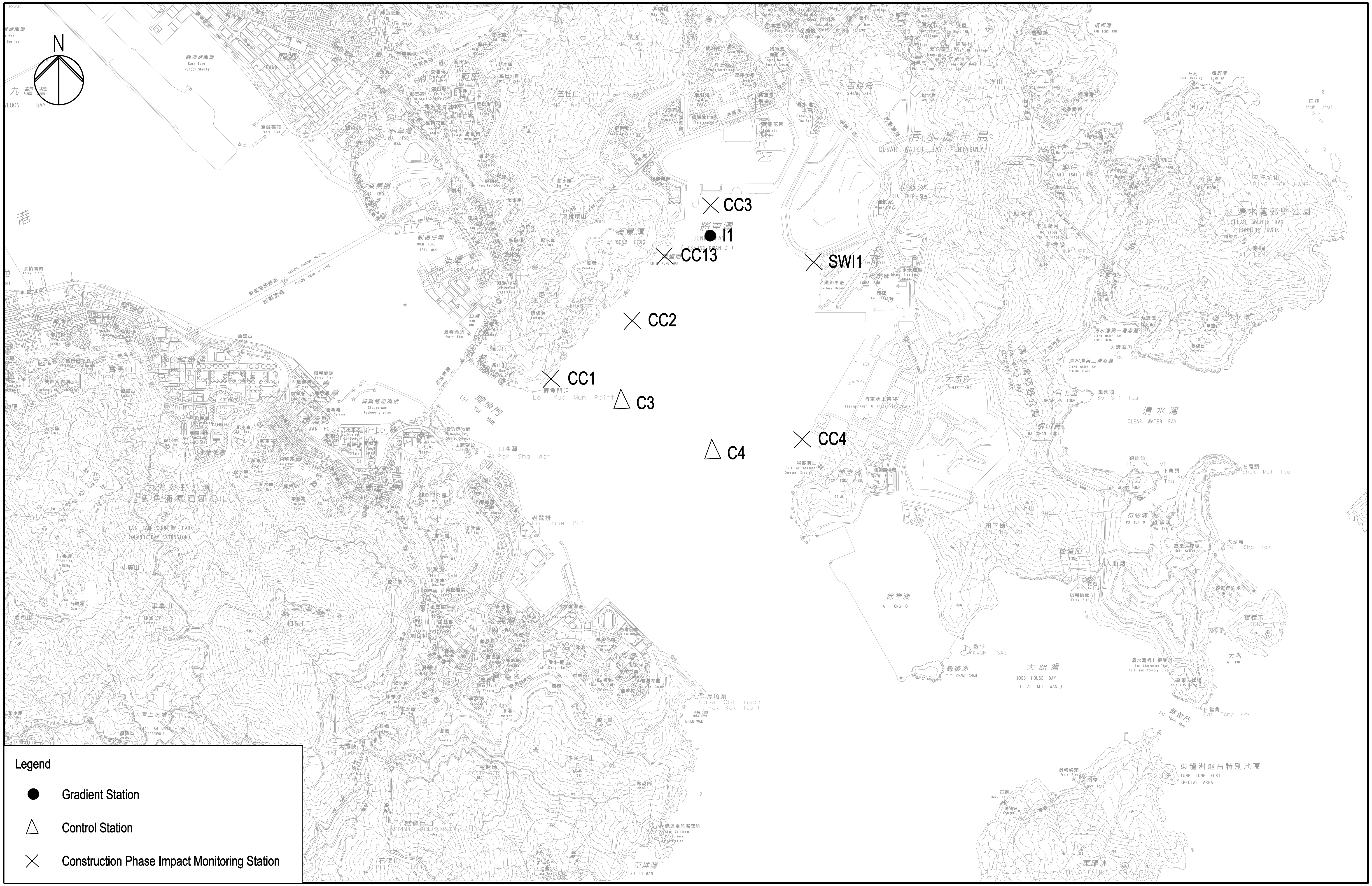
Appendix D

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





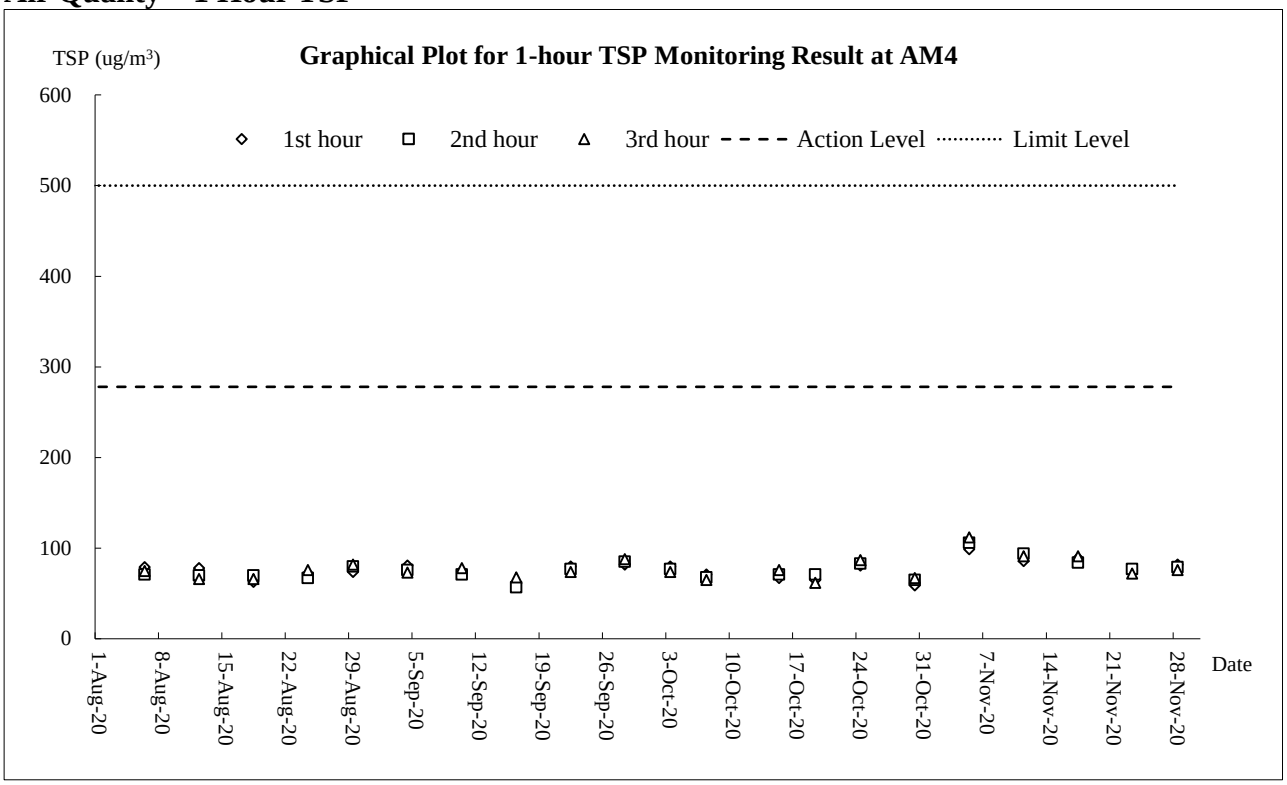
CEDD 土木工程拓展署 Civil Engineering and Development Department	ARUP Ove Arup & Partners Hong Kong Limited	Job Title: **Agreement No. CE 43/2008(HY) Cross Bay Link, Tseung Kwan O - Investigation**	Drawing Title: Locations of Water Quality Monitoring Stations	Drawn: GL; Date: 03/13; Checked: JP; Approved: ST; Scale: 1:30000 (A3)	Drawing No.: 209506/EMA/WQ/001; Status: FINAL; Rev.: C

