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

(JUNE TO AUGUST 2020)

PREPARED FOR
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT (CEDD)

Date	Reference No.	Prepared By	Certified By
20 October 2020	TCS00975/18/600/R0461v2		
		Martin Li (Environmental Consultant)	Tam Tak Wing (Environmental Team Leader)

Version	Date	Remarks
1	22 September 2020	First Submission
2	20 October 2020	Amended against IEC's comments

Our ref: IECL20201102-1

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 November 2020

Dear Sir,

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

I refer to the email of ET concerning the Quarterly EM&A Report for June to August 2020 (Version 2) with Ref. No. TCS00975/18/600/R0461v2. We 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 **7th** Quarterly EM&A report presenting the monitoring results and inspection findings for the reporting period from **1st June 2020** to **31st August 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)		22
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 and one (1) nighttime construction noise action level exceedance were recorded in the reporting period. In addition, seventeen (17) 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	Although complaints are related to the Project, however, the Contractor did not breach the CNP requirement with use of one derrick barge on restricted hour.
	Leq_{5min} Evening	0	**17**	Not project related	NA
	Leq_{5min} Nighttime	**1**	0	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 Five (5) 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 June – 31 August 2020	1	4	9	Construction Dust, Light Noise and Wastewater	Two Project Related
	2	1	4	Construction Dust	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 June – 31 August 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 June – 31 August 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 17 July 2020 and 20 August 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 **7th** Quarterly EM&A report presenting the monitoring results and inspection findings for the reporting period from **1st June 2020** to **31st August 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:-

- Precast shell, pile and box girder Installation at Portion II
- 1st and 2nd Stage of Pile caps concreting work at Portion II
- Fabrication of bottom deck panels, top deck panels and diaphragm panels at Portion II
- Fabrication of arch panel at Portion II
- ABWF work at Portion V
- E&M installation at Portion V
- Precast pier installation work at Portion II

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

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

- Pre-bored Socket H-Pile (Portion VI)
- Excavation (Portion VI)
- Sheet Pilling (Portion VI)
- Drainage Installation (Portion VI)
- Footing construction(Portion VI)
- Excavation & RC works (Superstructure) (Portion III)
- Trimming Bored pile head (Portion VI)
- RC construction for U-trough(Portion III)
- Pavement breaking work(Portion VI)

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	38	83	67			
Record Date	31-Jul-20	14-Jul-20	48 events			
AMS-5				20	97	56
Record Date				7-Jul-20	28-Aug-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 ***11*** 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 ***11*** 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	63.9	70.5	67.8
Record Date	31-Jul-20	6-Aug-20	13 sessions
CNMS-5	65.0	72.0	68.0
Record Date	20-Jul-20	31-Jul-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 Four (4) environmental complaints regarding construction noise were received in the Report Period, therefore four (4) 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	49.6	58.0	54.3
Record Date	8-Apr-20	28-May-20	7 sessions
CNMS-5	59.6	65.0	61.8
Record Date	17-Mar-20	31-Mar-20	7 sessions

4.2.4 A total of seventeen (17) 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
		Jun 2020	Jul 2020	Aug 2020	
Total Generated C&D Materials (Inert) (in '000m^3)	1	0.006	0	0.054	TKO 137
	2	0.397	1.988	1.628	
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	0.006	0	0.054	TKO 137
	2	0.397	0.563	0.604	
Imported Fill ('000m^3)	1	0	0	0	-
	2	0	1.425	1.024	-

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

Type of Waste	Contract No	Quantity			Disposal Location
		Jun 2020	Jul 2020	Aug 2020	
Recycled Metal ('000kg)	1	0	0	0	-
	2	0	0	0	
Recycled Paper / Cardboard Packing ('000kg)	1	0.095	0.101	0.091	Licensed collector
	2	0	0	0	
Recycled Plastic ('000kg)	1	0	0	0	-
	2	0	0	0	
Chemical Wastes ('000kg)	1	0	0	0	-
	2	0	0	0	
General Refuses ('000m^3)	1	0.053	0.080	0.098	NENT
	2	0.019	0.018	0.022	

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
June 2020	3, 10, 17 & 24 June 2020	4	Completed
July 2020	2, 9, 15, 22 & 29 July 2020	5	Completed
August 2020	5, 12, 20 & 26 August 2020	3	Completed

6.2.2 In the Reporting Period, no non-compliance was recorded for Contract 1; however, ***12*** 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
June 2020	3, 10, 17 & 24 June 2020	4	Completed
July 2020	2, 7, 15, 22 & 29 July 2020	8	Completed
August 2020	5, 12, 20 & 26 August 2020	4	Completed

6.2.4 In the Reporting Period, no non-compliance was recorded for Contract 2; however, ***16*** 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 *77* 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)	0.1%	0.1%
Oxygen	<19%	<18%	20.0%	22.0%
Carbon Dioxide	>0.5%	>1.5%	0.1%	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, five (5) environmental complaints were received with respect to the construction noise and light 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 June 2020	1	0	5	NA
1 – 31 July 2020		1	6	Light
1 – 31 August 2020		3	9	Noise
1 – 30 June 2020	2	0	3	NA
1 – 31 July 2020		1	4	Noise
1 – 31 August 2020		0	4	NA

Table 8-2 Statistical Summary of Environmental Summons

Reporting Period	Contract	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
1 – 30 June 2020	1	0	0	NA
1 – 31 July 2020		0	0	NA
1 – 31 August 2020		0	0	NA
1 – 30 June 2020	2	0	0	NA
1 – 31 July 2020		0	0	NA
1 – 31 August 2020		0	0	NA

Table 8-3 Statistical Summary of Environmental Prosecution

Reporting Period	Contract	Environmental Complaint Statistics		
		Frequency	Cumulative	Complaint Nature
1 – 30 June 2020	1	0	0	NA
1 – 31 July 2020		0	0	NA
1 – 31 August 2020		0	0	NA
1 – 30 June 2020	2	0	0	NA
1 – 31 July 2020		0	0	NA
1 – 31 August 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 7th Quarterly EM&A report as presented the monitoring results and inspection findings for the reporting period from ***1st June 2020*** to ***31st August 2020.***

10.1.2 In the Reporting Period, three (3) daytime and one (1) nighttime construction noise action level were recorded. In addition, seventeen (17) 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.

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, five (5) environmental complaints were received with respect to the construction noise and light 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.

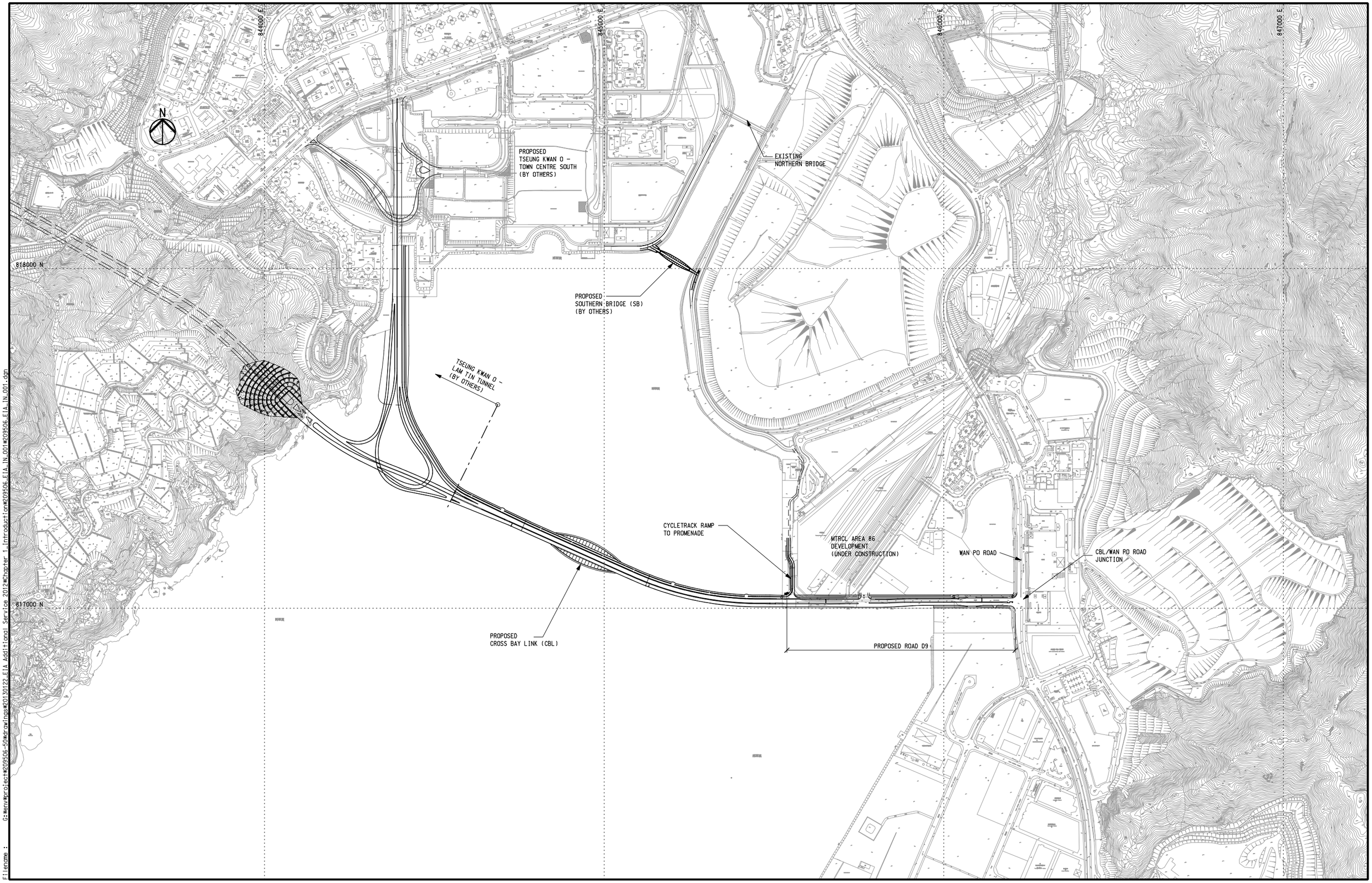
10.2 RECOMMENDATIONS

10.2.1 Due to the wet season has begun in Hong Kong, the Contractors were reminded that all the works to undertaking must fulfill environmental statutory requirements and to paid attention to water quality mitigation measures to prevent surface runoff into nearby water bodies to public areas.

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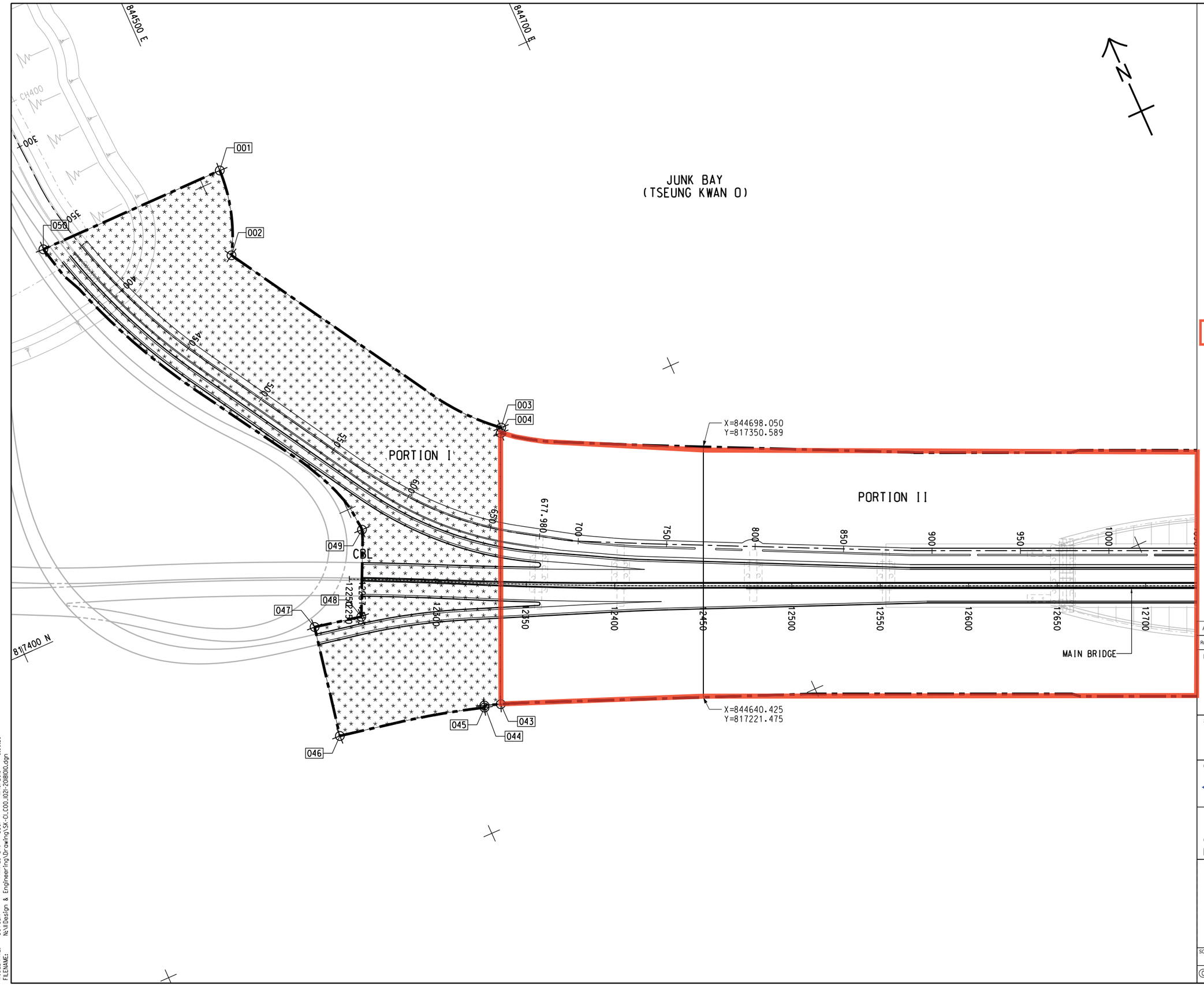
CEDD 土木工程拓展署 Civil Engineering and Development Department	ARUP Ove Arup & Partners Hong Kong Limited	Job Title: **Agreement No. CE 43/2008(HY) Cross Bay Link, Tseung Kwan O – Investigation**
Drawing Title: GENERAL LAYOUT PLAN		

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

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



NOTES:

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

LEGEND:

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

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

PROJECT MANAGER:

PROJECT MANAGER:

土木工程拓展署
Civil Engineering and Development Department

SUPERVISOR:

AECOM

CONTRACTOR:

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

CONTRACT NO. AND TITLE:

Contract No. NE/2017/07

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

DRAWING TITLE:

SCALE @ A1
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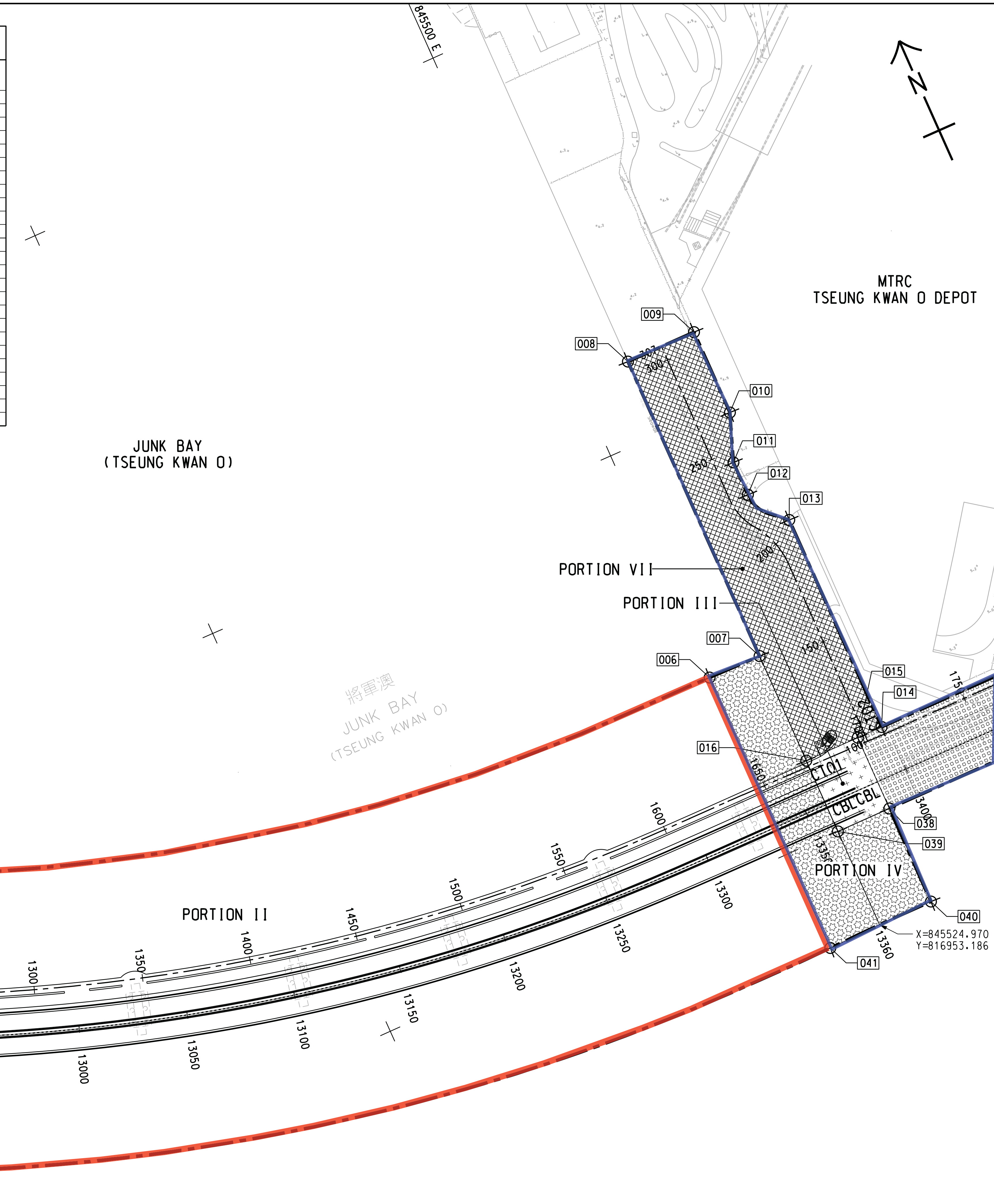
SETTING OUT POINTS		
POINTS	EASTING	NORTHING
001	844512.175	817604.422
002	844498.695	817557.993
003	844598.186	817407.065
004	844596.769	817404.339
005	845132.374	817153.641
006	845500.00	817088.580
007	845524.969	817088.226
008	845524.909	817236.307
009	845558.095	817236.307
010	845558.095	817195.885
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



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

DRAWING TITLE:

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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

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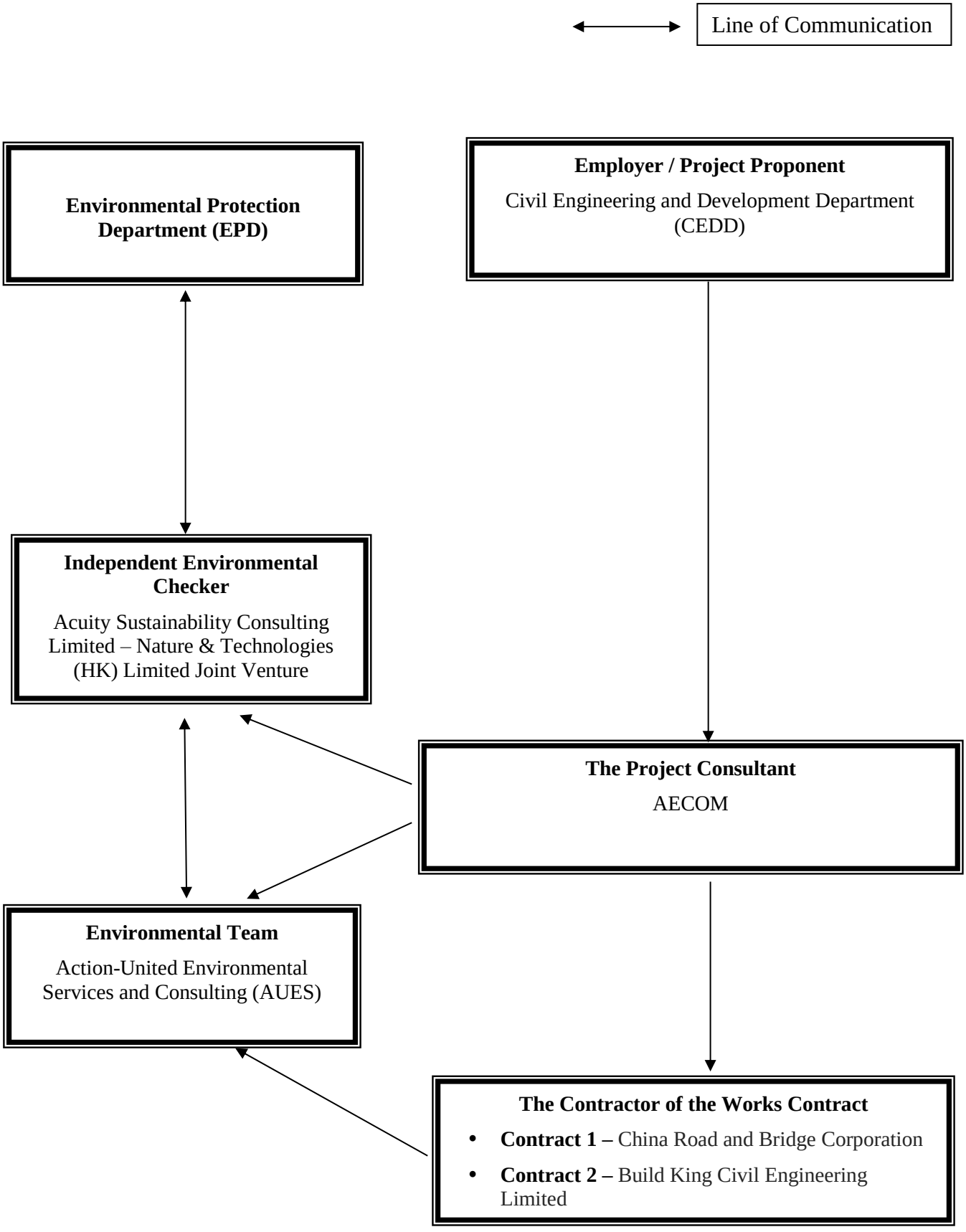
Appendix B

