

21 April 2017

By Fax (3468 2076) and By Post

AECOM Asia Co. Ltd.
The PRE's Office
5 Ying Hei Road, Tung Chung, Lantau
Hong Kong

Attention: Mr. Michael Tovey

Dear Sir,

**Re: Agreement No. CE 48/2011 (EP)
Environmental Project Office for the
HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities,
and Tuen Mun-Chek Lap Kok Link – Investigation**

**Contract No. HY/2013/03 – HZMB HKBCF – Vehicle Clearance Plazas and
Ancillary Buildings and Facilities
Monthly Environmental Monitoring & Audit Report for March 2017**

Reference is made to the Environmental Team's submission of Monthly Environmental Monitoring & Audit Report for March 2017 (Rev. 2) certified by the ET Leader (ET's ref.: "MCL/ED/0254/2017/C" dated 20 April 2017) and provided to us via e-mail on 21 April 2017.

We are pleased to inform you that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 5.4 of the Environmental Permit No. EP-353/2009/K.

The ET Leader is reminded that it is the ET's responsibility to ensure the report be timely submitted to the Director of Environmental Protection and the reported information be true, valid and correct as per Conditions 5.4 and 5.5 of EP-353/2009/K.

Thank you very much for your attention and please feel free to contact the undersigned should you require further information.

Yours faithfully,
For and on behalf of
Ramboll Environ Hong Kong Limited



Raymond Dai
Independent Environmental Checker

c.c.	HyD	Mr. Vico Cheung	(By Fax: 3188 6614)
	HyD	Mr. Ken Woo	(By Fax: 3188 6614)
	MCL	Mr. Arthur Cheng	(By Fax: 2450 8032)
	CHEC	Mr. Johnason Ko	(By Fax: 2887 3014)

Internal: DY, YH, ENPO Site

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Date 20 April 2017
Our Ref. MCL/ED/0254/2017/D

Ramboll Environ Hong Kong Limited
(formerly ENVIRON Hong Kong Limited)
21/F, BEA Harbour View Centre
56 Gloucester Road, Wan Chai
Hong Kong

BY HAND

Attn.: Mr. Raymond Dai, IEC

Dear Sir,

**EP Condition 5.4 – Monthly EM&A Report for
Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities –
Vehicle Clearance Plazas and Ancillary Buildings and Facilities (Contract No. HY/2013/03)**

Pursuant to Condition 5.4 of the Environmental Permit (EP-353/2009/K) for the captioned project, we are pleased to submit the certified Monthly EM&A Report for March 2017 (Rev.2) for your verification.

Should you require further information, please do not hesitate to contact our Miss Jamie Tam at 3565 4157 or the undersigned at 3565 4115.

Yours faithfully,
for and on behalf of
MATERIALAB CONSULTANTS LIMITED



Arthur Cheng
Environmental Team Leader

AC/jt

c.c. AECOM – Mr. P.K. Lee, Mr. W.S. Ng, Mr. Patrick Ko
RAMBOLL ENVIRON – Mr. Ray Yan, Mr. Andy Wong
CHEC – Mr. Marko Chan

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Report No.: 0165/15/ED/0761

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT (Rev. 2)

March 2017

Client: China Harbour Engineering Co., Ltd.


Project: Contract No. HY/2013/03
Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing Facilities -
Vehicle Clearance Plazas and
Ancillary Buildings and Facilities

Report No.: 0165/15/ED/0761

Prepared by: Jamie Tam

Reviewed by: Bong Yu

Certified by:



Arthur Cheng
Environmental Team Leader

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EXECUTIVE SUMMARY

This Monthly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract No. HY/2013/03 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities” (includes the construction works of Contract No. HY/2013/06 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System” within Contract No. HY/2013/03 works area) (hereafter referred to as “the Contract”) for the Highways Department of Hong Kong Special Administrative Region (HKSAR). Contract No. HY/2013/03 was awarded to China Harbour Engineering Co. Limited (construction works of Contract No. HY/2013/06 was awarded to ATAL Technologies Limited within Contract No. HY/2013/03 works area) (hereafter referred to as “the Contractor”) and MaterialLab Consultants Limited (MCL) was appointed as the Environmental Team (ET) by the Contractor.

Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) is part of the “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities” (HZMB HKBCF) Project which is a “Designated Project” under Schedule 2 of the Environmental Impact Assessment (EIA) Ordinance (Cap. 499) and for which an EIA Report (Register No. AEIAR-145/2009) was prepared and approved. The current Environmental Permit (EP) for HKBCF, namely No. EP-353/2009/K, was issued on 11 April 2016. These documents are available through the EIA Ordinance Register.

Commencement of Contract No. HY/2013/03 took place on 10 April 2015 while the construction works and the EM&A programme of Contract No. HY/2013/03 commenced on 29 August 2015 (commencement of Contract No. HY/2013/06 took place on 14 August 2015 while the construction works and the EM&A programme of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area commenced on 13 September 2016).

MaterialLab Consultants Limited (MCL) has been appointed by the Contractor to implement the Environmental Monitoring & Audit (EM&A) programme for the Contract in accordance with the Updated EM&A Manual for HKBCF (Version 1.0) and will be providing environmental team services for the Contract.

This is the 19th Monthly EM&A Report for the Contract which summaries findings of the EM&A programme during the reporting period from 01 March 2017 to 31 March 2017 (includes the findings of the EM&A programme of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area during the reporting period from 01 March 2017 to 31 March 2017) (the “reporting period”). The monthly EM&A programme was undertaken in accordance with the Updated EM&A Manual for HKBCF (Version 1.0). It should be noted that the air quality and noise monitoring works for the Contract are covered by Contract No. HY/2010/02 “Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works” and Contract No. HY/2011/03 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between Scenic Hill and HKBCF”. The ET of the Contract or another ET of the HZMB project is required to conduct impact air quality monitoring at AMS6 and AMS7 and noise monitoring at NMS2 and NMS3B as part of EM&A programme if these monitoring stations are no longer covered under Contract No. HY/2010/02 and HY/2011/03. However, this is subject to ENPO’s final decision on which ET should carry out the monitoring work at these stations.

The dates of site inspection for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) during the reporting period are listed below:

Environmental Site Inspection: 02, 09, 16, 24 and 30 March 2017.

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Breaches of Action and Limit Levels

Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A report prepared by Contract No. HY/2011/03.

There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7 by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

There was no marine works conducted during the reporting period and therefore, no water quality impact monitoring result is reported.

There was no marine works conducted during the reporting period and therefore, no ecology monitoring result is reported.

Complaint Log

There were two complaints received in relation to the environmental impact during the reporting period.

Log No.	Environmental Complaint Ref. No.	Date of Complaint Receipt	Description
006	ENPO-C0110	21 March 2017	Water pollution
007	ENPO-C0113	28 March 2017	Noise and water pollution

After investigation, one complaint cannot be concluded that the captioned complaint was related to Contract No. HY/2013/03 due to lack of information and another complaint was not related to Contract No. HY/2013/03. Both complaints were not related to Contract No. HY/2013/06 within Contract No. HY/2013/03.

Notifications of Summons and Successful Prosecutions

There were no notifications of summons or prosecutions received during this reporting period.

Reporting Changes

There was no reporting change during the reporting period.

Future Key Issues

The future key issues to be undertaken in the upcoming month are:

For Contract No. HY/2013/03

1. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
2. Piling at Box Culvert B & Sign Gantry;
3. CUE Construction at Portion B, C & J;
4. Drainage & Sewerage Work, Water Main & Cable Duct at Portion B, H1, H2, J, P, G & A1;
5. Radiation Screen Wall at Portion B, E P, N,M,C;
6. Sign Gantry Footing at Portion B;
7. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;
8. Bridge Works at A1 to A9;

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9. Site Foundation Works at Portion K;
10. Cover Walkway at Portion H1 & H2;
11. Box Culvert B at Portion N; Shuttle kiosk & Subway at Portion E; and
12. Marine sediment excavation activities from the land-based works and corresponding disposal at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

1. Installation of conceal conduit and services conduit installation at Building 037 and CUE works area.

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1. INTRODUCTION

1.1 Background

- 1.1.1 Materialab Consultants Limited was commissioned by China Harbour Engineering Co. Limited (also referred to as “the Contractor”) to undertake the Environmental Team (ET) services (including environmental monitoring and audit (EM&A)) for Contract No. HY/2013/03 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities” (includes the construction works of Contract No. HY/2013/06 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System” within Contract No. HY/2013/03 works area) (“the Contract”) for the Highways Department of Hong Kong Special Administrative Region (HKSAR).
- 1.1.2 Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) is part of Hong Kong–Zhuhai–Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) which is “Designated Projects”, under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap 499) and for which an EIA Report (Register No. AEIAR-145-2009) was prepared and approved. The current Environmental Permit (EP) for HKBCF, namely No. EP- 353/2009/K, was issued on 11 April 2016. These documents are available through the EIA Ordinance. The general layout of the Project area is shown in **Appendix A**.
- 1.1.3 This is the nineteenth EM&A report to document the findings of site inspection activities and EM&A programme carried out by the Contractor of Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) from 01 March 2017 to 31 March 2017 (reporting period) under Contract No. HY/2013/03 (from 01 March 2017 to 31 March 2017 for the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) and is submitted to fulfil Condition 5.4 of the EP.

1.2 Project Description

- 1.2.1 The works to be executed under Contract No. HY/2013/03 include the following major items:
- Cargo clearance facilities including kiosks for clearance of good vehicles, customs inspection platforms, X-ray building, etc.;
 - Passenger related facilities including processing kiosks and examination facilities for private cars and coaches, annexure for examination of accompanying passengers of private cars, etc.;
 - Accommodation/offices for the facilities (like fire station, police station, buildings for Immigration Department [ImmD], Hong Kong Customs and Excise Department [C&ED], Agriculture, Fisheries and Conservation Department [AFCD], Food and Environmental Hygiene Department [FEHD], Department of Health [DofH] etc.) of the Government departments providing services in connection with the HKBCF;
 - Provision of transport and miscellaneous facilities inside the HKBCF including public transport interchange (PTI), transport drop-off and pick-up areas, vehicle holding areas, passenger queuing areas, road networks, footbridges, fencing, sewerage and drainage systems, sewage treatment plant and treated effluent disposal facilities, water supply system, building services works, electronic system, and traffic control and information system including traffic control and surveillance system (TCSS), etc.;

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- e. Provision of roads connecting the BCF to the Hong Kong Link Road (HKLR), the Tuen Mun – Chek Lap Kok Link (TM-CLKL) and the Hong Kong International Airport (HKIA), expect the part of road works in HKIA entrusted to the HKLR project; and
- f. Reprovisioning of the affected HKIA's facilities, expect those affected by the Automated People Mover (APM) system such as the existing east rescue berth.

1.2.2 The works to be executed under Contract No. HY/2013/06 within Contract No. HY/2013/03 works area include the following major items:

- a. The Automatic Vehicle Clearance Support System amid to increasing traffic flow for Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities;
- b. Responsible for designs and develops a set of tailor-made computer monitoring and control systems to for daily security operation; and
- c. The Clearance Workstations at 72 vehicle clearance kiosks, Customs and Excise's inbound and outbound traffic control centers as well as a Vehicle Tracking System.

1.3 Project Organisation

1.3.1 The Project Organisation for Environmental Works of Contract No. HY/2013/03 is shown in **Appendix B**. The contact person and telephone numbers of key personnel for the captioned project are shown in **Table 1.1**:

Table 1.1 Contact Persons and Telephone Numbers of Key Personnel (for Contract No. HY/2013/03)

Party	Position	Contact Person	Telephone No.	Fax No.
Engineer or Engineer's Representative (AECOM Asia Co. Ltd.)	Chief Resident Engineer	Mr. Michael Tovey	3985 7470	3902 8800
Environmental Project Office / Independent Environmental Checker (Ramboll Environ Hong Kong Limited)	Environmental Project Office Leader	Mr. Y. H. Hui	3547 2133	3465 2899
	Independent Environmental Checker (IEC)	Mr. Raymond Dai	3465 2888	3465 2899
	Environmental Site Supervisor	Mr. Ray Yan	5181 8165	3465 2899
Contractor (China Harbour Engineering Co. Ltd)	Site Agent	Mr. Paul Pui	9125 0700	2512 0427
	Environmental Officer	Mr. Marko Chan	9427 2879	2512 0427
Environmental Team (Materialab Consultants Limited)	Environmental Team Leader (ETL)	Mr. Arthur Cheng	3565 4115	2450 8032
24-hr Complaint Hotline	--	--	5236 7111	--

1.3.2 The Project Organisation for Environmental Works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area is shown in **Appendix B**. The contact person and telephone numbers of key personnel for the captioned project are shown in **Table 1.2**:

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Table 1.2 Contact Persons and Telephone Numbers of Key Personnel (for Contract No. HY/2013/06 within Contract No. HY/2013/03 works area)

Party	Position	Contact Person	Telephone No.	Fax No.
Engineer or Engineer's Representative (AECOM Asia Co. Ltd.)	Chief Resident Engineer	Mr. Michael Tovey	3985 7470	3902 8800
Environmental Project Office / Independent Environmental Checker (Ramboll Environ Hong Kong Limited)	Environmental Project Office Leader	Mr. Y. H. Hui	3547 2133	3465 2899
	Independent Environmental Checker (IEC)	Mr. Raymond Dai	3465 2888	3465 2899
	Environmental Site Supervisor	Mr. Ray Yan	5181 8165	3465 2899
Contractor (ATAL Technologies Limited)	Site Agent	Mr. Eric Yim	2565 3355	3162 5217
	Environmental Officer	Mr. W. Li	2565 3137	3162 5217
Environmental Team (Materialab Consultants Limited)	Environmental Team Leader (ETL)	Mr. Arthur Cheng	3565 4115	2450 8032
24-hr Complaint Hotline	--	--	6509 0375	--

1.3.3 The Contract HY/2013/03 has commenced on 10 April 2015. The commencement of construction works and the EM&A programme have commenced on 29 August 2015.

1.3.4 The Contract HY/2013/06 has commenced on 14 August 2015. The commencement of construction works and the EM&A programme have commenced on 13 September 2016 within Contract No. HY/2013/03 works area.

1.4 Construction Programme

1.4.1 The construction programme for Contract No. HY/2013/03 (includes the construction works of HY/2013/06 within Contract No. HY/2013/03 works area) are provided in **Appendix C**.

1.5 Construction Works Undertaken during the Reporting Period

1.5.1 The construction works of Contract No. HY/2013/03 commenced on 29 August 2015 (includes the construction works of Contract No. HY/2013/06 commenced on 13 September 2016 within Contract No. HY/2013/03 works area). During this reporting period, the following major site activities were commenced:

For Contract No. HY/2013/03

1. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
2. Piling at Box Culvert B & Sign Gantry;
3. CUE Construction at Portion B, C & J;
4. Drainage & Sewerage Work, Water Main & Cable Duct at Portion B, H1, H2, J, P, G & A1;
5. Radiation Screen Wall at Portion B, E P, N,M,C;
6. Sign Gantry Footing at Portion B;
7. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;

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8. Bridge Works at A1 to A9;
9. Site Foundation Works at Portion K;
10. Cover Walkway at Portion H1 & H2;
11. Box Culvert B at Portion N; Shuttle kiosk & Subway at Portion E; and
12. Marine sediment excavation activities from the land-based works and corresponding disposal at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

1. Wiring and installation of services conduit at Building 037 and CUE works area.
- 1.5.2 Refer to operation team confirmation and further checking, the reported construction works for box culverts, pumping stations and STP were confirmed land-based for Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area). There were no work activities or construction works at the seafront or in contact with marine water during the reporting period for Contract No. HY/2013/03 (includes the construction works of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area).

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2. AIR QUALITY MONITORING

2.1 Monitoring Locations

2.1.1 The air quality monitoring works for the Contract are covered by Contract No. HY/2010/02 “Hong Kong-Zhuhai-Macao-Bridge HKBCF – Reclamation Works” and Contract No. HY/2011/03 “Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between Scenic Hill and HKBCF”. The ET of the Contract or another ET of the HZMB project is required to conduct impact air quality monitoring at AMS6 and AMS7 as part of EM&A programme if these air quality monitoring stations are no longer covered under Contract No. HY/2010/02 and HY/2011/03. **Figure 1** shows the locations of air monitoring stations.

Table 2.1 Air Quality Monitoring Location

Air Monitoring Station	Location
AMS6	Dragonair/CNAC (Group) Building (A80)
AMS7	Hong Kong SkyCity Marriott Hotel

2.2 Monitoring Requirements

2.2.1 The monitoring requirements, equipment, parameters, frequency and duration, methodology, schedule, and meteorological information are described in the monthly EM&A Reports prepared for Contract No. HY/2010/02 and HY/2011/03.

2.2.2 The Action and Limit levels for 1-hr TSP and 24-hr TSP are summarized in **Table 2.2**.

Table 2.2 Action and Limit Levels for Air Quality

Monitoring Station	Action Level (µg/m³)	Limit Level (µg/m³)
1 hour TSP		
AMS6	360	500
AMS7	370	
24 hours TSP		
AMS6	173	260
AMS7	183	

2.2.3 The event and action plan is provided in **Appendix D**.

2.2.4 If exceedance(s) at these stations is/are recorded by the ET of the Contract or referred by the other ET under the HZMB project to the Contract, the ET of the Contract will carry out an investigation and findings will be reported in the monthly EM&A Report.

2.3 Monitoring Results

2.3.1 The monitoring results for AMS6 and AMS7 are reported in the monthly EM&A Reports prepared for Contract No. HY/2011/03 and HY/2010/02 respectively.

2.3.2 Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A report prepared by Contract No. HY/2011/03.

2.3.3 There was no Action and Limit Level exceedances of 1-hr TSP level and 24-hr TSP level recorded at station AMS7 by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

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3. NOISE MONITORING

3.1 Monitoring Locations

3.1.1 The noise monitoring works for the Contract are covered by Contract No. HY/2010/02 "Hong Kong-Zhuhai-Macao Bridge HKBCF – Reclamation Works". The ET of the Contract or another ET of the HZMB project is required to conduct noise monitoring at NMS2 and NMS3B as part of EM&A programme if these monitoring stations are no longer covered under Contract No. HY/2010/02. **Figure 2** shows the locations of noise monitoring stations.