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

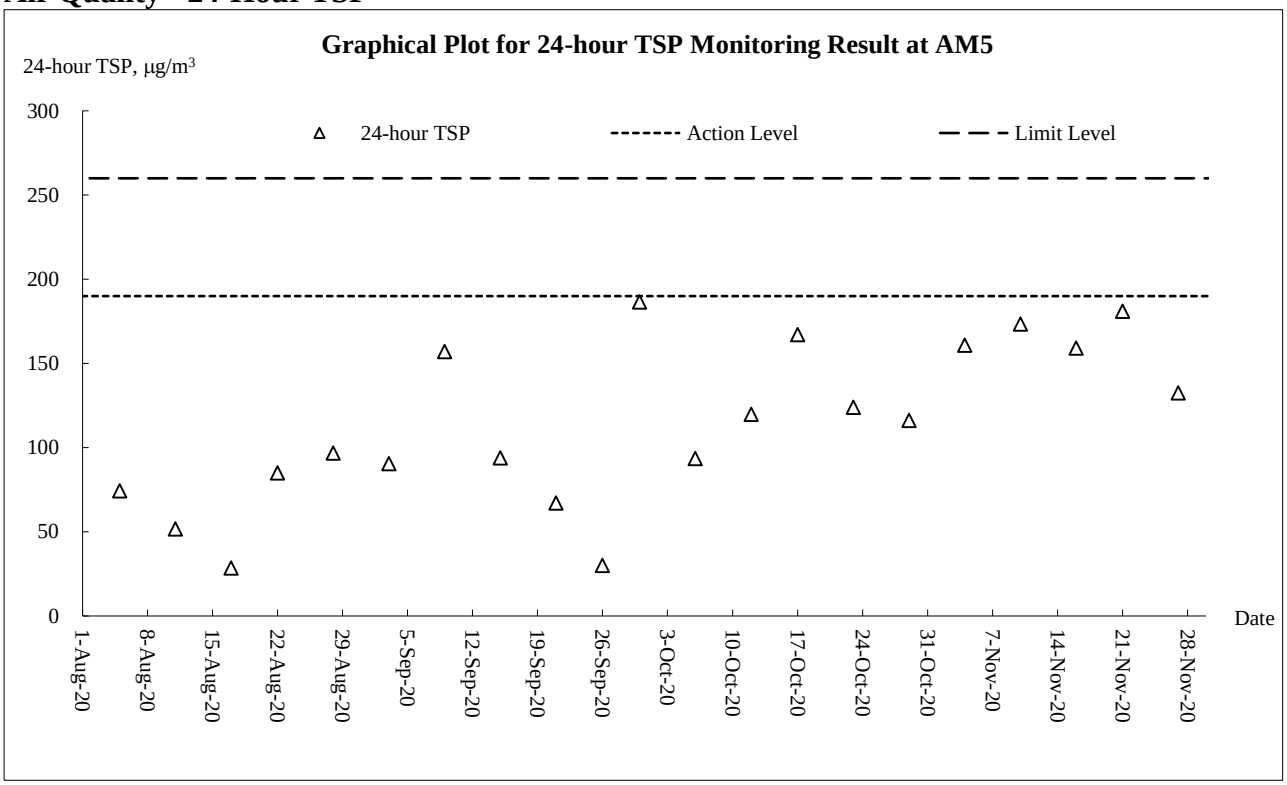
Appendix E

Graphical Plots of Monitoring Results

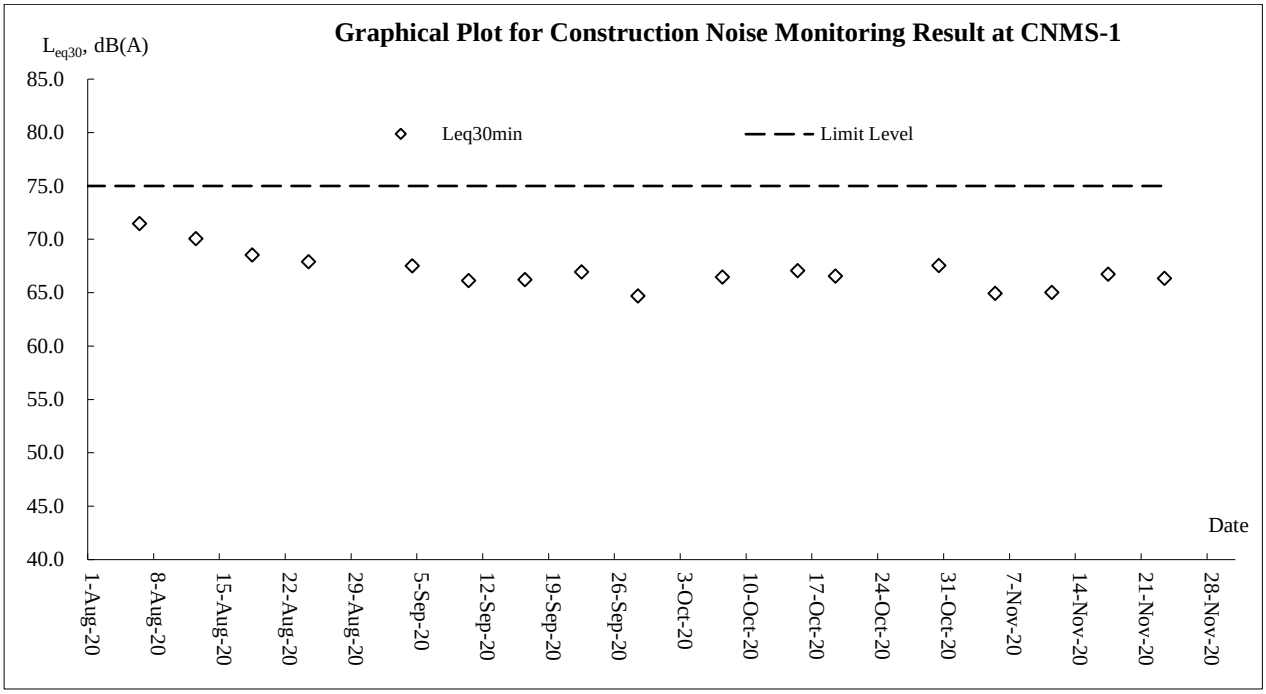
Air Quality – 1 Hour TSP

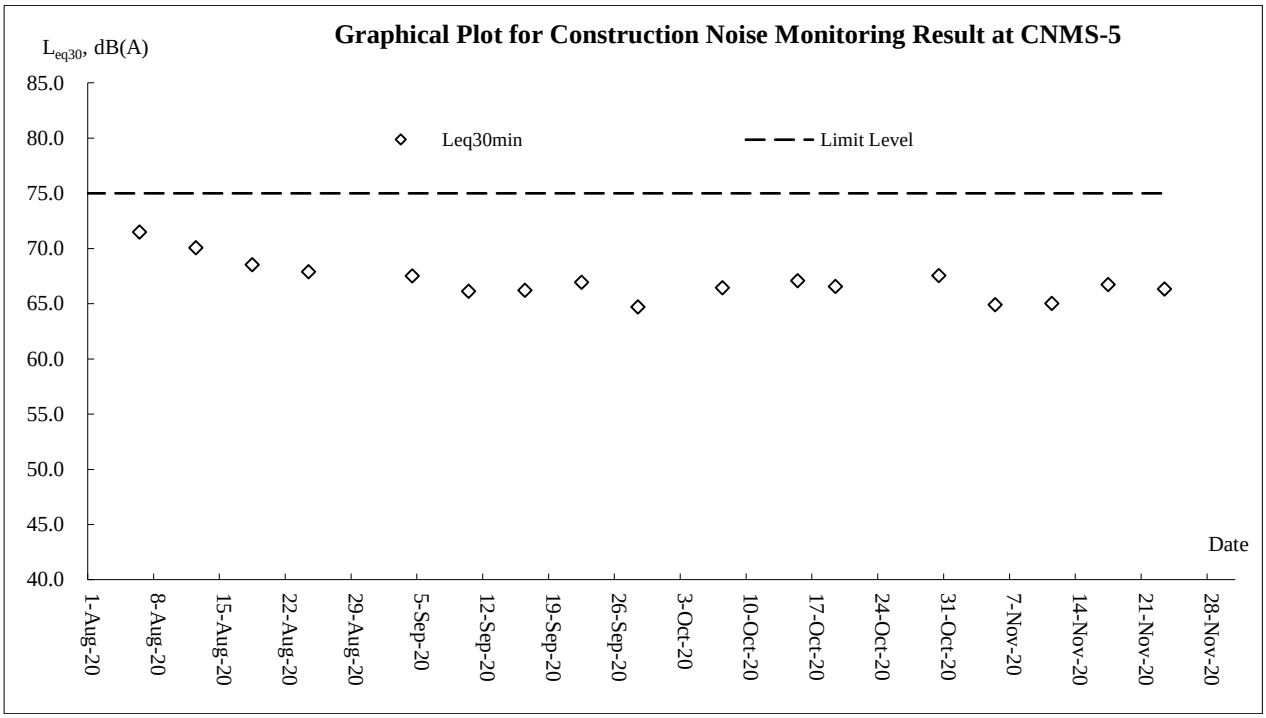


Air Quality - 24-Hour TSP



Construction Noise





Appendix F

Meteorological Information

The weather of September 2020

Mainly attributing to the higher than normal sea surface temperature over the northern part of the South China Sea, September 2020 was hotter than usual in Hong Kong. The monthly mean temperature of 28.4 degrees was 0.7 degree above the normal figure of 27.7 degrees. With more than usual low-level moisture supply from the south over southern China, the month was also much cloudier and wetter than usual. The monthly total rainfall was 708.8 millimetres, about 116 percent above the normal figure of 327.6 millimetres and the sixth highest on record for September. The mean amount of cloud in the month was 78 percent, 12 percent above the normal of 66 percent and one of the third highest on record for September. The duration of bright sunshine in the month was only 131.3 hours, about 24 percent lower than the normal figure of 172.3 hours and the fifth lowest on record for September. The accumulated rainfall up to September this year was 2246.0 millimetres, slightly more than the normal figure of 2233.1 millimetres for the same period.

The weather of October 2020