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

Data Date : 08-Aug-20

Page: 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		1660	888	29-Jun-18 A	29-Jun-18	13-Jan-23	13-Jan-23	312			0
Executive Summary Programme		1660	888	29-Jun-18 A	29-Jun-18	13-Jan-23	13-Jan-23	312			0
ESP Section 2 of Works-All Works within Portion II,III,IV and VI		1416	888	17-Sep-18 A	28-Feb-19	13-Jan-23	13-Jan-23	-335			0
ESP10920	CBL Main Bridge and Marine Viaduct	1240	888	17-Sep-18 A	28-Feb-19	13-Jan-23	21-Jul-22	-335	28.39%	0	-176
ESP10980	Pile Cap	321	108	23-Jul-19 A	08-Aug-19	24-Nov-20	23-Jun-20	-6	66.36%	0	-154
ESP11000	Pier	221	123	16-Mar-20 A	09-Mar-20	09-Dec-20	15-Oct-20	54	44.34%	0	-55
ESP11080	Concrete Bridge Decks	395	348	05-Jun-20 A	09-Jul-20	22-Jul-21	07-Aug-21	6	11.9%	0	16
ESP11160	E&M Works for CBL Main Bridge and Marine Viaduct	887	887	10-Aug-20	09-Jul-20	13-Jan-23	13-Jan-23	-335	0%	0	0
ESP Section 5 of the Works-All Works within Portion V (CBL E&M Plantroom)		343	157	22-Jan-20 A	13-Feb-20	12-Jan-21	17-Dec-20	0			-26
ESP11280	Architectural & External Works	153	28	22-Jan-20 A	13-Feb-20	05-Sep-20	14-Jul-20	5	81.7%	0	-53
ESP11300	E&M Works and FSD Inspection	159	157	30-Jul-20 A	15-Jul-20	12-Jan-21	17-Dec-20	0	1.26%	0	-26
Access Date		0	0	18-Aug-20	18-Aug-20	18-Aug-20	18-Aug-20	0			0
ESP10100	Access Date of Portion III	0	0	18-Aug-20*	18-Aug-20			0	0%	0	0
ESP10120	Access Date of Portion IV	0	0	18-Aug-20*	18-Aug-20			0	0%	0	0
Preliminaries, Contractor's Design & Method Statement Submission & Approval		1161	389	29-Jun-18 A	29-Jun-18	01-Sep-21	01-Sep-21	811			0
ESP10400	Temporary Works Design	695	226	13-Aug-18 A	13-Aug-18	22-Mar-21	07-Jul-20	0	67.48%	0	-258
ESP10420	Method Statement Submission for Major Construction Works	736	53	27-Aug-18 A	27-Aug-18	30-Sep-20	31-Aug-20	115	92.8%	0	-30
ESP10440	Contractor's Design Submission and Approval	869	329	06-Aug-18 A	06-Aug-18	03-Jul-21	21-Dec-20	23	62.14%	0	-194
ESP10480	General Submission	843	71	29-Jun-18 A	29-Jun-18	18-Oct-20	18-Oct-20	58	91.58%	0	0
ESP10500	Project Manager's Acceptance of Subcontractors	556	41	14-Aug-18 A	21-Feb-19	18-Sep-20	29-Aug-20	315	92.63%	0	-20
ESP10560	Procurement, Factory Acceptance Test, Delivery and Temporary Storage of Major E&M Equipment	0	0	13-May-20 A	09-Jun-20	09-Aug-20	09-Jun-20	1200	0%	0	-61
ESP10580	Precasting of Precast Segments (TKOI Entrustment Works)	371	371	27-Aug-20	27-Aug-20	01-Sep-21	01-Sep-21	0	0%	0	0
ESP10600	Precasting of Precast Shell	745	312	08-Nov-18 A	28-Apr-19	16-Jun-21	11-May-21	0	58.12%	0	-36
ESP10620	Fabrication of Precast Box Girder	713	165	10-Nov-18 A	13-May-19	20-Jan-21	24-Apr-21	48	76.86%	0	94
ESP10640	Fabrication of Steel Arch Bridge and Side Spans	623	198	28-Mar-19 A	08-Apr-19	22-Feb-21	20-Dec-20	-204	68.22%	0	-64
Access Date		0	0	18-Aug-20	18-Aug-20	18-Aug-20	18-Aug-20	0			0
PAD1050	Portion III	0	0	18-Aug-20*	18-Aug-20			0	0%	0	0
PAD1070	Portion IV	0	0	18-Aug-20*	18-Aug-20			0	0%	0	0
Procurement and Manufacture E&M Equipments		161	110	13-May-20 A	09-Jun-20	18-Dec-20	17-Nov-20	247			-27
Procurement and Manufacture		161	110	13-May-20 A	09-Jun-20	18-Dec-20	17-Nov-20	247			-27
P-PC10120	Procurement and Manufacture of LV Switch Board	127	80	13-May-20 A	09-Jun-20	13-Nov-20	09-Nov-20	6	37.01%	0	-4
P-PC10160	Procurement and Manufacture of Generator	102	96	01-Jul-20 A	09-Jun-20	02-Dec-20	09-Oct-20	236	5.88%	0	-45
P-PC10180	Procurement and Manufacture of UPS	76	76	18-Sep-20	18-Aug-20	18-Dec-20	17-Nov-20	247	0%	0	-27
Preliminaries, Contractor's Design & Method Statement Submission & Approval		682	226	05-May-19 A	28-May-19	22-Mar-21	08-Mar-21	130			-14
Temporary Works Design		364	193	13-Jan-20 A	10-Feb-20	22-Mar-21	08-Mar-21	0			-12
TDS2100	Design of temporary falsework and formwork for in-situ stitch for marine viaducts (incl. 35 days TRA)	81	66	27-Jul-20 A	04-Dec-20	22-Mar-21	08-Mar-21	0	18.52%	35	-12
TDS2140	Design of temporary works for superstructure of steel bridge (incl. 35 days TRA)	141	30	13-Jan-20 A	10-Feb-20	12-Sep-20	22-Jul-20	75	78.72%	35	-45
TDS2160	Steel mould design for precast segments of TKOI viaducts (incl. 21 days TRA)	63	63	10-Aug-20	09-Jul-20	21-Oct-20	19-Sep-20	0	0%	21	-27
TDS2180	Design of Pier bracket for erection of pier-head segments (incl. 21 days TRA)	56	56	22-Aug-20	22-Jul-20	26-Oct-20	24-Sep-20	0	0%	21	-27
TDS2200	Design of temporary supporting towers and working platform for steel bridge (incl. 35 days TRA)	120	120	10-Aug-20	09-Jul-20	26-Dec-20	25-Nov-20	6	0%	35	-27
TDS2220	Design for temporary works for full span erection for TKOI viaducts (incl. 21 days TRA)	90	90	10-Aug-20	09-Jul-20	21-Nov-20	21-Oct-20	15	0%	21	-27
Method Statement Submission for Major Construction Works		398	45	15-Jul-19 A	09-Nov-19	30-Sep-20	15-Feb-21	99			118
MDS1140	Method statement submission for assembly of steel arch bridge (incl. 35 days TRA)	96	20	15-Jul-19 A	09-Nov-19	01-Sep-20	28-Feb-20	-150	79.17%	35	-159
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-Sep-20	15-Feb-21	109	56.79%	35	128
MDS1225	Method statement submission for delivery of steel arch bridge (incl. 21 days TRA)	82	30	15-Aug-19 A	24-Sep-20	12-Sep-20	28-Dec-20	66	63.41%	21	91
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-Sep-20	29-Jan-21	114	55.22%	21	119
MDS1270	Method statement submission for installation of steel arch bridge (incl. 21 days TRA)	82	45	15-Jul-19 A	29-Sep-20	30-Sep-20	01-Jan-21	66	45.12%	21	80
Contractor's Design Submission and Approval		639	200	05-May-19 A	28-May-19	24-Feb-21	23-Jan-21	118			-32
CDS1040	Design of arch rib inspection cradle + Under bridge gantry	86	15	16-Sep-19 A	09-Oct-19	26-Aug-20	16-Jan-20	-239	82.56%	0	-191
CDS1060	Design of access facilities (incl. 14 days TRA)	125	14	05-May-19 A	28-May-19	25-Aug-20	19-Oct-19	-195	88.8%	14	-266
CDS1120	Design of Isolation panel and its structural frame (incl. 7 days TRA)	97	45	19-Nov-19 A	27-Mar-20	30-Sep-20	17-Jul-20	48	53.61%	7	-64
CDS1140	Design of Functional lighting system,road lighting system,etc (incl. 7 days TRA)	97	97	01-Oct-20	31-Aug-20	21-Jan-21	21-Dec-20	48	0%	7	-27

Remaining Level of Effort | Remaining Work | Milestone
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CRBC

Three Month Rolling Programme

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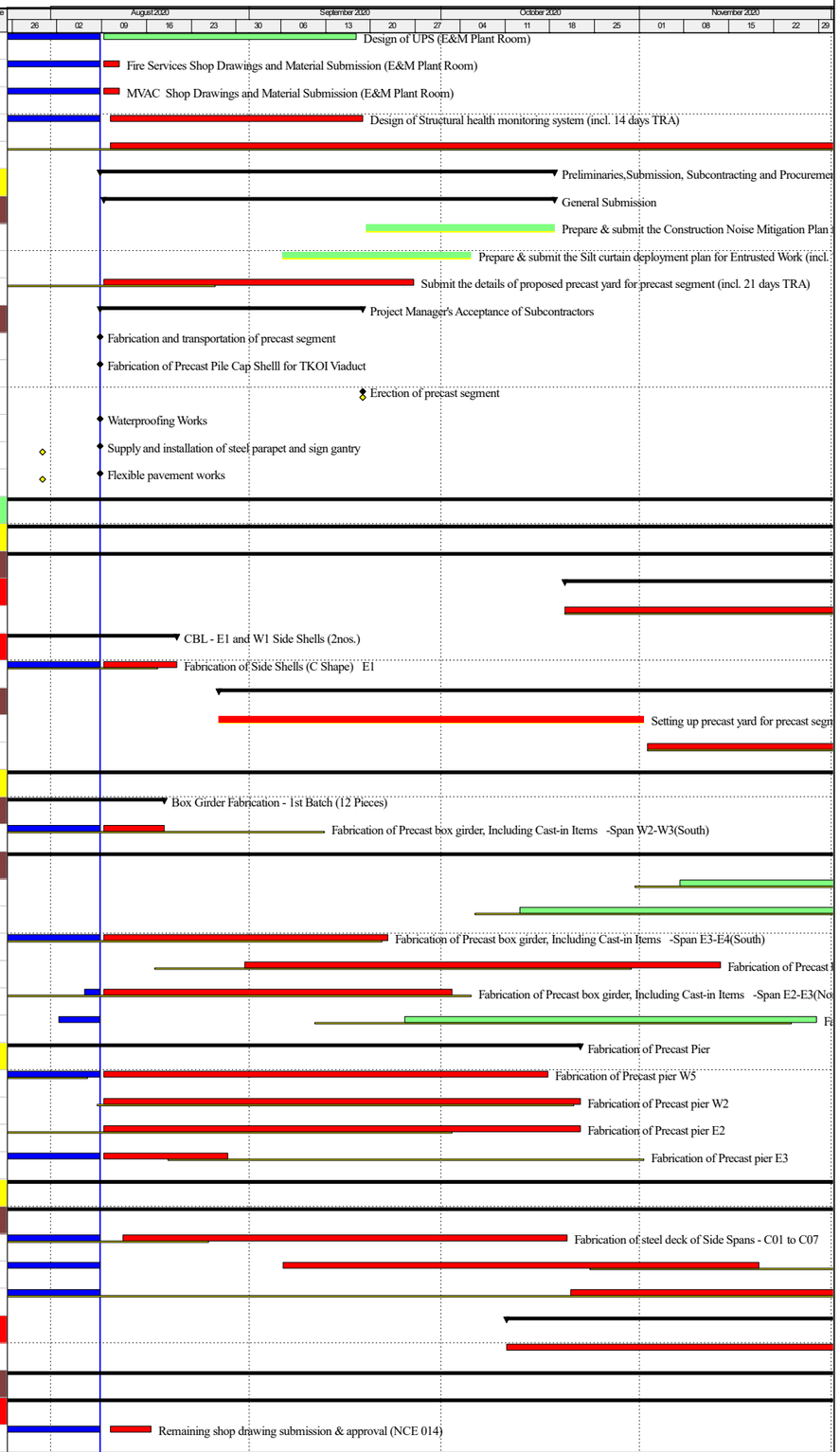
08-Aug-20	Monthly updated on 08 August 2020		

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
CDS1160	Design of UPS (E&M Plant Room)	284	40	09-Oct-19 A	02-Sep-19	17-Sep-20	11-Jun-20	278	85.92%	0	-98
CDS1180	Fire Services Shop Drawings and Material Submission (E&M Plant Room)	318	3	02-Sep-19 A	02-Sep-19	11-Aug-20	15-Jul-20	0	99.06%	0	-27
CDS1190	MVAC Shop Drawings and Material Submission (E&M Plant Room)	318	3	02-Sep-19 A	02-Sep-19	11-Aug-20	15-Jul-20	2	99.06%	0	-27
CDS1200	Design of Structural health monitoring system (incl. 14 days TRA)	172	35	12-Jun-19 A	08-Jul-19	18-Sep-20	23-Jan-20	-165	79.65%	14	-205
CDS1220	Design of SCADA system(SCADAS) (incl. 14 days TRA)	171	171	10-Aug-20	09-Jul-20	24-Feb-21	23-Jan-21	19	0%	14	-27
Preliminaries,Submission, Subcontracting and Procurement		71	71	08-Aug-20	08-Jul-20	18-Oct-20	18-Oct-20	285			0
General Submission		71	71	09-Aug-20	09-Jul-20	18-Oct-20	18-Oct-20	58			0
P-GS1210	Prepare & submit the Construction Noise Mitigation Plan for Entrusted Work (incl. 7 days TRA)	30	30	19-Sep-20	19-Sep-20	18-Oct-20	18-Oct-20	58	0%	7	0
P-GS1240	Prepare & submit the Silt curtain deployment plan for Entrusted Work (incl. 7 days TRA)	30	30	06-Sep-20	06-Sep-20	05-Oct-20	05-Oct-20	71	0%	7	0
P-GS1680	Submit the details of proposed precast yard for precast segment (incl. 21 days TRA)	49	49	09-Aug-20	09-Jul-20	26-Sep-20	26-Aug-20	0	0%	21	-31
Project Manager's Acceptance of Subcontractors		41	41	08-Aug-20	08-Jul-20	18-Sep-20	18-Sep-20	315			0
P-SP1460	Fabrication and transportation of precast segment	0	0			08-Aug-20	08-Jul-20	0	0%	0	-31
P-SP1470	Fabrication of Precast Pile Cap Shelll for TKOI Viaduct	0	0			08-Aug-20	08-Jul-20	0	0%	0	-31
P-SP1480	Erection of precast segment	0	0			18-Sep-20	18-Sep-20	146	0%	0	0
P-SP1540	Waterproofing Works	0	0			08-Aug-20	08-Jul-20	356	0%	0	-31
P-SP1580	Supply and installation of steel parapet and sign gantry	0	0			08-Aug-20	30-Jul-20	18	0%	0	-9
P-SP1770	Flexible pavement works	0	0			08-Aug-20	30-Jul-20	11	0%	0	-9
Precasting & Fabrication Works		785	361	19-Apr-19 A	12-Jun-19	04-Aug-21	04-Aug-21	0			0
Fabrication of Precast Shell and Precast Segments		361	361	17-Jul-20 A	09-Jul-20	04-Aug-21	04-Aug-21	0			0
Precast Shell		312	312	17-Jul-20 A	09-Jul-20	16-Jun-21	16-Jun-21	0			0
TKOI		240	240	20-Oct-20	20-Oct-20	16-Jun-21	16-Jun-21	0			0
P-PS3145	Fabrication of Precast shell for pile cap of TKO entrustment work (total 17nos) (incl. 21 days TRA)	240	240	20-Oct-20	20-Oct-20	16-Jun-21	16-Jun-21	0	0%	21	0
CBL - E1 and W1 Side Shells (2nos.)		40	12	17-Jul-20 A	09-Jul-20	20-Aug-20	17-Aug-20	-31			-3
P-PS9040	Fabrication of Side Shells (C Shape) E1	40	12	17-Jul-20 A	09-Jul-20	20-Aug-20	17-Aug-20	-31	70%	0	-3
Precast Segments (TKOI Entrustment Works)		343	343	27-Aug-20	27-Aug-20	04-Aug-21	04-Aug-21	0			0
P-PF1140	Setting up precast yard for precast segment (incl. 21 days TRA)	67	67	27-Aug-20	27-Aug-20	01-Nov-20	01-Nov-20	0	0%	21	0
P-PF1160	Fabrication of Precast segments for TKOI Viaduct (total 255nos) (incl. 21 days TRA)	276	276	02-Nov-20	02-Nov-20	04-Aug-21	04-Aug-21	0	0%	21	0
Fabrication of Precast Box Girder		205	165	30-Apr-20 A	30-Jun-20	20-Jan-21	13-Jan-21	48			-7
Box Girder Fabrication - 1st Batch (12 Pieces)		75	10	30-Apr-20 A	30-Jun-20	18-Aug-20	12-Sep-20	19			25
P-BG1392	Fabrication of Precast box girder, Including Cast-in Items -Span W2-W3(South)	75	10	30-Apr-20 A	30-Jun-20	18-Aug-20	12-Sep-20	19	86.67%	0	25
Box Girder Fabrication - 2nd Batch (6 Pieces)		165	165	08-Jun-20 A	09-Jul-20	20-Jan-21	13-Jan-21	48			-7
P-BG1385	Fabrication of Precast box girder, Including Cast-in Items -Span W4-W5(South)	75	75	07-Nov-20	31-Oct-20	20-Jan-21	13-Jan-21	48	0%	0	-7
P-BG1407	Fabrication of Precast box girder, Including Cast-in Items -Span W2-W3(North)	75	75	13-Oct-20	06-Oct-20	26-Dec-20	19-Dec-20	44	0%	0	-7
P-BG1446	Fabrication of Precast box girder, Including Cast-in Items -Span E3-E4(South)	75	45	08-Jun-20 A	09-Jul-20	22-Sep-20	21-Sep-20	19	40%	0	-1
P-BG1447	Fabrication of Precast box girder, Including Cast-in Items -Span E7-Abut(South)	75	75	31-Aug-20	17-Aug-20	13-Nov-20	30-Oct-20	19	0%	0	-14
P-BG1448	Fabrication of Precast box girder, Including Cast-in Items -Span E2-E3(North)	75	55	06-Aug-20 A	23-Jul-20	02-Oct-20	05-Oct-20	19	26.67%	0	3
P-BG1465	Fabrication of Precast box girder, Including Cast-in Items -Span E2-E3(South)	75	65	02-Aug-20 A	11-Sep-20	28-Nov-20	24-Nov-20	44	13.33%	0	-4
Fabrication of Precast Pier		177	75	24-Apr-20 A	09-May-20	22-Oct-20	01-Nov-20	14			10
P-PF1470	Fabrication of Precast pier W5	90	70	24-Apr-20 A	09-May-20	17-Oct-20	06-Aug-20	14	22.22%	0	-72
P-PF1480	Fabrication of Precast pier W2	75	75	09-Aug-20	08-Aug-20	22-Oct-20	21-Oct-20	14	0%	0	-1
P-PF1490	Fabrication of Precast pier E2	75	75	09-Aug-20	20-Jul-20	22-Oct-20	02-Oct-20	0	0%	0	-20
P-PF1500	Fabrication of Precast pier E3	75	20	09-Jun-20 A	19-Aug-20	28-Aug-20	01-Nov-20	0	73.33%	0	65
Fabrication of Steel Arch Bridge and Side Spans		746	276	19-Apr-19 A	12-Jun-19	11-May-21	29-Jul-21	-237			79
Fabrication of Side Spans		479	250	14-Nov-19 A	27-Dec-19	18-Apr-21	29-Jul-21	-214			102
P-PF1080	Fabrication of steel deck of Side Spans - C01 to C07	243	70	14-Nov-19 A	27-Dec-19	20-Oct-20	25-Aug-20	-214	71.19%	7	-56
P-PF1081	Sub-assembly of Side Span - C01 to C07	80	75	22-Jul-20 A	24-Oct-20	19-Nov-20	11-Jan-21	-214	6.25%	0	53
P-PF1082	Fabrication of steel deck of Side Spans - C22 to C28	255	125	23-Dec-19 A	04-Jun-20	22-Feb-21	13-Feb-21	-204	50.98%	7	-9
Assembly of Side Spans		190	190	11-Oct-20	21-Jan-21	18-Apr-21	29-Jul-21	-214			102
P-PF1126	Side Spans Coating	190	190	11-Oct-20	21-Jan-21	18-Apr-21	29-Jul-21	-214	0%	0	102
Fabrication of Steel Arch Bridge		746	276	19-Apr-19 A	12-Jun-19	11-May-21	26-Jun-21	-335			46
Design, Drawing, Procurement		552	128	19-Apr-19 A	12-Jun-19	14-Dec-20	12-Nov-20	-279			-32
P-PF1045	Remaining shop drawing submission & approval (NCE 014)	65	7	29-Jun-19 A	21-Nov-19	16-Aug-20	24-Jan-20	-279	89.23%	0	-205



Remaining Level of Effort | Remaining Work | Milestone

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08-Aug-20	Monthly updated on 08 August 2020		