Table 3.1 Construction Noise Monitoring Location

ID No.	Description
NMS2	Seaview Crescent
NMS3B	Site Boundary of Site Office Area at WA2

3.2 Monitoring Requirements

3.2.1 The monitoring requirements, monitoring equipment, monitoring parameters, frequency and duration, monitoring methodology and monitoring schedule are detailed in the monthly EM&A Reports prepared for Contract No. HY/2010/02.

3.2.2 The Action and Limit Levels for construction noise are defined in **Table 3.2**.

Table 3.2 Action and Limit Level for Construction Noise

Monitoring Station	Action Level	Limit Level
For the Time Period 0700-1900 hrs. on Normal Weekdays		
NMS2	When one documented complaint is received	75.0 dB (A) Leq (30 min.)
NMS3B		70.0 dB (A) Leq (30 min.)*

Notes: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

* Reduce to 70 dB(A) for schools and 65 dB(A) during school examination period

3.3 Monitoring Results

3.3.1 The monitoring results for NMS2 and NMS3B are reported in the monthly EM&A Reports prepared for Contract No. HY/2010/02. No noise exceedance was recorded at stations NMS2 and NMS3B by the ET of Contract No. HY/2010/02 during the reporting period.

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4. WATER QUALITY MONITORING

- 4.1 There was no marine works conducted during the reporting period and therefore, no relevant monitoring result is reported. However, ET of the Contract shall closely monitor on the status of marine works, which shall conduct monitoring when marine works commence in the future.
- 4.2 The ET of the Contract is required to conduct impact water quality monitoring as part of EM&A programme if water quality monitoring is no longer covered by another ET of the HZMB project. The ETL shall review and obtain IEC, ENPO and EPD agreement on the contract specific water quality monitoring works at least a month before the commencement of any marine works.

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5. ECOLOGY MONITORING

- 5.1 There was no marine works conducted which impacted to the ecology during the reporting period and therefore, no relevant monitoring result is reported. However, ET of the Contract shall closely monitor on the status of marine works, which shall conduct monitoring when marine works commence in the future.
- 5.2 The ET of the Contract is required to conduct ecology monitoring as part of EM&A programme if ecology monitoring is no longer covered by another ET of the HZMB project. The ETL shall review and obtain IEC, ENPO, AFCD and EPD agreement on the contract specific marine ecology monitoring works at least a month before the commencement of any marine works.

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6. DISPOSAL OF MARINE SEDIMENT EXTRACTED FROM BORED PILING WORKS

6.1 Background

6.1.1 After the acceptance of the review of the approved Sediment Quality Report (SQR) for this Project under EPD letter dated 19 August 2015, an approval to dispose the marine sediment extracted from bored piling for this Project was then approved under memo from Secretary, Marine Fill Committee of CEDD dated 20 August 2015 for the disposal of marine sediment extracted from bored piling works. The disposal site allocated to this Project is the Mud Pit CMP Vd of the Confined Marine Sediment Disposal Facility to the East of Sha Chau (ESC) during this reporting period.

6.1.2 No extracted marine sediment was treated using cement solidification/stabilisation (Cement S/S) techniques under Contract No. HY/2013/03 during this reporting period. The marine sediment extracted from this Contract was disposed to the MFC allocated disposal sites directly without treatment during this reporting period. As a practical means, the disposal operation is managed by one contractor who is also responsible for applying dumping permit and its subsequent extension applications from EPD. Contract No. HY/2013/03 has been assigned to coordinate and arrange for disposal of extracted marine sediment from all three Contracts (Contract Nos. HY/2013/02, HY/2013/03 and HY/2013/04).

6.2 Dumping Arrangements

6.2.1 The barge for disposal of marine sediment was morn at the temporary loading and unloading at the east shore of the HKBCF Island, which has been being used by reclamation contractor (Contract No. HY/2010/02) for reclamation activities. In terms of safety consideration and to avoid mixing of sediment between contracts, each dumping date was allocated to one Contract. The quantity of marine sediment disposed on each date was from one Contract.

6.2.2 During dumping, Contractor of Contract No. HY/2013/03 is responsible for transporting the marine sediment from the site area of Contract No. HY/2013/03 to the barge. The estimated quantity of marine sediment in each truck is confirmed by Resident Site Staff of Contract Nos. HY/2013/02, HY/2013/03 and HY/2013/04. The trip tickets for transportation and disposal of marine sediment are collected and checked. Contract No. HY/2013/03 as the dumping permit holder is responsible for reporting to EPD the quantity disposed of as the condition stipulated in the dumping permit. The disposal site allocated to this Project is the Mud Pit CMP Vd of the Confined Marine Sediment Disposal Facility to the East of Sha Chau (ESC) during this reporting period.

6.3 Quantity Disposed

6.3.1 Marine sediment extracted from bored piling from this Contract was disposed to allocated dumping site in March 2017. The summary of marine sediment disposed up to end March 2017 is shown in the following table:

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Table 6.1 Summary of Marine Sediment Disposed to Dumping Site

Month/Year	Quantity disposed (in'000m ³)			Total
	HY/2013/02	HY/2013/03	HY/2013/04	
Jan 2016	1.272	1.950	0.800	4.022
Feb 2016	2.816	2.328	0.704	5.848
Mar 2016	0.600	2.464	3.942	7.006
Apr 2016	5.128	5.602	5.028	15.758
May 2016	0.000	0.000	0.000	0.000
Jun 2016	1.200	4.584	1.578	7.362
Sub-Total	11.016	16.928	12.052	39.996
Jul 2016	0.728	10.728	3.690	15.146
Aug 2016	1.784	1.544	4.428	7.756
Sep 2016	2.328	6.816	3.888	13.032
Oct 2016	1.096	2.376	5.286	8.758
Nov 2016	0.000	0.000	0.000	0.000
Dec 2016	1.568	4.960	2.538	9.066
Cat L in Dec 2016	0.000	2.792	3.570	6.362
Sub-Total	18.520	46.144	35.452	100.116
Jan 2017	0.000	0.656	6.552	7.208
Feb 2017	0.088	0.264	1.380	1.732
Mar 2017	0.000	0.000	0.000	0.000
Total	18.608	47.064	43.384	109.056

Note: All sediments are in Type II disposal method except Cat L (in Type I)

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7. ENVIRONMENTAL SITE INSPECTION AND AUDIT**7.1 Site Inspection**

- 7.1.1 Site audits were carried out by ET on weekly basis to monitor the implementation of proper environmental management practices and mitigation measures in the Project site.
- 7.1.2 The joint site audits for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) were conducted on 02, 09, 16, 24 and 30 March 2017 by the representatives of Engineer, Contractor, ET and IEC (IEC for 24 March 2017).
- 7.1.3 Particular observations during the site inspection and corrective actions undertaken by the Contractor are described below:

For Contract No. HY/2013/0324 Feb 2017

1. CHEC was reminded to provide drip tray for chemical containers. Subsequently, drip tray for chemical containers were provided. The observation was closed on 02 March 2017.
2. CHEC was reminded to provide maintenance for a generator in A8 Bridge which emitted smoke. Subsequently, the generator was removed. The observation was closed on 02 March 2017.
3. CHEC was reminded to remove stagnant water onsite. Subsequently, stagnant water was removed. The observation was closed on 02 March 2017.
4. CHEC was reminded to remove general refuse accumulated at Box Culvert B. Subsequently, general refuse accumulated at Box Culvert B was removed. The observation was closed on 02 March 2017.

02 Mar 2017

1. The Contractor was reminded to increase watering for dust suppression on site. Subsequently, watering for dust suppression was provided. The observation was closed on 09 March 2017.
2. The Contractor was reminded to remove food waste accumulated at Building 026 and 057. Subsequently, food waste accumulated at Building 026 and 057 were removed. The observation was closed on 09 March 2017.

09 Mar 2017

1. The Contractor was reminded to remove the general refuse accumulated at Building 054 and 037. Subsequently, general refuse accumulated at Building 054 and 037 was removed. The observation was closed on 16 March 2017.
2. The Contractor was reminded to remove stagnant water accumulated at drip tray for chemical containers at Building 054. Subsequently, stagnant water accumulated at drip tray for chemical containers at Building 054 was removed. The observation was closed on 16 March 2017.

16 Mar 2017

1. The Contractor was reminded to remove the food waste accumulated at Building 037 and 038. Subsequently, food waste accumulated at Building 037 and 038 were removed. The observation was closed on 24 March 2017.

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24 Mar 2017

1. The Contractor was reminded to remove stagnant water accumulated at Building 037. Subsequently, stagnant water accumulated at Building 037 was removed. The observation was closed on 30 March 2017.
2. The Contractor was reminded to remove the construction waste accumulated at Building 037. Subsequently, construction waste accumulated at Building 037 were removed. The observation was closed on 30 March 2017.
3. The contractor was reminded to remove food waste accumulated at STP. Subsequently, food waste accumulated at STP were removed. The observation was closed on 30 March 2017.

30 Mar 2017

1. The Contractor was reminded to remove food waste accumulated at Building 033. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.
2. The Contractor was reminded to remove the stagnant water accumulated at the drip tray of the chemical container of Building 033. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area02 Mar 2017

1. Nil findings.

09 Mar 2017

1. Nil findings.

16 Mar 2017

1. Nil findings.

24 Mar 2017

1. Nil findings.

30 Mar 2017

1. Nil findings.

7.2 Advice on the Solid and Liquid Waste Management Status

- 7.2.1 The Contractor of Contract No. HY/2013/03 registered as a chemical waste producer for the Contract. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 7.2.2 The monthly summary of waste flow table for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) are detailed in **Appendix E**.
- 7.2.3 0.000 (in'000m³) of excavated marine sediment (from Contract No. HY/2013/03), 0.000 (in'000m³) of Inert C & D Wastes and 0.999 (in'000m³) of Non-inert C & D Wastes were generated (from Contract No. HY/2013/03) in this reporting period. No Inert C & D Wastes and 0.002 (in tonnes) of Non-inert C & D Wastes were generated (from Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) in this reporting period. 0.000 (in tonnes) paper/cardboard packaging and 0.005 (in tonnes) metals were generated and recycled (from Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) in this reporting period.

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- 7.2.4 The excavated marine mud from the land-based works was disposed of at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee. The Contractor of Contract No. HY/2013/03 shall ensure no spilling and overflowing of materials during loading / unloading / transportation is allowed.
- 7.2.5 The Contractor was reminded that chemical waste containers should be properly treated and stored temporarily in designated chemical waste storage area on site in accordance with the Code of Practice on the Packing, Labelling and Storage of Chemical Waste.
- 7.2.6 Contractor of Contract No. HY/2013/03's site arrangement for disposal of bentonite slurry to Tseung Kwan O Area 137 Fill Bank was checked by ET and formal consent has been obtained from Tseung Kwan O Area 137 Fill Bank for receiving used bentonite slurry generated from Contract No. HY/2013/03.

7.3 Environmental Licenses and Permits

- 7.3.1 The valid environmental licenses and permits for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) during the reporting period are summarized in **Appendix F**. The Contractor of Contract No. HY/2013/06 was advised to register as a chemical waste producer when chemical waste is expected to generate for the foreseeable future from the operations (For Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation).

7.4 Implementation Status of Environmental Mitigation Measures

- 7.4.1 In response to the site audit findings, the Contractor carried out corrective actions.
- 7.4.2 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix G**. All necessary mitigation measures at this stage of works were implemented properly.
- 7.4.3 Implementation status of Regular Marine Travel Route Plan (RMTRP) was checked by ET. Training of marine travel route for marine vessels operator was given to relevant staff and relevant records were kept properly. The marine traffic records and geographical plots of all the vessels tracks to demonstrate the conformance of the vessel to the proposed route in February 2017 would be provided to ER, ETL, IEC/ENPO for checking within the month of April 2017.
- 7.4.4 With respect to condition 3.26A of EP-353/2009/K approved by EPD on 11 April 2016, the numbers and operating periods of floating grout production facilities and floating concrete batching plants on-site to review on the compliance to this EP condition were checked. Under Contract No. HY/2013/03, one floating concrete batching plant was operated on-site during the reporting period.

7.5 Summary of Exceedance of the Environmental Quality Performance Limit

- 7.5.1 Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A report prepared by Contract No. HY/2011/03.
- 7.5.2 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7 by the Environmental Team of Contract No. HY/2010/02 during the reporting period.

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- 7.5.3 There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 7.5.4 There was no marine works conducted during the reporting period and therefore, no relevant monitoring result is reported.
- 7.5.5 There was no marine works conducted during the reporting period and therefore, no ecology monitoring result is reported.

7.6 Summary of Complaints, Notification of Summons and Successful Prosecution

- 7.6.1 There were two complaints received in relation to the environmental impact during the reporting period. The summary of environmental complaints is presented in **Table 7.1**. The details of cumulative statistics of Environmental Complaints are provided in **Appendix H**.

Table 7.1 Summary of Environmental Complaints for the Reporting Month

Log No.	Environmental Complaint Ref. No.	Date of Complaint Receipt	Description
006	ENPO-C0110	21 March 2017	Water pollution
007	ENPO-C0113	28 March 2017	Noise and water pollution

- 7.6.2 The first complaint (ENPO-C0110) was received by EPD from a member of the public and was referred by EPD to the ENPO. Then the ENPO forwarded the complaint by email to the ET (Materialab Consultants Ltd.) of the Contract No. HY/2013/03 on 21 March 2017.

Details of Complaint

One complaint was forwarded from IEC on 21 March 2017, with the following information provided by EPD:

The complainant complained about the construction site at the east of HZMB artificial island in Tung Chung which was belonged to Dragages Hong Kong. The construction site discharged waste water into open water frequently in the evening causing ecological pollution.

Investigation of Complaint

Date Complaint Investigated by Environmental Team: 22 March 2017

Summary of Investigation

After liaising with CHEC and the operation team, it cannot be identified if the location mentioned in the complaint is under HY/2013/03 or not. As there are construction sites which under other contracts of HZMB.

Notwithstanding the above, interview was conducted on 22 March 2017 with Mr. Marko Chan, Environmental Officer of CHEC and site management. Wastewater was treated properly and discharged recently. Water sampling will also be conducted regularly to monitor water quality. The location plan showing the existing wastewater treatment facilities and discharge points is shown in Appendix A and the result of water sampling on the complaint date is shown in Appendix B.

During the site inspection conducted on 24 March 2017, the discharge point located in the construction site of Dragages Hong Kong has been visited. It was connected to two tanks in

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STP which carried underground water pumped out. Water was being treated before discharge. By observation, the water discharged from the discharge point and water discharge to the tanks looked clear. Photos of investigation during this site audit is shown in Appendix C. According to the result of water sampling conducted on the complaint date at the tank in STP as shown in Appendix B, no exceedance was recorded.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area, they do not have any marine works, marine transportation nor water discharge.

Investigation Results

Due to lack of information, The ET of Contract No. HY/2013/03 cannot conclude that the captioned complaint is related to the construction activities of our contract. Nevertheless, the Contractor had been reminded to comply with the requirements stipulated in the Environmental Mitigation Implementation Schedule (EMIS) of the EM&A Manual, in particular:

- Water Quality
W2: Land Work
Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters

The ET of Contract No. HY/2013/06 within Contract No. HY/2013/03 works area concluded that the captioned complaint is not related to the construction activities of our contract.

Follow up status (complaints)

During weekly site audit on 2, 9, 16 and 24 February 2017, 2, 9 and 16 March 2017, ET confirmed that the Contractor had provided workable and effective water quality mitigation measures on site. Mitigation measures implemented include: 1. Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters; 2. storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct storm water to such silt removal facilities. Catch pits and perimeter channels should be constructed in advance of site formation works and earthworks; 3. Wastewater generated from concreting, plastering, internal decoration, cleaning work and other similar activities, shall be screened to remove large objects. The implementation status of the mitigation measures will be checked during the following site audits.

Recommendations to the Contractor

The Contractor was reminded to continue to fully implement all water quality mitigation measures and comply with the requirements of Water Discharge License.

Follow up Status (Overall)

As The ET of Contract No. HY/2013/03 (including Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) is not able to conclude the validity of this complaint, additional follow up is needed. ET has proposed several recommendations to the Contractor, and reminded on complying with the requirements stipulated in the Environmental Mitigation Implementation Schedule (EMIS) of the EM&A Manual. According to site audit conducted recently, ET confirmed all mitigation measures stipulated in the EMIS had been implemented during site

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audit on 2, 9, 16 and 24 February 2017, 2, 9 and 16 March 2017 and will keep checking their implementation status during the future site audit, in particular to the following aspect:

- Water Quality:

W2: Land Work

Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters

7.6.3 The second complaint (ENPO-C0113) was received by EPD from a member of the public on 27 March 2017 and was referred by EPD to the ENPO. Then the ENPO forwarded the complaint by email to the ET (Materialab Consulants Ltd.) of the Contract No. HY/2013/03 on 28 March 2017.

Details of Complaint

One complaint was forwarded from IEC on 28 March 2017, with the following information provided by EPD:

As advised by EPD, the complaint should be made by a resident of Century Link. The complainant complained that starting from around 10pm to midnight on 27 March 2017, there were loud noise outside. By observation, the noise should come from the construction of artificial island of HZMB. Besides, in the morning on 28 March 2017, water pollution was observed in the sea outside which should result from HZMB project. The photo provided by the complainant is shown in Appendix B.

Investigation of Complaint

Date Complaint Investigated by Environmental Team: 28 March 2017

Summary of Investigation

Interview was conducted on 28 March 2017 with Mr. Marko Chan, Environmental Officer of CHEC and site management. Night works were conducted on 26 March 2017 under Construction Noise Permit for Contract No. HY/2013/03 including GW-RS1329-16 & GW-RS0205-17 as shown in Appendix A.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area, as confirmed with the operation team, there was no construction work at the said location during complained hours, i.e. from 2200 on 27 March 2017.

Regarding the water pollution problem, there was no marine work and marine transportation undertaken on 26 and 27 March 2017. The location of pollution indicated in the complaint should be at the South of the artificial island. There is no discharge point nearby for Contract No. HY/2013/03.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area, there was no marine work, marine transportation nor water discharge.

Investigation Results

The ET of Contract No. HY/2013/03 (including Contract No. HY/2013/06 within Contract No. HY/2013/03) concluded that the captioned complaint is not related to the construction activities of our contract. Nevertheless, the Contractor had been reminded to comply with the

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requirements stipulated in the Environmental Mitigation Implementation Schedule (EMIS) of the EM&A Manual, in particular:

Construction Noise (air borne):

N1: Use of good site practices to limit noise emissions: machines and plants (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; and

N5: sequencing operation of construction plants where practicable.