The mean temperature for October 2020 was 25.6 degrees, close to the normal figure of 25.5 degrees. Mainly attributing to the heavy downpour on 5 October, the month was wetter than usual with the monthly rainfall of 142.4 millimeters, about 41 percent above the normal of 100.9 millimetres. The accumulated rainfall this year up to October was 2388.4 millimetres, about 2 percent above the normal figure of 2334.0 millimetres for the same period.

The weather of November 2020

With the northeast monsoon over southern China generally weaker than normal for most of the time in the month, November 2020 was much warmer than usual in Hong Kong. The monthly mean maximum temperature was 26.4 degrees, 2.3 degrees above the normal figure and the highest on record for November. The monthly mean temperature of 23.5 degrees and mean minimum temperature of 21.7 degrees were respectively 1.7 degrees and 1.9 degrees above their corresponding normal figures and both were the second highest on record for November. Moreover, the autumn mean temperature in Hong Kong for the period from September to November 2020 was 25.8 degrees, 0.8 degrees above the normal figure and one of the fourth warmest autumns on record. The month was also drier than usual with a total rainfall of 5.1 millimetres, about 14 percent of the normal figure of 37.6 millimetres. The accumulated rainfall this year up to November was 2393.5 millimetres, slightly more than the normal figure of 2371.7 millimetres for the same period.