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

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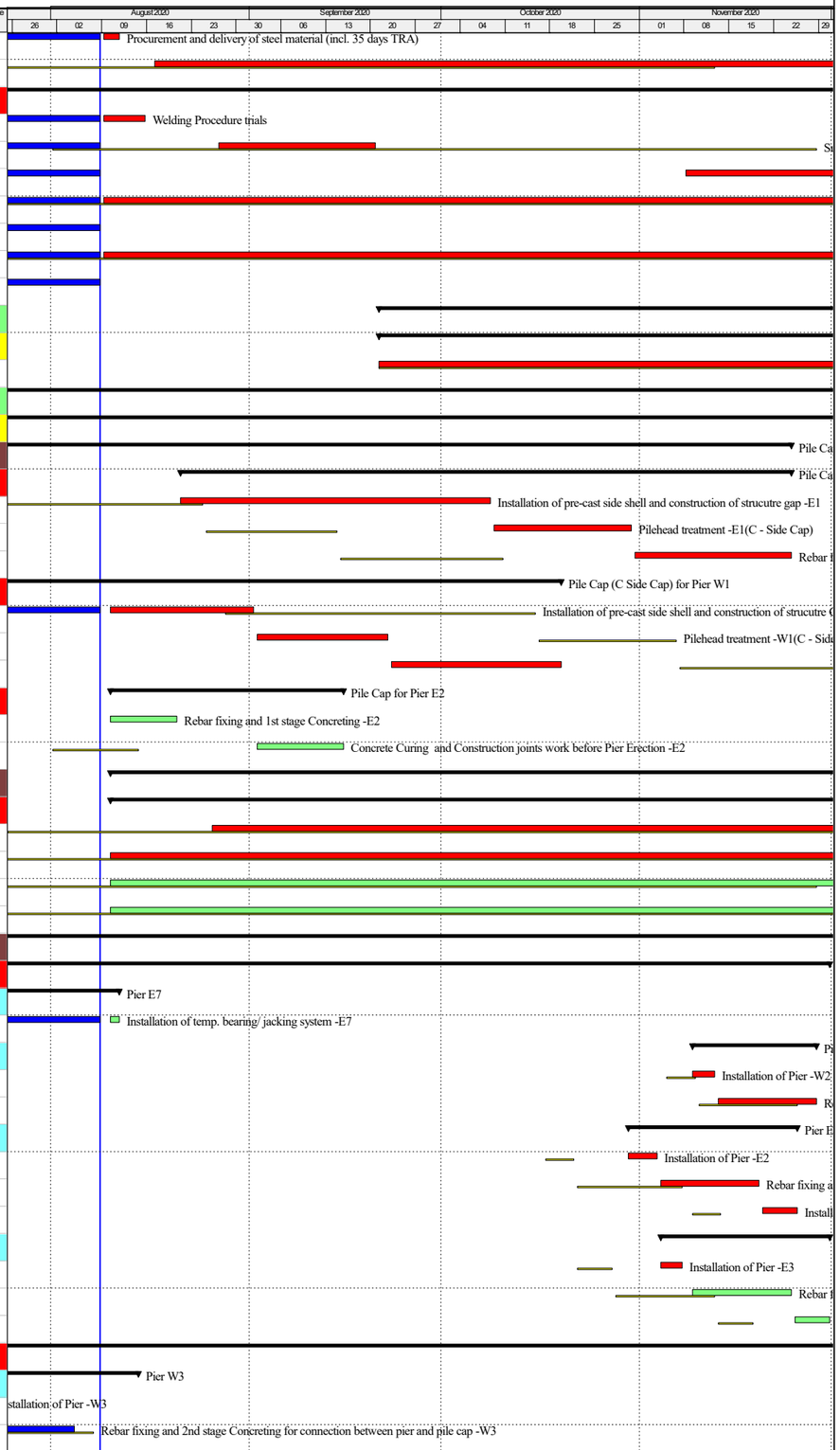
P-PF1050	Procurement and delivery of steel material (incl. 35 days TRA)	125	3	19-Apr-19 A	12-Jun-19	11-Aug-20	14-Oct-19	-308	97.6%	35	-302
P-PF1052	Procurement and delivery of stay cables (incl. 35 days TRA) - Addional 30 days of effect due to PMI 046	120	120	17-Aug-20	16-Jul-20	14-Dec-20	12-Nov-20	-279	0%	35	-32
Fabrication and sub-assembly Work		691	276	29-Jun-19 A	06-Aug-19	11-May-21	26-Jun-21	-335			46
P-PF1065	Welding Procedure trials	90	7	29-Jun-19 A	06-Aug-19	15-Aug-20	03-Nov-19	-302	92.22%	0	-286
P-PF1125	Sub-assembly of Main Span - Decking C15- C21	120	25	20-May-20 A	01-Aug-20	20-Sep-20	28-Nov-20	-197	79.17%	0	69
P-PF1155	Main Span Coating	190	185	24-Jun-20 A	19-Dec-20	11-May-21	26-Jun-21	-335	2.63%	0	46
P-PF1170	Fabrication of Main Span - Arch rib NG01 to NG19	429	248	25-Nov-19 A	09-Dec-19	13-Apr-21	09-Feb-21	-335	42.19%	7	-63
P-PF1175	Sub-assembly of Main Span - Arch rib(1st batch)	125	110	24-May-20 A	08-Jan-21	11-May-21	12-May-21	-335	12%	0	1
P-PF1190	Fabrication of Main Span - Arch rib SG01 to SG19	252	220	13-Apr-20 A	09-Jul-20	16-Mar-21	17-Mar-21	-309	12.7%	7	1
P-PF1195	Sub-assembly of Main Span - Arch rib(2nd batch)	125	110	24-May-20 A	08-Dec-20	05-Apr-21	11-Apr-21	-309	12%	0	6
Section 1 of the Works- All Works within Portion I of the Site (Entrusted Works of TKOI Viaduct)		90	90	21-Sep-20	21-Sep-20	09-Jan-21	09-Jan-21	19			0
Piling Works		90	90	21-Sep-20	21-Sep-20	09-Jan-21	09-Jan-21	19			0
S1-PW0010	Procurement and delivery of steel casing	90	90	21-Sep-20	21-Sep-20	09-Jan-21	09-Jan-21	19	0%	0	0
Section 2 of Works-All Works within Portion II,III,IV and VI		290	258	28-Oct-19 A	09-Jul-20	24-Apr-21	20-Mar-21	103			-35
CBL Main Bridge and Marine Viaduct		290	258	28-Oct-19 A	09-Jul-20	24-Apr-21	20-Mar-21	103			-35
Pile Cap		89	89	22-Jul-20 A	09-Jul-20	24-Nov-20	01-Dec-20	-22			6
Pile Cap (C Side Cap) for Pier E1		79	79	21-Aug-20	09-Jul-20	24-Nov-20	10-Oct-20	-27			-37
S2-PC2461	Installation of pre-cast side shell and construction of strucutre gap -E1	40	40	21-Aug-20	09-Jul-20	08-Oct-20	24-Aug-20	-27	0%	0	-37
S2-PC2462	Pilehead treatment -E1(C - Side Cap)	18	18	09-Oct-20	25-Aug-20	30-Oct-20	14-Sep-20	-27	0%	0	-37
S2-PC2463	Rebar fixing and Concreting -E1 (C - Side Cap)	21	21	31-Oct-20	15-Sep-20	24-Nov-20	10-Oct-20	-27	0%	0	-37
Pile Cap (C Side Cap) for Pier W1		51	59	22-Jul-20 A	28-Aug-20	19-Oct-20	01-Dec-20	-9			36
S2-PC2742	Installation of pre-cast side shell and construction of strucutre Gap	40	20	22-Jul-20 A	28-Aug-20	01-Sep-20	15-Oct-20	-9	50%	0	36
S2-PC2743	Pilehead treatment -W1(C - Side Cap)	18	18	02-Sep-20	16-Oct-20	22-Sep-20	06-Nov-20	-9	0%	0	36
S2-PC2744	Rebar fixing and Concreting -W1 (C - Side Cap)	21	21	23-Sep-20	07-Nov-20	19-Oct-20	01-Dec-20	-9	0%	0	36
Pile Cap for Pier E2		32	32	10-Aug-20	09-Jul-20	15-Sep-20	14-Aug-20	35			-27
S2-PC2340	Rebar fixing and 1st stage Concreting -E2	10	10	10-Aug-20	09-Jul-20	20-Aug-20	20-Jul-20	35	0%	0	-27
S2-PC2900	Concrete Curing and Construction joints work before Pier Erection -E2	12	12	02-Sep-20	01-Aug-20	15-Sep-20	14-Aug-20	35	0%	0	-27
Assocaited, E&M Works for CBL Main Bridge and Marine Viaduct		210	210	10-Aug-20	09-Jul-20	24-Apr-21	20-Mar-21	84			-27
Procurement and Delivery of Assocaited, E&M Works		210	210	10-Aug-20	09-Jul-20	24-Apr-21	20-Mar-21	84			-27
S2-AW2006	Procurement and Delivery Under Bridge mobile gantry	180	180	26-Aug-20	25-Jul-20	06-Apr-21	02-Mar-21	-184	0%	0	-27
S2-AW2008	Procurement and delivery of arch inspection cradle	210	210	10-Aug-20	09-Jul-20	24-Apr-21	20-Mar-21	-214	0%	0	-27
S2-AW2010	Procurement and delivery of of TMD	120	120	10-Aug-20	09-Jul-20	02-Jan-21	28-Nov-20	174	0%	0	-27
S2-AW2012	Procurement and delivery of dehumification system	180	180	10-Aug-20	09-Jul-20	17-Mar-21	10-Feb-21	105	0%	0	-27
Pier (Precast Pier under CSD)		102	102	12-May-20 A	09-Jul-20	09-Dec-20	25-Nov-20	43			-12
Pier Erection with Crane Barge 1000 Tons		94	94	12-May-20 A	09-Jul-20	30-Nov-20	25-Nov-20	51			-4
Pier E7		5	2	12-May-20 A	09-Jul-20	11-Aug-20	14-Jul-20	77			-24
S2-PR3760	Installation of temp. bearing/ jacking system -E7	5	2	12-May-20 A	09-Jul-20	11-Aug-20	14-Jul-20	77	60%	0	-24
Pier W2		18	18	09-Nov-20	05-Nov-20	28-Nov-20	25-Nov-20	4			-3
S2-PR3040	Installation of Pier -W2	4	4	09-Nov-20	05-Nov-20	12-Nov-20	09-Nov-20	4	0%	0	-3
S2-PR3060	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -W2	14	14	13-Nov-20	10-Nov-20	28-Nov-20	25-Nov-20	4	0%	0	-3
Pier E2		23	23	30-Oct-20	17-Oct-20	25-Nov-20	13-Nov-20	0			-10
S2-PR3360	Installation of Pier -E2	4	4	30-Oct-20	17-Oct-20	03-Nov-20	21-Oct-20	0	0%	0	-10
S2-PR3380	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -E2	14	14	04-Nov-20	22-Oct-20	19-Nov-20	07-Nov-20	0	0%	0	-10
S2-PR3400	Installation of temp. bearing/ jacking system-E2	5	5	20-Nov-20	09-Nov-20	25-Nov-20	13-Nov-20	0	0%	0	-10
Pier E3		23	23	04-Nov-20	22-Oct-20	30-Nov-20	18-Nov-20	51			-10
S2-PR3420	Installation of Pier -E3	4	4	04-Nov-20	22-Oct-20	07-Nov-20	27-Oct-20	4	0%	0	-10
S2-PR3440	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -E3	14	14	09-Nov-20	28-Oct-20	24-Nov-20	12-Nov-20	51	0%	0	-10
S2-PR3460	Installation of temp. bearing/ jacking system -E3	5	5	25-Nov-20	13-Nov-20	30-Nov-20	18-Nov-20	51	0%	0	-10
Pier Erection with crane barge 4000 Tons		102	102	20-Jul-20 A	18-Jul-20	09-Dec-20	19-Nov-20	21			-17
Pier W3		18	5	20-Jul-20 A	18-Jul-20	14-Aug-20	13-Aug-20	96			-1
S2-PR3100	Installation of Pier -W3	4	0	20-Jul-20 A	18-Jul-20	20-Jul-20 A	22-Jul-20		100%	0	2
S2-PR3120	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -W3	14	0	21-Jul-20 A	23-Jul-20	04-Aug-20 A	07-Aug-20		100%	0	3



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S2-PR3140	Installation of temp. bearing/ jacking system -W3	5	5	10-Aug-20	08-Aug-20	14-Aug-20	13-Aug-20	96	0%	0	-1
Pier W4		19	19	07-Aug-20 A	15-Aug-20	31-Aug-20	10-Sep-20	82			9
S2-PR3240	Installation of Pier -W4	4	0	07-Aug-20 A	15-Aug-20	07-Aug-20 A	19-Aug-20		100%	0	10
S2-PR3260	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -W4	14	14	10-Aug-20	20-Aug-20	25-Aug-20	04-Sep-20	82	0%	0	9
S2-PR3280	Installation of temp. bearing/jacking system -W4	5	5	26-Aug-20	05-Sep-20	31-Aug-20	10-Sep-20	82	0%	0	9
Pier W5		38	38	27-Oct-20	06-Oct-20	09-Dec-20	19-Nov-20	21			-17
S2-PR3300	Installation of Pier -W5	4	4	27-Oct-20	06-Oct-20	30-Oct-20	09-Oct-20	21	0%	0	-17
S2-PR3320	Rebar fixing and 2nd stage Concreting for connection between pier and pile cap -W5	19	19	31-Oct-20	10-Oct-20	21-Nov-20	02-Nov-20	21	0%	0	-17
S2-PR3330	In-situ concrete infill for cross beam -W5	10	10	23-Nov-20	03-Nov-20	03-Dec-20	13-Nov-20	21	0%	0	-17
S2-PR3340	Installation of temp. Bearing/jacking system -W5	5	5	04-Dec-20	14-Nov-20	09-Dec-20	19-Nov-20	21	0%	0	-17
Concrete Bridge Decks		252	220	28-Oct-19 A	09-Jul-20	17-Mar-21	02-Mar-21	84			-15
Delivery and Erection of Precast Girder for Marine Viaduct		61	59	05-Jun-20 A	09-Jul-20	09-Oct-20	12-Oct-20	89			3
NE7-A		31	31	12-Aug-20	18-Aug-20	11-Sep-20	14-Sep-20	88			3
S2-CB2190	Handover Abutment EA by Others to NE/2017/01 ** Portion IV	0	0	18-Aug-20	18-Aug-20			87	0%	0	0
S2-CB2200	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E7 - Abut. EA(North Deck)	11	11	12-Aug-20	20-Aug-20	24-Aug-20	01-Sep-20	77	0%	0	7
S2-CB2210	Erection of Precast Girder for Span E7 - Abutment EA(North Deck) incl.Installation of Temp. Bearing	1	1	31-Aug-20	02-Sep-20	31-Aug-20	02-Sep-20	72	0%	0	2
S2-CB2220	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	01-Sep-20	03-Sep-20	11-Sep-20	14-Sep-20	72	0%	0	2
S2-CB2741	Installation of temporary Bearing/ Jacking System at Abutment EA	5	5	18-Aug-20	18-Aug-20	22-Aug-20	22-Aug-20	87	0%	0	0
SE 6-7		22	3	29-Jul-20 A	04-Aug-20	14-Aug-20	28-Aug-20	85			12
S2-CB2160	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E6 - E7 (South Deck)	11	0	29-Jul-20 A	04-Aug-20	02-Aug-20 A	15-Aug-20		100%	0	12
S2-CB2170	Erection of Precast Girder for Span E6 - E7 (South Deck)	1	0	03-Aug-20 A	17-Aug-20	03-Aug-20 A	17-Aug-20		100%	0	12
S2-CB2180	Remove Supporting Beam and Delivery Barge Return to Factory	10	3	04-Aug-20 A	18-Aug-20	14-Aug-20	28-Aug-20	85	70%	0	12
NE6-7		22	0	23-Jul-20 A	25-Jul-20	08-Aug-20 A	19-Aug-20				9
S2-CB2130	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E6 - E7 (North Deck)	11	0	23-Jul-20 A	25-Jul-20	28-Jul-20 A	06-Aug-20		100%	0	8
S2-CB2140	Erection of Precast Girder for Span E6 - E7 (North Deck)	1	0	29-Jul-20 A	07-Aug-20	29-Jul-20 A	07-Aug-20		100%	0	8
S2-CB2150	Remove Supporting Beam and Delivery Barge Return to Factory	10	0	30-Jul-20 A	08-Aug-20	08-Aug-20 A	19-Aug-20		100%	0	9
NE5-6		11	0	05-Jun-20 A	05-Sep-20	30-Jun-20 A	17-Sep-20				67
S2-CB2010	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E5 - E6 (North Deck)	11	0	05-Jun-20 A	05-Sep-20	20-Jun-20 A	17-Sep-20		100%	0	74
S2-CB2020	Erection of Precast Girder for Span E5 - E6 (North Deck)	1	0	22-Jun-20 A	05-Sep-20	22-Jun-20 A	05-Sep-20		100%	0	63
S2-CB2030	Remove Supporting Beam and Delivery Barge Return to Factory	10	0	23-Jun-20 A	05-Sep-20	30-Jun-20 A	16-Sep-20		100%	0	66
NE4-5		11	0	13-Jun-20 A	31-Aug-20	06-Jul-20 A	11-Sep-20				58
S2-CB2040	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E4 - E5 (North Deck)	11	0	13-Jun-20 A	31-Aug-20	28-Jun-20 A	11-Sep-20		100%	0	64
S2-CB2050	Erection of Precast Girder for Span E4 - E5 (North Deck)	1	0	29-Jun-20 A	31-Aug-20	29-Jun-20 A	31-Aug-20		100%	0	53
S2-CB2060	Remove Supporting Beam and Delivery Barge Return to Factory	10	0	30-Jun-20 A	31-Aug-20	06-Jul-20 A	10-Sep-20		100%	0	57
SE4-5		11	0	10-Jul-20 A	13-Jul-20	21-Jul-20 A	24-Jul-20				3
S2-CB2080	Erection of Precast Girder for Span E4 - E5 (South Deck)	1	0	10-Jul-20 A	13-Jul-20	10-Jul-20 A	13-Jul-20		100%	0	2
S2-CB2090	Remove Supporting Beam and Delivery Barge Return to Factory	10	0	11-Jul-20 A	14-Jul-20	21-Jul-20 A	24-Jul-20		100%	0	3
SE 5-6		22	0	10-Jul-20 A	09-Jul-20	24-Jul-20 A	03-Aug-20				8
S2-CB2100	Preparation Work, Roll Out and Delivery of Precast Box Girder Span E5 - E6 (South Deck)	11	0	10-Jul-20 A	09-Jul-20	12-Jul-20 A	21-Jul-20		100%	0	8
S2-CB2110	Erection of Precast Girder for Span E5 - E6 (South Deck)	1	0	13-Jul-20 A	22-Jul-20	13-Jul-20 A	22-Jul-20		100%	0	8
S2-CB2120	Remove Supporting Beam and Delivery Barge Return to Factory	10	0	14-Jul-20 A	23-Jul-20	24-Jul-20 A	03-Aug-20		100%	0	8
NW4-3		25	25	15-Aug-20	29-Aug-20	12-Sep-20	23-Sep-20	82			9
S2-CB2230	Preparation Work, Roll Out and Delivery of Precast Box Girder Span W3- W4 (North Deck)	11	11	15-Aug-20	29-Aug-20	27-Aug-20	10-Sep-20	85	0%	0	12
S2-CB2240	Erection of Precast Girder for Span W3- W4 (North Deck)	1	1	01-Sep-20	11-Sep-20	01-Sep-20	11-Sep-20	82	0%	0	9
S2-CB2250	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	02-Sep-20	12-Sep-20	12-Sep-20	23-Sep-20	82	0%	0	9
SW4-3		22	22	12-Sep-20	15-Sep-20	09-Oct-20	12-Oct-20	72			2
S2-CB2260	Preparation Work, Roll Out and Delivery of Precast Box Girder Span W3- W4 (South Deck)	11	11	12-Sep-20	15-Sep-20	24-Sep-20	26-Sep-20	72	0%	0	2
S2-CB2270	Erection of Precast Girder for Span W3- W4 (South Deck)	1	1	25-Sep-20	28-Sep-20	25-Sep-20	28-Sep-20	72	0%	0	2
S2-CB2280	Remove Supporting Beam and Delivery Barge Return to Factory	10	10	26-Sep-20	29-Sep-20	09-Oct-20	12-Oct-20	72	0%	0	2
NW5-4		11	11	14-Sep-20	24-Sep-20	25-Sep-20	08-Oct-20	82			9
S2-CB2290	Preparation Work, Roll Out and Delivery of Precast Box Girder Span W4 - W5 (North Deck)	11	11	14-Sep-20	24-Sep-20	25-Sep-20	08-Oct-20	82	0%	0	9
Procurement and Delivery		207	180	28-Oct-19 A	09-Jul-20	17-Mar-21	02-Mar-21	67			-13

Remaining Level of Effort
Primary Baseline
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Baseline Milestone
Milestone
Summary