Water Quality

W1:

- Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation;
- Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes;
- 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.

W2: Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.

Follow up status (complaints)

During weekly site audit on 2, 9, 16, 24 and 30 March 2017, ET confirmed that the Contractor had provided workable and effective noise and sewage mitigation measures on site.

Noise mitigation measures implemented include: 1. Machines and generators that may be in intermittent use were shut down between work periods; 2. Silencers or mufflers on construction equipment were properly fitted and maintained without significant noise generation; 3. Generators were situated as far away from NSRs as possible and practicable; and 4. Material stockpiles, site office and other structures were effectively utilized, where practicable, to screen noise from on-site construction activities.

Water quality mitigation measures implemented include: 1. loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation; 2. Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes; 3. 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; 4. Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.

Recommendations to the Contractor

The Contractor was reminded to fully implement all noise and water quality mitigation measures and comply with the requirements of Water Discharge License and Construction Noise Permit.

Follow up Status (Overall)

The captioned complaint is not valid and therefore, no additional follow up is needed. However, ET has proposed several recommendations to the Contractor, and reminded on complying with

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the requirements stipulated in the Environmental Mitigation Implementation Schedule (EMIS) of the EM&A Manual to the Contractor. According to site audit conducted recently, ET confirmed all mitigation measures stipulated in the EMIS had been implemented during site audit on 2, 9, 16, 24 and 30 March 2017, in particular to the following aspect:

Construction Noise (air borne):

N1: Use of good site practices to limit noise emissions: machines and plants (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; and

N5: sequencing operation of construction plants where practicable.

Water Quality

W1:

- Loading of barges and hoppers shall be controlled to prevent splashing of dredged material to the surrounding water. Barges or hoppers shall not be filled to a level which will cause overflow of materials or pollution of water during loading or transportation;
- Any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes;
- 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.

W2: Wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters.

7.6.4 There was no notification for summons or prosecutions received in relation to the environmental impact during this reporting period.

7.6.5 Statistics on environmental complaints, notifications of summons and successful prosecutions are provided in **Appendix H**.

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8. FUTURE KEY ISSUES

8.1 Construction Programme for the Coming Months

8.1.1 As informed by the Contractor, the following are the major construction activities anticipated in March 2017:

For Contract No. HY/2013/03

1. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
2. Piling at Box Culvert B & Sign Gantry;
3. CUE Construction at Portion B, C & J;
4. Drainage & Sewerage Work, Water Main & Cable Duct at Portion B, H1, H2, J, P, G & A1;
5. Radiation Screen Wall at Portion B, E P, N,M,C;
6. Sign Gantry Footing at Portion B;
7. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;
8. Bridge Works at A1 to A9;
9. Site Foundation Works at Portion K;
10. Cover Walkway at Portion H1 & H2;
11. Box Culvert B at Portion N; Shuttle kiosk & Subway at Portion E; and
12. Marine sediment excavation activities from the land-based works and corresponding disposal at the designated disposal sites within Hong Kong as allocated by the Marine Fill Committee.

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

1. Installation of conceal conduit and services conduit installation at Building 037 and CUE works area.

8.2 Environmental Site Inspection Schedule for the Coming Month

8.2.1 The tentative schedule for weekly site inspections for March 2017 is provided in **Appendix I**.

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9. CONCLUSIONS

- 9.1 Commencement of Contract No. HY/2013/03 took place on 10 April 2015. The commencement date for construction works and the EM&A programme of Contract No. HY/2013/03 commenced on 29 August 2015 (commencement of Contract No. HY/2013/06 took place on 14 August 2015. The commencement date for construction works and the EM&A programme of Contract No. HY/2013/06 commenced on 13 September 2016 within Contract No. HY/2013/03 works area).
- 9.2 Summary of Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level at AMS6 shall be referred to the monthly EM&A report prepared by Contract No. HY/2011/03.
- 9.3 There was no Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at station AMS7 by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 9.4 There was no Action and Limit Level exceedance for noise recorded at station NMS2 and station NMS3B by the Environmental Team of Contract No. HY/2010/02 during the reporting period.
- 9.5 There was no marine works conducted during the reporting period and therefore, no water quality impact monitoring result is reported.
- 9.6 There was no marine works conducted during the reporting period and therefore, no ecology monitoring result is reported.
- 9.7 Environmental site inspections were carried out on 02, 09, 16, 24 and 30 March 2017. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site inspections.
- 9.8 There were two complaints received in relation to pollution about noise and water pollution. After investigation, the first complaint cannot be concluded that the captioned complaint was related to Contract No. HY/2013/03 due to lack of information and another complaint was not related to Contract No. HY/2013/03. Both complaints were not related to Contract No. HY/2013/06 within Contract No. HY/2013/03.
- 9.9 There were no notifications of summons or prosecutions received during the reporting period.

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Figure 1

Air Quality Monitoring Stations

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Figure 2

Noise Monitoring Stations

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Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong.

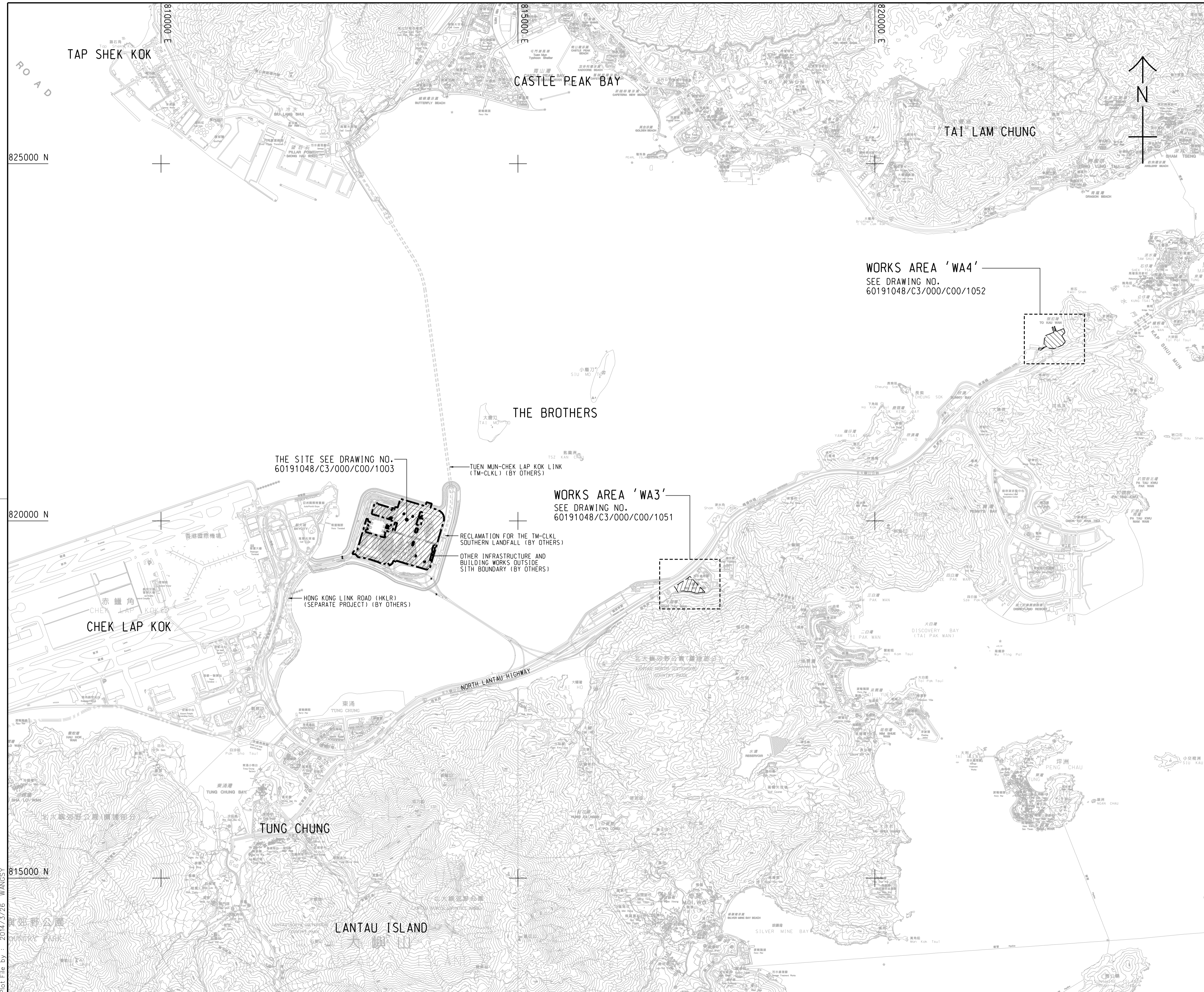
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

The logo for MaterialLab, featuring the word "MaterialLab" in a bold, sans-serif font. The text is white and is set against a black rectangular background that has horizontal bars extending to the left and right, creating a stylized, framed effect.

Report No.: 0165/15/ED/0761

Appendix A

Location of Works Areas



- NOTES:**
- COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
 - DIMENSIONS ARE IN MILLIMETER AND CHAINAGE ARE IN METRES UNLESS OTHERWISE SHOWN.
 - THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING NOS. 60191048/C3/000/C00/1051 TO 1053.

- LEGEND:**
- SITE BOUNDARY
 - ▨ WORKS AREA

825000 N

820000 N

815000 N

Plot File by : 2014/3/26 WANGSY

p:\projects\60191048\drawing\contract\c3\1000\C3_000_C00_1000.dgn

- TENDER DRAWING		BSC	SCI	MAR.14
REV.	DESCRIPTION	D.C.	C.C.	DATE
修改	內容	審核	校核	日期

路政署 HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理處
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

HONG KONG-ZHUHAI-MACAO BRIDGE
 HONG KONG BOUNDARY CROSSING FACILITIES
 - VEHICLE CLEARANCE PLAZAS AND
 ANCILLARY BUILDINGS AND FACILITIES

SITE LOCATION PLAN

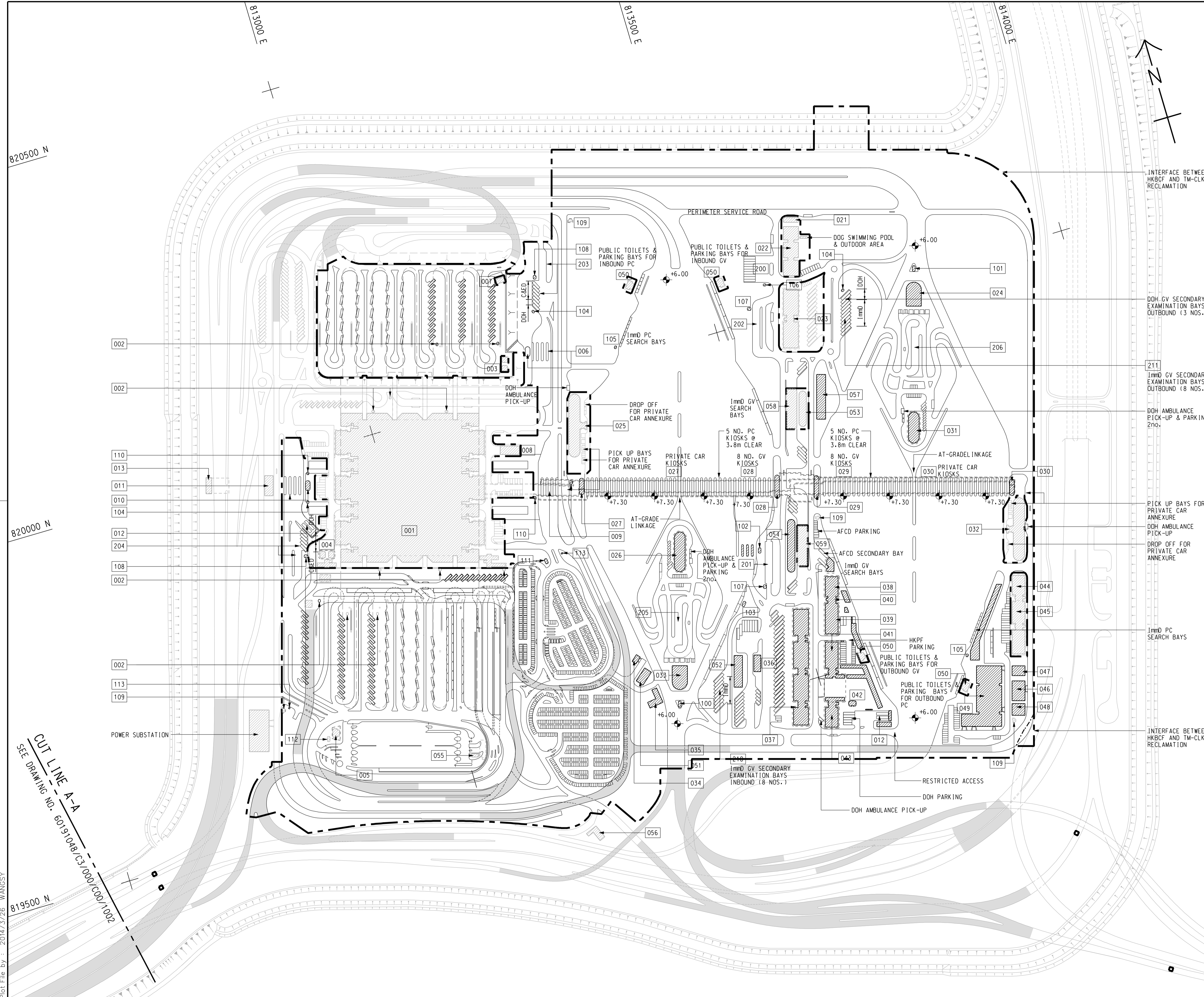
AECOM + +
Rogers Stirk Harbour + Partners Aedas
 BURO HAPPOLD ATKINS ADI + +

DRG.NO. 60191048/C3/000/C00/1000
 圖紙編號

DESIGNED BY 設計	CONTRACT NO. 合約編號	P. Dir. APPROVED 批准人
BWCW	HY/2013/03	TKH

DRAWN BY 繪圖	STATUS 階段
WSY	

SCALE 比例 A1 1 : 25000
 DIMENSIONS ARE IN 尺寸單位 METRES
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NOTE:
 1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. 60191048/C3/000/C00/1003.

LEGEND:

- SITE BOUNDARY
- VIADUCT
- BUILDING/FACILITIES

INTERFACE BETWEEN HKBCF AND TM-CLKL RECLAMATION

DOH GV SECONDARY EXAMINATION BAYS OUTBOUND (3 NOS.)

211

Immd GV SECONDARY EXAMINATION BAYS OUTBOUND (8 NOS.)

DOH AMBULANCE PICK-UP & PARKING 2no.

PICK UP BAYS FOR PRIVATE CAR ANNEXURE

DOH AMBULANCE PICK-UP

DROP OFF FOR PRIVATE CAR ANNEXURE

Immd PC SEARCH BAYS

INTERFACE BETWEEN HKBCF AND TM-CLKL RECLAMATION

- TENDER DRAWING		BWC SCI	MAR. 14
REV. 修改	DESCRIPTION 内容摘要	D.C. 核准	DATE 日期

路政署
HIGHWAYS DEPARTMENT
 港珠澳大桥香港工程管理处
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

HONG KONG-ZHUHAI-MACAO BRIDGE
 HONG KONG BOUNDARY CROSSING FACILITIES
 - VEHICLE CLEARANCE PLAZAS AND
 ANCILLARY BUILDINGS AND FACILITIES

MASTER LAYOUT PLAN

SHEET 1 OF 2

AECOM + **Aedas**
 Rogers Stirk Harbour + Partners
 BURO HAPPOLD ATKINS ADI +

DRG. NO. 60191048/C3/000/C00/1001
 圖紙編號

DESIGNED BY 設計 BWC CONTRACT NO. 合約編號 HY/2013/03 P. DIR. APPROVED 批准人 TKH

DRAWN BY 繪圖 WSY STATUS 階段

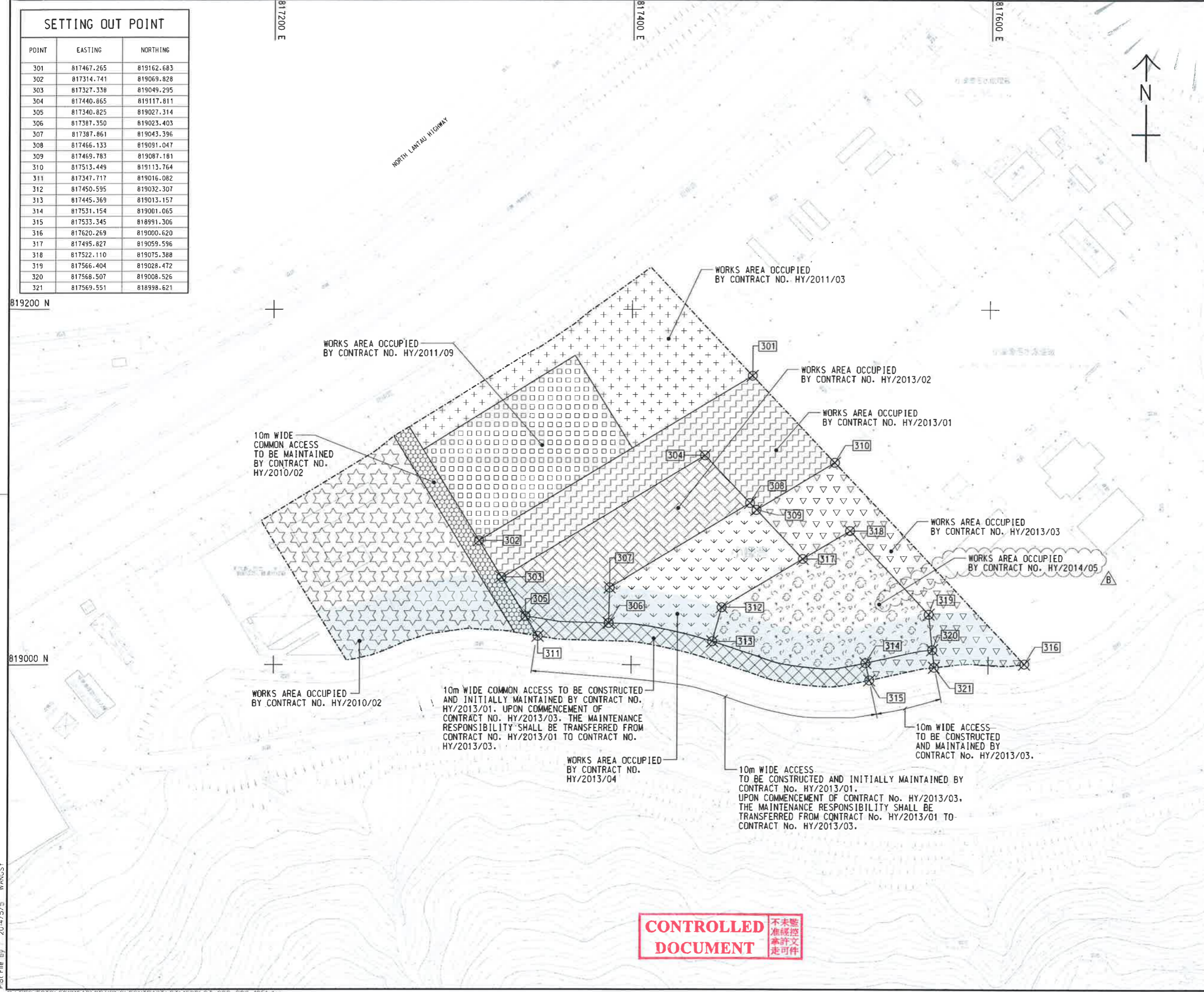
SCALE 比例 A1 1 : 2500

DIMENSIONS ARE IN 尺寸單位 METRES © COPYRIGHT RESERVED 版權所有

Plot File by : 2014/3/26 WANGSY

p:\projects\60191048\drawing\contract\c3\1000\C3_000_C00_1001.dgn

SETTING OUT POINT		
POINT	EASTING	NORTHING
301	817467.265	819162.683
302	817314.741	819069.828
303	817327.338	819049.295
304	817440.865	819117.811
305	817340.825	819027.314
306	817387.350	819023.403
307	817387.861	819043.396
308	817466.133	819091.047
309	817469.783	819087.181
310	817513.449	819113.764
311	817347.717	819016.082
312	817450.595	819032.307
313	817445.369	819013.157
314	817531.154	819001.065
315	817533.345	818991.306
316	817620.269	819000.620
317	817495.827	819059.596
318	817522.110	819075.388
319	817566.404	819028.472
320	817568.507	819008.526
321	817569.551	818998.621



LOCATION PLAN
SCALE 1 : 25000

- NOTES:
- COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
 - DIMENSIONS ARE IN MILLIMETER AND CHAINAGE ARE IN METRES UNLESS OTHERWISE SHOWN.