*The detailed meterological data for each successive day can be referred to in the Monthly EM&A Reports (Sep 2020, Oct 2020 and Nov 2020).

Appendix G

Waste Flow Table

Contract 1

Monthly Summary Waste Flow Table for 2020 (year)

Name of Person completing the record: Calvin So (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	1.020	0.000	0.000	0.000	1.020	0.000	0.000	0.088	0.000	0.000	0.100
Feb	0.102	0.000	0.000	0.000	0.102	0.000	0.000	0.095	0.000	0.000	0.073
Mar	0.018	0.000	0.000	0.000	0.018	0.000	0.000	0.073	0.000	0.000	0.092
Apr	0.060	0.000	0.000	0.000	0.060	0.000	0.000	0.090	0.000	0.000	0.133
May	0.180	0.000	0.000	0.000	0.180	0.000	0.000	0.092	0.000	0.000	0.048
Jun	0.006	0.000	0.000	0.000	0.006	0.000	0.000	0.095	0.000	0.000	0.053
Sub-total	1.386	0.000	0.000	0.000	1.386	0.000	0.000	0.533	0.000	0.000	0.499
Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.101	0.000	0.000	0.080
Aug	0.054	0.000	0.000	0.000	0.054	0.000	0.000	0.091	0.000	0.000	0.098
Sep	0.264	0.000	0.000	0.000	0.264	0.000	0.000	0.121	0.000	0.000	0.173
Oct	0.624	0.000	0.000	0.000	0.624	0.000	0.000	0.096	0.000	0.000	0.229
Nov	0.462	0.000	0.000	0.000	0.462	0.000	0.000	0.089	0.000	0.000	0.228
Dec											
Total	2.790	0.000	0.000	0.000	2.790	0.000	0.000	1.031	0.000	0.000	1.307

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 2020 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	1.374	0.000	0.000	0.000	1.374	0.000	0.000	0.000	0.000	0.000	0.019
Feb	1.750	0.000	0.000	0.000	1.750	0.000	0.000	0.000	0.000	0.000	0.004
Mar	3.422	0.000	0.000	0.000	3.422	0.000	0.000	0.000	0.000	0.000	0.013
Apr	6.641	0.000	0.000	0.000	6.641	0.000	0.000	0.000	0.000	0.000	0.035
May	2.256	0.000	0.000	0.000	2.256	0.000	0.000	0.000	0.000	0.000	0.052
June	0.397	0.000	0.000	0.000	0.397	0.000	0.000	0.000	0.000	0.000	0.019
SUB-TOTAL	15.841	0.000	0.000	0.000	15.841	0.000	0.000	0.000	0.000	0.000	0.141
Jul	0.563	0.000	0.000	0.000	0.563	1.425	0.000	0.000	0.000	0.000	0.018
Aug	0.604	0.000	0.000	0.000	0.604	1.024	0.000	0.000	0.000	0.000	0.022
Sep	0.547	0.000	0.000	0.000	0.547	0.672	0.000	0.045	0.010	0.000	0.040
Oct	1.448	0.000	0.000	0.000	1.448	0.802	0.005	0.050	0.015	0.015	0.026
Nov	2.152	0.000	0.000	0.000	2.152	0.570	0.003	0.050	0.005	0.000	0.008
Dec											
TOTAL	21.155	0.000	0.000	0.000	21.155	4.493	0.008	0.145	0.030	0.015	0.255