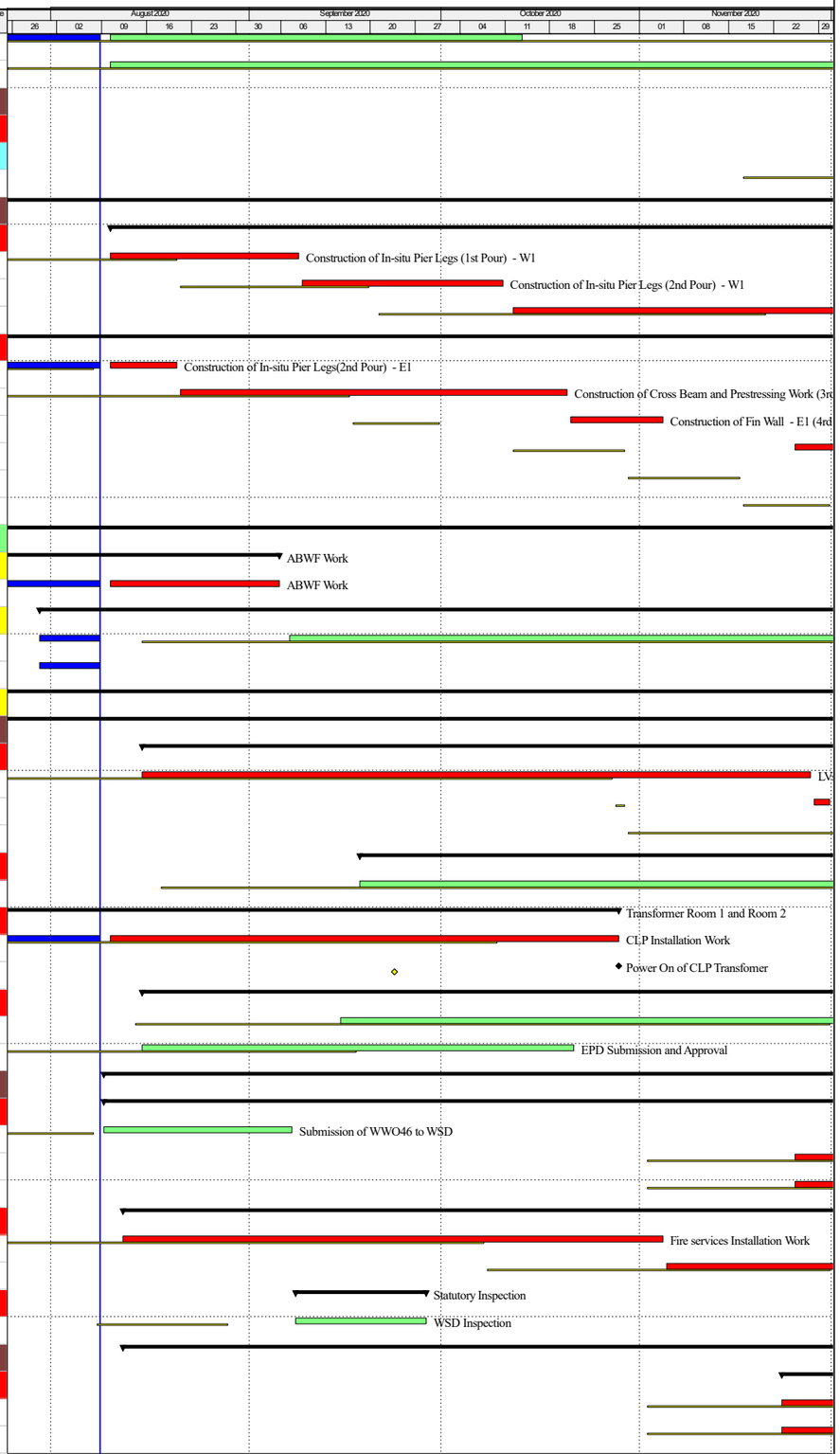
CRBC

Three Month Rolling Programme

Date	Revision	Checked	Approved
08-Aug-20	Monthly updated on 08 August 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-CB2485	Procurement and delivery of bearing system	180	54	28-Oct-19 A	09-Jul-20	13-Oct-20	10-Feb-21	193	70%	0	99
S2-CB2486	Procurement and delivery of fabricated movement joints	180	180	10-Aug-20	25-Jul-20	17-Mar-21	02-Mar-21	52	0%	0	-13
Steel Bridge		18	18	02-Jan-21	17-Nov-20	22-Jan-21	07-Dec-20	1			-37
Side Span Deck(Steel)		18	18	02-Jan-21	17-Nov-20	22-Jan-21	07-Dec-20	1			-37
East Side Span Deck		18	18	02-Jan-21	17-Nov-20	22-Jan-21	07-Dec-20	1			-37
S2-SS2110	Installation of Temporary Support Tower at Pier E1	18	18	02-Jan-21	17-Nov-20	22-Jan-21	07-Dec-20	1	0%	0	-37
Pier (In-situ Pier under Conforming Design)		158	131	05-Jul-20 A	09-Jul-20	15-Jan-21	30-Nov-20	-27			-37
Pier W1		102	102	10-Aug-20	22-Jul-20	09-Dec-20	20-Nov-20	-52			-16
S2-PR3840	Construction of In-situ Pier Legs (1st Pour) - W1	26	26	10-Aug-20	22-Jul-20	08-Sep-20	20-Aug-20	-52	0%	0	-16
S2-PR3850	Construction of In-situ Pier Legs (2nd Pour) - W1	26	26	09-Sep-20	21-Aug-20	10-Oct-20	19-Sep-20	-52	0%	0	-16
S2-PR3860	Construction of Cross Beam and Prestressing Work (3rd Pour) - W1	50	50	12-Oct-20	21-Sep-20	09-Dec-20	20-Nov-20	-52	0%	0	-16
Pier E1		158	131	05-Jul-20 A	09-Jul-20	15-Jan-21	30-Nov-20	-27			-37
S2-PR3491	Construction of In-situ Pier Legs(2nd Pour) - E1	26	10	05-Jul-20 A	09-Jul-20	20-Aug-20	07-Aug-20	-52	61.54%	0	-11
S2-PR3495	Construction of Cross Beam and Prestressing Work (3rd Pour) - E1	50	50	21-Aug-20	21-Jul-20	20-Oct-20	16-Sep-20	-10	0%	0	-27
S2-PR3505	Construction of Fin Wall - E1 (4rd Pour)	12	12	21-Oct-20	17-Sep-20	04-Nov-20	30-Sep-20	-10	0%	0	-27
S2-PR3510	Construction of Decoration wall 1 - E1	15	15	25-Nov-20	12-Oct-20	11-Dec-20	29-Oct-20	-27	0%	0	-37
S2-PR3525	Construction of Decoration wall 2 - E1	15	15	12-Dec-20	30-Oct-20	31-Dec-20	16-Nov-20	-27	0%	0	-37
S2-PR3530	Installation of temporary Bearing/ Jacking System and Access Ladder	12	12	02-Jan-21	17-Nov-20	15-Jan-21	30-Nov-20	-27	0%	0	-37
Section 5 of the Works-All Works within Portion V (CBL E&M Plantroom)		395	181	22-Jan-20 A	10-Feb-20	05-Feb-21	16-Feb-21	262			11
ABWF Work		131	24	22-Jan-20 A	10-Feb-20	05-Sep-20	20-Jul-20	4			-41
S5-PR2080	ABWF Work	131	24	22-Jan-20 A	10-Feb-20	05-Sep-20	20-Jul-20	4	81.68%	0	-41
Remianing Work		150	125	30-Jul-20 A	15-Aug-20	05-Feb-21	16-Feb-21	211			6
S5-PR2120	External works	90	75	30-Jul-20 A	15-Aug-20	05-Dec-20	01-Dec-20	211	16.67%	0	-4
S5-PR2200	Water works,pluming and drainage works	60	50	30-Jul-20 A	02-Dec-20	05-Feb-21	16-Feb-21	211	16.67%	0	6
Major Services System		191	164	25-Jun-20 A	09-Jul-20	19-Jan-21	15-Dec-20	279			-35
Electrical System		158	134	25-Jun-20 A	13-Jul-20	19-Jan-21	15-Dec-20	226			-27
LV Switch Room		117	117	15-Aug-20	15-Jul-20	05-Jan-21	01-Dec-20	6			-27
S5-PR2440	LVswitchboard installation (Including E&M Work)	87	87	15-Aug-20	15-Jul-20	27-Nov-20	27-Oct-20	6	0%	0	-27
S5-PR2460	LV Switch Board SAT	2	2	28-Nov-20	28-Oct-20	30-Nov-20	29-Oct-20	6	0%	0	-27
S5-PR2470	Cable Termination of LV Switch Board	28	28	01-Dec-20	30-Oct-20	05-Jan-21	01-Dec-20	6	0%	0	-27
UPS Room		100	100	18-Sep-20	18-Aug-20	19-Jan-21	15-Dec-20	223			-27
S5-PR2580	UPS Installation (Including E&M Work)	100	100	18-Sep-20	18-Aug-20	19-Jan-21	15-Dec-20	223	0%	0	-27
Transformer Room 1 and Room 2		90	66	25-Jun-20 A	13-Jul-20	28-Oct-20	09-Oct-20	6			-15
S5-PR2400	CLP Installation Work	75	66	25-Jun-20 A	13-Jul-20	28-Oct-20	09-Oct-20	6	12%	0	-15
S5-PR2420	Power On of CLP Transfomer	0	0			28-Oct-20	23-Sep-20	6	0%	0	-27
Generator Room		116	116	15-Aug-20	15-Jul-20	04-Jan-21	30-Nov-20	239			-27
S5-PR2500	Generator Installation (Including E&M Work)	90	90	15-Sep-20	14-Aug-20	04-Jan-21	30-Nov-20	236	0%	0	-27
S5-PR2550	EPD Submission and Approval	56	56	15-Aug-20	15-Jul-20	21-Oct-20	17-Sep-20	299	0%	0	-27
Fire Services System		137	137	09-Aug-20	09-Jul-20	23-Dec-20	01-Dec-20	0			-22
Statutory Submission		134	134	09-Aug-20	09-Jul-20	20-Dec-20	01-Dec-20	3			-19
S5-PR2660	Submission of WWO46 to WSD	30	30	09-Aug-20	09-Jul-20	07-Sep-20	07-Aug-20	36	0%	0	-31
S5-PR2680	Submission of FSI/314 to FSD	26	26	25-Nov-20	02-Nov-20	20-Dec-20	01-Dec-20	3	0%	0	-19
S5-PR2700	Submission of FSI/501 to FSD	26	26	25-Nov-20	02-Nov-20	20-Dec-20	01-Dec-20	3	0%	0	-19
Installation of Fire Services		112	112	12-Aug-20	16-Jul-20	23-Dec-20	30-Nov-20	0			-20
S5-PR2740	Fire services Installation Work	70	70	12-Aug-20	16-Jul-20	04-Nov-20	07-Oct-20	0	0%	0	-23
S5-PR2760	Fire Sevices Testing and Commisioning	42	42	05-Nov-20	08-Oct-20	23-Dec-20	30-Nov-20	0	0%	0	-20
Statutory Inspection		18	18	08-Sep-20	08-Aug-20	28-Sep-20	28-Aug-20	29			-26
S5-PR2800	WSD Inspection	18	18	08-Sep-20	08-Aug-20	28-Sep-20	28-Aug-20	29	0%	0	-26
MVAC System		132	132	12-Aug-20	16-Jul-20	21-Dec-20	01-Dec-20	2			-20
Statutory Submission		26	26	23-Nov-20	02-Nov-20	18-Dec-20	01-Dec-20	5			-17
S5-PR2940	Submission of FSI/314 to FSD	26	26	23-Nov-20	02-Nov-20	18-Dec-20	01-Dec-20	5	0%	0	-17
S5-PR2960	Submission of FSI/501 to FSD	26	26	23-Nov-20	02-Nov-20	18-Dec-20	01-Dec-20	5	0%	0	-17



Remaining Level of Effort
Primary Baseline
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Remaining Work
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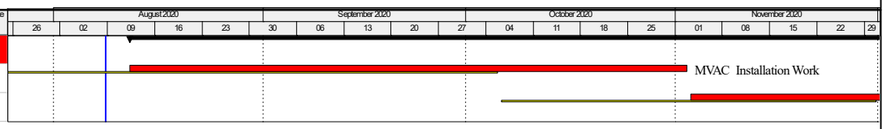
Date	Revision	Checked	Approved
08-Aug-20	Monthly updated on 08 August 2020		

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
Installation of MVAC System		110	110	12-Aug-20	16-Jul-20	21-Dec-20	30-Nov-20	2			-18
S5-PR2840	MVAC Installation Work	68	68	12-Aug-20	16-Jul-20	02-Nov-20	05-Oct-20	2	0%	0	-23
S5-PR2900	MVAC Testing and Commisioning	42	42	03-Nov-20	06-Oct-20	21-Dec-20	30-Nov-20	2	0%	0	-18



Remaining Level of Effort
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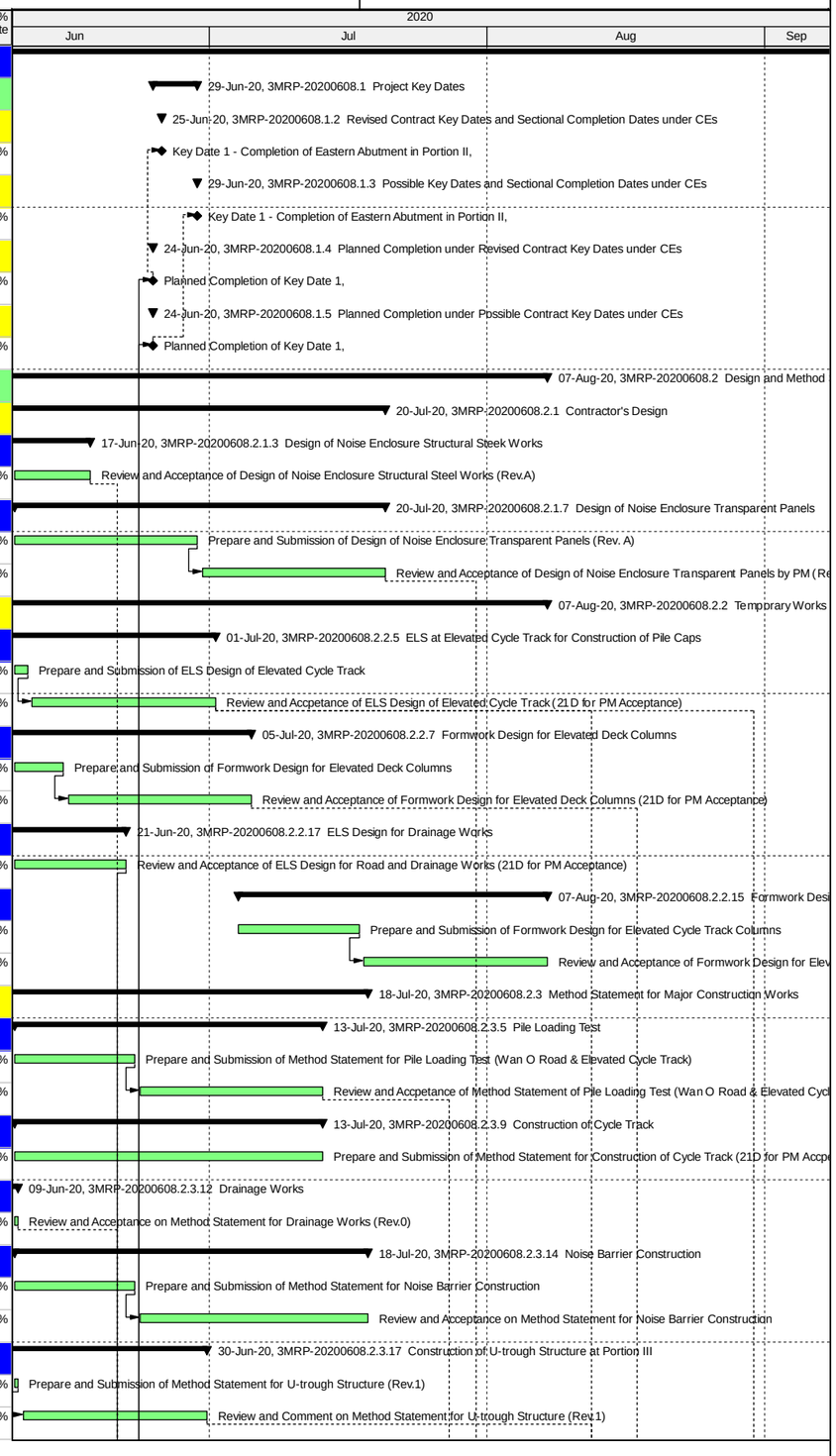
Date	Revision	Checked	Approved
08-Aug-20	Monthly updated on 08 August 2020		

Contract 2

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
3MRP-20200608 NE/2017/08 Three Months Rolling Programme (Jun 2020)		939.0	423.0	671.0		02-Jan-19 A	09-Sep-22	19-Dec-19	31-Mar-23	165.0		
3MRP-20200608.1 Project Key Dates		5.0	0.0	5.0	NE/2017/08(7days)	24-Jun-20	29-Jun-20	25-Jun-20	29-Jun-20	0.0		
3MRP-20200608.1.2 Revised Contract Key Dates and Sectional Completion Dates under CEs		0.0	0.0	0.0	NE/2017/08(7days)	25-Jun-20	25-Jun-20	25-Jun-20	25-Jun-20	0.0		
KD0001	Key Date 1 - Completion of Eastern Abutment in Portion II	0.0	0.0	0.0	NE/2017/08(7days)		25-Jun-20*		25-Jun-20	0.0	0	0%
3MRP-20200608.1.3 Possible Key Dates and Sectional Completion Dates under CEs		0.0	0.0	0.0	NE/2017/08(7days)	29-Jun-20	29-Jun-20	29-Jun-20	29-Jun-20	0.0		
KDP0001	Key Date 1 - Completion of Eastern Abutment in Portion II	0.0	0.0	0.0	NE/2017/08(7days)		29-Jun-20*		29-Jun-20	0.0	0	0%
3MRP-20200608.1.4 Planned Completion under Revised Contract Key Dates under CEs		0.0	0.0	0.0	NE/2017/08(7days)	24-Jun-20	24-Jun-20	25-Jun-20	25-Jun-20	1.0		
PC1010	Planned Completion of Key Date 1	0.0	0.0	0.0	NE/2017/08(7days)		24-Jun-20		25-Jun-20	1.0	0	0%
3MRP-20200608.1.5 Planned Completion under Possible Contract Key Dates under CEs		0.0	0.0	0.0	NE/2017/08(7days)	24-Jun-20	24-Jun-20	29-Jun-20	29-Jun-20	5.0		
PCP1010	Planned Completion of Key Date 1	0.0	0.0	0.0	NE/2017/08(7days)		24-Jun-20		29-Jun-20	5.0	0	0%
3MRP-20200608.2 Design and Method Statement, Material Submissions		347.0	298.0	50.0		08-Jun-19 A	07-Aug-20	08-Jun-20	24-May-21	234.0		
3MRP-20200608.2.1 Contractor's Design		54.0	12.0	42.0	NE/2017/08(7days)	28-May-20 A	20-Jul-20	20-Jun-20	24-Sep-20	65.5		
3MRP-20200608.2.1.3 Design of Noise Enclosure Structural Steek Works		21.0	12.0	9.0	NE/2017/08(7days)	28-May-20 A	17-Jun-20	20-Jun-20	29-Jun-20	11.5		
PD1073	Review and Acceptance of Design of Noise Enclosure Structural Steel Works (Rev.A)	21.0	12.0	9.0	NE/2017/08(7days)	28-May-20 A	17-Jun-20	20-Jun-20	29-Jun-20	11.5	0	57.14%
3MRP-20200608.2.1.7 Design of Noise Enclosure Transparent Panels		42.0	0.0	42.0	NE/2017/08(7days)	09-Jun-20	20-Jul-20	13-Aug-20	24-Sep-20	65.5		
PD1080	Prepare and Submission of Design of Noise Enclosure Transparent Panels (Rev. A)	21.0	0.0	21.0	NE/2017/08(7days)	09-Jun-20	29-Jun-20	13-Aug-20	03-Sep-20	65.5	0	0%
PD1090	Review and Acceptance of Design of Noise Enclosure Transparent Panels by PM (Rev. A)	21.0	0.0	21.0	NE/2017/08(7days)	30-Jun-20	20-Jul-20	03-Sep-20	24-Sep-20	65.5	0	0%
3MRP-20200608.2.2 Temporary Works Design		425.0	367.0	60.0	NE/2017/08(7days)	08-Jun-19 A	07-Aug-20	26-Jun-20	11-Nov-20	95.5		
3MRP-20200608.2.2.5 ELS at Elevated Cycle Track for Construction of Pile Caps		388.0	367.0	23.0	NE/2017/08(7days)	08-Jun-19 A	01-Jul-20	28-Jul-20	19-Aug-20	49.0		
TW1170	Prepare and Submission of ELS Design of Elevated Cycle Track	14.0	367.0	2.0	NE/2017/08(7days)	08-Jun-19 A	10-Jun-20	28-Jul-20	29-Jul-20	49.0	0	85.71%
TW1180	Review and Accpetance of ELS Design of Elevated Cycle Track (21D for PM Acceptance)	21.0	0.0	21.0	NE/2017/08(7days)	11-Jun-20	01-Jul-20	30-Jul-20	19-Aug-20	49.0	0	0%
3MRP-20200608.2.2.7 Formwork Design for Elevated Deck Columns		35.0	8.0	27.0	NE/2017/08(7days)	01-Jun-20 A	05-Jul-20	26-Jun-20	23-Jul-20	17.5		
TW1210	Prepare and Submission of Formwork Design for Elevated Deck Columns	14.0	8.0	6.0	NE/2017/08(7days)	01-Jun-20 A	14-Jun-20	26-Jun-20	02-Jul-20	17.5	0	57.14%
TW1220	Review and Acceptance of Formwork Design for Elevated Deck Columns (21D for PM Acceptance)	21.0	0.0	21.0	NE/2017/08(7days)	15-Jun-20	05-Jul-20	02-Jul-20	23-Jul-20	17.5	0	0%
3MRP-20200608.2.2.17 ELS Design for Drainage Works		21.0	101.0	13.0	NE/2017/08(7days)	29-Feb-20 A	21-Jun-20	29-Oct-20	11-Nov-20	142.5		
TW1420	Review and Acceptance of ELS Design for Road and Drainage Works (21D for PM Acceptance)	21.0	101.0	13.0	NE/2017/08(7days)	29-Feb-20 A	21-Jun-20	29-Oct-20	11-Nov-20	142.5	0	38.1%
3MRP-20200608.2.2.15 Formwork Design for Elevated Cycle Track Columns		35.0	0.0	35.0	NE/2017/08(7days)	04-Jul-20	07-Aug-20	25-Sep-20	29-Oct-20	83.0		
TW1370	Prepare and Submission of Formwork Design for Elevated Cycle Track Columns	14.0	0.0	14.0	NE/2017/08(7days)	04-Jul-20	17-Jul-20	25-Sep-20	08-Oct-20	83.0	0	0%
TW1380	Review and Acceptance of Formwork Design for Elevated Cycle Track Columns (21D for PM Acceptance)	21.0	0.0	21.0	NE/2017/08(7days)	18-Jul-20	07-Aug-20	09-Oct-20	29-Oct-20	83.0	0	0%
3MRP-20200608.2.3 Method Statement for Major Construction Works		260.0	227.0	33.0		31-Aug-19 A	18-Jul-20	30-Jun-20	08-Dec-20	118.5		
3MRP-20200608.2.3.5 Pile Loading Test		35.0	0.0	35.0	NE/2017/08(7days)	09-Jun-20	13-Jul-20	30-Jun-20	03-Aug-20	21.0		
MS1340	Prepare and Submission of Method Statement for Pile Loading Test (Wan O Road & Elevated Cycle Track)	14.0	0.0	14.0	NE/2017/08(7days)	09-Jun-20	22-Jun-20	30-Jun-20	13-Jul-20	21.0	0	0%
MS1350	Review and Accpetance of Method Statement of Pile Loading Test (Wan O Road & Elevated Cycle Track)	21.0	0.0	21.0	NE/2017/08(7days)	23-Jun-20	13-Jul-20	14-Jul-20	03-Aug-20	21.0	0	0%
3MRP-20200608.2.3.9 Construction of Cycle Track		35.0	0.0	35.0	NE/2017/08(7days)	09-Jun-20	13-Jul-20	12-Aug-20	15-Sep-20	64.0		
MS1090	Prepare and Submission of Method Statement for Construction of Cycle Track (21D for PM Accpetance)	35.0	0.0	35.0	NE/2017/08(7days)	09-Jun-20	13-Jul-20	12-Aug-20	15-Sep-20	64.0	0	0%
3MRP-20200608.2.3.12 Drainage Works		21.0	283.0	1.0	NE/2017/08(7days)	31-Aug-19 A	09-Jun-20	10-Nov-20	11-Nov-20	154.5		
MS1260	Review and Acceptance on Method Statement for Drainage Works (Rev.0)	21.0	283.0	1.0	NE/2017/08(7days)	31-Aug-19 A	09-Jun-20	10-Nov-20	11-Nov-20	154.5	0	95.24%
3MRP-20200608.2.3.14 Noise Barrier Construction		33.0	0.0	33.0		09-Jun-20	18-Jul-20	17-Aug-20	24-Sep-20	57.5		
MS1140	Prepare and Submission of Method Statement for Noise Barrier Construction	14.0	0.0	14.0	NE/2017/08(7days)	09-Jun-20	22-Jun-20	17-Aug-20	31-Aug-20	69.5	0	0%
MS1480	Review and Acceptance on Method Statement for Noise Barrier Construction	21.0	0.0	21.0	NE/2017/08(6days)	23-Jun-20	18-Jul-20	31-Aug-20	24-Sep-20	57.5		0%
3MRP-20200608.2.3.17 Construction of U-trough Structure at Portion III		75.0	53.0	22.0	NE/2017/08(7days)	17-Apr-20 A	30-Jun-20	16-Nov-20	08-Dec-20	160.5		
MS1460	Prepare and Submission of Method Statement for U-trough Structure (Rev.1)	14.0	53.0	1.0	NE/2017/08(7days)	17-Apr-20 A	09-Jun-20	16-Nov-20	17-Nov-20	160.5	0	92.86%
MS1470	Review and Comment on Method Statement for U-trough Structure (Rev.1)	21.0	0.0	21.0	NE/2017/08(7days)	10-Jun-20	30-Jun-20	17-Nov-20	08-Dec-20	160.5	0	0%