LEGEND:

	WORKS AREA BOUNDARY
	PORTION 3.1
	PORTION 3.2
	PORTION 3.3
	PORTION 3.4
	PORTION 3.5
	PORTION 3.6
	PORTION 3.7
	PORTION 3.8
	PORTION 3.9
	PORTION 3.10
	NON-BUILDING AREA 8200m ² (WHOLE)

FOR CONSTRUCTION

C	WORKING DRAWING	BWCW SCI	MAY. 15
B	TENDER ADDENDUM NO. 2	BWCW SCI	MAY. 14
A	TENDER ADDENDUM NO. 1	BWCW SCI	APR. 14
-	TENDER DRAWING	BWCW SCI	MAR. 14
REV.	DESCRIPTION	REV. NO.	DATE
01	ISSUED FOR CONSTRUCTION	01	15/05/15

HONG KONG HIGHWAYS DEPARTMENT
 香港特別行政區交通工程處
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office
 HONG KONG-ZHUHAI-MACAO BRIDGE
 HONG KONG BOUNDARY CROSSING FACILITIES
 - VEHICLE CLEARANCE PLAZAS AND
 ANCILLARY BUILDINGS AND FACILITIES

WORKS AREA WA3

AECOM +
Aedas +
 Rogers Stirk Harbour + Partners
 BURO HAPPOLD ATKINS ADI +

DRG. NO. 60191048/C3/000/C00/1051C
 圖紙編號

DESIGNED BY 設計	CONTRACT NO. 合約編號	A. BY APPROVED 審核人
BWCW	HY/2013/03	TKH
DRAWN BY 圖則	STATUS 圖則	
WSY	WORKING DRAWING	
SCALE 比例		
A1 : 1000		
DIMENSIONS ARE IN 尺寸單位		
METRES		

CONTROLLED DOCUMENT 不准未經核准修改
 不准未經核准修改
 不准未經核准修改

Plot File by 2014/5/5 WANGSY

SETTING OUT POINT

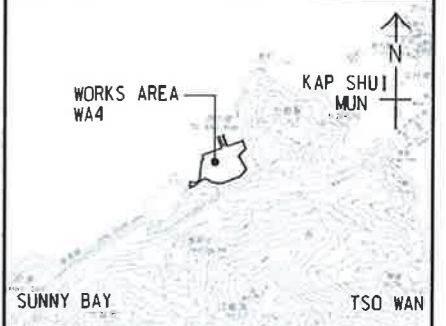
POINT	EASTING	NORTHING
401	822488.151	822632.315
402	822640.593	822689.415
403	822515.608	822559.848
404	822610.940	822599.642
405	822629.428	822607.359
406	822526.988	822529.813
407	822618.348	822567.950
408	822542.232	822489.581
409	822584.983	822507.426
410	822606.866	822516.561
411	822560.278	822441.956
412	822602.949	822460.010
413	822621.914	822467.959
414	822624.130	822470.998
415	822651.725	822508.856
416	822644.758	822521.192

822600 N

822400 N

822400 E

822600 E



LOCATION PLAN
SCALE 1 : 25000

NOTES:

- COORDINATES ARE RELATED TO HONG KONG METRIC GRID (1980).
- DIMENSIONS ARE IN MILLIMETER AND CHAINAGE ARE IN METRES UNLESS OTHERWISE SHOWN.

LEGEND:

- WORKS AREA BOUNDARY
- PORTION 4.1
- PORTION 4.2
- PORTION 4.3
- PORTION 4.4
- PORTION 4.5
- PORTION 4.6
- PORTION 4.7
- PORTION 4.8
- PORTION 4.9

CONTROLLED DOCUMENT
不准隨意
准許文
本許文
走可作

FOR CONSTRUCTION

C	WORKING DRAWING	BWCW SCI	MAY.15
B	TENDER ADDENDUM NO. 2	BWCW SCI	MAY.14
A	TENDER ADDENDUM NO. 1	BWCW SCI	APR.14
-	TENDER DRAWING	BWCW SCI	MAR.14

HIGHWAYS DEPARTMENT
港珠澳大橋香港工程管理局
Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

HONG KONG-ZHUHAI-MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- VEHICLE CLEARANCE PLAZAS AND
ANCILLARY BUILDINGS AND FACILITIES

WORKS AREA WA4

AECOM Aedas
Rogers Stirk Harbour + Partners
BURO HAPPOLD ATKINS ADI

DRGNO. 圖紙編號: 60191048/C3/000/C00/1052C

DESIGNED BY 設計人	BWCW	CONTRACT NO. 合約編號	HY/2013/03	APPROVED BY 校核人	TKH
DRAWN BY 繪圖人	WSY	STATUS 圖況	WORKING DRAWING		
SCALE 比例	A1 1 : 1000	© COPYRIGHT RESERVED 版權所有			

Plot File by: 2014/5/5 WANGSY

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Report No.: 0165/15/ED/0761

Appendix B

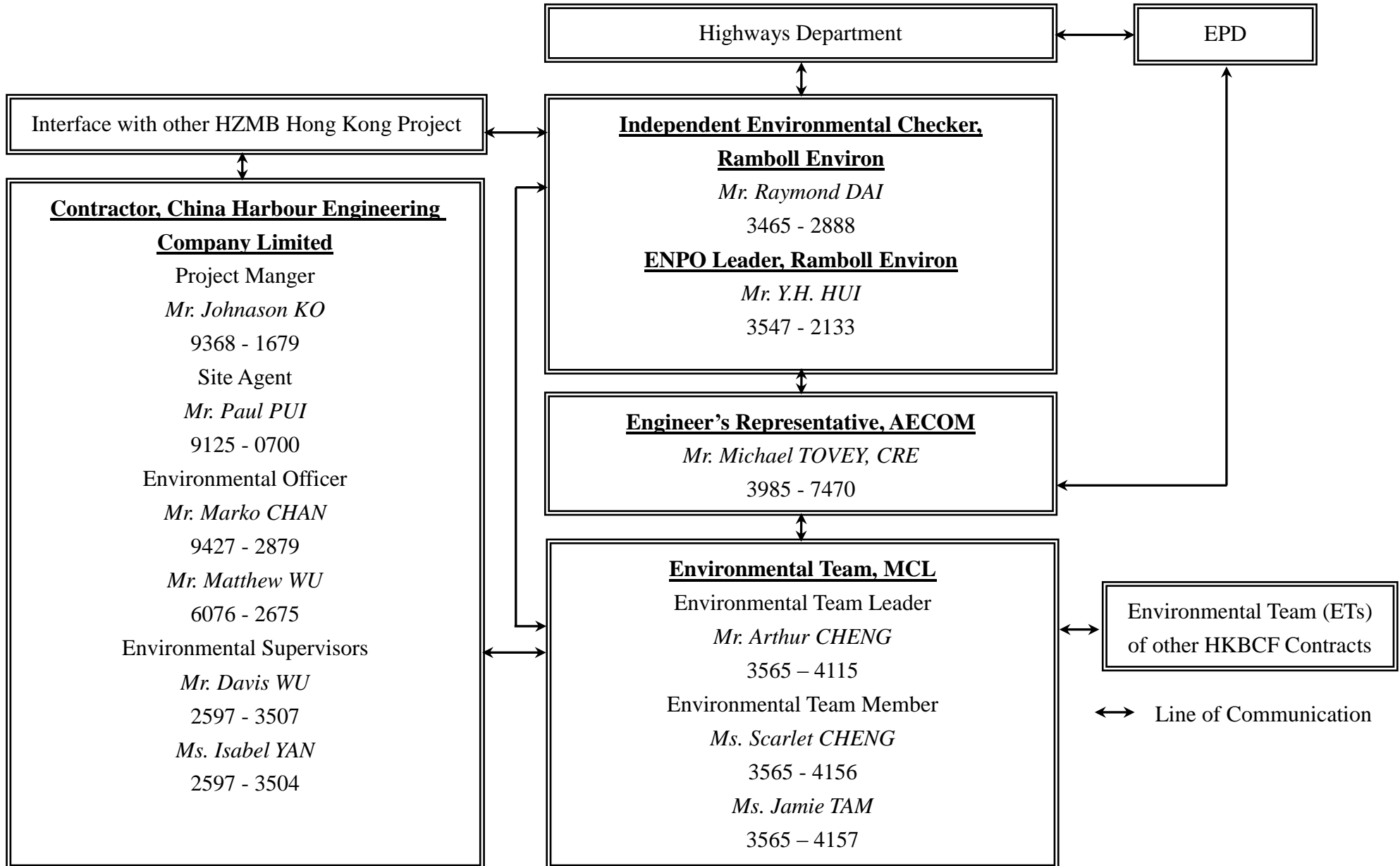
Project Organization for Environmental Works

CHINA HARBOUR ENGINEERING COMPANY LIMITED



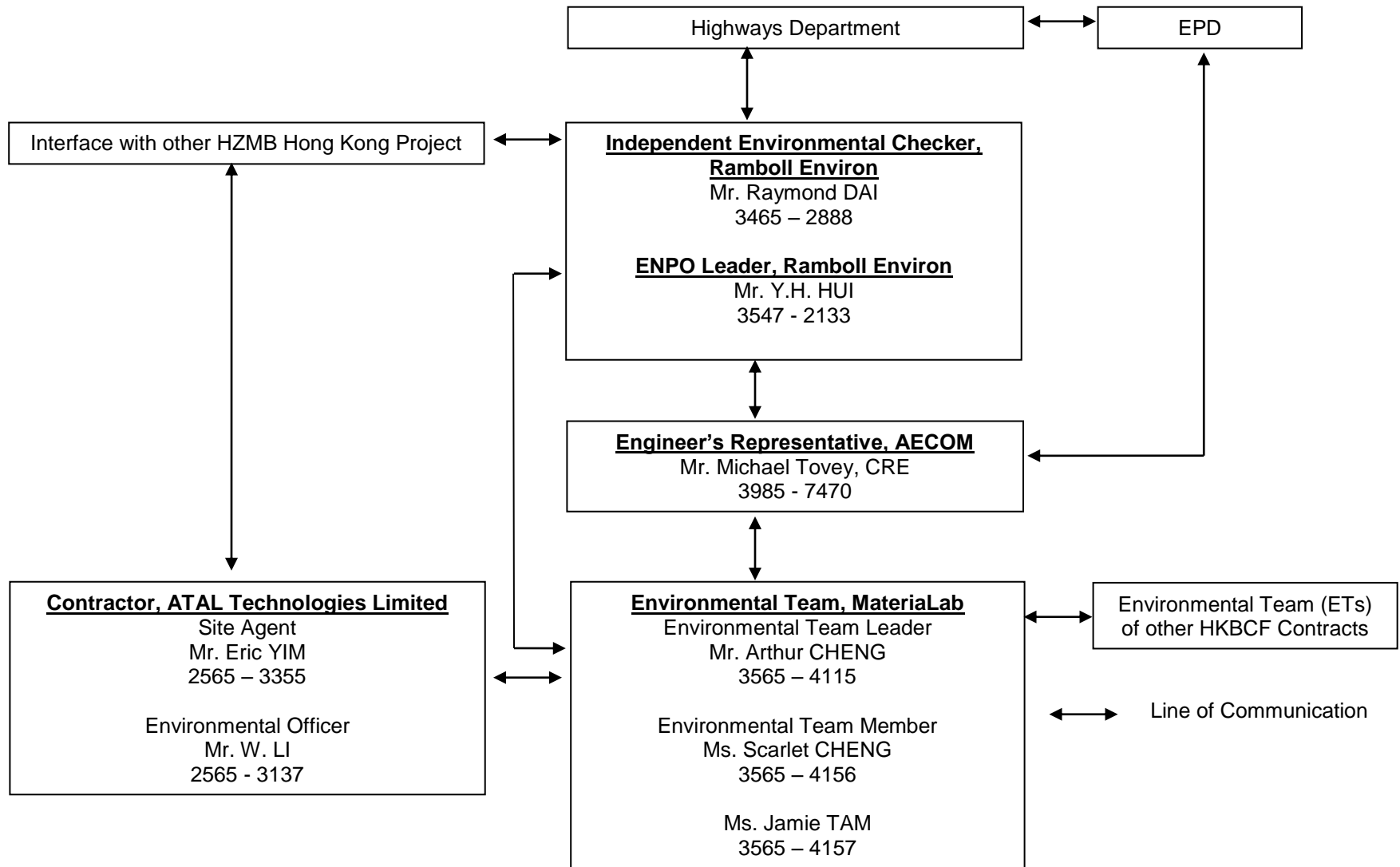
Contract No. HY/2013/03 Hong Kong-Zhuhai-Macao Bridge, Hong Kong Boundary Crossing Facilities – Vehicle Clearance Plazas and Ancillary Buildings and Facilities

Projects Organization for Environmental Works



Contract No. HY/2013/06 (within Contract No. HY/2013/03 works area)
 Hong Kong-Zhuhai-Macao Bridge, Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System

Projects Organization for Environmental Works



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Report No.: 0165/15/ED/0761

Appendix C

Construction Programme

Activity ID		Activity Name		2017				
				Mar	Apr	May	Jun	Jul
HKBCF - VCP & Ancillary Buildings and Facilities, DWP Rev. 3B, DD 31 Mar. 17								
CONTRACT DATES								
Key Dates								
A1020	KD2 Achievement of Stage 2 of the Works (460 days; 12 Jul. 16)							◆ KD2 Achievement of Stage 2 of the Wor
A1070	KD7 Achievement of Stage 6 of the Works (500.5 days; 22 Aug. 16 EOT 1)				◆ KD7 Achievement of Stage 6 of the Works (500.5 days; 22 Aug. 16 EOT 1)			
A1080	KD8 Achievement of Stage 7 of the Works (520 days; 10 Sep. 16)				◆ KD8 Achievement of Stage 7 of the Works (520 days; 10 Sep. 16)			
Site Access & Possession								
Possession of Portion of Site								
A0040	Possession of Portion C (<=100 days)					◆ Possession of Portion C (<=100 days)		
A0070	Possession of Portion F (<=220 days)					◆ Possession of Portion F (<=220 days)		
A0110	Possession of Portion J (<=320 days)			◆ Possession of Portion J (<=320 days)				
A0150	Possession of Portion N (<=345 days)			◆ Possession of Portion N (<=345 days)				
A0160	Possession of Portion P (<=502 days)			◆ Possession of Portion P (<=502 days)				
A0170	Possession of Portion Q (<=500 days)					◆ Possession of Portion Q (<=500 days)		
A0180	Possession of Portion R (<=610 days)						◆ Possession of Portion R (<=610 days)	
Access to Locations of the Site								
A0210	Contract Date for Access to Location 1.1 (490 days)					◆ Contract Date for Access to Location 1.1 (490 days)		
A0230	Contract Date for Access to Location 1.3 (488 days)					◆ Contract Date for Access to Location 1.3 (488 days)		
A0240	Contract Date for Access to Location 1.4 (488 days)					◆ Contract Date for Access to Location 1.4 (488 days)		
A0280	Contract Date for Access to Location 1.7A (610 days)				◆ Contract Date for Access to Location 1.7A (610 days)			
A0290	Contract Date for Access to Location 1.7B (610 days)				◆ Contract Date for Access to Location 1.7B (610 days)			
A0300	Contract Date for Access to Location 1.7C (610 days)				◆ Contract Date for Access to Location 1.7C (610 days)			
A0310	Contract Date for Access to Location 1.8 PCB (Basement level up to ground floor slab) (395 days)				◆ Contract Date for Access to Location 1.8 PCB (Basement level up to ground floor slab) (395 days)			
A0330	Contract Date for Access to External Area for Contract HY/2013/01 for ELV System Installation (570 days)					◆ Contract Date for Access to External Area for Contract HY/2013/01 for ELV System Installation (570 days)		
A0340	Contract Date for Access to External Area for Contract HY/2013/02 for ELV System Installation (560 days)					◆ Contract Date for Access to External Area for Contract HY/2013/02 for ELV System Installation (560 days)		
A0350	Contract Date for Access to External Area for Contract HY/2013/04 ELV System Installation (560 days)					◆ Contract Date for Access to External Area for Contract HY/2013/04 ELV System Installation (560 days)		
PORTION A1								
Portion A1 Structures								
Bridge A9								
Pier & Abutment								
SA9330	Pier P903							
SA9340	Pier P902			■				
SA9350	Abutment A901			■				
Structure Deck								
SA9410	Deck on A905, P904 + Stressing			■				
SA9415	Falsework for Deck P904 - P903			■				
SA9420	Deck on P904, P903 + Stressing				■			
SA9430	Falsework for Deck P903 - P902				■			
SA9440	Deck on P903 & P902 + Stressing					■		
SA9450	Falsework for Deck P902 - A901					■		
SA9460	Deck on P902 & A901 + Stressing						■	
Retaining Wall W8-1								
SW8110	Construction of Retaining Wall W8-1 (U-shape, 4 bays)			■				
SW8120	Backfilling W8-1						■	
SW8130	Parapet W8-1 (16 pour) & E&M Works							■
Retaining Wall W9-1								