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 H

Complaint Summary

Log ref.	Date of Complaint	Date of Received by ET	Complaint Location	Complainant	Complaint nature	Channel	Ref. no.	Complaint details	Follow up action
1	Not provided	14-Mar-19	Junk Bay	Unwilling to disclose	Marine Water	EPD	N08/RE/00007432-19	The complainant said muddy water and mud was discharged from work barges under CBL between 7:00 - 10pm. The complainant said he observed the act during his recent fishing activities in the nearby area.	According to ET's investigation, Contractor of Contract 1 (CRBC) had provided proper water mitigation measures to minimize the water impact of marine piling work to the nearby waterbody. No abnormal and turbid water discharged from site was observed and no exceedance was recorded from the marine water impact quality monitoring. Nevertheless, the Contractor of Contract 1 was reminded to strictly implement all the water mitigation measures as stated in EP and EM&A Manual and ET will keep closely inspect the site condition in subsequent weekly site inspection. .
2	4-Jan-20	9-Jan-20	Wan O Road	Unwilling to disclose	Noise	CEDD	NA	The Complainant complained about the noise nuisance generated by road breaking work at Wan O Road	As advised by the Contractor of Contract 2 - NE/2017/08 (Build King), road breaking work was commenced at Wan O Road on 4 January 2020 morning. The work involved one road breaker to conduct the breaking activity which generate noise impact. Noise mitigation measure such as wrapped the head of the breaker with acoustic material was implemented on the day of complaint received to minimize the impact to resident nearby. Movable noise barrier was provided on site, but it was not adopted due to miscommunication of workers. Upon received the complaint on 4 January 2020, Build King has immediately adopted the movable noise barrier for road breaking work as noise mitigation measure to minimize the noise impact.
3	15-Jan-20	15-Jan-20	Wan O Road	Unwilling to disclose	Noise	CEDD	NA	The Complainant complained about the noise nuisance generated by road breaking work at Wan O Road	As advised by the Contractor, the movable noise barrier was not immediately adopted after relocation of the road breaker on 15 January 2020. Upon received the complaint, the Contractor has immediately adopted the noise barrieras noise mitigation measure for the road breaking work to minimize the noise impact In addition, the Contractor has issued a warning letter to the relevant subcontractor for poor environmental performance and requested their worker to strictly implement theuse of movable noise barrier. In order to prevent the incident happens again, ET also advised that the Contractor should dedicate a worker to ensure the noise barrier is implemented prior to road breaking activities.
4	25-Feb-20	26-Feb-20	Works Area A	Unwilling to disclose	Noise	CEDD	NA	The Complainant complained about the noise nuisance caused by hammering/chiseling works at Works Area A	As advised by the Contractor of Contract 1 - NE/2017/07 (CRBC), hammering/chiseling works for drilling platform maintenance was conducted at Works Area A on 25 February 2020 morning and no Powered Mechanical Equipment (PME) was involved. Upon received the complaint, CRBC has stopped the relevant work immediately. In order to minimize the noise nuisance caused by the hammering work, CRBC decided to relocate the hammering work from Works Area A to the marine working area which is far away from the residential areas. CEDD replied the complainant on 25 February 2020 and the complainant was satisfied with the proposed mitigation measure.
5	15-Mar-20	18-Mar-20	Junk Bay	Unwilling to disclose	Noise	EPD	NA	The Complainant complained about the construction noise from Junk Bay	As advised by the Contractor of Contract 1 – Contract No. NE/2017/07 (CRBC), their workers reported for duty around 08:00 on 15 March 2020. The workers were standby on a flat top barge in which a precast unit was temporarily stored and waited for the mobilization of crane barge to carry out lifting operation of the precast unit. No hammering work nor other noisy work activity was carried out on the flat top barge in the complaint period. In addition, no Powered Mechanical Equipment (PME) was used until the crane barge was mobilized for lifting operations between 15:00 and 19:00. RSS checked their own records and confirmed that there was no operation of PME in Junk Bay before 09:00 on 15 March 2020. The complaint was considered not related to the Project since there is no operation of PME during the complaint period.
6	2-Apr-20	7-Apr-20	Lohas Park Station Exit A and TKO Salt Water Pumping Station	Unwilling to disclose	Construction Dust	CEDD	NA	The Complainant complained about the dump truck tracking mud on the road adjacent to Lohas Park Station Exit A and TKO Salt Water Pumping Station at approximately 09:50 that morning.	Joint site inspection among the Supervisor, the Contractor, ET and IEC was also carried out on 8 April 2020 to inspect the environmental performance of the construction site. Proper wheel washing facilities was provided at the site entrance near the Lohas Park Station Exit A and all the vehicle were properly washed prior leaving the site. No tracking mud was observed at the complaint location during the site inspection. As advised by RSS, it is confirmed by MTRCL that the complaint location was under MTRCL management and the tracking mud issue was followed up by MTRCL.
7	20-Apr-20	6-May-20	Junk Bay	Lui Man Kwong, Member fo Sai Kung District Council	Noise	CEDD	TKO-MK-200421-(R)-1289	The Complainant complained about the noise nuisance generated by construction works from Junk Bay on 20 April 2020 around 6 a.m. to 7 a.m.	As advised by the Contractor of Contract 1 – Contract No. NE/2017/07 (CRBC), there was no marine work carried out at Junk Bay from 06:00 to 07:00 on 20 April 2020 as their workers reported for duty after 08:00 on that day. RSS checked their own records and confirmed that there was no marine work was carried out at Junk Bay before 08:00 on 20 April 2020.