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

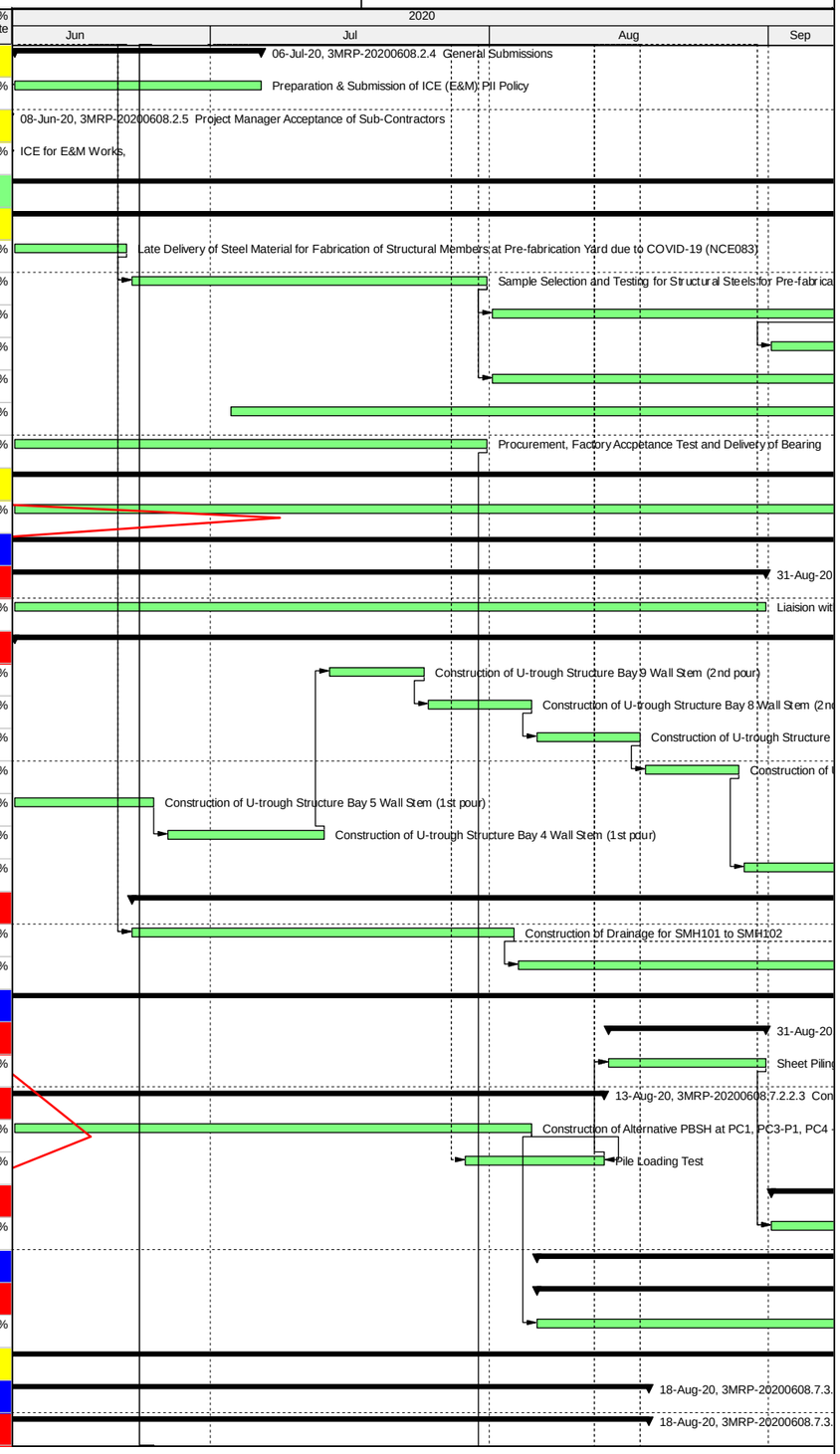
CEDD 土木工程拓展署 Civil Engineering and Development Department

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

Build King

Date	Revision	Checked	Approved
08-Jun-20	3M Rolling Programme (20200608)	TL	StL

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
3MRP-20200608.2.4	General Submissions	28.0	0.0	28.0	NE/2017/08(7days)	09-Jun-20	06-Jul-20	27-Apr-21	24-May-21	322.0		
GS1165	Preparation & Submission of ICE (E&M) PII Policy	28.0	0.0	28.0	NE/2017/08(7days)	09-Jun-20	06-Jul-20	27-Apr-21	24-May-21	322.0	0	0%
3MRP-20200608.2.5	Project Manager Acceptance of Sub-Contractors	0.0	0.0	0.0	NE/2017/08(7days)	08-Jun-20	08-Jun-20	08-Jun-20	08-Jun-20	0.0		
SC1040	ICE for E&M Works	0.0	0.0	0.0	NE/2017/08(7days)		08-Jun-20*		08-Jun-20	0.0	0	0%
3MRP-20200608.7	Construction Works	307.0	181.0	125.0		28-Oct-19 A	06-Nov-20	19-Dec-19	31-Mar-23	711.0		
3MRP-20200608.7.1	Preliminaries	226.0	117.0	109.0		14-Jan-20 A	17-Oct-20	16-Jun-20	16-Apr-21	145.0		
PREL1130-01	Late Delivery of Steel Material for Fabrication of Structural Members at Pre-fabrication Yard due to COVID-19 (NCE083)	60.0	132.0	13.0	NE/2017/08(7days)	29-Jan-20 A	21-Jun-20	16-Jun-20	29-Jun-20	7.5	0	78.33%
PREL1130-02	Sample Selection and Testing for Structural Steels for Pre-fabrication of Noise Enclosure	33.0	0.0	33.0	NE/2017/08(6days)	22-Jun-20	31-Jul-20	29-Jun-20	07-Aug-20	5.5	0	0%
PREL1130-12	Fabrication of Structural Elements for Noise Enclosure	60.0	0.0	60.0	NE/2017/08(6days)	01-Aug-20	12-Oct-20	07-Aug-20	19-Oct-20	5.5	0	0%
PREL1130-22	Delivery of Structural Elements for At-grade Road Noise Enclosure	30.0	0.0	30.0	NE/2017/08(6days)	01-Sep-20	07-Oct-20	07-Sep-20	14-Oct-20	5.5	0	0%
PREL1140-01	Fabrication of Sub-frame and PMMA Panels for Noise Enclosure	60.0	0.0	60.0	NE/2017/08(6days)	01-Aug-20	12-Oct-20	24-Sep-20	07-Dec-20	46.5	0	0%
PREL1150-00	Procurement, factory acceptance test for Lift	90.0	0.0	90.0	NE/2017/08(6days)	03-Jul-20	17-Oct-20	23-Dec-20	16-Apr-21	145.0	0	0%
PREL1250	Procurement, Factory Accpetance Test and Delivery of Bearing	80.0	147.0	53.0	NE/2017/08(7days)	14-Jan-20 A	31-Jul-20	30-Oct-20	21-Dec-20	143.0	0	33.75%
3MRP-20200608.7.2	Construction Works of Portion I	234.0	114.0	118.0		17-Jan-20 A	29-Oct-20	15-Jun-20	29-Sep-21	272.5		
PORI.A1010	Provide Access to MTRC P10 at U-trough Section	214.0	69.0	115.0	NE/2017/08(7days)	01-Apr-20 A	01-Oct-20	17-Feb-21	12-Jun-21	253.5	0	46.26%
3MRP-20200608.7.2.1	Cycle Track - U-trough	195.0	114.0	81.0	NE/2017/08(6days)	17-Jan-20 A	12-Sep-20	11-Nov-20	29-Sep-21	309.5		
3MRP-20200608.7.2.1.1	Excavation to U-tough Level(+5.0mPD to +4.4mPD) (700m3)	60.0	114.0	70.0	NE/2017/08(6days)	17-Jan-20 A	31-Aug-20	04-Feb-21	05-May-21	198.5		
PORI.UT.EX1040	Liaision with Towngas and TranxComm and Utilities Diversion for Bay 3 (EW028 & EW018)	60.0	114.0	70.0	NE/2017/08(6days)	17-Jan-20 A	31-Aug-20	04-Feb-21	05-May-21	198.5	0	0%
3MRP-20200608.7.2.1.2	Construction of U-trough Structure (9 Bays, 27D/Bay, 1 Team)	78.0	0.0	78.0	NE/2017/08(6days)	09-Jun-20	09-Sep-20	29-Mar-21	29-Sep-21	312.5		
PORI.UT.ST1010-23	Construction of U-trough Structure Bay 9 Wall Stem (2nd pour)	10.0	0.0	10.0	NE/2017/08(6days)	14-Jul-20	24-Jul-20	31-Jul-21	12-Aug-21	312.5	0	0%
PORI.UT.ST1010-33	Construction of U-trough Structure Bay 8 Wall Stem (2nd pour)	10.0	0.0	10.0	NE/2017/08(6days)	25-Jul-20	05-Aug-20	12-Aug-21	24-Aug-21	312.5	0	0%
PORI.UT.ST1010-43	Construction of U-trough Structure Bay 7 Wall Stem (2nd pour)	10.0	0.0	10.0	NE/2017/08(6days)	06-Aug-20	17-Aug-20	24-Aug-21	04-Sep-21	312.5	0	0%
PORI.UT.ST1010-53	Construction of U-trough Structure Bay 6 Wall Stem (2nd pour)	10.0	0.0	10.0	NE/2017/08(6days)	18-Aug-20	28-Aug-20	04-Sep-21	16-Sep-21	312.5	0	0%
PORI.UT.ST1040-31	Construction of U-trough Structure Bay 5 Wall Stem (1st pour)	14.0	0.0	14.0	NE/2017/08(6days)	09-Jun-20	24-Jun-20	29-Mar-21	17-Apr-21	240.5	0	0%
PORI.UT.ST1040-41	Construction of U-trough Structure Bay 4 Wall Stem (1st pour)	14.0	0.0	14.0	NE/2017/08(6days)	26-Jun-20	13-Jul-20	17-Apr-21	05-May-21	240.5	0	0%
PORI.UT.ST1040-61	Construction of U-trough Structure Bay 5 Wall Stem (2nd pour)	10.0	0.0	10.0	NE/2017/08(6days)	29-Aug-20	09-Sep-20	16-Sep-21	29-Sep-21	312.5	0	0%
3MRP-20200608.7.2.1.4	Remaining Works	70.0	0.0	70.0	NE/2017/08(6days)	22-Jun-20	12-Sep-20	11-Nov-20	04-Feb-21	117.5		
PORI.UT.1050	Construction of Drainage for SMH101 to SMH102	35.0	0.0	35.0	NE/2017/08(6days)	22-Jun-20	03-Aug-20	11-Nov-20	22-Dec-20	117.5	0	0%
PORI.UT.1060	Construction of Drainage for SMH102 to SMH103	35.0	0.0	35.0	NE/2017/08(6days)	04-Aug-20	12-Sep-20	22-Dec-20	04-Feb-21	117.5	0	0%
3MRP-20200608.7.2.2	Elevated Cycle Track	91.0	13.0	78.0	NE/2017/08(6days)	25-May-20 A	09-Sep-20	15-Jun-20	15-Sep-20	5.0		
3MRP-20200608.7.2.2.1	ELS Construction for Elevated Cycle Track	15.0	0.0	15.0	NE/2017/08(6days)	14-Aug-20	31-Aug-20	20-Aug-20	05-Sep-20	5.0		
PORI.ED.EX1000	Sheet Piling along Elevated Cycle Track	15.0	0.0	15.0	NE/2017/08(6days)	14-Aug-20	31-Aug-20	20-Aug-20	05-Sep-20	5.0	0	0%
3MRP-20200608.7.2.2.3	Construction of Alternative PBSH (24nos, 7D/pile, 1 rig)	70.0	13.0	55.0	NE/2017/08(6days)	25-May-20 A	13-Aug-20	15-Jun-20	19-Aug-20	5.0		
PORI.ED.HP1000	Construction of Alternative PBSH at PC1, PC3-P1, PC4 - PC10 (21nos,7D/pile,1rig)	70.0	13.0	48.0	NE/2017/08(6days)	25-May-20 A	05-Aug-20	15-Jun-20	11-Aug-20	5.0	0	31.43%
PORI.ED.HP1250	Pile Loading Test	14.0	0.0	14.0	NE/2017/08(6days)	29-Jul-20	13-Aug-20	04-Aug-20	19-Aug-20	5.0	0	0%
3MRP-20200608.7.2.2.4	Excavation to Pile Cap Level (+5.0mPD to +2.8mPD) (2000m3)	8.0	0.0	8.0	NE/2017/08(6days)	01-Sep-20	09-Sep-20	07-Sep-20	15-Sep-20	5.0		
PORI.ED.EX1030	Excavation to Pile Cap Founding Level (+5.0mPD to +2.8mPD)	8.0	0.0	8.0	NE/2017/08(6days)	01-Sep-20	09-Sep-20	07-Sep-20	15-Sep-20	5.0	0	0%
3MRP-20200608.7.2.3	Lift and Staircase	70.0	0.0	70.0	NE/2017/08(6days)	06-Aug-20	29-Oct-20	02-Nov-20	25-Jan-21	72.0		
3MRP-20200608.7.2.3.3	Construction of PBSH (14nos, 7D/pile, 1 rig)	70.0	0.0	70.0	NE/2017/08(6days)	06-Aug-20	29-Oct-20	02-Nov-20	25-Jan-21	72.0		
PORI.LS.HP1000	Construction of PBSH (11nos,7D/pile,1 rig)	70.0	0.0	70.0	NE/2017/08(6days)	06-Aug-20	29-Oct-20	02-Nov-20	25-Jan-21	72.0	0	0%
3MRP-20200608.7.3	Construction Works of Portion II	142.0	33.0	109.0	NE/2017/08(6days)	29-Apr-20 A	17-Oct-20	13-May-20	21-Jan-21	77.5		
3MRP-20200608.7.3.1	Abutment 2A	90.0	31.0	59.0	NE/2017/08(6days)	04-May-20 A	18-Aug-20	09-Jun-20	21-Jan-21	127.5		
3MRP-20200608.7.3.1.4	Construction of Abutment Structure	90.0	31.0	59.0	NE/2017/08(6days)	04-May-20 A	18-Aug-20	09-Jun-20	21-Jan-21	127.5		



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

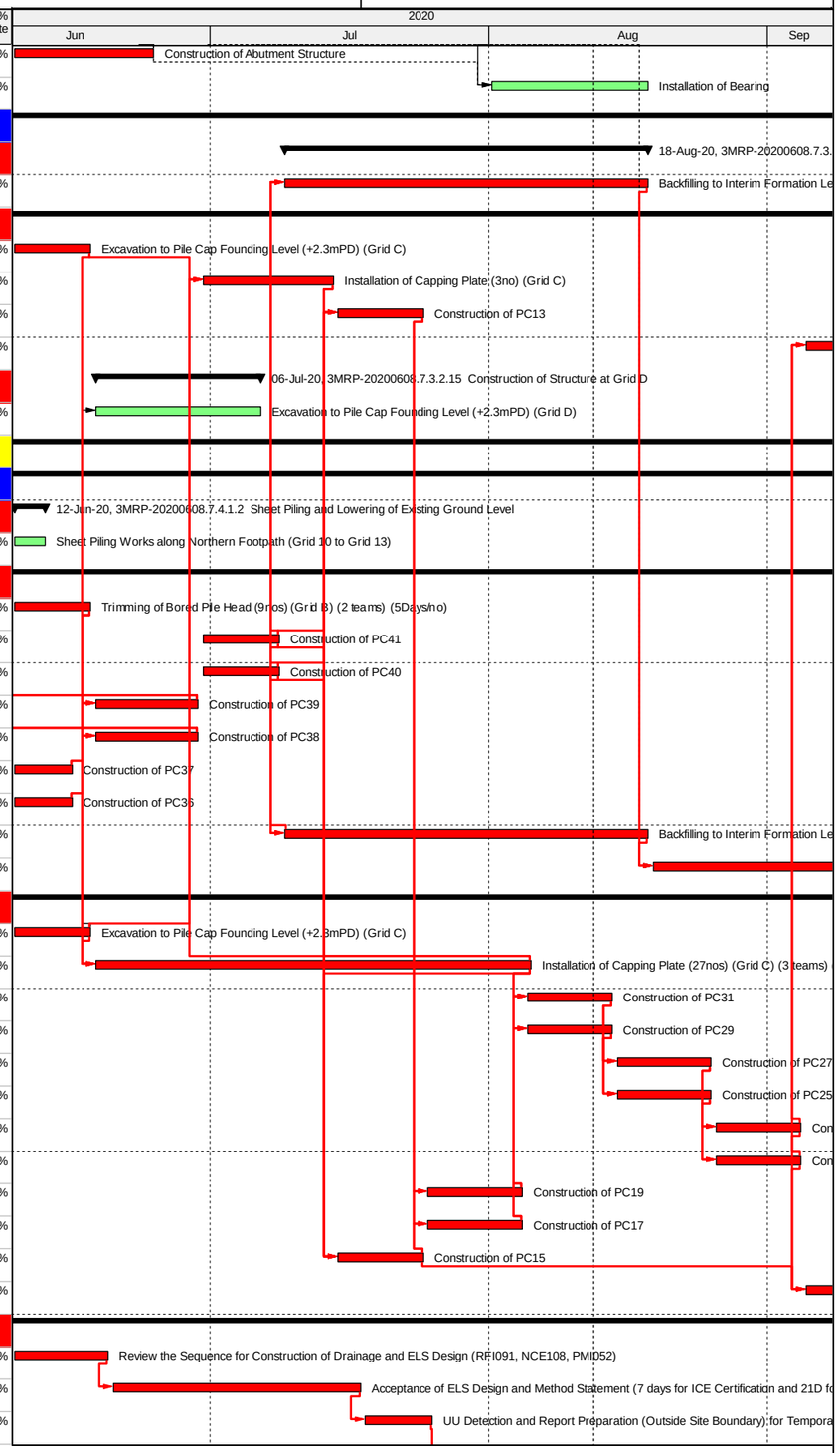
CEDD 土木工程拓展署 Civil Engineering and Development Department

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

Build King

Date	Revision	Checked	Approved
08-Jun-20	3M Rolling Programme (20200608)	TL	StL

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
PORII.AB.ST1030	Construction of Abutment Structure	30.0	31.0	14.0	NE/2017/08(6days)	04-May-20 A	24-Jun-20	09-Jun-20	24-Jun-20	0.0	0	53.33%
PORII.AB.ST1040	Installation of Bearing	15.0	0.0	15.0	NE/2017/08(6days)	01-Aug-20	18-Aug-20	04-Jan-21	21-Jan-21	127.5	0	0%
3MRP-20200608.7.3.2 Elevated Deck		142.0	33.0	109.0	NE/2017/08(6days)	29-Apr-20 A	17-Oct-20	13-May-20	19-Sep-20	-22.5		
3MRP-20200608.7.3.2.10 Construction of Structure at Gird B		35.0	0.0	35.0	NE/2017/08(6days)	09-Jul-20	18-Aug-20	10-Jun-20	23-Jul-20	-22.5		
PORII.ED.GB1030	Backfilling to Interim Formation Level (7 Layers, 5D/Layer) (Grid B)	35.0	0.0	35.0	NE/2017/08(6days)	09-Jul-20	18-Aug-20	10-Jun-20	23-Jul-20	-22.5	0	0%
3MRP-20200608.7.3.2.14 Construction of Structure at Grid C		142.0	33.0	109.0	NE/2017/08(6days)	29-Apr-20 A	17-Oct-20	13-May-20	19-Sep-20	-22.5		
PORII.ED.GC1000	Excavation to Pile Cap Founding Level (+2.3mPD) (Grid C)	14.0	33.0	8.0	NE/2017/08(6days)	29-Apr-20 A	17-Jun-20	13-May-20	22-May-20	-22.5	0	42.86%
PORII.ED.GC1010	Installation of Capping Plate (3no) (Grid C)	12.0	0.0	12.0	NE/2017/08(6days)	30-Jun-20	14-Jul-20	02-Jun-20	16-Jun-20	-22.5	0	0%
PORII.ED.GC1020	Construction of PC13	9.0	0.0	9.0	NE/2017/08(6days)	15-Jul-20	24-Jul-20	16-Jun-20	27-Jun-20	-22.5	0	0%
PORII.ED.GC1030	Backfilling to Interim Formation Level (7 Layers, 5D/Layer) (Grid C)	35.0	0.0	35.0	NE/2017/08(6days)	05-Sep-20	17-Oct-20	10-Aug-20	19-Sep-20	-22.5	0	0%
3MRP-20200608.7.3.2.15 Construction of Structure at Grid D		14.0	0.0	14.0	NE/2017/08(6days)	18-Jun-20	06-Jul-20	04-Jul-20	21-Jul-20	12.5		
PORII.ED.GD1000	Excavation to Pile Cap Founding Level (+2.3mPD) (Grid D)	14.0	0.0	14.0	NE/2017/08(6days)	18-Jun-20	06-Jul-20	04-Jul-20	21-Jul-20	12.5	0	0%
3MRP-20200608.7.4 Construction Works of Portion III		157.0	67.0	109.0		16-Mar-20 A	17-Oct-20	19-Dec-19	31-Mar-23	727.0		
3MRP-20200608.7.4.1 Construction of Elevated Deck and Abutment 2B		157.0	48.0	109.0		08-Apr-20 A	17-Oct-20	19-Dec-19	31-Mar-23	727.0		
3MRP-20200608.7.4.1.2 Sheet Piling and Lowering of Existing Ground Level		4.0	0.0	4.0	NE/2017/08(6days)	09-Jun-20	12-Jun-20	28-Mar-23	31-Mar-23	832.0		
PORIII.ED.EX1060	Sheet Piling Works along Northern Footpath (Grid 10 to Grid 13)	4.0	0.0	4.0	NE/2017/08(6days)	09-Jun-20	12-Jun-20	28-Mar-23	31-Mar-23	832.0	0	0%
3MRP-20200608.7.4.1.13 Construction of Grid B Structure		157.0	48.0	109.0	NE/2017/08(6days)	08-Apr-20 A	17-Oct-20	13-May-20	19-Sep-20	-22.5		
PORIII.ED.GB.1010	Trimming of Bored Pile Head (9nos) (Grid B) (2 teams) (5Days/no)	25.0	48.0	8.0	NE/2017/08(6days)	08-Apr-20 A	17-Jun-20	13-May-20	22-May-20	-22.5	0	68%
PORIII.ED.GB.1020	Construction of PC41	9.0	19.0	7.0	NE/2017/08(6days)	18-May-20 A	08-Jul-20	02-Jun-20	10-Jun-20	-22.5	0	22.22%
PORIII.ED.GB.1022	Construction of PC40	9.0	19.0	7.0	NE/2017/08(6days)	18-May-20 A	08-Jul-20	02-Jun-20	10-Jun-20	-22.5	0	22.22%
PORIII.ED.GB.1023	Construction of PC39	9.0	0.0	9.0	NE/2017/08(6days)	18-Jun-20	29-Jun-20	22-May-20	02-Jun-20	-22.5	0	0%
PORIII.ED.GB.1024	Construction of PC38	9.0	0.0	9.0	NE/2017/08(6days)	18-Jun-20	29-Jun-20	22-May-20	02-Jun-20	-22.5	0	0%
PORIII.ED.GB.1025	Construction of PC37	9.0	23.0	6.0	NE/2017/08(6days)	13-May-20 A	15-Jun-20	15-May-20	22-May-20	-20.5	0	33.33%
PORIII.ED.GB.1026	Construction of PC36	9.0	23.0	6.0	NE/2017/08(6days)	13-May-20 A	15-Jun-20	15-May-20	22-May-20	-20.5	0	33.33%
PORIII.ED.GB.1030	Backfilling to Interim Formation Level (7 Layers, 5D/layer) (Grid B)	35.0	0.0	35.0	NE/2017/08(6days)	09-Jul-20	18-Aug-20	10-Jun-20	23-Jul-20	-22.5	0	0%
PORIII.ED.GB.1040	Construction of Columns (9nos) (Grid B) (2 teams)	50.0	0.0	50.0	NE/2017/08(6days)	19-Aug-20	17-Oct-20	23-Jul-20	19-Sep-20	-22.5	0	0%
3MRP-20200608.7.4.1.19 Construction of Grid C Structure		142.0	33.0	109.0	NE/2017/08(6days)	29-Apr-20 A	17-Oct-20	13-May-20	19-Sep-20	-22.5		
PORIII.ED.GC.1000	Excavation to Pile Cap Founding Level (+2.3mPD) (Grid C)	14.0	33.0	8.0	NE/2017/08(6days)	29-Apr-20 A	17-Jun-20	13-May-20	22-May-20	-22.5	0	42.86%
PORIII.ED.GC.1010	Installation of Capping Plate (27nos) (Grid C) (3 teams) (4Days/no)	40.0	0.0	40.0	NE/2017/08(6days)	18-Jun-20	05-Aug-20	22-May-20	10-Jul-20	-22.5	0	0%
PORIII.ED.GC.1020	Construction of PC31	9.0	0.0	9.0	NE/2017/08(6days)	05-Aug-20	14-Aug-20	09-Jul-20	20-Jul-20	-22.5	0	0%
PORIII.ED.GC.1021	Construction of PC29	9.0	0.0	9.0	NE/2017/08(6days)	05-Aug-20	14-Aug-20	09-Jul-20	20-Jul-20	-22.5	0	0%
PORIII.ED.GC.1022	Construction of PC27	9.0	0.0	9.0	NE/2017/08(6days)	15-Aug-20	25-Aug-20	20-Jul-20	30-Jul-20	-22.5	0	0%
PORIII.ED.GC.1023	Construction of PC25	9.0	0.0	9.0	NE/2017/08(6days)	15-Aug-20	25-Aug-20	20-Jul-20	30-Jul-20	-22.5	0	0%
PORIII.ED.GC.1024	Construction of PC23	9.0	0.0	9.0	NE/2017/08(6days)	26-Aug-20	04-Sep-20	30-Jul-20	10-Aug-20	-22.5	0	0%
PORIII.ED.GC.1025	Construction of PC21	9.0	0.0	9.0	NE/2017/08(6days)	26-Aug-20	04-Sep-20	30-Jul-20	10-Aug-20	-22.5	0	0%
PORIII.ED.GC.1026	Construction of PC19	9.0	0.0	9.0	NE/2017/08(6days)	25-Jul-20	04-Aug-20	27-Jun-20	09-Jul-20	-22.5	0	0%
PORIII.ED.GC.1027	Construction of PC17	9.0	0.0	9.0	NE/2017/08(6days)	25-Jul-20	04-Aug-20	27-Jun-20	09-Jul-20	-22.5	0	0%
PORIII.ED.GC.1028	Construction of PC15	9.0	0.0	9.0	NE/2017/08(6days)	15-Jul-20	24-Jul-20	16-Jun-20	27-Jun-20	-22.5	0	0%
PORIII.ED.GC.1030	Backfilling to Interim Formation Level (7 Layers, 5D/Layer) (Grid C)	35.0	0.0	35.0	NE/2017/08(6days)	05-Sep-20	17-Oct-20	10-Aug-20	19-Sep-20	-22.5	0	0%
3MRP-20200608.7.4.1.20 Construction of Grid D Structure		107.0	29.0	78.0		06-May-20 A	09-Sep-20	19-Dec-19	25-Mar-20	-136.5		
PORIII.ED.GD.0100	Review the Sequence for Construction of Drainage and ELS Design (RFI091, NCE108, PMI052)	30.0	29.0	10.0	NE/2017/08(6days)	06-May-20 A	19-Jun-20	19-Dec-19	03-Jan-20	-135.5	0	66.67%
PORIII.ED.GD.0110	Acceptance of ELS Design and Method Statement (7 days for ICE Certification and 21D for PM Acceptance) (NCE108, PMI052)	28.0	0.0	28.0	NE/2017/08(7days)	20-Jun-20	17-Jul-20	03-Jan-20	31-Jan-20	-168.5	0	0%
PORIII.ED.GD.0120	UU Detection and Report Preparation (Outside Site Boundary) for Temporary Works of SMH011 & SMH012 (NCE108, PMI052)	7.0	0.0	7.0	NE/2017/08(6days)	18-Jul-20	25-Jul-20	31-Jan-20	08-Feb-20	-136.5	0	0%