■ Actual Work
■ Remaining Work
■ Critical
◆ Milestone

THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
 Page 1 of 21

Date	Revision	Checked	Approved
01-Feb-17	3MRP updated as of 31 Jan. 2017	ZJ	
28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ	
31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ	

Activity ID	Activity Name	2017				
		Mar	Apr	May	Jun	Jul
SW9110	Construction of Retaining Wall W9-1 (U-shape, 4 bays)	[Green bar from Mar to May]				
SW9120	Backfilling W9-1	[Green bar from Jun to Jul]				
047 - Fresh Water Pumping Station, Portion A1 & A2						
A04740	Water Tank Construction	[Red bar from Mar to Apr]				
A04750	Pump House Construction	[Red bar from Mar to Apr]				
A04752	Water-tightness Test for Water Tank	[Green bar from Apr to May]				
A04760	Parapet Wall at Roof Slab & Finishing	[Red bar from May to Jun]				
A04770	BS installation + E&M (Degree 2)	[Red bar from May to Jun]				
A04780	BS installation + E&M (Degree 3)	[Green bar from Jun to Jul]				
A04790	T&C for BS & Pumps	[Green bar from Jun to Jul]				
Test & Commission						
B04730	Submission & Issue of WW046 IV, V (Inside Services & FS)	[Red bar from May to Jun]				
B04740	WSD Inspection	[Red bar from Jun to Jul]				
049 - Sewage Treatment Plant, Portion A1 & A2						
B04980	Backfilling + Removing 3rd Strut of ELS1	[Red bar from Mar to Apr]				
B04990	Constructing Wall Stem for Equalization Tanks	[Red bar from Mar to Jun]				
C04910	Water-tightness Test for Equalization Tanks	[Red bar from Jun to Jul]				
C04940	Constructing Base Slab of Sludge Holding Tanks	[Blue bar in Mar]				
C04950	Backfilling + Removal Strut of ELS2	[Blue bar in Mar]				
C04960	Constructing Wall Stem of Sludge Holding Tanks	[Red bar from Mar to Apr]				
C04970	Water-tightness Test for Sludge Holding Tanks	[Red bar from May to Jun]				
C04990	Backfilling + Removal of ELS2	[Red bar from May to Jun]				
D04930	Constructing Wall Stem for MBR Tanks	[Red bar from Mar to Jul]				
D04980	BS + E&M for Transformer Room to CLP (KD7)	[Blue bar in Mar]				
D04985	Energisation by CLP	[Green bar from Apr to May]				
D04990	Other Ground Slab Construction	[Red bar from May to Jun]				
E04910	Other Superstructure Construction	[Red bar from Jun to Jul]				
E04940	BS for Office Accommodations (KD9) (Degree 2)	[Red bar from Jun to Jul]				
T&C and Statutory Inspection						
F04950	Submission & Issue of WW046 IV, V (Inside Services & FS)	[Red bar from Jun to Jul]				
F04960	WSD Inspection	[Green bar from Jun to Jul]				
G04910	Discharge Licence Application	[Green bar from Jul to Aug]				
Portion A1 Buildings						
012 - DOH Disinsection Area and Store Room 1, at Portion A1						
A01250	Finishing	[Green bar from Mar to Apr]				
A01260	BS for Office Accommodation (Stage 8) (Degree 2)	[Blue bar from Mar to Apr]				
A01270	BS + E&M for Office Accommodation (Stage 9) (Degree 3)	[Green bar from Apr to Jun]				
A01280	Other BS + E&M Installation	[Green bar from Apr to Jun]				
A01285	DG Application	◆ DG Application				
Test & Commission						
C01210	Submission & Issue of WW046 I, II, III (Inside Services & FS)	[Green bar from Apr to May]				
C01220	Submission & Issue of WW046 IV, V (Inside Services & FS)	[Green bar from May to Jun]				
C01230	WSD Inspection	[Green bar from Jun to Jul]				
C01240	FSD Inspection	[Green bar from Jul to Aug]				
C01250	OP Application & TPIDC Inspection	[Green bar from May to Jun]				
036 - Weigh Station						
A03650	Ceiling/Wall Plaster & Painting	[Blue bar from Mar to Apr]				
A03665	External Wall Plaster & Tile	[Blue bar from Mar to Apr]				
A03670	BS for Office Accommodation (Stage 8)	[Blue bar from Mar to Apr]				
A03680	BS + E&M for Office Accommodation (Stage 9)	[Green bar from Apr to Jun]				

- █ Actual Work
- █ Remaining Work
- █ Critical
- ◆ Milestone

**THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES**

Date	Revision	Checked	Approved
01-Feb-17	3MRP updated as of 31 Jan. 2017	ZJ	
28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ	
31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ	

Activity ID	Activity Name	2017				
		Mar	Apr	May	Jun	Jul
A03690	Other BS + E&M Installation	[Green bar from Mar to May]				
B03610	T&C for BS & Pumps	[Green bar from May to Jul]				
Test & Commission						
B03630	Submission & Issue of WW046 IV, V (Inside Services & FS)	[Green bar from May to Jun]				
B03640	Form 314 & 501 submission	◆ Form 314 & 501 submission				
B03650	WSD Inspection	[Green bar from Jun to Jul]				
B03660	FSD Inspection	[Green bar from Jul to Aug]				
B03670	BEEO Stage II & Accessor Certification Submission	[Green bar from May to Jul]				
B03680	OP Application & TPIDC Inspection	[Green bar from Jun to Jul]				
037 C&ED Tower Cum Inbound Cargo Examination Building (Portion A1 & B)						
A03740	Steel Frame Structure Installation	[Blue bar from Mar to Apr]				
A03742C	Mock-up Sample for Mesh Screen Wall (SS41) & Balustrade	[Blue bar from Mar to Apr]				
A03744	Curtain Wall/Metal Roof/Aluminium Cladding Installation	[Blue bar from Mar to Apr]				
A03748	Wall/Ceiling Plastering/Tiling	[Blue bar from Mar to Apr]				
A03752	Floor Screed/Tiling	[Blue bar from Mar to Apr]				
A03756	Window/Door Frame Installation	[Blue bar from Mar to Apr]				
A03758	Paint Finish	[Blue bar from Mar to Apr]				
A03760	BS + E&M for AVCSS Cabling (KD18A)	[Blue bar from Mar to Apr]				
A03770	BS + E&M for AVCSS Cabling (KD18B)	[Blue bar from Mar to Apr]				
A03780	BS for Office Accomodation (KD9)	[Blue bar from Mar to Apr]				
A03785	BS for Office Accomodation (KD10)	[Blue bar from Mar to Apr]				
A03790	Other BS + E&M Installation	[Blue bar from Mar to Apr]				
Test & Commission						
B03730	Submission & Issue of WW046 IV, V (Inside Services & FS)	[Green bar from May to Jun]				
B03740	Form LE5 Submission to EMSD	Form LE5 Submission to EMSD				
B03760	Lift Inspection by EMSD	[Blue bar from Mar to Apr]				
B03770	WSD Inspection	[Green bar from May to Jun]				
B03790	Beam Plus Monthly Submission & Issue	[Green bar from May to Jul]				
041 Fire Station Cum Ambulance Depot						
A04126	Cladding & Curtain Wall Installation (incl. steel & metal works)	[Blue bar from Mar to Apr]				
A04132	Blockworks	[Blue bar from Mar to Apr]				
A04133	Wall Plastering/Wall Tiling	[Blue bar from Mar to Apr]				
A04134	Floor Screeding/Tiling/Vinyl Tiles	[Blue bar from Mar to Apr]				
A04135	Ceiling/Wall Painting	[Blue bar from Mar to Apr]				
A04137	False Ceiling Installation	[Blue bar from Mar to Apr]				
A04140	BS for Office Accomodation (Stage 8)	[Blue bar from Mar to Apr]				
A04150	BS + E&M for Office Accomodation (Stage 9)	[Blue bar from Mar to Apr]				
A04160	Other BS + E&M Installation	[Blue bar from Mar to Apr]				
A04170	External Finishing	[Blue bar from Mar to Apr]				
A04180	C/S Plastering/Tiling	[Blue bar from Mar to Apr]				
Test & Commission						
B04110	T&C for BS & Pumps	[Green bar from May to Jun]				
B04120	Submission & Issue of WW046 I, II, III (Inside services & FS)	[Green bar from May to Jun]				
B04150	Form LE5 Submission to EMSD	◆ Form LE5 Submission to EMSD				
C04130	Beam Plus Monthly Submission & Issue	[Green bar from May to Jul]				
042 Drill Tower						
A04260	Finishing	[Blue bar from Mar to Apr]				
A04270	BS for Office Accomodation (Stage 8)	[Blue bar from Mar to Apr]				
A04280	BS + E&M for Office Accomodation (Stage 9)	[Blue bar from Mar to Apr]				
A04290	Other BS + E&M Installation	[Blue bar from Mar to Apr]				

- █ Actual Work
- █ Remaining Work
- █ Critical
- ◆ Milestone

**THREE MONTH ROLLING PROGRAMME
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Activity ID	Activity Name	2017				
		Mar	Apr	May	Jun	Jul
Test & Commission						
B04220	T&C for BS Pumps					
043 DOH Office + Store Room						
A04370	Cladding & Curtain Wall Installation (incl. steel & metal works)					
A04380	BS for Office Accomodation (Stage 8)					
A04390	BS + E&M for Office Accomodation (Stage 9)					
B04310	Other BS + E&M Installation					
B04320	Mock Up For Green Wall (SS39)					
B04330	Stainless Steel Mesh Installation					
B04340	Metal Windows/Louvres/Doors/Railing etc. installation					
B04350	Blockworks					
B04360	Wall Plastering/Tiling					
B04370	Floor Screeding/Tiling					
B04380	False Ceiling Installation & Painting					
B04390	Carpentry (Wooden Doors/Partition/Lockers/Etc.)					
C04310	C/S Wall Plastering					
C04320	Paint Finishing to Walls					
Test & Commission						
C04340	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
C04350	Submission & Issue of WW046 IV, V (Inside Services & FS)					
C04360	Form 2 Submission					
C04380	DG application					
052 - Transforms (Zone 4)						
A05235	Energisation by CLP					
A05250	Ceiling/Wall Painting Finish & Floor Screed					
A05260	External Wall Plaster & Wall (KD10)					
A05270	Main Switch/L.V. Switch Board Installation					
T&C and Statutory Inspection						
B05210	T&C for BS & Pumps					
B05270	Non-Essential T&C (Non-FSI)					
B05280	OP Application & TPIDC Inspection					
Completion of Fire Services Installation and Equipment (FCD)						
C05210	Approved Building Plans					
105 IMM D Guard Booth, Portion A1 (Mock Up)						
B10510	Excavation + Blinding					
B10520	Substructure (Raft Foundation)					
B10530	On Grade Ground Slab					
B10540	Finishing					
B10550	BS for Office Accommodations (KD9)					
B10560	BS + E&M for Office Accommodation (KD10)					
B10570	Other BS + E & M Installation					
Facade Envelop Structure Installation						
B10580	Shop Drawing Submission and Approval					
B10590	Fabrication of F/C System					
C10510	Casted-in Items Installation					
210 - ImmD GV Secondary Examination Bays Inbound						
ER5830	Construction of the Area and Access to the Interface Contractor					
External Works for Portion A1						
Drainage Works						
ED5590	Drainage Works (774m & 35MHs), Stage 2 (Middle)					

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ED5600	Sewerage (300m & 9MHs), Stage 2 (Middle)					
ED5610	Drainage Works (773m & 34MHs), Stage 3 (Eastern)					
ED5620	Sewerage (269m & 7MHs), Stage 3 (Eastern)					
Waterpipe Laying						
EW5010	Fresh Water Main Laying (700 m), Stage 1 (Western)					
EW6010	Flushing Water Main Laying (322 m), Stage 1 (Western)					
EW6020	Fresh Water Main Laying (700 m), Stage 2 (Middle)					
EW6030	Flushing Water Main Laying (322 m), Stage 2 (Middle)					
EW6040	Fresh Water Main Laying (260 m), Stage 3 (Eastern)					
EW6050	Flushing Water Main Laying (323m), Stage 3 (Eastern)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
EU5260	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5270	Duct & Cable Laying for TCSS & Lighting					
Roadworks						
ER1520	Subbase (8500 ton), Stage 1 (Western)					
PORTION A2						
Portion A2 Structures						
046 - Refuse Collection Point, Portion A2						
A04610	Raft Foundation					
A04620	Superstructure w/2 water tank					
Test & Commission						
B04620	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
048 - Reclaimed Water Pumping Station, Portion A2						
A04867	Backfilling + Removal of ELS					
A04890	Backfilling					
B04810	Superstructure Construction					
B04820	BS for Office Accommodations (Stage 8) (KD9)					
B04830	BS + E&M for Office Accommodation (Stage 9) (KD10)					
B04840	Other BS + E&M Installation					
Test & Commission						
B04860	DG Application					
B04880	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
Retaining Wall W9-2						
SW9210	Construction of Retaining Wall W9-2 (U-shape, 6 bay)					
External Works for Portion A2						
Drainage Works						
ED5630	Drainage Works (228m & 15MHs)					
ED5640	Sewerage (322m & 9MHs)					
Waterpipe Laying						
EW6060	Fresh Water Main Laying (336m)					
EW6070	Flushing Water Main Laying (91m)					
PORTION B						
Portion B Structures						
Retaining Wall W7-2						
S70890	Retaining Wall W7-2 Backfilling					
S70910	C3-S6 Slopeworks					
S70970	Retaining Wall W7-2 Parapet (2 pour) & E&M Works					
Retaining Wall W6-1						
S62060	Retaining Wall W6-1 Backfilling					

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		Mar	Apr	May	Jun	Jul
S62070	Retaining Wall W6-1 Parapet (8 pour) & E&M Works			█		
S62080	Retaining Wall W6-1 Drainage System & Cable Laying				█	
Bay 25 - 29 of CUE/Staff Subway						
C02930	Bay 25 - 29 Construction - Wall + Top Slab	█				
C02960	Internal Finishes & Cable Containment (KD1)	█	█			
C02970	BS + E&M Installation for AVCSS (KD1)	█	█			
C02980	Allow Access to C1 for Chilled Water Pipe (CUE) installation				◆	◆
Portion B Buildings						
027/028 Inbound Kiosks & 029 Outbound Kiosks						
A02720	Superstructure	█	█	█	█	█
A02730	Construction of Subway Entrance	█	█	█		
A02740	Construction of Subway Toilets				█	█
A02750	Finishing			█	█	█
A02760	BS for Office Accomodation (Stage 8)				█	█
A02780	BS + E&M for AVCSS Works (KD18A)			█	█	█
A02790	BS + E&M for AVCSS Cabling (KD18B)		█	█	█	█
027/028 Inbound Kiosks & 029 Outbound Kiosks, Section IX, Subject to Excision						
B02740	Pre-fabrication for the Steel Kiosks	█				
B02760	BS + E&M for AVCSS Works (KD18C)			█	█	█
B02770	BS + E&M for AVCSS Works (KD18D)					█
026 Inbound IMM and DOH Secondary Screening Building						
A02640	Finishing	█	█	█	█	█
A02650	Contractor's Design Submission for SS Mesh Screen & Approval	█	█			
A02660	Contractor's Design Submission for Aluminium Cladding & Approval	█	█			
A02670	BS for Office Accomodation (Stage 8)			█	█	█
A02680	BS + E&M for Office Accomodation (Stage 9)			█	█	█
A02690	Other BS + E&M Installation	█	█	█	█	█
Test & Commission						
B02630	Submission & Issue of WW046 IV, V (Inside Services & FS)			█		
B02650	TC for BS & Pumps			█	█	█
B02680	Form LE5 Submission to EMSD	▶				
B02690	Lift Inspection by EMSD	█				
054 Inbound Fixed X-ray Building						
A05460	Finishing	█	█	█		
A05467	Energisation by CLP	█	█	█		
A05470	BS for Office Accomodation (Stage 8)	█	█	█		
A05480	BS + E&M for Office Accomodation (Stage 9)			█	█	█
A05490	Other BS + E&M Installation	█	█	█	█	█
B05410	Lift Installation	█				
T&C and Statutory Inspection for Zone 4a						
B05420	T&C for BS & Pumps			█	█	█
B05430	Form LE Submission to EMSD	▶				
B05440	Lift Inspection by EMSD	█				
Waterworks Ordinance (WSD)						
G05410	Approval Letter and approved Drawings			◆		
038 AFCD Office						
A03850	Finishing + Curtain Wall Installation	█	█	█	█	█
A03870	BS for Office Accomodation (Stage 8)	█	█	█		
A03880	BS + E&M for Office Accomodation (Stage 9)			█	█	█
A03890	Other BS + E&M Installation			█	█	█