8	5-May-20	6-May-20	General	Unwilling to disclose	Construction Dust, Noise, Wastewater	CEDD	NA	The Complainant complained about the noisenuisance generated by evening works, the wastewater generated from site are not well treated, and the dust generation caused by the construction work.	During the regular joint site inspection among the Supervisor, the Contractor and ET carried out in the past few weeks, it was observed that construction dust and wastewater mitigation measures were implemented properly in both Contracts of the Project. In addition, according to the evening noise monitoring conducted in the past month, the evening noise measurement results were found within the range of the baseline noise monitoring results, which implies that the construction noise from evening works was insignificant. It is considered the complaint is not project related.
9	23-Jul-20	23-Jul-20	Junk Bay	Resident of Ocean Shores	Light Nuisance	CEDD	NA	The Complainant complained about the light nuisance caused by the 4000 tone crane barge during the evening on 22 July 2020.	According to the works schedule of Contract 1, no marine work was conducted on 22 July 2020 evening. The Contractor of Contract 1 (CRBC) advised that the illumination (e.g. flashlight, headlight) on the crane barge is required for safety reason - to keep the barge being visible and to avoid collision by other marine vessel. In order to minimize the light nuisance to the public, it is agreed by CRBC that the illumination on the crane barge will be kept to a minimum in the evening. It is considered the complaint is not project related.
10	28-Jul-20	28-Jul-20	Wan O Road	Resident of Lohas Park Phase 4	Noise	CEDD	NA	The complainant complained about the noise nuisance caused by breaking work at Wan O Road at approximately 10:00am on 28 July 2020.	As advised by the Contractor of Contract 2 – NE/201708 (Build King), breaking work was carried out at Wan O Road at the complaint period and movable noise barrier as noise mitigation measure was implemented during the road breaking work. Noise monitoring was conducted by Build King on 30 July 2020 during the breaking work, the monitoring result did not exceeded the limit level 75dB(A) which revealed that the construction noise received at representative NSR were within acceptable level. Noise monitoring was also conducted by ET on 31 July 2020 and no limit level exceedance was record. It is considered the complaint is related to the Project. However, noise mitigation measure was implemented by Build King during the complaint period.
11	23-Jul-20	13-Aug-20	Junk Bay	Resident of Ocean Shores	Noise	EPD	NA	The Complainant complained about the noise nuisance caused by the 4000 tone crane barge during the restricted hours on 23 July 2020.	According to the works schedule of Contract 1, no marine work was conducted between 22 July 2020 19:00 and 23 July 2020 08:00. RSS checked their own records and confirmed that there was no marine work carried out at Junk Bay between 22 July 2020 19:00 and 23 July 2020 08:00. It is considered the complaint is not related to the Project since no marine work was carried out by CRBC during the reporting period
12	24-Aug-20	26-Aug-20	Junk Bay	Ocean Shores Owner's Committee Chairman Chan Kai Wai	Noise	CEDD	NA	The Complainant complained about the operation of derrick barge at Junk Bay on Sunday	As advised by the Contractor of Contract 1 – Contract No. NE/2017/07 (CRBC), working platform setup work was carried out at pier W4 on 23 August 2020. One derrick barge was used for lifting work between 09:00 - 11:30. During the working platform setting up work, only lifting of platform material was carried out by the derrick barge at V-pier W4. Bolt and nut tightening work for the working platform was then carried out by the workers at pier W4. No hammering work was carried out on 23 August 2020. According to the issued Construction Noise Permit (CNP) GW-RE0438-20, derrick barge (group A, D, E of the PME listed in condition 3a of the CNP) is allowed to be operated on general holiday (including Sunday) 09:00 – 20:00. The operation of the derrick barge on 23 August 2020 was within the permitted hours. It is considered the complaint is related to the Project. However, the Contractor did not breach the requirement stated in the issued CNP with the use of one derrick barge on Sunday and no noise nuisance should be generated by the bolt and nut tightening work performed on 23 August 2020.
13	24-Aug-20	26-Aug-20	Junk Bay	Mr Lee	Noise	CEDD	NA	The Complainant complained about the noise nusiance generated by hammering works on the derrick barge at Junk Bay on Sunday. He also enquiry whether the Construction Noise Permit will be displayed at the site entrance.	As advised by the Contractor of Contract 1 – Contract No. NE/2017/07 (CRBC), working platform setup work was carried out at pier W4 on 23 August 2020. One derrick barge was used for lifting work between 09:00 - 11:30. During the working platform setting up work, only lifting of platform material was carried out by the derrick barge at V-pier W4. Bolt and nut tightening work for the working platform was then carried out by the workers at pier W4. No hammering work was carried out on 23 August 2020. According to the issued Construction Noise Permit (CNP) GW-RE0438-20, derrick barge (group A, D, E of the PME listed in condition 3a of the CNP) is allowed to be operated on general holiday (including Sunday) 09:00 – 20:00. The operation of the derrick barge on 23 August 2020 was within the permitted hours. In addition, the issued CNP was displayed at the site entrance at Wan O Road for public inspection. It is considered the complaint is not related to the Project since no hammering work was carried out during the complaint period