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

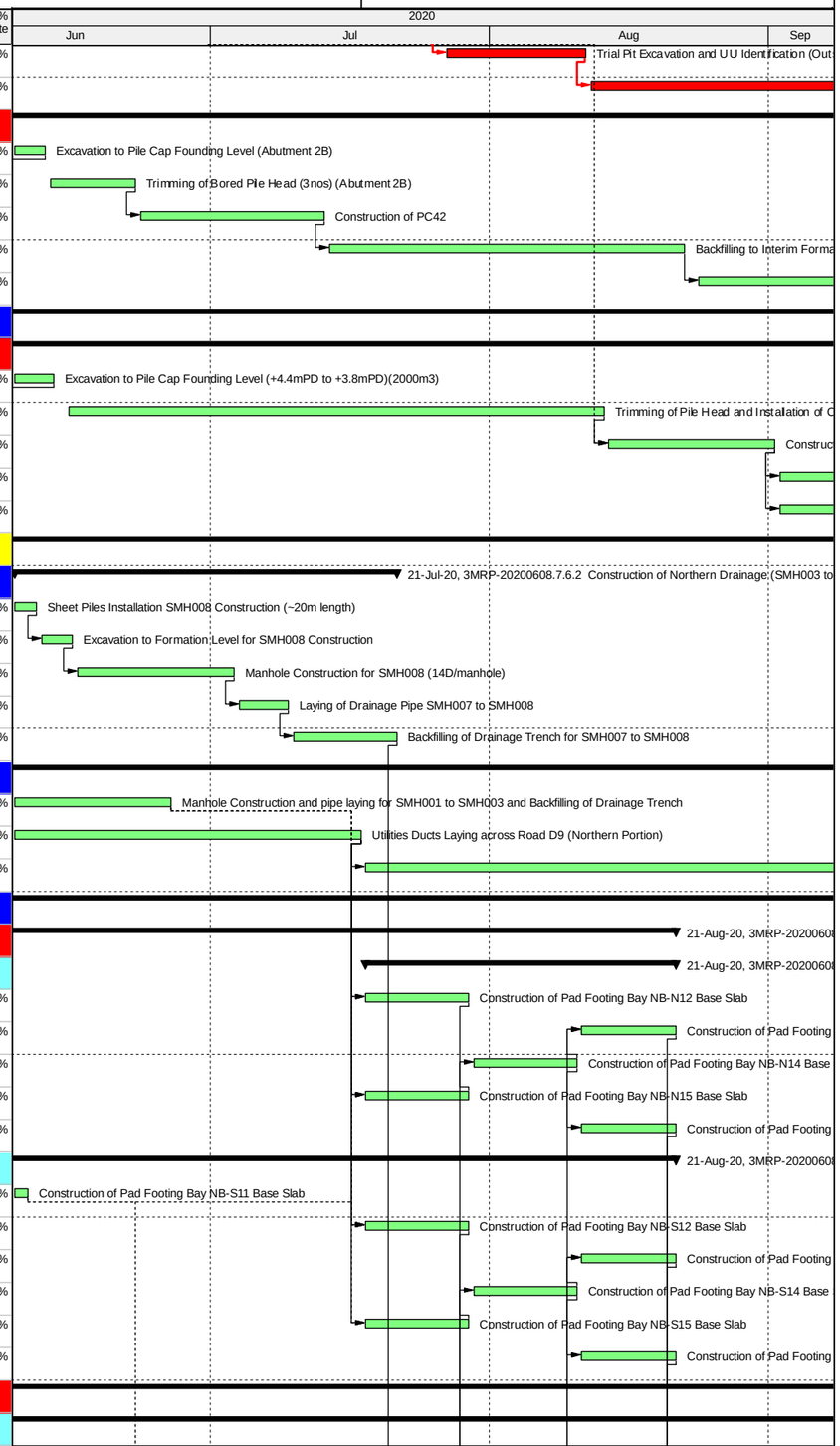
CEDD 土木工程拓展署 Civil Engineering and Development Department

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

Build King

Date	Revision	Checked	Approved
08-Jun-20	3M Rolling Programme (20200608)	TL	StL

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
PORIII.ED.GD.0130	Trial Pit Excavation and UU Identification (Outside Site Boundary) for Construction of SMH011 & SMH012) (NCE108, PMI052)	14.0	0.0	14.0	NE/2017/08(6days)	27-Jul-20	11-Aug-20	08-Feb-20	25-Feb-20	-136.5	0	0%
PORIII.ED.GD.0140	Driving Sheet Piles for ELS for Manhole SMH011 & SMH012 and Installation of Lagging to Existing Drains (NCE108, PMI052)	25.0	0.0	25.0	NE/2017/08(6days)	12-Aug-20	09-Sep-20	25-Feb-20	25-Mar-20	-136.5	0	0%
3MRP-20200608.7.4.1.7 Construction of PC42 (16D) + Abutment 2B (28D) + Bearing Installation (14D)		136.0	45.0	91.0	NE/2017/08(6days)	15-Apr-20 A	24-Sep-20	14-Sep-20	05-Jan-21	81.5		
PORIII.AB2B.1000	Excavation to Pile Cap Founding Level (Abutment 2B)	10.0	45.0	4.0	NE/2017/08(6days)	15-Apr-20 A	12-Jun-20	14-Sep-20	18-Sep-20	81.5	0	60%
PORIII.AB2B.1002	Trimming of Bored Pile Head (3nos) (Abutment 2B)	15.0	31.0	8.0	NE/2017/08(6days)	04-May-20 A	22-Jun-20	18-Sep-20	28-Sep-20	81.5	0	46.67%
PORIII.AB2B.1005	Construction of PC42	16.0	0.0	16.0	NE/2017/08(6days)	23-Jun-20	13-Jul-20	28-Sep-20	19-Oct-20	81.5	0	0%
PORIII.AB2B.1007	Backfilling to Interim Formation Level (7 Layers, 5D/Layer) (Abutment 2B)	35.0	0.0	35.0	NE/2017/08(6days)	14-Jul-20	22-Aug-20	19-Oct-20	30-Nov-20	81.5	0	0%
PORIII.AB2B.1010	Construction of Abutment 2B	28.0	0.0	28.0	NE/2017/08(6days)	24-Aug-20	24-Sep-20	30-Nov-20	05-Jan-21	81.5	0	0%
3MRP-20200608.7.4.2 Construction of U-trough Structure		116.0	67.0	87.0	NE/2017/08(6days)	16-Mar-20 A	19-Sep-20	03-Oct-20	09-Feb-21	115.5		
3MRP-20200608.7.4.2.6 Construction of U-trough Structure		116.0	67.0	87.0	NE/2017/08(6days)	16-Mar-20 A	19-Sep-20	03-Oct-20	09-Feb-21	115.5		
PORIII.UT.ST1010	Excavation to Pile Cap Founding Level (+4.4mPD to +3.8mPD)(2000m3)	15.0	67.0	5.0	NE/2017/08(6days)	16-Mar-20 A	13-Jun-20	03-Oct-20	09-Oct-20	96.5	0	66.67%
PORIII.UT.ST1025	Trimming of Pile Head and Installation of Capping Plate	60.0	29.0	50.0	NE/2017/08(6days)	06-May-20 A	13-Aug-20	09-Oct-20	08-Dec-20	96.5	0	16.67%
PORIII.UT.ST1030	Construction of Base Slab Phase 1-1 (north) (3bays, 14D/bay, 3teams)	16.0	0.0	16.0	NE/2017/08(6days)	14-Aug-20	01-Sep-20	08-Dec-20	29-Dec-20	96.5	0	0%
PORIII.UT.ST1040	Construction of Base Slab Phase 1-2 (north) (2bays, 14D/bay, 2teams)	15.0	0.0	15.0	NE/2017/08(6days)	02-Sep-20	18-Sep-20	22-Jan-21	09-Feb-21	116.5	0	0%
PORIII.UT.ST1050	Construction of Base Slab Phase 2-1 (south) (3bays, 14D/bay, 3teams)	16.0	0.0	16.0	NE/2017/08(6days)	02-Sep-20	19-Sep-20	29-Dec-20	18-Jan-21	96.5	0	0%
3MRP-20200608.7.6 Construction of the At-grade Noise Semi Enclosures		136.0	54.0	82.0	NE/2017/08(6days)	31-Mar-20 A	14-Sep-20	04-Jul-20	27-Apr-21	180.5		
3MRP-20200608.7.6.2 Construction of Northern Drainage (SMH003 to SMH008)		35.0	0.0	35.0	NE/2017/08(6days)	09-Jun-20	21-Jul-20	04-Jul-20	14-Aug-20	20.5		
PORIII.AG.1048	Sheet Piles Installation SMH008 Construction (~20m length)	3.0	0.0	3.0	NE/2017/08(6days)	09-Jun-20	11-Jun-20	04-Jul-20	08-Jul-20	20.5	0	0%
PORIII.AG.1048-01	Excavation to Formation Level for SMH008 Construction	3.0	0.0	3.0	NE/2017/08(6days)	12-Jun-20	15-Jun-20	08-Jul-20	11-Jul-20	20.5	0	0%
PORIII.AG.1048-02	Manhole Construction for SMH008 (14D/manhole)	14.0	0.0	14.0	NE/2017/08(6days)	16-Jun-20	03-Jul-20	11-Jul-20	28-Jul-20	20.5	0	0%
PORIII.AG.1048-03	Laying of Drainage Pipe SMH007 to SMH008	5.0	0.0	5.0	NE/2017/08(6days)	04-Jul-20	09-Jul-20	28-Jul-20	03-Aug-20	20.5	0	0%
PORIII.AG.1048-04	Backfilling of Drainage Trench for SMH007 to SMH008	10.0	0.0	10.0	NE/2017/08(6days)	10-Jul-20	21-Jul-20	03-Aug-20	14-Aug-20	20.5	0	0%
3MRP-20200608.7.6.7 Construction of Northern Drainage (SMH001 to SMH003)		98.0	16.0	82.0	NE/2017/08(6days)	21-May-20 A	14-Sep-20	31-Jul-20	27-Apr-21	180.5		
PORIII.AG.1100	Manhole Construction and pipe laying for SMH001 to SMH003 and Backfilling of Drainage Trench	30.0	16.0	15.0	NE/2017/08(6days)	21-May-20 A	26-Jun-20	20-Aug-20	07-Sep-20	60.5	0	50%
PORIII.AG.1102	Utilities Ducts Laying across Road D9 (Northern Portion)	32.0	0.0	32.0	NE/2017/08(6days)	09-Jun-20	17-Jul-20	31-Jul-20	07-Sep-20	43.5	0	0%
PORIII.AG.2000	Cable Laying and Decomissioning of Existing Cross Road UUs at Wan O Road	50.0	0.0	50.0	NE/2017/08(6days)	18-Jul-20	14-Sep-20	24-Feb-21	27-Apr-21	180.5	0	0%
3MRP-20200608.7.6.3 Construction of Pad Footing (Bay 1 to 11)		136.0	54.0	82.0	NE/2017/08(6days)	31-Mar-20 A	14-Sep-20	07-Jul-20	07-Nov-20	43.5		
3MRP-20200608.7.6.3.3 Base Slab		70.0	8.0	62.0	NE/2017/08(6days)	30-May-20 A	21-Aug-20	20-Jul-20	14-Oct-20	43.5		
3MRP-20200608.7.6.3.3.1 North Bound		30.0	0.0	30.0	NE/2017/08(6days)	18-Jul-20	21-Aug-20	07-Sep-20	14-Oct-20	43.5		
PORIII.AG.1410	Construction of Pad Footing Bay NB-N12 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	18-Jul-20	29-Jul-20	07-Sep-20	18-Sep-20	43.5	0	0%
PORIII.AG.1420	Construction of Pad Footing Bay NB-N13 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	11-Aug-20	21-Aug-20	30-Sep-20	14-Oct-20	43.5	0	0%
PORIII.AG.1430	Construction of Pad Footing Bay NB-N14 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	30-Jul-20	10-Aug-20	18-Sep-20	30-Sep-20	43.5	0	0%
PORIII.AG.1440	Construction of Pad Footing Bay NB-N15 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	18-Jul-20	29-Jul-20	07-Sep-20	18-Sep-20	43.5	0	0%
PORIII.AG.1450	Construction of Pad Footing Bay NB-N16 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	11-Aug-20	21-Aug-20	30-Sep-20	14-Oct-20	43.5	0	0%
3MRP-20200608.7.6.3.3.2 South Bound		70.0	8.0	62.0	NE/2017/08(6days)	30-May-20 A	21-Aug-20	20-Jul-20	14-Oct-20	43.5		
PORIII.AG.1400	Construction of Pad Footing Bay NB-S11 Base Slab	10.0	8.0	2.0	NE/2017/08(6days)	30-May-20 A	10-Jun-20	20-Jul-20	22-Jul-20	33.5	0	80%
PORIII.AG.1480	Construction of Pad Footing Bay NB-S12 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	18-Jul-20	29-Jul-20	07-Sep-20	18-Sep-20	43.5	0	0%
PORIII.AG.1490	Construction of Pad Footing Bay NB-S13 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	11-Aug-20	21-Aug-20	30-Sep-20	14-Oct-20	43.5	0	0%
PORIII.AG.1500	Construction of Pad Footing Bay NB-S14 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	30-Jul-20	10-Aug-20	18-Sep-20	30-Sep-20	43.5	0	0%
PORIII.AG.1510	Construction of Pad Footing Bay NB-S15 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	18-Jul-20	29-Jul-20	07-Sep-20	18-Sep-20	43.5	0	0%
PORIII.AG.1520	Construction of Pad Footing Bay NB-S16 Base Slab	10.0	0.0	10.0	NE/2017/08(6days)	11-Aug-20	21-Aug-20	30-Sep-20	14-Oct-20	43.5	0	0%
3MRP-20200608.7.6.3.4 Wall Stem		136.0	54.0	82.0	NE/2017/08(6days)	31-Mar-20 A	14-Sep-20	07-Jul-20	07-Nov-20	43.5		
3MRP-20200608.7.6.3.4.1 North Bound		136.0	54.0	82.0	NE/2017/08(6days)	31-Mar-20 A	14-Sep-20	17-Jul-20	07-Nov-20	43.5		



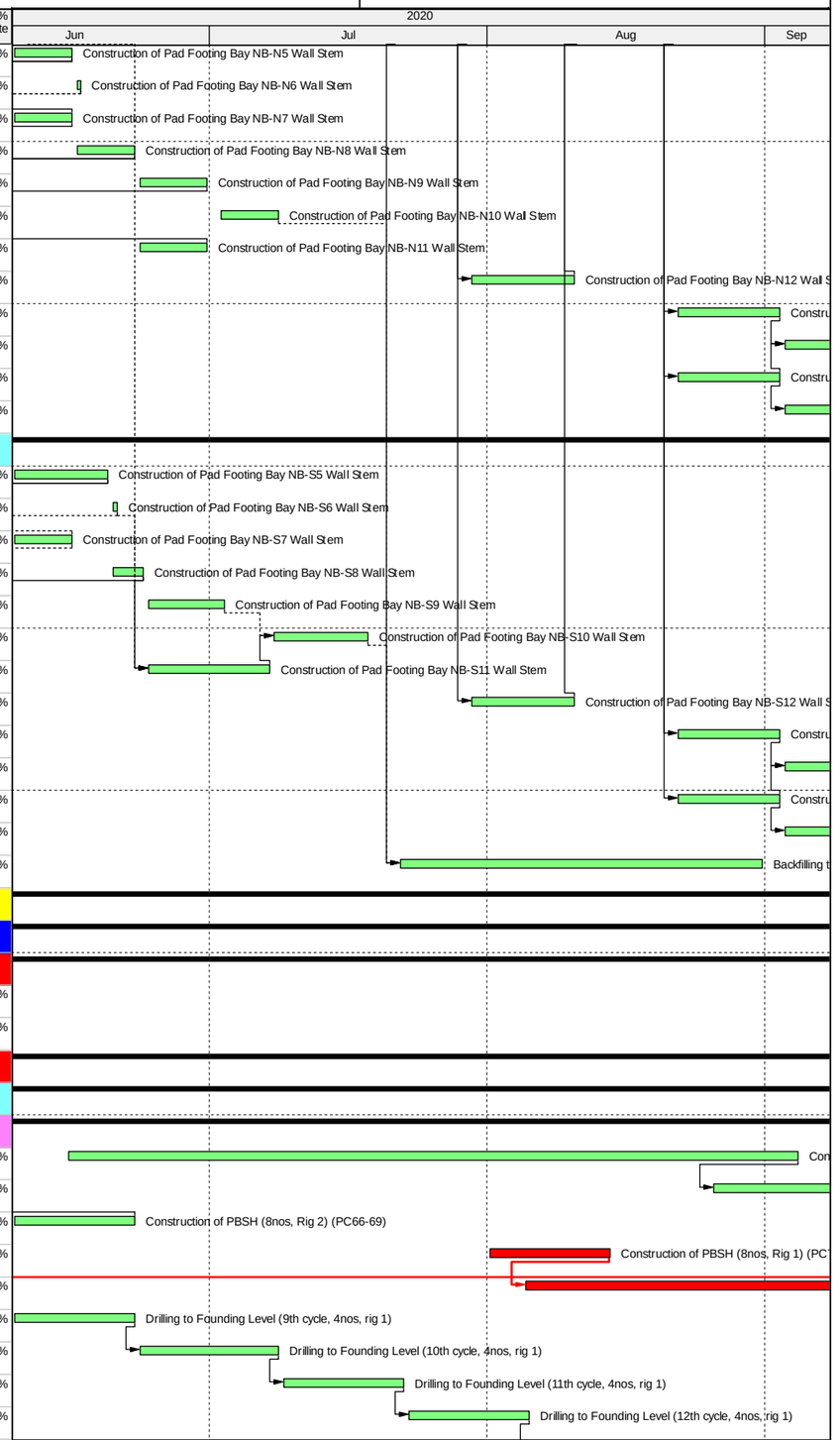
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone
summary