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Test & Commission						
B03810	T&C for BS & Pumps					
B03830	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
C03820	Form 2 Submission		◆			
039 Police Main Building						
A03940	Finishing + Curtain Wall Installation					
A03950	BS for Office Accomodation (Stage 8), & for TCSS works (KD14)					
A03960	BS + E&M for Office Accomodation (Stage 9)					
A03970	Other BS + E&M Installation					
Test & Commission						
B03920	Submission & Issue of WW046 I, II, III (Inside Services & FS)					
B03930	Submission & Issue of WW046 IV, V (Inside Services & FS)					
B03950	Beam Plus Monthly Submission & Issue					
C03950	Form 2 Submission		◆			
C03970	T&C for BS & Pumps					
040 Incident Control Tower						
A04040	Superstructure					
A04050	Finishing (KD9)					
A04060	BS for Office Accomodation (Stage 8), & for TCSS works (KD14)					
A04070	BS + E&M for Office Accomodation (Stage 9)					
Facade Cladding System						
B04020	Fabrication of F/C System					
B04030	Casted-in Items Installation					
B04040	Steel Frame Installation					
Glass Wall						
C04020	Fabrication of Glass Wall					
C04030	Casted-in Items Installation					
C04040	Steel Frame Installation					
Test & Commission						
D04030	T&C for BS & Pumps					
D04040	Form 2 Submission					◆
102 HKPF UVSS Monitor Room						
A10230	Finishing (False Ceiling) (KD9)					
A10240	BS for Office Accomodation (Stage 8)					
A10270	Other BS + E&M Installation					
C10210	WVO 46 Part I, II, III Submission (inside Service + FS)					◆
Metal Canopy and Roof Installation						
B10212	Fabrication of MC/R					
B10220	Casted-in Items Installation					
B10230	Steel Frame Installation					
B10240	Glass panel, metal cladding panel installation					
103 Police Inspection Post						
A10350	Finishing (False Ceiling) (KD9)					
A10360	BS for Office Accomodation (Stage 8)					
A10380	Other BS + E&M Installation					
C10320	WVO 46 Part I, II, III Submission (inside Service + FS)					◆
HPL Composite Panel Cladding System						
B10310	Shop Drawing Submission and Approval					
B10320	Fabrication of HPL Cladding					
B10330	Casted-in Items Installation					

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B10340	Steel Frame Installation					
057 Transformers (Zone 2)						
A05740	Finishing					
A05755	Energisation by CLP					
A05760	BS for Office Accomodation (Stage 8)					
A05770	BS + E&M for Office Accomodation (Stage 9)					
A05780	Other BS + E&M Installation					
T&C and Statutory Inspection for Zone 2a & 2b						
C05700	T&C for BS & Pumps					
F05700	Essential T&C (FSI)					
F05710	Non-Essential T&C (Non-FSI)					
Completion of Fire Services Installation and Equipment (FCD)						
F05740	Provision of Approved Building Plans by the Engineer					
F05750	Application for FSI Inspection (FSI/501) c/w FSI Plan (FSI/314)					
DG License & EPD Generator Approval						
G05710	Approval Letter and approved Drawings					
107 - C&ED Mobile X-ray Operation Office (Cargo), Portion B						
C10730	Superstructure (Roof Slabs)					
C10740	Finishing					
C10750	BS for Office Accomodation (Stage 8)					
C10760	BS + E&M for Office Accomodation (Stage 9)					
C10770	Other BS + E&M Installation					
113 - Field Kiosk for Access Control, Portion B						
B11320	Raft Foundation					
B11330	Superstructure (Roof Beams & Slabs)					
B11340	Finishing					
B11350	BS for Office Accomodation (Stage 8)					
B11370	Other BS + E&M Installation					
201 - Inbound Cargo Mobile X-ray Operation Area						
ER5740	Radiation Screen Wall Construction					
ER5850	Construction of the Area and Access to the Interface Contractor					
205 - Inbound Private Car Mobile X-ray Operation Area						
ER5750	Radiation Screen Wall Construction					
ER5860	Construction of the Area and Access to the Interface Contractor					
External Works for Portion B						
Drainage Works						
ED5670	Drainage Works (1130m & 60MHs), Stage 3 (N/W)					
ED5680	Sewerage (300m & 8MHs), Stage 3 (N/W)					
ED5690	Drainage Works (1130m & 60MHs), Stage 4 (N/E)					
ED5700	Sewerage (300m & 82MHs), Stage 4 (N/E)					
Waterpipe Laying						
EW6080	Fresh Water Main Laying (500m), Stage 2 (S/E)					
EW6090	Flushing Water Main Laying (460m), Stage 2 (S/E)					
EW6100	Fresh Water Main Laying (500m), Stage 3 (N/W)					
EW6110	Flushing Water Main Laying (460m), Stage 3 (N/W)					
EW6190	Chilled Water Pipe Laying in Portion B (external)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
EU5300	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5310	Duct & Cable Laying for TCSS & Lighting					
EU5550	ELV Installation					

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Roadworks						
ER1640	Subbase (10000 ton), Stage 1 (N/W)					
ER3590	Bitumen Pavement (14000 ton), Stage 1 (N/W)					
ER3600	Rigid Pavement (594 m3), Footpath & EVA, Stage 1 (N/W)					
ER5590	Subbase (11000 ton), Stage 2 (N/E)					
ER5600	Bitumen Pavement (15000 ton), Stage 2 (N/E)					
ER5610	Rigid Pavement (594 m3), Footpath & EVA, Stage 2 (N/E)					
Sign Gantry ADS 306A & ADS 306B						
ES5240	Fabrication & Delivery of Sign Gantrys to Site					
PORTION C						
Portion C Buildings						
010 - Inbound Coach Kiosk & Staff Subway Entrance						
A01010	Substructure and Staircase Construction					
009 - Staff Subway Entrance (Bay 0 - 3) & Shuttle Bus Kiosks						
A00940	Finishing					
A00950	BS + E&M for AVCSS works (KD 1)					
A00960	Allow Access to C1 for Chilled Water Pipe Installation (CUE)					
B00920	Kiosk superstructure					
B00930	BS + E&M for AVCSS works (KD18A)					
B00940	BS + E&M for AVCSS Cabling (KD18B)					
012 - DOH Disinsection Area and Store Room 1, at Portion C						
B01210	Excavation & Blinding					
B01220	Raft Foundation					
B01230	Superstructure					
B01240	Finishing					
B01270	BS for Office Accomodation (KD 9)					
104 - DOH Secondary Screening Station, at Portion C						
Facade Cladding System						
A10460	Shop Drawing Submission and Approval					
A10465	Fabrication of F/C System					
108 C&ED Mobile X-ray Machine Operation Office, Portion C						
A10805	Excavation & Blinding					
A10810	Raft Foundation					
A10840	Superstructure (Roof Beams & Slabs)					
HPL Composite Panel Cladding System						
A10800	Shop Drawing Submission and Approval					
A10815	Fabrication of HPL Cladding					
110 IMMD Guard Booth (Type 2) East						
A11020	Excavation & Blinding					
A11030	Substructure					
A11080	Finishing					
A11090	BS for Office Accomodation (Stage 8)					
B11020	Other BS + E&M Installation					
Facade Envelop Structure Installation						
A11040	Shop Drawing Submission and Approval					
A11045	Fabrication of F/C System					
A11050	Casted-in Items Installation					
111 Field Kiosk for Carpark Operator						
A11120	Excavation & Blinding					

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A11130	Raft Foundation					
A11140	Superstructure (Roof beams & Slabs)					
HPL Composite Panel Cladding System						
B11110	Shop Drawing Submission and Approval					
B11120	Fabrication of HPL Cladding					
B11130	Casted-in Items Installation					
113 - Field Kiosk for Access Control, Portion C						
C11310	Excavation & Blinding					
C11320	Raft Foundation					
C11330	Superstructure (Roof Beams & Slabs)					
204 - Inbound Coach Exam Area & Mobile X-ray Operation						
ER5760	Radiation Screen Wall Construction					
External Works for Portion C						
Works in Location 1.2, 1.8 & 011 - Emergency Generator Building						
BB1440	Works & T&C in Location 1.2					
BB1450	Works & T&C in Location 1.8					
BB1460	ELV System Installations and T&C for Contract HY/2013/01					
BB1470	Provisioning of Civil Engineering Works for 011-Emergency Generator Building (KD18)					
Drainage Works						
B00040	Initial Survey					
SG2400	Drainage Works (400m & 18MHs), Stage 1 (Eastern)					
SG3610	Sewerage (90m & 2MHs), Stage 1 (Eastern)					
Waterpipe Laying						
SW2410	Fresh Water Main Laying (135m), Stage 1 (Eastern)					
SW2420	Flushing Water Main Laying (50m), Stage 1 (Eastern)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
SU5320	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
SU5330	Duct & Cable Laying for TCSS & Lighting					
Roadworks						
SR2500	Subbase (2100 ton), Stage 1 (Eastern)					
PORTION D						
Portion D Building						
113 - Field Kiosk for Access Control, Portion D						
C11360	Raft Foundation					
C11370	Superstructure (Roof Beams & Slabs)					
C11380	Finishing					
D11340	BS for Office Accomodation (Stage 8)					
External Works for Portion D						
Drainage Works						
SG3640	Drainage Works (361m & 14MHs)					
SG3760	Sewerage (121m & 6MHs)					
Waterpipe Laying						
SW3650	Fresh Water Main Laying (108m)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
SU5340	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
SU5350	Duct & Cable Laying for TCSS & Lighting					
SU5640	Access date to Telephone Companies					
Roadworks						
SR3740	Subbase (261 ton)					

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SR3770	Bitumen Pavement (619 ton)					
PORTION E						
006 - Shuttle Bus Kiosk & Staff Subway Entrance, at Portion E & M						
A00620	Constructing base of Subway					
A00630	Constructing wall stem + top slab of Subway					
A00640	Backfilling					
A00650	Constructing Ground Slab					
A00660	Constructing Kiosk (4 Nr.)					
A00670	Constructing Subway Entrance					
External Works for Portion E						
Drainage Works						
SG3780	Drainage Works (99m & 5MHs)					
SG3900	Sewerage (38m & 1 MH)					
Waterpipe Laying						
SW3790	Fresh Water Main Laying (45m)					
SW3800	Flushing Water Main Laying (25m)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
SU5360	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
SU5370	Duct & Cable Laying for TCSS & Lighting					
Roadworks						
SR3880	Subbase (1659 ton)					
SR3910	Bitumen Pavement (2105 ton)					
SR3920	Rigid Pavement (180 m3)					
PORTION F						
External Works for Portion F						
Drainage Works						
B00070	Initial Survey					
SG3930	Drainage Works (122m & 9MHs)					
SG4050	Sewerage (70m & 3MHs)					
Waterpipe Laying						
SW3940	Fresh Water Main Laying (205m)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
SU5380	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
SU5390	Duct & Cable Laying for TCSS & Lighting					
SU5420	ELV Installation					
Roadworks						
SR4030	Subbase (1534 ton)					
PORTION G, H1 & H2						
Portion G Structures						
Box Culvert C						
Box Culvert Structure						
SC0310	Box C - Branch Construction					
SC0320	Box C - Branch Backfilling					
SC0380	Box C - Construction of Main Body					
SC0390	Box C - Back filling					
Bridge A1						
Structure Deck						
SA1450	Falsework for Deck P101, P102					

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SA1460	Deck on P101, P102 + Stressing					
SA1510	Deck on P105, A106 + Stressing					
Bridge A2						
Structure Deck						
SA2450	Falsework for Deck P201 - P202					
SA2460	Deck on P201 & P202 + Stressing					
SA2470	Parapet (36 pour), E&M Works & installation of DS49					
Bridge A3						
Structure Deck						
SA3460	Deck on P303, P304a/P304b + Stressing					
SA3470	Falsework for Deck P304a - A305					
SA3480	Deck on P304a, A305 + Stressing					
SA3510	Parapet (56 pour), E&M Works & installation of DS51					
Bridge A4						
Structure Deck						
SA4410	Falsework for Deck P502b, P401					
SA4420	Deck on P502b, P401 + Stressing					
SA4430	Falsework for Deck P401, P402					
SA4440	Deck on P401, P402 + Stressing					
SA4450	Falsework for Deck P304b, P402					
SA4460	Deck on P304b, P401, P402 + Stressing					
Bridge A5						
Pier & Abutment						
SA5370	Abutment A501					
Structure Deck						
SA5440	Deck on P503, P504, + Stressing					
SA5460	Deck on P505, P506 + Stressing					
SA5470	Falsework for Deck P502a, P502b, P503					
SA5480	Deck on P502a, P502b & P503 + Stressing					
SA5510	Falsework for Deck P506 - P507					
SA5520	Deck on P506 & P507 + Stressing					
SA5530	Falsework for Deck A501 - P502a					
SA5540	Deck on A501 & P502a + Stressing					
SA5550	Falsework for Deck P507 - P508a, P508b					
SA5560	Deck on P507 & P508a, P508b + Stressing					
Bridge A6						
Structure Deck						
SA6480	Deck on P604, P605 + Stressing					
SA6510	Deck on P605, P606 + Stressing					
SA6530	Deck on P606 & A607 + Stressing					
SA6540	Parapet (50 pour) & E&M Works					
Bridge A7a, A7b, A7c						
Structure Deck						
SA7770	Deck on P704 & P705 (Bridge A7a) + Stressing					
SA7790	Deck on P703, P704 (Bridge A7a) + Stressing					
SA7810	Falsework for Deck P702, P703					
SA7820	Deck on P702, P703 (Bridge A7 a) + Stressing					
SA7830	Falsework for Deck A701, P702					
SA7840	Deck on A701, P702 (Bridge A7a) + Stressing					
SA7930	Deck on P710 & A711 (Bridge A7c) + Stressing					

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Activity ID	Activity Name	2017					
		Mar	Apr	May	Jun	Jul	
SA7940	Parapet for Bridge A7b (8 pour) & E&M Works		[Green bar]				
SA7950	Parapet for Bridge A7c (38 pour) & E&M Works		[Green bar]				
SA7960	Parapet for Bridge A7a (48 pour) & E&M Works				[Green bar]		
SA7980	Bituminous Paving for A7c (400 ton)(KD25)				[Green bar]		
Bridge A8							
Structure Deck							
SA8440	Deck on P802, P803 + Stressing						
SA8450	Falsework for Deck P803, P804						
SA8460	Deck on P803, A804 + Stressing	[Blue bar]	[Green bar]				
SA8470	Parapet (26 Pour) & E&M works				[Green bar]		
Retaining Walls W1-1, W3-1, W5-1 & W7-1							
Retaining Wall W1-1							
SW1110	Construction of Retaining Wall W1-1 (L-shape, 4 bays)	[Blue bar]	[Green bar]				
SW1120	Retaining Wall W1-1 Backfilling				[Green bar]		
Retaining Wall W3-1							
SW3150	Construction of Retaining Wall W3-1 (U-shape, 4 bays)		[Blue bar]	[Red bar]			
SW3160	Backfilling W3-1				[Red bar]		
Retaining Wall W5-1							
SW5010	Construction of Retaining Wall W5-1 (L-shape, 5 bays)			[Blue bar]	[Red bar]		
Retaining Wall W7-1							
SW7110	Construction of Retaining Wall W7-1 (U-shape, 4 bays)				[Red bar]		
Portion G Buildings							
002 - C&ED Observation Guard Booth No. 1, Portion H1							
C00220	Excavation + Blinding			[Green bar]			
C00230	Raft Foundation			[Green bar]			
C00240	Superstructure				[Green bar]		
002 - C&ED Observation Guard Booth No. 2, Portion H1							
E00210	Excavation + Blinding			[Green bar]			
E00220	Raft Foundation			[Green bar]			
E00230	Superstructure				[Green bar]		
033 Inbound Private Car Exam Building							
A03330	Finishing	[Blue bar]	[Green bar]				
A03360	External Works		[Green bar]				
A03370	BS for Office Accomodation (Stage 8)	[Blue bar]	[Green bar]				
A03380	BS + E&M for Office Accomodation (Stage 9)				[Green bar]		
A03390	Other BS + E&M Installation	[Blue bar]	[Green bar]				
C03310	Submission & Issue of WW046 I, II, III (Inside Services & FS)		[Green bar]				
Glass Canopy Installation							
B03305	Fabrication of Glass Canopy	[Blue bar]	[Green bar]				
B03350	Casted-in Items Installation				[Green bar]		
B03360	Steel Frame Installation				[Green bar]		
Aluminium Metal Canopy							
B03315	Fabrication of F/C System	[Blue bar]					
B03320	Casted-in Items Installation	[Blue bar]					
B03330	Steel Frame Installation				[Green bar]		
B03340	Aluminium Cladding Installation				[Green bar]		
034 Satellite RCP South							
A03450	Finishing	[Blue bar]	[Green bar]				
A03460	BS for Office Accomodation (Stage 8)	[Blue bar]	[Green bar]				
A03470	BS + E&M for Office Accomodation (Stage 9)			[Green bar]			

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		Mar	Apr	May	Jun	Jul
A03480	Other BS + E&M Installation	[Green bar from Mar to Jun]				
Test & Commission						
C03420	Submission & Issue of WW046 IV, V (Inside Services & FS)	[Green bar in May]				
C03430	Form 314 & 501 submission	◆ Form 314				
C03440	T&C for BS & Pumps	[Green bar in Jul]				
C03450	WSD Inspection	[Green bar in May]				
S S Facade Greenery System						
B03415	Fabrication of SS F/G System	[Green bar from Mar to May]				
B03420	Casted-in Items Installation	[Green bar from Mar to May]				
B03430	Steel Frame Installation	[Green bar from May to Jul]				
035 - Sewage Pumping Station, Portion G						
A03580	Constructing of Wall Stem of Wet Well	[Green bar in Mar]				
A03590	Water-tightness Test for Wet Wells	[Green bar in May]				
B03530	Constructing Base Slab of Basement	[Green bar from Mar to May]				
B03540	Constructing Basement Wall & G/F Slab	[Green bar from Mar to May]				
B03550	Water-tightness Test for Inlet Chamber	[Green bar in Jun]				
B03560	Superstructure works	[Green bar from May to Jun]				
B03570	Backfilling	[Green bar in Jun]				
B03580	BS for Office Accommodations (KD9)	[Green bar in Jun]				
C03510	Other BS + E & M Installation	[Green bar in Jun]				
Test & Commission						
C03530	Submission & Issue of WW046 I, II, III (Inside Services & FS)	[Green bar in Jun]				
C03550	Form 314 & 501 submission	◆ Form 314 & 501				
051 Transformers (Zone 5)						
A05150	Finishing	[Green bar in Mar]				
A05165	Energisation by CLP	[Green bar from Mar to May]				
A05170	BS for Office Accommodations (KD9)	[Green bar in Apr]				
A05180	BS + E&M for Office Accommodation (KD10)	[Green bar from Apr to Jul]				
A05190	Other BS + E & M Installation	[Green bar from Apr to Jun]				
T&C and Statutory Inspection for Zone 5						
C05120	T&C for BS & Pumps	[Green bar in Jun]				
C05130	Essential T&C (FSI)	[Green bar in Jun]				
100 Inbound Traffic Control Kiosk						
A10050	Finishing	[Green bar in Mar]				
A10070	BS + E&M for AVCSS Works (KD18A)	[Green bar from Mar to May]				
B10060	BS + E&M for AVCSS Cabling (KD18B)	[Green bar from May to Jul]				
B10070	BS for Office Accommodations (KD9)	[Green bar from May to Jul]				
B10090	Other BS + E & M Installation	[Green bar from Mar to Jul]				
C10010	Submission & Issue of WW046 I, II, III (Inside Services & FS)	[Green bar in Apr]				
HPL Composite Panel Cladding System						
B10015	Fabrication of F/C System	[Green bar from May to Jun]				
B10020	Casted-in Items Installation	[Green bar in Jun]				
112 Field Kiosk for Taxi Queuing Area						
A11240	Finishing	[Green bar from Mar to May]				
A11250	BS + E & M Installation	[Green bar from Mar to Jul]				
A11260	T&C for BS & Pumps SWT	[Green bar in May]				
External Works for Portion G, H1 & H2						
ELV Works within Portion H2 in the Hong Kong Side PTI						
EU1550	ELV Works within Portion H2 in the Hong Kong Side PTI (KD19)	[Red bar from Mar to Jul]				
Works within Portion H1 & H2 except the ELV Works in the Hong Kong Side PTI						