14	14-Sep-20	15-Sep-20	Junk Bay	Unwilling to disclose	Water Quality	1823	NA	The Complainant complained about the suspected pollutant spilled at Junk Bay from the roro barge of the Project	RSS noted the presence of the pollutant on 12 September 2020 at around 11:35 a.m. Trace of pollutant discharge was also found from the box culvert near the complaint location. Catch pits at the site office and at Wan O Road were checked once the pollutant was spotted on 12 September 2020. The catch pits were found clean and no pollutant discharge was found. In addition, no pollutant was observed during the operation of the roro barge. Joint site inspection among the Site Supervisor, the Contractors and ET was carried out on 16 September 2020. No marine pollutant was spotted at the complaint location and from the box culvert. In addition, discharge points of Contract 2 at Wan O Road were inspected and no trace pollutant discharge was observed. The IR revealed that the complaint is not related to the Project since the source of pollutants in the box culvert should be outside the site area of the Project, and there is no trace of pollutant discharged from the construction site and the roro barge.
15	20-Sep-20	21-Sep-20	Junk Bay	Unwilling to disclose	Noise	CEDD	NA	The Complainant complained about the noise nuisance generated from the construction work conducted on 20 September 2020 at Junk Bay	As advised by the Contractor of Contract 1 – Contract No. NE/2017/07 (CRBC), concrete disposal and tidy up work were carried out at pier W1 on 20 September 2020. One derrick barge was used for lifting of concrete debris and formwork at pier W1. No concrete breaking was carried out on 20 September 2020 morning and no electric breaker and backhoe was used. According to the issued Construction Noise Permit (CNP) GW-RE0438-20, derrick barge (group A, D and E of the PME listed in condition 3a of the CNP) is allowed to be operated on general holiday (including Sunday) 09:00 – 20:00. The operation of the derrick barge on 20 September 2020 was within the permitted hours. In the view of the works carried out on 20 September 2020, the operation of derrick barge is considered as the only noise source from Cross Bay Link Project and the noise impact should not be significant to the surrounding NSRs since the pier W1 is located far away (over 900m away to Ocean Shores). Investigation indicated that the complaint is unlikely related to the Project since the noise generated from the derrick barge should be insignificant as the marine work area is located far away from the surrounding NSRs.
16	18-Oct-20	27-Oct-20	Work Area A	Unwilling to disclose	Noise	EPD	NA	The Complainant complained about the noise nusiance generated by Power Mechanical Equipment such as bar bender and cutter at Works Area A (Working Area 2 of the CNP) at around 09:00 and 17:30 on 18 October 2020 (Sunday)	As advised by the Contractor of Contract 1 – Contract No. NE/2017/07 (CRBC), stainless steel rebar cutting work with the use of grinder was performed at the complaint location by two workers without notification to CBRC and RSS on 18 October 2020 at around 09:00 hours. The rebar cutting work was spotted by RSS at around 09:15 hours and was stopped immediately. No rebar cutting work was believed to be carried out at 17:30 hours as these two workers were off-duty at 17:00 hours. According to the issued CNP GW-RE0819-20, the use of grinder is not allowed to be operated at working area 2 during restricted hours. A permit to work system had been implemented to ensure Contractor and RSS were notified in advance of any construction work during restricted hours, but the information may not have been properly delivered to frontline staff. After the incident was happened, a series of follow-up action were implemented by CRBC to ensure no prohibited construction work would be performed during restricted hours. The IR revealed that the complaint is related to the Project since stainless steel rebar cutting work was performed with the use of grinder in the complaint period. However, this should be a single incident and CRBC has carried out follow-up action to prevent the incident to be happened again.
17	27-Nov-20	27-Nov-20	D9 Road	Anonymous	Noise	1823	NA	The Complainant complained about the noise nuisance and the mosquito issue generated from the construction site at D9 Road.	As advised by the Contractor of Contract 2 (Build King), pre-bored socketed H-piling work was carried out at Wan O Road near Lohas Park Phase 4 while no construction work was carried out at Wan O Road near Lohas Park Phase 2A on 27 November 2020.Noise mitigation measure such as erecting noise barrier was properly implemented by the Contractor during operation of pre-bored socket H-piling work near Lohas Park Phase 4. According to the recent noise monitoring event held at Lohas Park Phase 4 during the operation of the pre-bored socket H-piling work, the obtained monitoring result Leq30min is well below the noise criteria 75 db(A). This implies that the noise impact generated from the pre-bored socketed H-piling work should be acceptable at Lohas Park Phase 4. The IR revealed that the complaint is related to the Project. However, noise mitigation measure was implemented properly by the Contractor and no exceedance of noise monitoring result was recorded during the operation of the piling work. Nevertheless, the Contractor was reminded to implement the noise mitigation measures as far as practicable to reduce noise impact to the public.

Appendix I

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

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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

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	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

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	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

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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

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	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

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	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

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	• 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

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		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	

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	• 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	

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	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)

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	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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	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