土木工程拓展署
Civil Engineering and Development Department

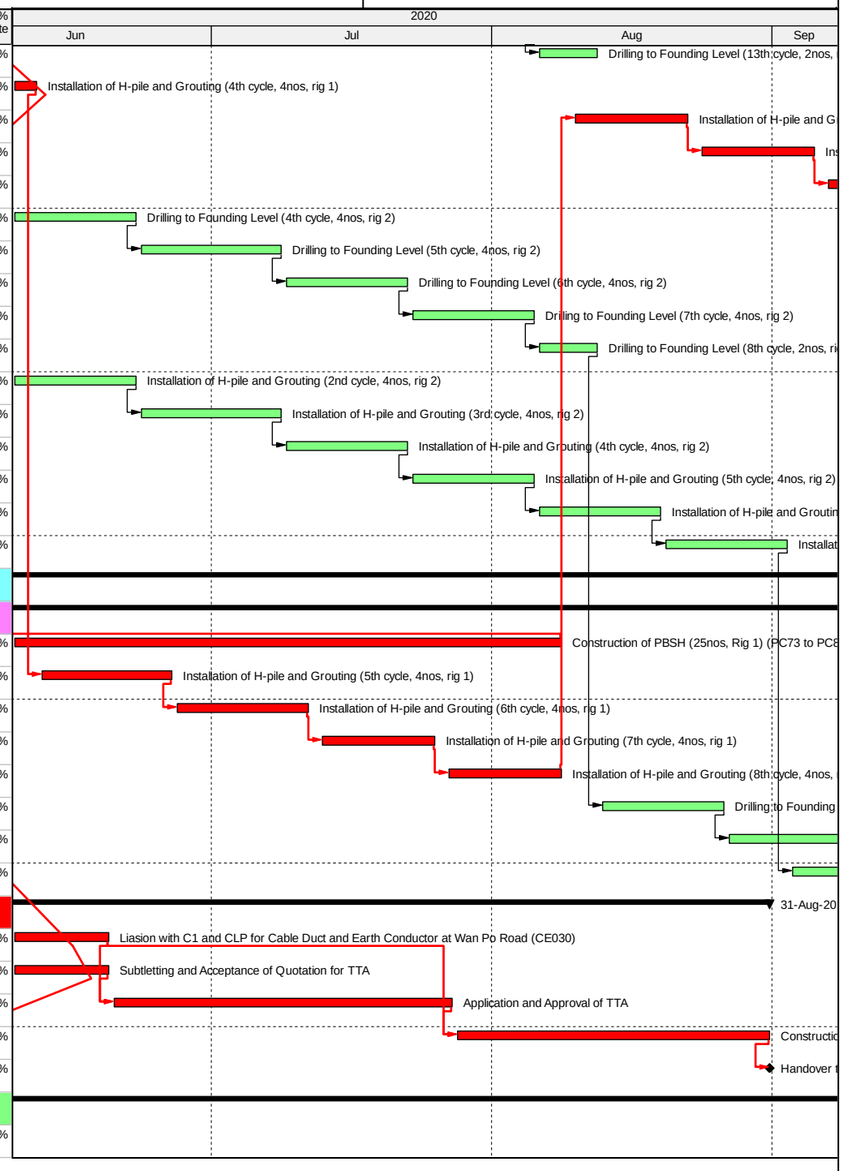
Build King

Date	Revision	Checked	Approved
08-Jun-20	3M Rolling Programme (20200608)	TL	StL

Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
PORIII.AG.1770	Construction of Pad Footing Bay NB-N5 Wall Stem	10.0	54.0	6.0	NE/2017/08(6days)	31-Mar-20 A	15-Jun-20	17-Jul-20	24-Jul-20	31.5	0	40%
PORIII.AG.1780	Construction of Pad Footing Bay NB-N6 Wall Stem	10.0	54.0	1.0	NE/2017/08(6days)	31-Mar-20 A	16-Jun-20	30-Jul-20	31-Jul-20	36.5	0	90%
PORIII.AG.1790	Construction of Pad Footing Bay NB-N7 Wall Stem	10.0	54.0	6.0	NE/2017/08(6days)	31-Mar-20 A	15-Jun-20	17-Jul-20	24-Jul-20	31.5	0	40%
PORIII.AG.1800	Construction of Pad Footing Bay NB-N8 Wall Stem	10.0	52.0	6.0	NE/2017/08(6days)	02-Apr-20 A	22-Jun-20	24-Jul-20	31-Jul-20	31.5	0	40%
PORIII.AG.1810	Construction of Pad Footing Bay NB-N9 Wall Stem	10.0	52.0	6.0	NE/2017/08(6days)	02-Apr-20 A	30-Jun-20	31-Jul-20	07-Aug-20	31.5	0	40%
PORIII.AG.1820	Construction of Pad Footing Bay NB-N10 Wall Stem	10.0	52.0	6.0	NE/2017/08(6days)	02-Apr-20 A	08-Jul-20	07-Aug-20	14-Aug-20	31.5	0	40%
PORIII.AG.1830	Construction of Pad Footing Bay NB-N11 Wall Stem	10.0	52.0	6.0	NE/2017/08(6days)	02-Apr-20 A	30-Jun-20	31-Jul-20	07-Aug-20	31.5	0	40%
PORIII.AG.1840	Construction of Pad Footing Bay NB-N12 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	30-Jul-20	10-Aug-20	18-Sep-20	30-Sep-20	43.5	0	0%
PORIII.AG.1850	Construction of Pad Footing Bay NB-N13 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	22-Aug-20	02-Sep-20	14-Oct-20	27-Oct-20	43.5	0	0%
PORIII.AG.1860	Construction of Pad Footing Bay NB-N14 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	03-Sep-20	14-Sep-20	27-Oct-20	07-Nov-20	43.5	0	0%
PORIII.AG.1870	Construction of Pad Footing Bay NB-N15 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	22-Aug-20	02-Sep-20	14-Oct-20	27-Oct-20	43.5	0	0%
PORIII.AG.1880	Construction of Pad Footing Bay NB-N16 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	03-Sep-20	14-Sep-20	27-Oct-20	07-Nov-20	43.5	0	0%
3MRP-20200608.7.6.3.4.2 South Bound		103.0	21.0	82.0	NE/2017/08(6days)	15-May-20 A	14-Sep-20	07-Jul-20	07-Nov-20	43.5		
PORIII.AG.1590	Construction of Pad Footing Bay NB-S5 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	09-Jun-20	19-Jun-20	07-Jul-20	18-Jul-20	22.5	0	0%
PORIII.AG.1600	Construction of Pad Footing Bay NB-S6 Wall Stem	10.0	21.0	1.0	NE/2017/08(6days)	15-May-20 A	20-Jun-20	21-Jul-20	22-Jul-20	24.5	0	90%
PORIII.AG.1610	Construction of Pad Footing Bay NB-S7 Wall Stem	10.0	17.0	6.0	NE/2017/08(6days)	20-May-20 A	15-Jun-20	11-Jul-20	18-Jul-20	26.5	0	40%
PORIII.AG.1620	Construction of Pad Footing Bay NB-S8 Wall Stem	10.0	18.0	3.0	NE/2017/08(6days)	19-May-20 A	23-Jun-20	18-Jul-20	22-Jul-20	22.5	0	70%
PORIII.AG.1630	Construction of Pad Footing Bay NB-S9 Wall Stem	10.0	17.0	6.0	NE/2017/08(6days)	20-May-20 A	02-Jul-20	27-Jul-20	03-Aug-20	26.5	0	40%
PORIII.AG.1640	Construction of Pad Footing Bay NB-S10 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	08-Jul-20	18-Jul-20	03-Aug-20	14-Aug-20	22.5	0	0%
PORIII.AG.1650	Construction of Pad Footing Bay NB-S11 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	24-Jun-20	07-Jul-20	22-Jul-20	03-Aug-20	22.5	0	0%
PORIII.AG.1660	Construction of Pad Footing Bay NB-S12 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	30-Jul-20	10-Aug-20	18-Sep-20	30-Sep-20	43.5	0	0%
PORIII.AG.1670	Construction of Pad Footing Bay NB-S13 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	22-Aug-20	02-Sep-20	14-Oct-20	27-Oct-20	43.5	0	0%
PORIII.AG.1680	Construction of Pad Footing Bay NB-S14 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	03-Sep-20	14-Sep-20	27-Oct-20	07-Nov-20	43.5	0	0%
PORIII.AG.1690	Construction of Pad Footing Bay NB-S15 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	22-Aug-20	02-Sep-20	14-Oct-20	27-Oct-20	43.5	0	0%
PORIII.AG.1700	Construction of Pad Footing Bay NB-S16 Wall Stem	10.0	0.0	10.0	NE/2017/08(6days)	03-Sep-20	14-Sep-20	27-Oct-20	07-Nov-20	43.5	0	0%
PORIII.AG.1910	Backfilling to Interim Formation Level (7 Layers, 5D/layer) for Bay 1 to 11	35.0	0.0	35.0	NE/2017/08(6days)	22-Jul-20	31-Aug-20	14-Aug-20	24-Sep-20	20.5	0	0%
3MRP-20200608.7.8 Wan O Road		294.0	181.0	125.0	NE/2017/08(6days)	28-Oct-19 A	06-Nov-20	08-Jun-20	06-Nov-20	-0.5		
3MRP-20200608.7.8.2 Carriage Way Excavation Permit		294.0	181.0	125.0	NE/2017/08(6days)	28-Oct-19 A	06-Nov-20	08-Jun-20	06-Nov-20	-0.5		
3MRP-20200608.7.8.2.1 TTA Stage 1		60.0	181.0	18.0	NE/2017/08(6days)	28-Oct-19 A	06-Nov-20	15-Oct-20	06-Nov-20	-0.5		
WO.CA.TTA1030	UU Diversion and Installation of Sheet Pile at Northern Footpath (Except Roundabout)	38.0	181.0	18.0	NE/2017/08(6days)	28-Oct-19 A	06-Nov-20	15-Oct-20	06-Nov-20	-0.5	0	52.63%
WO.CA.TTA1030-01	Uncharted Mass Concrete at Northern Footpath (NCE080)	15.0	142.0	18.0	NE/2017/08(6days)	12-Dec-19 A	06-Nov-20	15-Oct-20	06-Nov-20	-0.5	0	0%
3MRP-20200608.7.8.2.3 TTA Stage 2		184.0	78.0	107.0	NE/2017/08(6days)	03-Mar-20 A	15-Oct-20	08-Jun-20	15-Oct-20	-0.5		
3MRP-20200608.7.8.2.3.1 Northern Portion		152.0	45.0	107.0	NE/2017/08(6days)	15-Apr-20 A	15-Oct-20	08-Jun-20	15-Oct-20	-0.5		
3MRP-20200608.7.8.2.3.1.2 PBSH Works		152.0	45.0	107.0	NE/2017/08(6days)	15-Apr-20 A	15-Oct-20	08-Jun-20	15-Oct-20	-0.5		
WO.CA.TTA2NP.1150	Construction of PBSH (23nos, Rig 2) (PC60, 61, 63-65)	76.0	45.0	69.0	NE/2017/08(6days)	15-Apr-20 A	04-Sep-20	17-Jun-20	08-Sep-20	2.5	0	9.21%
WO.CA.TTA2NP.1150-02	Construction of PBSH (7nos, Rig 2) (PC57-58)	30.0	0.0	30.0	NE/2017/08(6days)	26-Aug-20	29-Sep-20	28-Aug-20	05-Oct-20	2.5	0	0%
WO.CA.TTA2NP.1150-03	Construction of PBSH (8nos, Rig 2) (PC66-69)	31.0	24.0	12.0	NE/2017/08(6days)	12-May-20 A	22-Jun-20	11-Jun-20	26-Jun-20	2.5	0	61.29%
WO.CA.TTA2NP.1160	Construction of PBSH (8nos, Rig 1) (PC70-72)	46.0	33.0	12.0	NE/2017/08(6days)	29-Apr-20 A	14-Aug-20	31-Jul-20	14-Aug-20	-0.5	0	73.91%
WO.CA.TTA2NP.1170	Construction of PBSH (17nos, Rig 1) (PC67-PC72)	60.0	0.0	60.0	NE/2017/08(6days)	05-Aug-20	15-Oct-20	04-Aug-20	15-Oct-20	-0.5	0	0%
WO.CA.TTA2NP.1210	Drilling to Founding Level (9th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	09-Jun-20	22-Jun-20	18-Jul-20	01-Aug-20	32.5	0	0%
WO.CA.TTA2NP.1220	Drilling to Founding Level (10th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	23-Jun-20	08-Jul-20	01-Aug-20	15-Aug-20	32.5	0	0%
WO.CA.TTA2NP.1230	Drilling to Founding Level (11th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	09-Jul-20	22-Jul-20	15-Aug-20	29-Aug-20	32.5	0	0%
WO.CA.TTA2NP.1240	Drilling to Founding Level (12th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	23-Jul-20	05-Aug-20	29-Aug-20	12-Sep-20	32.5	0	0%



Activity ID	Activity Name	Original Duration	Actual Duration	Remaining Duration	Calendar	Start	Finish	Late Start	Late Finish	Total Float	TRA	Activity % Complete
WO.CA.TTA2NP.1250	Drilling to Founding Level (13th cycle, 2nos, rig 1)	6.0	0.0	6.0	NE/2017/08(6days)	06-Aug-20	12-Aug-20	12-Sep-20	19-Sep-20	32.5	0	0%
WO.CA.TTA2NP.1310	Installation of H-pile and Grouting (4th cycle, 4nos, rig 1)	12.0	5.0	3.0	NE/2017/08(6days)	03-Jun-20 A	11-Jun-20	08-Jun-20	11-Jun-20	-0.5	0	75%
WO.CA.TTA2NP.1320	Installation of H-pile and Grouting (9th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	10-Aug-20	22-Aug-20	08-Aug-20	22-Aug-20	-0.5	0	0%
WO.CA.TTA2NP.1330	Installation of H-pile and Grouting (10th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	24-Aug-20	05-Sep-20	22-Aug-20	05-Sep-20	-0.5	0	0%
WO.CA.TTA2NP.1340	Installation of H-pile and Grouting (11th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	07-Sep-20	19-Sep-20	05-Sep-20	19-Sep-20	-0.5	0	0%
WO.CA.TTA2NP.1430	Drilling to Founding Level (4th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	09-Jun-20	22-Jun-20	18-Jun-20	04-Jul-20	8.5	0	0%
WO.CA.TTA2NP.1440	Drilling to Founding Level (5th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	23-Jun-20	08-Jul-20	04-Jul-20	18-Jul-20	8.5	0	0%
WO.CA.TTA2NP.1450	Drilling to Founding Level (6th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	09-Jul-20	22-Jul-20	18-Jul-20	01-Aug-20	8.5	0	0%
WO.CA.TTA2NP.1460	Drilling to Founding Level (7th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	23-Jul-20	05-Aug-20	01-Aug-20	15-Aug-20	8.5	0	0%
WO.CA.TTA2NP.1470	Drilling to Founding Level (8th cycle, 2nos, rig 2)	6.0	0.0	6.0	NE/2017/08(6days)	06-Aug-20	12-Aug-20	15-Aug-20	22-Aug-20	8.5	0	0%
WO.CA.TTA2NP.1510	Installation of H-pile and Grouting (2nd cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	09-Jun-20	22-Jun-20	11-Jun-20	26-Jun-20	2.5	0	0%
WO.CA.TTA2NP.1520	Installation of H-pile and Grouting (3rd cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	23-Jun-20	08-Jul-20	26-Jun-20	11-Jul-20	2.5	0	0%
WO.CA.TTA2NP.1530	Installation of H-pile and Grouting (4th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	09-Jul-20	22-Jul-20	11-Jul-20	25-Jul-20	2.5	0	0%
WO.CA.TTA2NP.1540	Installation of H-pile and Grouting (5th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	23-Jul-20	05-Aug-20	25-Jul-20	08-Aug-20	2.5	0	0%
WO.CA.TTA2NP.1550	Installation of H-pile and Grouting (6th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	06-Aug-20	19-Aug-20	08-Aug-20	22-Aug-20	2.5	0	0%
WO.CA.TTA2NP.1560	Installation of H-pile and Grouting (7th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	20-Aug-20	02-Sep-20	22-Aug-20	05-Sep-20	2.5	0	0%
3MRP-20200608.7.8.2.3.2 Southern Portion and Central Barrier		161.0	78.0	84.0	NE/2017/08(6days)	03-Mar-20 A	16-Sep-20	08-Jun-20	19-Sep-20	2.5		
3MRP-20200608.7.8.2.3.2.2 PBSH Works		161.0	78.0	84.0	NE/2017/08(6days)	03-Mar-20 A	16-Sep-20	08-Jun-20	19-Sep-20	2.5		
WO.CA.TTA2SP.1310	Construction of PBSH (25nos, Rig 1) (PC73 to PC81)	75.0	78.0	51.0	NE/2017/08(6days)	03-Mar-20 A	08-Aug-20	08-Jun-20	08-Aug-20	-0.5	0	32%
WO.CA.TTA2SP.1315-22	Installation of H-pile and Grouting (5th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	12-Jun-20	26-Jun-20	11-Jun-20	26-Jun-20	-0.5	0	0%
WO.CA.TTA2SP.1315-32	Installation of H-pile and Grouting (6th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	27-Jun-20	11-Jul-20	26-Jun-20	11-Jul-20	-0.5	0	0%
WO.CA.TTA2SP.1315-42	Installation of H-pile and Grouting (7th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	13-Jul-20	25-Jul-20	11-Jul-20	25-Jul-20	-0.5	0	0%
WO.CA.TTA2SP.1315-52	Installation of H-pile and Grouting (8th cycle, 4nos, rig 1)	12.0	0.0	12.0	NE/2017/08(6days)	27-Jul-20	08-Aug-20	25-Jul-20	08-Aug-20	-0.5	0	0%
WO.CA.TTA2SP.1320-01	Drilling to Founding Level (8th cycle, 2nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	13-Aug-20	26-Aug-20	22-Aug-20	05-Sep-20	8.5	0	0%
WO.CA.TTA2SP.1320-11	Drilling to Founding Level (9th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	27-Aug-20	09-Sep-20	05-Sep-20	19-Sep-20	8.5	0	0%
WO.CA.TTA2SP.1320-21	Installation of H-pile and Grouting (8th cycle, 4nos, rig 2)	12.0	0.0	12.0	NE/2017/08(6days)	03-Sep-20	16-Sep-20	05-Sep-20	19-Sep-20	2.5	0	0%
3MRP-20200608.7.8.2.15 Wan Po Road		143.0	71.0	70.0	NE/2017/08(6days)	11-Mar-20 A	31-Aug-20	09-Jun-20	31-Aug-20	0.0		
WO1250	Liasion with C1 and CLP for Cable Duct and Earth Conductor at Wan Po Road (CE030)	90.0	71.0	10.0	NE/2017/08(6days)	11-Mar-20 A	19-Jun-20	09-Jun-20	19-Jun-20	0.0	0	88.89%
WO1255	Subtletting and Acceptance of Quotation for TTA	90.0	71.0	10.0	NE/2017/08(6days)	11-Mar-20 A	19-Jun-20	09-Jun-20	19-Jun-20	0.0	0	88.89%
WO1257	Application and Approval of TTA	30.0	0.0	30.0	NE/2017/08(6days)	20-Jun-20	27-Jul-20	20-Jun-20	27-Jul-20	0.0	0	0%
WO1260	Construction of Cable Duct and Earth Conductor at Wan Po Road (CE030)	30.0	0.0	30.0	NE/2017/08(6days)	28-Jul-20	31-Aug-20	28-Jul-20	31-Aug-20	0.0	0	0%
WO1270	Handover to C1 for Power Energization of the E&M Plant Room (CE030)	0.0	0.0	0.0	NE/2017/08(6days)		31-Aug-20*		31-Aug-20	0.0	0	0%
3MRP-20200608.8 Miscellaneous Works (Portion I, II and III)		939.0	423.0	583.0	NE/2017/08(6days)	02-Jan-19 A	09-Sep-22	07-Apr-20	25-Mar-22	-136.5		
MISC4030	Tree Preservation and Protection Works	939.0	423.0	583.0	NE/2017/08(6days)	02-Jan-19 A	09-Sep-22	07-Apr-20	25-Mar-22	-136.5	0	37.91%



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

土木工程拓展署
Civil Engineering and Development Department

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

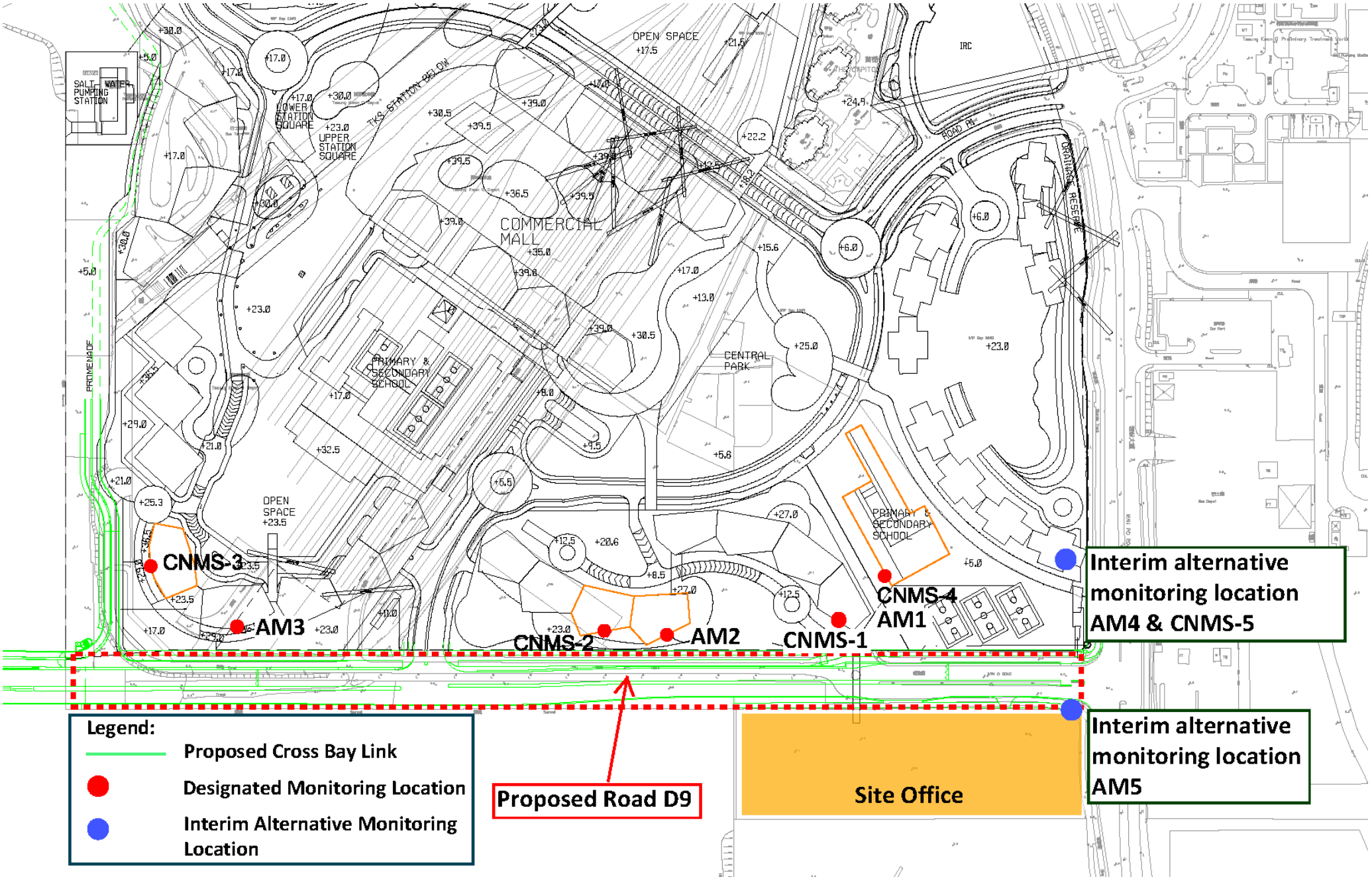
Date	Revision	Checked	Approved
08-Jun-20	3M Rolling Programme (20200608)	TL	StL