<ul style="list-style-type: none"> Actual Work Remaining Work Critical ◆ Milestone 	<p>THREE MONTH ROLLING PROGRAMME</p> <p>VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES</p> <p>Page 14 of 21</p>	<table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>01-Feb-17</td> <td>3MRP updated as of 31 Jan. 2017</td> <td>ZJ</td> <td></td> </tr> <tr> <td>28-Feb-17</td> <td>3MRP updated as of 28 Feb. 2017</td> <td>ZJ</td> <td></td> </tr> <tr> <td>31-Mar-17</td> <td>3MRP updated as of 31 Mar. 2017</td> <td>ZJ</td> <td></td> </tr> </tbody> </table>	Date	Revision	Checked	Approved	01-Feb-17	3MRP updated as of 31 Jan. 2017	ZJ		28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ		31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ	
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		Mar	Apr	May	Jun	Jul
EU1560	Drainage & Sewerage Works within Portion H1 & H2 in the Hong Kong Side PTI (KD20)					
EU5520	Roadworks (+ Footpath) & Canopy Erection within Portion H1 & H2 in the Hong Kong Side PTI (KD20)					
All Works within the Boundary defined in Drawing No. 60191048/C3/000/C00/1050						
BEU1570	Drainage & Sewerage Works (incl. CLP) within the Boundary defined in Drawing No. 60191048/C3/000/1050					
Drainage Works						
ED4070	Drainage Works (6954m & 393MHs)					
ED4190	Sewerage (437m & 12MHs)					
Waterpipe Laying						
EW4080	Fresh Water Main Laying (1689m)					
EW4090	Flushing Water Main Laying (411m)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
EU5400	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5560	ELV Installation					
Roadworks						
ER4170	Subbase (17045 ton)					
ER4200	Bitumen Pavement (24549 ton)					
ER4210	Rigid Pavement (514 m3), Footpath & EVA					
Sign Gantry DS40, DS41 & DS75						
ES0080	Testing for Pre-bored H Piling					
ES0180	Fabrication & Delivery of Sign Gantrys to Site					
Canopy and Covered Walkway						
CC1310	Shop drawing, Approved & Fabrication					
CC1320	Footing					
CC1330	Steel Frame Installation					
PORTION J						
Portion J Structure						
Bay 30 - 41 of CUE/Staff Subway (Portion J)						
B03230	Bay 34 - 39 Construction - Wall + Top Slab, Staircase					
B03250	Bay 40 - 41 Construction - Wall + Top Slab, Staircase					
B03260	Internal Finishes & Cable Containment (KD2)					
B03270	BS + E&M Installation for AVCSS (Stage 2) (KD2)					
030 Outbound Private Car & GV Kiosks						
A03020	Pre-fabrication for the Steel Kiosks					
A03030	Superstructure (Incl. Entrance & Toilet)					
A03090	Other BS + E & M Installation					
030 Outbound Kiosks, Section IX, Subject to Excision						
C03020	Pre-fabrication for the Steel Kiosks					
C03030	Superstructure					
Portion J Buildings						
024 Outbound Private Car Exam Building						
A02410	Raft Foundation					
A02420	Superstructure					
A02430	Finishing (KD9)					
A02440	BS for Office Accommodations (KD18F)					
A02450	BS + E&M for Office Accommodation (KD18G)					
A02460	Other BS + E & M Installation (KD31)					
Test & Commission						
D02410	Submission & Issue of WW046 I, II, III (Inside Services & FS)					

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		Mar	Apr	May	Jun	Jul
Glass Canopy Installation						
B02415	Fabrication of F/C System	Actual Work	Remaining Work			
B02420	Casted-in Items Installation			Remaining Work		
B02430	Steel Frame Installation				Remaining Work	
Aluminium Metal Canopy						
B02455	Fabrication of F/C System	Actual Work	Remaining Work			
B02460	Casted-in Items Installation			Remaining Work		
031 Outbound IMMD and DOH Secondary Screen Building						
A03140	Superstructure	Actual Work	Remaining Work			
A03150	Finishing (KD31)			Remaining Work		
A03160	BS for Office Accommodations (KD18F)			Remaining Work		
A03180	Other BS + E & M Installation (KD31)			Remaining Work		
Test & Commission						
C03120	Submission & Issue of WW046 I, II, III (Inside Services & FS)			Remaining Work		
060 - Single Storey Support Building Associated with Buildings 044 & 045						
A06025	Finishing	Actual Work	Remaining Work			
A06030	BS + E&M for Transform Room to CLP (KD8)	Actual Work				
A06045	Raft Foundation (other than transformer room)	Actual Work				
A06050	Superstructure (other than transformer room) Construction	Actual Work	Remaining Work			
A06055	Energisation by CLP		Actual Work	Remaining Work		
A06060	BS for Office Accommodation (Stage 10) (KD11)			Remaining Work		
A06080	Other BS + E&M Installation				Remaining Work	
T&C and Statutory Inspection for Zone 3a						
B06020	BEE0 Stage II & Accessor Certification Submission				Remaining Work	
B06030	T&C for BS & Pumps				Remaining Work	
Waterworks Ordinance (WSD)						
G06020	Submission of WWO46 - Part I & II (Inside Services)		Remaining Work			
DG License & EPD Generator Approval						
G06000	DG Application		Remaining Work			
061 Telecom Building						
A06150	Finishing (KD9)	Actual Work	Remaining Work			
A06160	BS for Office Accommodations (KD9)	Actual Work	Remaining Work			
A06170	BS + E&M for Office Accommodation (KD10)				Remaining Work	
A06180	Other BS + E & M Installation			Remaining Work		
Aluminium Metal Canopy						
B06115	Fabrication of Aluminium Cladding	Actual Work	Remaining Work			
B06120	Casted-in Items Installation			Critical		
B06130	Steel Frame Installation				Critical	
101 Outbound Traffic Control Kiosk						
A10100	Excavation + Blinding	Actual Work				
A10110	Raft Foundation		Actual Work			
A10130	Superstructure (Roof Beams & Slabs)		Actual Work	Critical		
A10140	Finishing				Remaining Work	
A10150	BS + E&M for AVCSS Works (KD18A)				Critical	
A10160	BS + E&M for AVCSS Cabling (KD18B)				Remaining Work	
A10170	BS for Office Accommodations (KD9)				Remaining Work	
A10190	Other BS + E & M Installation				Remaining Work	
C10110	Submission of WWO46 - Part I & II (Inside Services)			Remaining Work		
HPL Composite Panel Cladding System						
B10110	Shop Drawing Submission and Approval	Actual Work				

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		Mar	Apr	May	Jun	Jul
B10120	Fabrication of HPL Cladding		[Green Bar]			
B10130	Casted-in Items Installation				[Green Bar]	
206 - Outbound Private Car Mobile X-ray Operation Area						
ER5780	Radiation Screen Wall Construction		[Green Bar]			
External Works for Portion J						
Drainage Works						
ED4220	Drainage Works (1700m & 86MHs), Stage 1	[Blue Bar]				
ED4340	Sewerage (425m & 11MHs), Stage 1	[Blue Bar]				
ED5710	Drainage Works (1697m & 85MHs), Stage 2		[Green Bar]			
ED5720	Sewerage (425m & 12MHs), Stage 2		[Green Bar]			
Waterpipe Laying						
EW4230	Fresh Water Main Laying (770m), Stage 1 (Northern)		[Red Bar]			
EW4240	Flushing Water Main Laying (431m), Stage 1 (Northern)		[Red Bar]			
EW6140	Fresh Water Main Laying (771m), Stage 2 (Southern)				[Green Bar]	
EW6150	Flushing Water Main Laying (431m), Stage 2 (Southern)				[Green Bar]	
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
EU5420	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV		[Green Bar]			
EU5430	Duct & Cable Laying for TCSS & Lighting		[Green Bar]			
Roadworks						
ER4320	Subbase (15400 ton), Stage 1 (Northern)		[Red Bar]			
ER4350	Bitumen Pavement (20000 ton), Stage 1 (Northern)			[Red Bar]		
ER4360	Rigid Pavement (173 m3), Footpath & EVA, Stage 1 (Northern)			[Red Bar]		
Sign Gantry DS104						
ES0140	Sign Gantry DS104 P-bored Piling, 8 Nr.		[Green Bar]			
ES5130	Testing for P-bored Piles				[Green Bar]	
ES5150	Fabrication & Delivery of Sign Gantrys to Site	[Blue Bar]	[Green Bar]			
PORTION K, L, M, S & T						
Portion K Building						
002 - C&ED Observation Guard Booth No. 1, Portion K						
A00210	Excavation + Blinding		[Red Bar]			
A00220	Raft Foundation		[Red Bar]			
A00230	Superstructure				[Red Bar]	
002 - C&ED Observation Guard Booth No. 2, Portion K						
B00210	Excavation + Blinding		[Red Bar]			
B00220	Raft Foundation		[Red Bar]			
B00230	Superstructure				[Red Bar]	
Portion M Buildings						
108 - C&ED Mobile X-ray Operation Office, Portion M						
B10800	Excavation + Blinding		[Red Bar]			
B10810	Substructure (raft Foundation)		[Red Bar]			
B10840	Superstructure (Roof beams & Slabs)			[Red Bar]		
B10850	Finishing				[Green Bar]	
B10860	BS for Office Accommodations (KD9)				[Green Bar]	
HPL Composite Panel Cladding System						
C10820	Fabrication of HPL Cladding		[Green Bar]			
C10830	Casted-in Items Installation				[Green Bar]	
104 DOH Screening Station, at Portion M						
C10400	Excavation + Blinding		[Green Bar]			
C10430	Structure (Raft Foundation)		[Green Bar]			

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C10440	Finishing					
C10450	BS for Office Accommodations (KD9)					
C10470	Other BS + E & M Installation					
Facade Envelop Structure Installation						
D10450	Shop Drawing Submission and Approval					
D10455	Fabrication of F/C System					
D10460	Casted-in Items Installation					
203 - Outbound Coach/Shuttle Bus Exam Area & Mobile X-ray Operation Area						
ER5770	Radiation Screen Wall Construction					
External Works						
Additional Works (Filling & RE Slope), SA1						
ED3230	C1 Contractor to Completed cooling mains at east Portion (Stage 2)					
ED3310	C1 Contractor to Complete Footbridge Supports at the South Portion					
ED3320	Fill Platform from +11.5PD to near PCB (South)					
ED3330	Add surcharge to Platform at +14.5mPD near PCB (South)					
ED3410	C2 Contractor to complete abutment at the North (2 nos.)					
ED3420	Fill Slope around C2 abutments					
Construction of Slopes						
ED3440	Construction of fill slope (Stage 2) (East)					
ED3510	Footing for the Planter Wall, RE slope (North & West)					
ED3520	Construct RE slope (West)					
ED3550	Construction of fill slope (North)					
Drainage Works						
ED4370	Drainage Works (1477m & 81MHs), Stage 1 (Eastern)					
ED4490	Sewerage (78m & 2MHs), Stage 1 (Eastern)					
Waterpipe Laying						
EW4380	Fresh Water Main Laying (608m), Stage 1 (Eastern)					
EW4390	Flushing Water Main Laying (13m), Stage 1 (Eastern)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
EU5450	Duct & Cable Laying for TCSS & Lighting					
Roadworks						
ER4470	Subbase (4600 ton), Stage 1 (Eastern)					
ER4500	Bitumen Pavement (4500 ton), Stage 1 (Eastern)					
ER4510	Rigid Pavement (750 m3) & Footpath, Stage 1 (Eastern)					
Canopy and Covered Walkway						
CC1400	Shop drawing, Approved & Fabrication					
CC1410	Footing					
PORTION N						
Portion N Structure						
Box Culvert B						
Bored Pile						
SB0560	Install H-piles					
SB0590	Box B - Foundation: Revised as pre-bored H-Piles					
Box Culvert Structure						
SB0710	Box B - Construction (Stage 1)					
SB0720	Box B - Construction (Stage 2)					
SB0722	Box B - Temporary Works for Construction of Outfall Structure					
SB0730	Box B - Outfall Structure					
Portion N Buildings						

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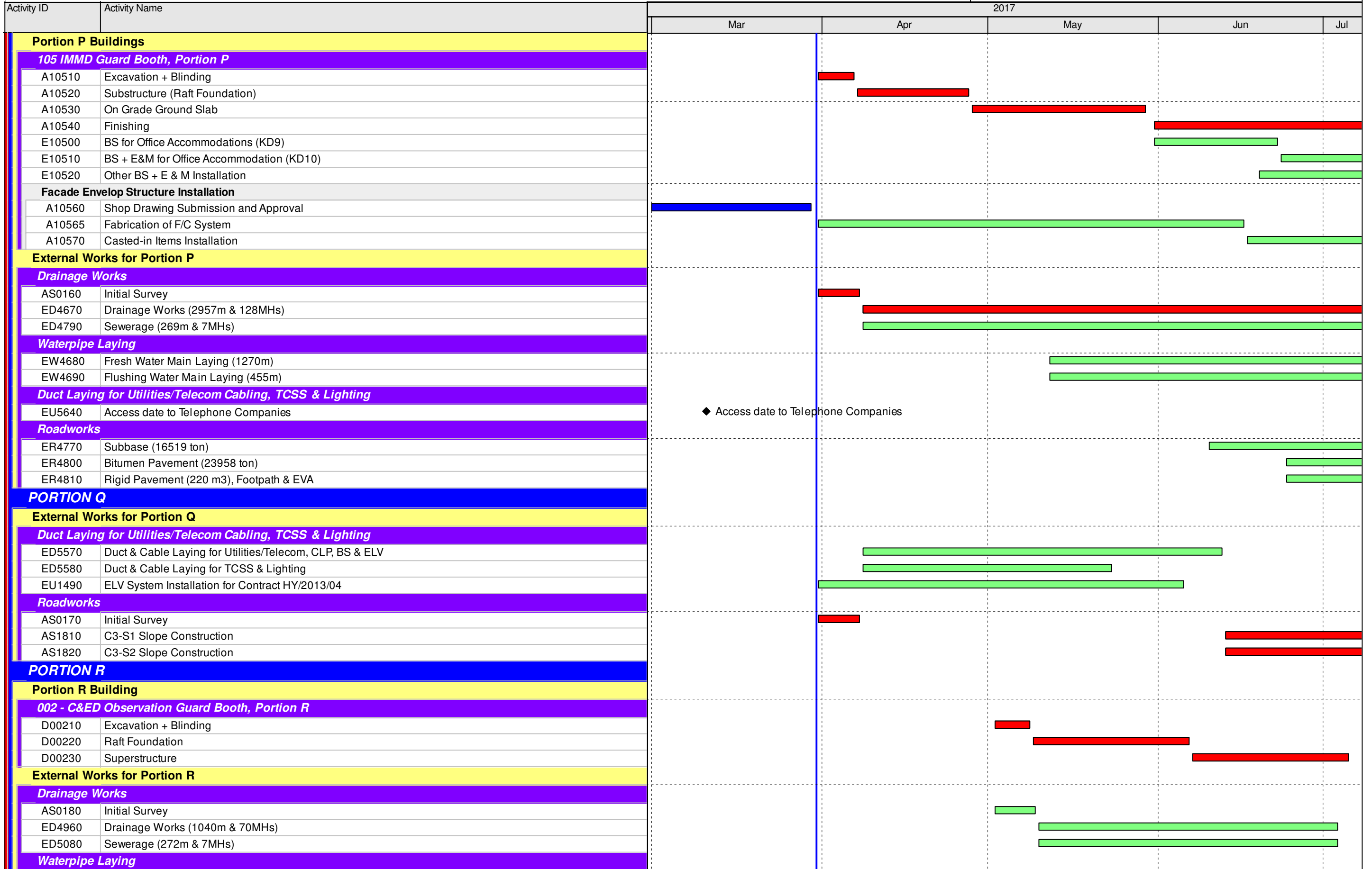
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104 DOH Screening Station, at Portion N						
C10405	Excavation + Blinding (+ PL Test)	Actual Work	Actual Work			
C10410	Structure (Raft Foundation)		Actual Work	Actual Work		
C10420	Finishing			Actual Work	Actual Work	
E10410	BS for Office Accommodations (KD9)			Actual Work	Actual Work	
E10430	Other BS + E & M Installation				Actual Work	
Facade Envelop Structure Installation						
D10410	Shop Drawing Submission and Approval	Actual Work				
D10415	Fabrication of F/C System		Actual Work	Actual Work	Actual Work	
D10420	Casted-in Items Installation				Actual Work	
106 C&ED Detention Area Guard Booth						
A10600	Excavation + Blinding		Critical			
A10610	Structure (Raft Foundation)		Critical	Critical		
A10640	Finishing			Critical	Critical	
E10640	BS for Office Accommodations (KD9)			Actual Work	Actual Work	
E10660	Other BS + E & M Installation				Critical	
Facade Envelop Structure Installation						
B10610	Shop Drawing Submission and Approval		Critical	Critical		
B10615	Fabrication of F/C System			Critical	Critical	
107 C&ED Mobile X-ray Operation Office, Portion N						
A10700	Excavation + Blinding		Critical			
A10710	Substructure (Raft Foundation)		Critical	Critical		
A10740	Superstructure			Critical	Critical	
A10750	Finishing (KD9)				Critical	
A10760	Other BS + E & M Installation (KD10)				Critical	
HPL Composite Panel Cladding System						
B10710	Shop Drawing Submission and Approval	Actual Work				
B10720	Fabrication of HPL Composite Panel System		Actual Work	Actual Work	Actual Work	
B10730	Casted-in Items Installation				Actual Work	
200 - Inbound/Outbound Vehicle Detection Area						
ER5810	Construction of the Area and Access to the Interface Contractor		Actual Work	Actual Work	Actual Work	
202 - Outbound Cargo Mobile X-ray Operation Area						
ER5790	Radiation Screen Wall Construction		Actual Work	Actual Work	Actual Work	
External Works for Portion N						
Drainage Works						
ED4620	Drainage Works (964m & 56MHs), Stage 1 (Southern)	Actual Work	Critical	Critical	Critical	
ED4650	Sewerage (383m & 12MHs), Stage 1 (Southern)	Actual Work	Critical	Critical	Critical	
ED5750	Drainage Works (963m & 55MHs), Stage 2 (Northern)				Critical	
ED5760	Sewerage (383m & 12MHs), Stage 2 (Northern)				Critical	
Waterpipe Laying						
EW4530	Fresh Water Main Laying (641m)			Critical	Critical	
EW4540	Flushing Water Main Laying (413m)			Critical	Critical	
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
EU5460	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV			Critical	Critical	
EU5470	Duct & Cable Laying for TCSS & Lighting		Critical	Critical	Critical	
PORTION P						
Portion Structure						
Retaining Wall RW1						
RW1110	Construction of Retaining Wall RW1 (U-shape, 5 bays)		Actual Work	Actual Work	Actual Work	