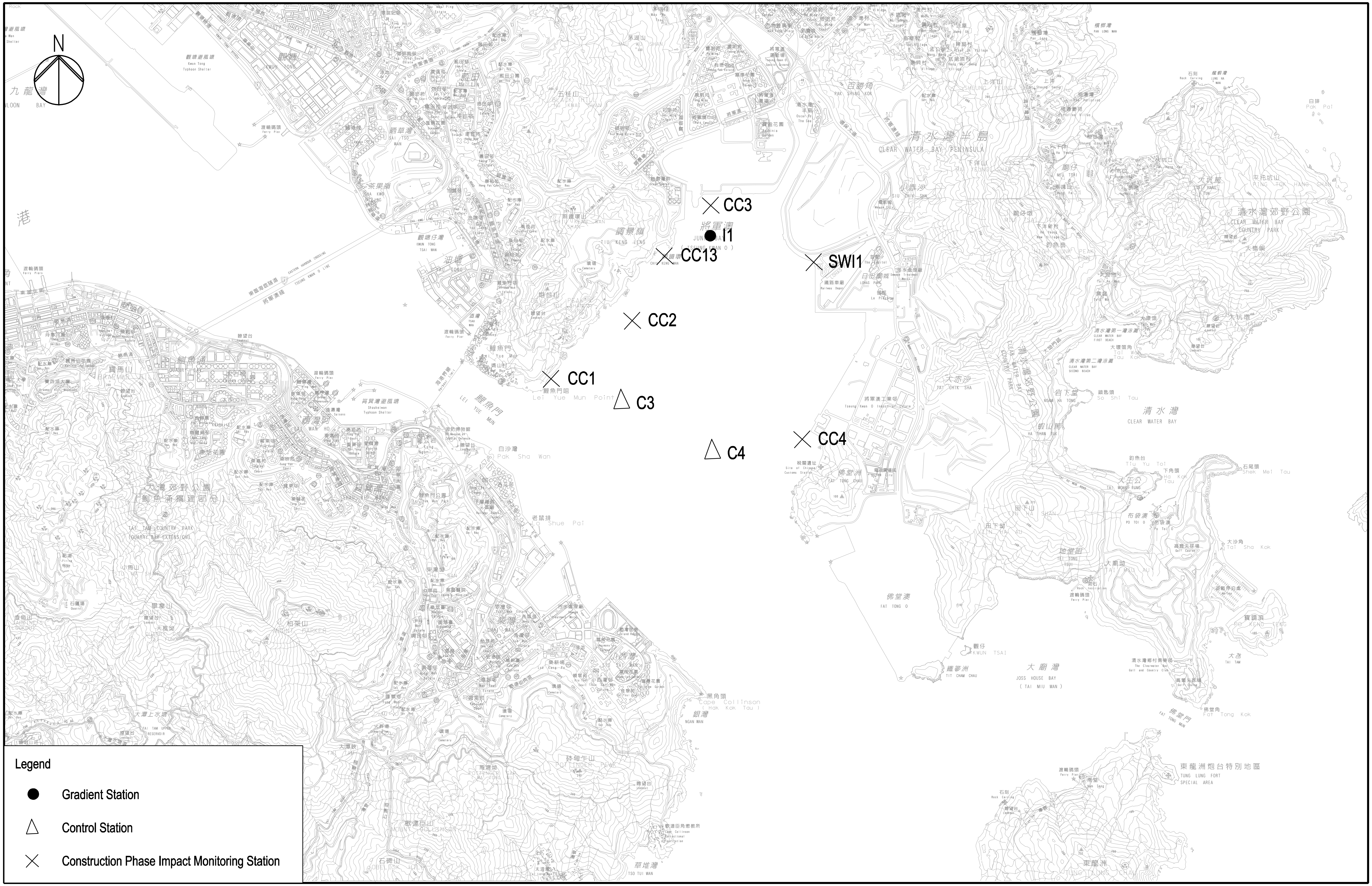
Appendix D

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





土木工程拓展署
Civil Engineering and Development Department

ARUP Ove Arup & Partners Hong Kong Limited

Job Title

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

Drawing Title

Locations of Water Quality Monitoring Stations

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

Drawn: GL	Date: 03/13
Checked: JP	Approved: ST
Scale: 1:30000 (A3)	

Drawing No. 209506/EMA/WQ/001

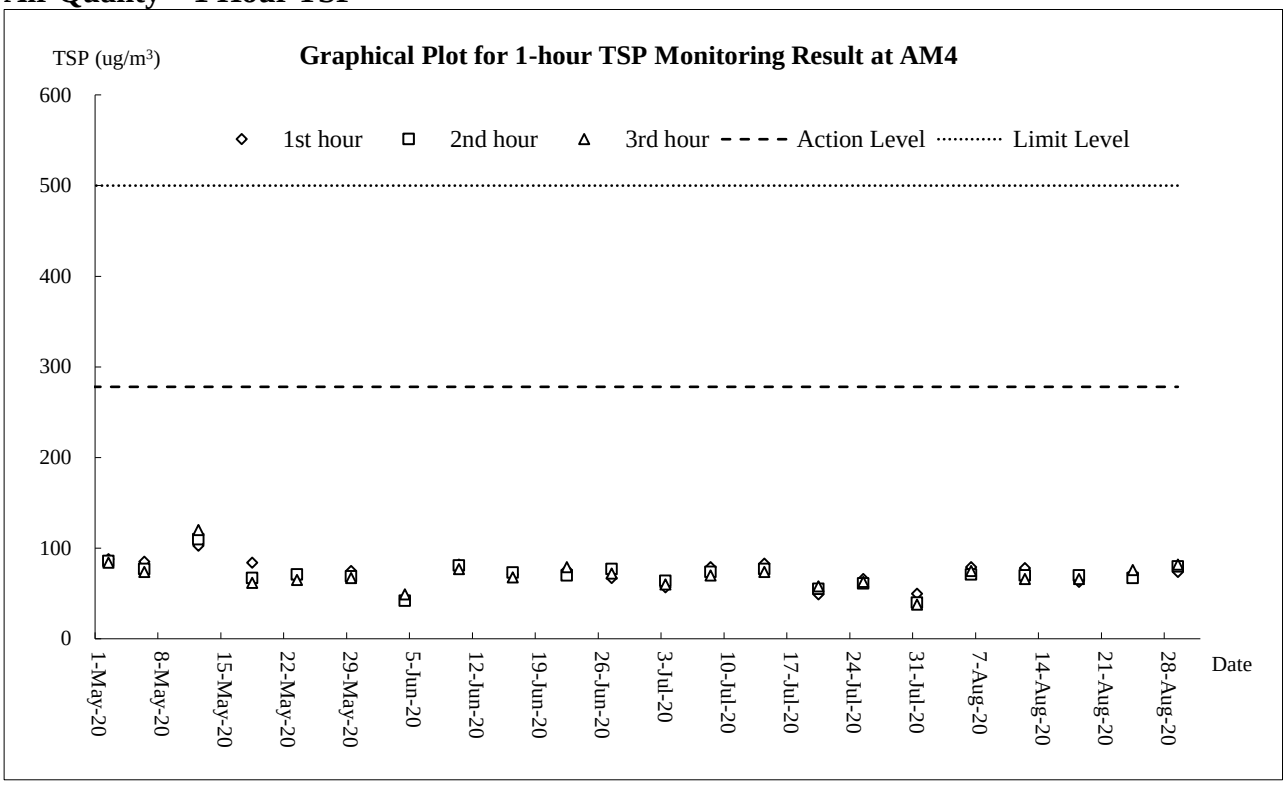
Status: FINAL

Rev. C

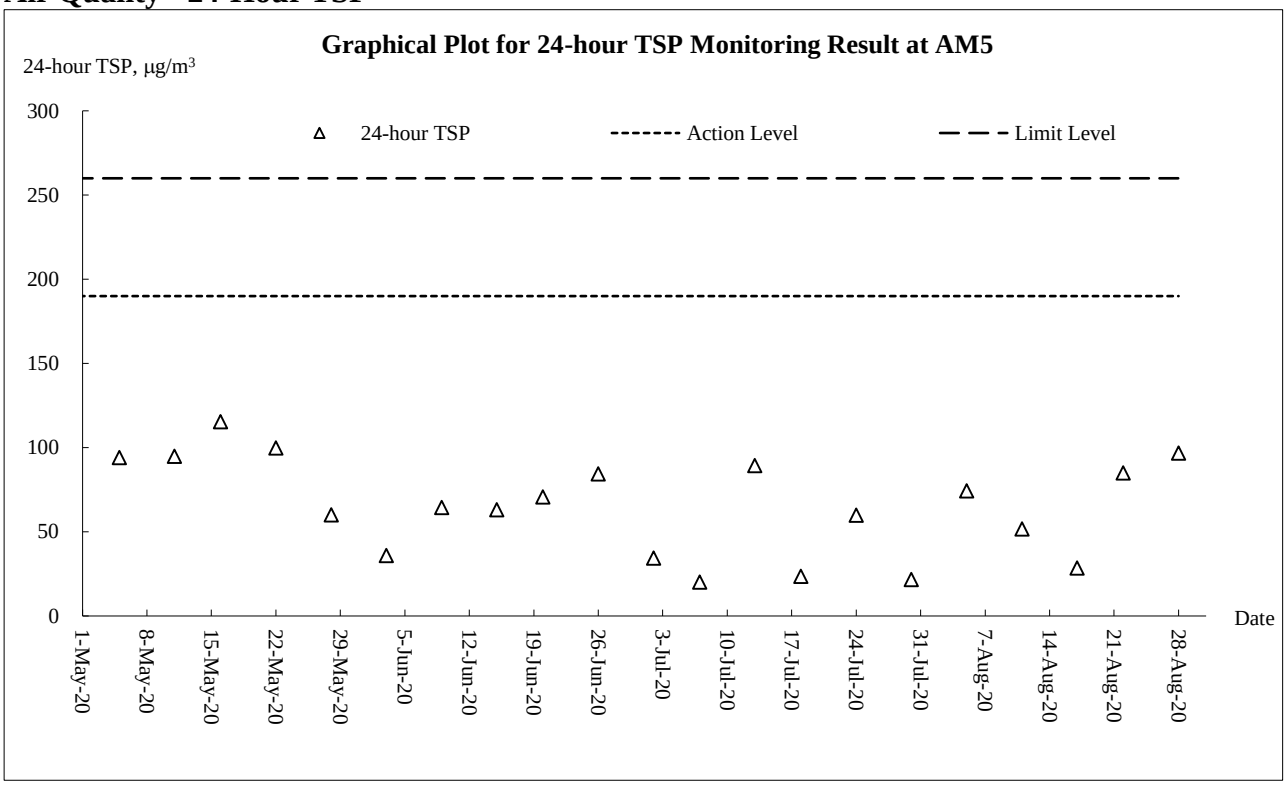
Appendix E

Graphical Plots of Monitoring Results

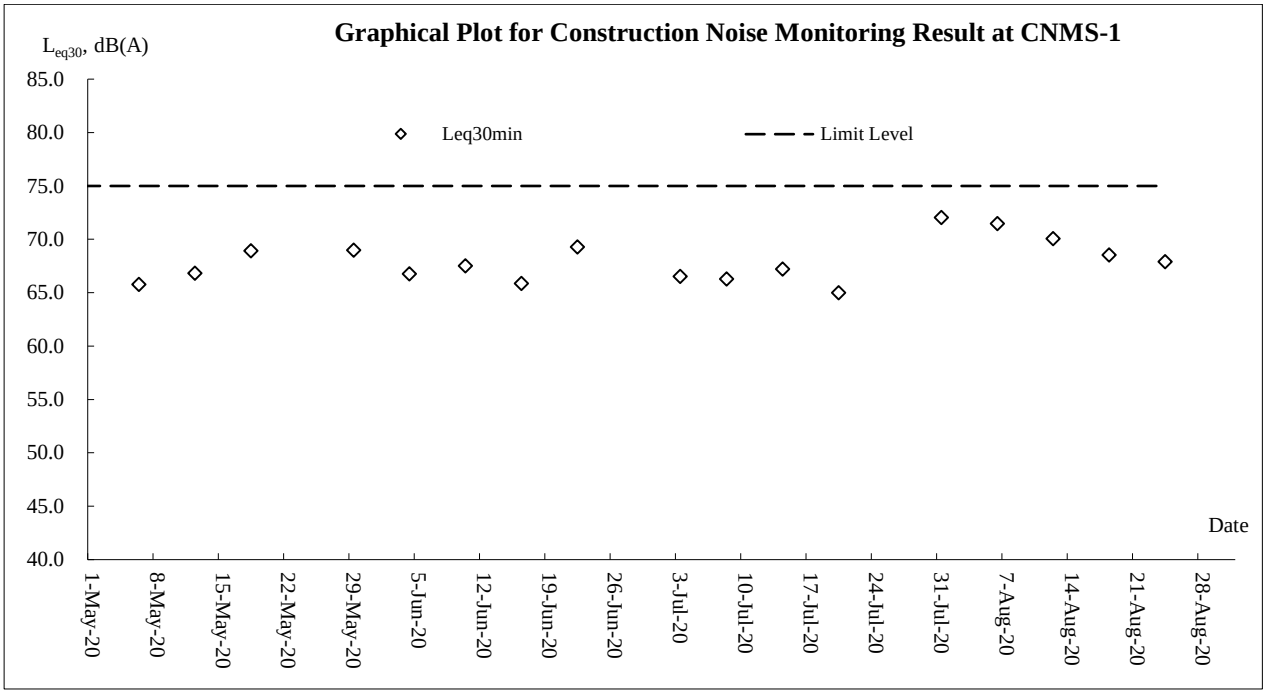
Air Quality – 1 Hour TSP

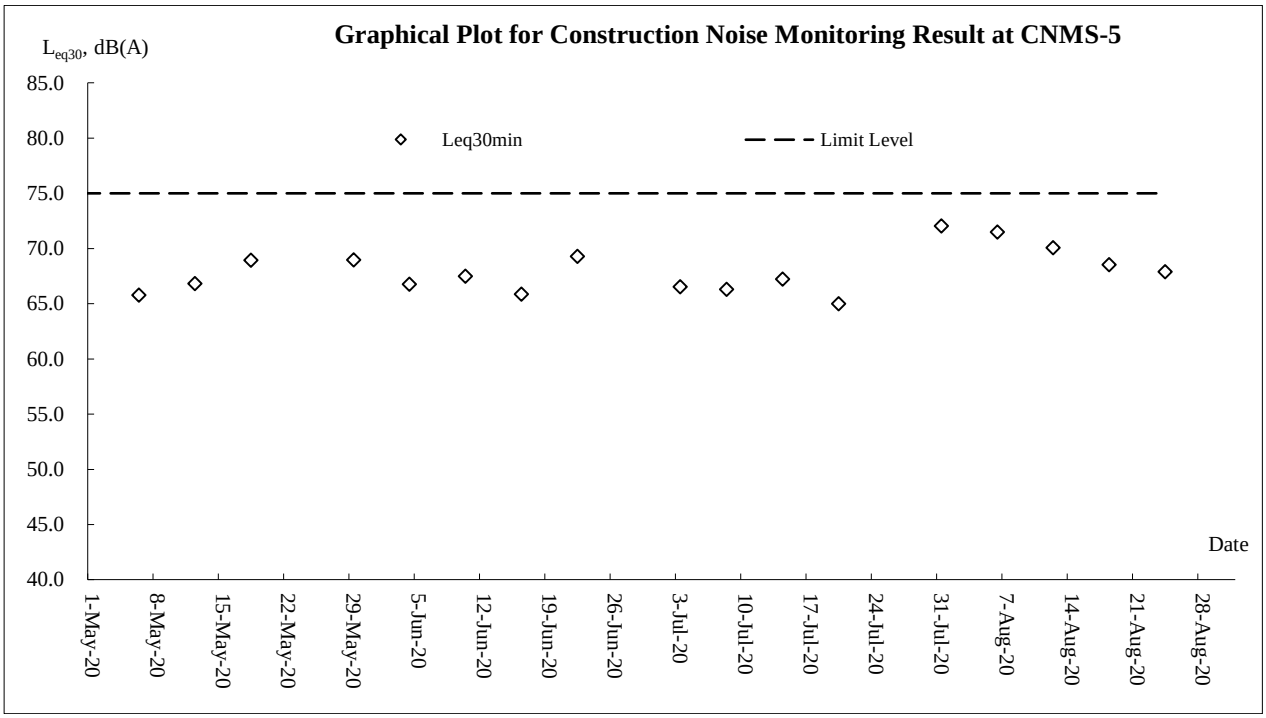


Air Quality - 24-Hour TSP



Construction Noise





Appendix F

Meteorological Information

The weather of June 2020

Mainly attributing to the stronger than usual subtropical ridge over southern China, June 2020 was much hotter than usual in Hong Kong. The monthly mean minimum temperature was 27.8 degrees, 1.6 degrees above the normal figure and the highest on record for June. The monthly mean temperature and monthly mean maximum temperature were 29.6 degrees and 32.3 degrees respectively, both were the second highest on record for June. With a total of 18 hot nights, June 2020 was on par with July 1993 as one of the highest record of number of hot nights in a month. The 12 consecutive hot nights that started from 19 June also set a new record for June. Moreover, the first half of this year was exceptionally warm. The mean maximum temperature of 25.7 degrees and mean temperature of 23.0 degrees were both the highest on record for the same period. The mean minimum temperature of 21.1 degrees was the third highest on record for the same period. June 2020 was also marked by sunny weather with the monthly total sunshine duration amounting to 192.5 hours, about 32 percent above the normal of 146.1 hours. Despite the heavy rain episode on 6 – 8 June, the monthly total rainfall was only 397.2 millimetres, about 13 percent below the normal figure of 456.1 millimetres. The accumulated rainfall for the first half of the year of 963.4 millimetres was about 12 percent below the normal figure of 1096.9 millimetres.

The weather of July 2020

With a stronger than usual subtropical ridge persisting over southern China for most of the time in the month, July 2020 became the hottest month in Hong Kong since records began in 1884. The monthly mean maximum temperature of 33.3 degrees, monthly mean temperature of 30.2 degrees and monthly mean minimum temperature of 28.3 degrees were 1.9 degrees, 1.4 degrees and 1.5 degrees above their corresponding normals and all of them were the highest of the correspondingly monthly mean values on record. With a total of 21 hot nights, July 2020 was the month with the highest number of hot nights on record and the 11 consecutive hot nights that started from 5 July also set a new record for July. Moreover, there were 20 very hot days in the month, the highest number of very hot days in a month on record. With long spell sunny weather, the month was also much drier than usual. The total monthly rainfall was only 125.4 millimetres, about 33 percent of the normal figure of 376.5 millimetres. The accumulated rainfall for the first seven months of the year was 1088.8 millimetres, about 26 percent below the normal figure of 1473.3 millimetres.

The weather of August 2020

Mainly attributing to the warmer than normal sea surface temperature over the northern part of the South China Sea, August 2020 was hotter than usual in Hong Kong. The monthly mean temperature of 29.0 degrees was 0.4 degree above the normal figure of 28.6 degrees. Together with the extremely high temperature weather in June and July, Hong Kong experienced the hottest summer on record from June to August 2020. The mean temperature of 29.6 degrees, mean minimum temperature of 27.7 degrees and mean maximum temperature of 32.6 degrees for June to August 2020 were all the highest on record for the same period. There were 16 very hot days in August 2020, the highest number of very hot days on record for August. Moreover, from January to August, the annual number of very hot days in 2020 already reached 43, which is 32.8 days above the annual normal and broke the previous highest record of 38 days set in 2016. The number of hot nights up to August 2020 also reached 46, on par with the highest record in 2019. The monthly rainfall was 448.4 millimetres, about 4 percent above the normal figure of 432.2 millimetres. The accumulated rainfall recorded in the first eight months of the year was 1537.2 millimetres, about 19 percent below the normal figure of 1905.5 millimetres for the same period.

*The detailed meterological data for each successive day can be referred to in the Monthly EM&A Reports (June 2020, July 2020 and August 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											
Oct											
Nov											
Dec											
Total	1.440	0.000	0.000	0.000	1.440	0.000	0.000	0.725	0.000	0.000	0.677

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	1.988	0.000	0.000	0.000	0.563	1.425	0.000	0.000	0.000	0.000	0.018
Aug	1.628	0.000	0.000	0.000	0.604	1.024	0.000	0.000	0.000	0.000	0.022
Sep											
Oct											
Nov											
Dec											
TOTAL	19.457	0.000	0.000	0.000	17.008	2.449	0.000	0.000	0.000	0.000	0.180

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	Status	Investigation Report Ref.
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. .	no comment by IEC on 27 March 2019	TCS00975/18/300/F0141a
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.	no comment by IEC on 13 February 2020	TCS00975/18/300/F0329c
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 barrier as 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 the use 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.	no comment by IEC on 13 February 2020	TCS00975/18/300/F0333b
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.	no comment by IEC on 9 March 2020	TCS00975/18/300/F0343
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.	no comment by IEC on 30 March 2020	TCS00975/18/300/F0353b
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.	no comment by IEC on 8 May 2020	TCS00975/18/300/F0369a
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.	no comment by IEC on 12 May 2020	TCS00975/18/300/F0376
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.	no comment by IEC on 13 May 2020	TCS00975/18/300/F0377a
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.	no comment by IEC on 28 July 2020	TCS00975/18/300/F0427

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.	no comment by IEC on 6 August 2020	TCS00975/18/300/F0431a
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	no comment by IEC on 14 August 2020	TCS00975/18/300/F0442
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.	no comment by IEC on 2 September 2020	TCS00975/18/300/F0445a
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	no comment by IEC on 2 September 2020	TCS00975/18/300/F0446a

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

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

EIA Ref	Environmental Protection Measures/ Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to Address	Location/ Timing	Implementation		Requirements and/or Standards to be Achieved
				Agent	Stage	
	detailed design of the sand/silt traps shall be undertaken by the contractor prior to the commencement of construction; • Open stockpiles of construction materials (for example, aggregates, sand and fill material) of more than 50m3 shall be covered with tarpaulin or similar fabric during rainstorms. Measures shall be taken to prevent the washing away of construction materials, soil, silt or debris into any marine water bodies; • All vehicles and plant shall be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities shall be provided at every construction site exit where practicable. Wash-water shall have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road shall be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains; • Construction solid waste, debris and rubbish on site shall be collected, handled and disposed of properly to avoid water quality impacts; • All fuel tanks and storage areas shall be provided with locks and sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching water sensitive receivers nearby; and • Regular environmental audit on the construction site shall be carried out in order to prevent any malpractices. Notices shall be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the meander, wetlands and fish ponds.					
S8.6.4.6	Sewage from workforce • Portable chemical toilets and sewage holding tanks shall be provided for handling the construction sewage generated by the workforce; • A licensed contractor shall be employed to provide	Control potential water quality impacts from sewage	All construction sites	Contractor	Construction stage	• TM-EIAO; and • WPCO

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

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

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

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

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

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

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

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

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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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				Agent	Stage	
	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