█ Actual Work
█ Remaining Work
█ Critical
◆ Milestone

THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
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Date	Revision	Checked	Approved
01-Feb-17	3MRP updated as of 31 Jan. 2017	ZJ	
28-Feb-17	3MRP updated as of 28 Feb. 2017	ZJ	
31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ	



- █ Actual Work
- █ Remaining Work
- █ Critical
- ◆ Milestone

**THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES**

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31-Mar-17	3MRP updated as of 31 Mar. 2017	ZJ	

Activity ID	Activity Name	2017				
		Mar	Apr	May	Jun	Jul
EW4970	Fresh Water Main Laying (614m)					
EW4980	Flushing Water Main Laying (222m)					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting						
EU5500	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV					
EU5510	Duct & Cable Laying for TCSS & Lighting					
EU5610	ELV Installation					
Landscape Works						
A5170	Design and Procurement for Irrigation System					

- Actual Work
- Remaining Work
- Critical
- Milestone

THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015		2016				2017				2018				2019	
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Hong Kong-Zhuhai_Macao Bridge Hong Kong Boundary Crossir						1266	31-Jul-15 A	30-Jan-19	0												30-Jan-19, H
Key Dates						901	31-Jul-15 A	30-Jan-18	0												30-Jan-18, Key Dates
A1000	Acceptance of Contract	0	31-Jul-15 A			◆ Acceptance of Contract, 31-Jul-15 A															
A1010	Commencement of Works	0	14-Aug-15*			◆ Commencement of Works, 14-Aug-15*															
A1020	Excision of Phase 2 (Section II & III)	365	14-Aug-15	12-Aug-16	0	■ Excision of Phase 2 (Section II & III)															
A1120	KD1 (Phase 1 / Section I) (28 Kiosks)	0		24-Jul-17*	0	◆ KD1 (Phase 1 / Section I) (28 Kiosks)															
A1470	KD2 (Phase 2 / Section II) (2 Kiosks)	0		02-Oct-17*	0	◆ KD2 (Phase 2 / Section II) (2 Kiosks)															
A1480	KD3 (Phase 2 / Section III) (42 Kiosks)	0		30-Jan-18*	0	◆ KD3 (Phase 2 / Section III) (42 Kiosks)															
Interface Activities						430	14-Aug-15	16-Oct-16	128												16-Oct-16, Interface Activities
A6860	Interface Management Plan Submission between C6 and C1	212	14-Aug-15	12-Mar-16	154	■ Interface Management Plan Submission between C6 and C1															
A6865	Interface Management Plan between C6 and C1 reviewed by Engineer	14	13-Mar-16	26-Mar-16	154	■ Interface Management Plan between C6 and C1 reviewed by Engineer															
A6870	Detailed Interface Document Submission between C6 and C1	30	27-Mar-16	25-Apr-16	154	■ Detailed Interface Document Submission between C6 and C1															
A6875	Detailed Interface Document between C6 and C1 reviewed by Engineer	14	26-Apr-16	09-May-16	154	■ Detailed Interface Document between C6 and C1 reviewed by Engineer															
A6880	Interface Management Plan Submission between C6 and C3	262	14-Aug-15	01-May-16	76	■ Interface Management Plan Submission between C6 and C3															
A6885	Interface Management Plan between C6 and C3 reviewed by Engineer	14	02-May-16	15-May-16	76	■ Interface Management Plan between C6 and C3 reviewed by Engineer															
A6890	Detailed Interface Document Submission between C6 and C3	30	16-May-16	14-Jun-16	76	■ Detailed Interface Document Submission between C6 and C3															
A6895	Detailed Interface Document between C6 and C3 reviewed by Engineer	14	15-Jun-16	28-Jun-16	76	■ Detailed Interface Document between C6 and C3 reviewed by Engineer															
A6900	Interface Management Plan Submission between C6 and C8	372	14-Aug-15	19-Aug-16	128	■ Interface Management Plan Submission between C6 and C8															
A6905	Interface Management Plan between C6 and C8 reviewed by Engineer	14	20-Aug-16	02-Sep-16	128	■ Interface Management Plan between C6 and C8 reviewed by Engineer															
A6910	Detailed Interface Document Submission between C6 and C8	30	03-Sep-16	02-Oct-16	128	■ Detailed Interface Document Submission between C6 and C8															
A6915	Detailed Interface Document between C6 and C8 reviewed by Engineer	14	03-Oct-16	16-Oct-16	128	■ Detailed Interface Document between C6 and C8 reviewed by Engineer															
Site and Facility Inspection						424	26-Apr-16	23-Jun-17	586												23-Jun-17, Site and Facility Inspection
A4730	Pre Site and Facility Inspection by Contractor at Location 1 - Deg1	7	26-Apr-16*	02-May-16	154	■ Pre Site and Facility Inspection by Contractor at Location 1 - Deg1															
A4740	Joint Site and Facility Inspection with Interface Contractor at Location 1 - Deg1	7	03-May-16	09-May-16	154	■ Joint Site and Facility Inspection with Interface Contractor at Location 1 - Deg1															
A4760	Pre Site and Facility Inspection by Contractor at Location 2 - Deg1	7	25-Jun-16*	01-Jul-16	94	■ Pre Site and Facility Inspection by Contractor at Location 2 - Deg1															
A4770	Joint Site and Facility Inspection with Interface Contractor at Location 2 - Deg1	7	02-Jul-16*	08-Jul-16	94	■ Joint Site and Facility Inspection with Interface Contractor at Location 2 - Deg1															
A4772	Pre Site and Facility Inspection by Contractor at Location 2 - Deg2	7	14-Aug-16*	20-Aug-16	122	■ Pre Site and Facility Inspection by Contractor at Location 2 - Deg2															
A4774	Joint Site and Facility Inspection with Interface Contractor at Location 2 - Deg2	7	21-Aug-16	27-Aug-16	122	■ Joint Site and Facility Inspection with Interface Contractor at Location 2 - Deg2															
A4775	Joint Site and Facility Inspection with Interface Contractor at Location 2 for Server Installation	7	21-Aug-16*	27-Aug-16	122	■ Joint Site and Facility Inspection with Interface Contractor at Location 2 for Server Installation															
A4780	Pre Site and Facility Inspection by Contractor at Location 3 - Deg1	7	03-Sep-16*	09-Sep-16	87	■ Pre Site and Facility Inspection by Contractor at Location 3 - Deg1															
A4790	Joint Site and Facility Inspection with Interface Contractor at Location 3 - Deg1	7	10-Sep-16	16-Sep-16	87	■ Joint Site and Facility Inspection with Interface Contractor at Location 3 - Deg1															
A4800	Pre Site and Facility Inspection by Contractor at Location 3 - Deg2	7	31-Jan-17*	06-Feb-17	0	■ Pre Site and Facility Inspection by Contractor at Location 3 - Deg2															
A4810	Joint Site and Facility Inspection with Interface Contractor at Location 3 - Deg2	7	07-Feb-17	13-Feb-17	0	■ Joint Site and Facility Inspection with Interface Contractor at Location 3 - Deg2															
A4820	Pre Site and Facility Inspection by Contractor at Location 3a - Deg1	7	03-Sep-16*	09-Sep-16	115	■ Pre Site and Facility Inspection by Contractor at Location 3a - Deg1															
A4830	Joint Site and Facility Inspection with Interface Contractor at Location 3a - Deg1	7	10-Sep-16	16-Sep-16	115	■ Joint Site and Facility Inspection with Interface Contractor at Location 3a - Deg1															
A4840	Pre Site and Facility Inspection by Contractor at Location 3a - Deg2	7	22-Nov-16*	28-Nov-16	70	■ Pre Site and Facility Inspection by Contractor at Location 3a - Deg2															
A4850	Joint Site and Facility Inspection with Interface Contractor at Location 3a - Deg2	7	29-Nov-16	05-Dec-16	70	■ Joint Site and Facility Inspection with Interface Contractor at Location 3a - Deg2															
A4851	Joint Site and Facility Inspection with Interface Contractor at Location 3a for Server Installation	7	29-Nov-16*	05-Dec-16	119	■ Joint Site and Facility Inspection with Interface Contractor at Location 3a for Server Installation															
A4860	Pre Site and Facility Inspection by Contractor at Location 4 - Deg1	7	11-Jan-17*	17-Jan-17	20	■ Pre Site and Facility Inspection by Contractor at Location 4 - Deg1															
A4870	Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg1	7	18-Jan-17	24-Jan-17	20	■ Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg1															
A4880	Pre Site and Facility Inspection by Contractor at Location 4 - Deg2	7	10-Jun-17*	16-Jun-17	586	■ Pre Site and Facility Inspection by Contractor at Location 4 - Deg2															
A4890	Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg2	7	17-Jun-17	23-Jun-17	586	■ Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg2															
A4891	Pre Site and Facility Inspection by Contractor at Location 4a - Deg1	7	11-Jan-17*	17-Jan-17	41	■ Pre Site and Facility Inspection by Contractor at Location 4a - Deg1															

Programme No.: HZMB-DWP Data Date: 14-Aug-15	<ul style="list-style-type: none"> Actual Level of Effort Actual Work Remaining Work Critical Remaining Work Milestone summary 	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS)		Date	Revision	Checked	Approved
				14-Nov-16	Rev.: 0	WC	LC

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015-2019																			
						2015				2016				2017				2018				2019			
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2			
A4590	Installation of fencing post along the site boundary	3	02-Nov-15*	04-Nov-15	1183																				
A4600	Excavation for underground drainage pipe	1	04-Nov-15*	04-Nov-15	1183																				
A4610	Evenly spread the asphalt scrap material by backhoe	3	05-Nov-15*	07-Nov-15	1180																				
A4620	Cast concrete for the u-channel and underground drainage pipe	1	05-Nov-15*	05-Nov-15	1182																				
A4630	Remove the u-channel framework	1	06-Nov-15*	06-Nov-15	1181																				
A4640	Installation of chain-link fencing along the site boundary	2	06-Nov-15*	07-Nov-15	1180																				
A4650	Installation of access doors	1	07-Nov-15*	07-Nov-15	1180																				
A4660	Excavation for drainage ditch	3	06-Nov-15*	09-Nov-15	1010																				
A4670	Cast concrete for the drainage ditch	1	10-Nov-15*	10-Nov-15	1177																				
A4680	Compact the asphalt scrap material	2	09-Nov-15*	10-Nov-15	1177																				
A4690	Land surveying	1	11-Nov-15*	11-Nov-15	1174																				
A4700	Inspection of chain-link fencing and access doors	1	12-Nov-15*	12-Nov-15	1174																				
A4710	Testing of drains	1	13-Nov-15*	13-Nov-15	1174																				
A4720	Completion of the works	0	14-Nov-15		1174																				
Detailed Design Specification		365	14-Aug-15	12-Aug-16	0	12-Aug-16; Detailed Design Specification Preliminary System Proposal Submission Engineer's agreement with preliminary system proposal Draft Detailed Design Specification (DDS) Submission Draft Hardware Function Design Specification for Computer system and Network system (HFD) Draft Software Function Design Specification for Computer system and Network system (SFD) Engineer's Review and Approval for Draft Detailed Design Specification (DDS) Engineer's Review and Approval for Draft Hardware FDS for Computer system and Network system (HFD) Engineer's Review and Approval for Draft Software FDS for Computer system and Network system (SFD) Interface Requirements for CED (LBS, CED IT Server, Metro-Ethernet) and IMMD (AVCS) Final DDS Submission (AVCSS,VTS,VIDS)(Phase 1/Section I) Development of System Security Plan Engineer's Review and Approval for Final DDS Submission including System Security Plan (AVCSS)(Phase 1/Section I) Final DDS Submission (AVCSS)(Phase 2/Section II&III) Engineer's Review and Approval for DDS Submission (AVCSS)(Phase 2/Section II&III)																			
Construction Design and Management		60	07-May-16	05-Jul-16	52	05-Jul-16, Construction Design and Management Construction Health and Safety Plan Submission Construction Health and Safety Plan reviewed by Engineer																			
Supply/Manufacture Mock-up items		82	30-Apr-16	20-Jul-16	51	20-Jul-16; Supply/Manufacture Mock-up items Preparation of Kiosk equipment Mock-up Installation of Kiosk equipment Mock-up																			
Supply/Manufacture prototypes		60	30-Apr-16	28-Jun-16	0	28-Jun-16, Supply/Manufacture prototypes Manufacture LED Display Prototype (VID, ODB and XDB) Manufacture All-In-One Panel Prototype (AIOP)																			
Software Design, Coding and Testing		407	11-Apr-16	22-May-17	0	22-May-17, Software Design, Coding and Testing																			

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Date	Revision	Checked	Approved									
14-Nov-16	Rev.: 0	WC	LC									

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015		2016				2017				2018				2019							
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2					
Coding						270	11-Apr-16	05-Jan-17	0	05-Jan-17, Coding																	
A5460	CCS, SURCON, SYSCON, CDBS Development Stage 1	70	11-Apr-16*	19-Jun-16	0	CCS, SURCON, SYSCON, CDBS Development Stage 1																					
A5500	VTS Development Stage 1	70	11-Apr-16*	19-Jun-16	0	VTS Development Stage 1																					
A5510	VIDS Development Stage 1	64	11-Apr-16*	13-Jun-16	15	VIDS Development Stage 1																					
A5540	CCS, SURCON, SYSCON, CDBS Development Stage 2	170	20-Jul-16	05-Jan-17	0	CCS, SURCON, SYSCON, CDBS Development Stage 2																					
A5580	VTS Development Stage 2	170	20-Jul-16	05-Jan-17	0	VTS Development Stage 2																					
A5590	VIDS Development Stage 2	162	28-Jul-16	05-Jan-17	0	VIDS Development Stage 2																					
Software System Inetgration						388	30-Apr-16	22-May-17	0	22-May-17, Software System Inetgration																	
A5520	Test Plan Documentation Submission	237	30-Apr-16	22-Dec-16	0	Test Plan Documentation Submission																					
A5530	Engineer's Review and Approval for Test Plan Documentation Submission	14	23-Dec-16	05-Jan-17	0	Engineer's Review and Approval for Test Plan Documentation Submission																					
A5600	Software System Integration Test	45	06-Jan-17	19-Feb-17	0	Software System Integration Test																					
A5630	CCS/SYSCON/SURCON/CDBS/VTS/VIDS Software Enhancement	50	20-Feb-17	10-Apr-17	0	CCS/SYSCON/SURCON/CDBS/VTS/VIDS Software Enhancement																					
A5640	Software User Acceptance Test (UAT)	42	11-Apr-17	22-May-17	0	Software User Acceptance Test (UAT)																					
Prototype & Software Simulation Tests						133	30-Apr-16	09-Sep-16	0	09-Sep-16, Prototype & Software Simulation Tests																	
A1910	Prototype Test Document	30	30-Apr-16	29-May-16	6	Prototype Test Document																					
A2130	Engineer's Approval for Testing Document	15	30-May-16	13-Jun-16	6	Engineer's Approval for Testing Document																					
A2920	CCWS with CDBS, SURCON and SYSCON (Software Simulation/ Software Integration Test)	30	20-Jun-16	19-Jul-16	0	CCWS with CDBS, SURCON and SYSCON (Software Simulation/ Software Integration Test)																					
A2930	Vehicle Tracking System (VTS) (Software Simulation/ Software Integration Test)	30	20-Jun-16	19-Jul-16	0	Vehicle Tracking System (VTS) (Software Simulation/ Software Integration Test)																					
A2950	LED Displays (VID, ODB and XDB)	29	29-Jun-16*	27-Jul-16	0	LED Displays (VID, ODB and XDB)																					
A2960	All-In-One Panel (AIOP)	29	29-Jun-16*	27-Jul-16	0	All-In-One Panel (AIOP)																					
A3020	Prototype Testing Report Submission	30	28-Jul-16	26-Aug-16	0	Prototype Testing Report Submission																					
A4350	Engineer's Approval for Prototype Testing Report	14	27-Aug-16	09-Sep-16	0	Engineer's Approval for Prototype Testing Report																					
Procurement - Phase 1 / Section I						242	30-Apr-16	27-Dec-16	0	27-Dec-16, Procurement - Phase 1 / Section I																	
A3070	Procurement of Equipment for Phase 1/Section I	242	30-Apr-16	27-Dec-16	0	Procurement of Equipment for Phase 1/Section I																					
A3080	Procurement of Cable and Accessories for Phase 1 /Section I	122	30-Apr-16	29-Aug-16	0	Procurement of Cable and Accessories for Phase 1 /Section I																					
A3990	Procurement of All Servers and Workstations	242	30-Apr-16	27-Dec-16	0	Procurement of All Servers and Workstations																					
Supply/Manufacture products for FAT						62	10-Sep-16	10-Nov-16	0	10-Nov-16, Supply/Manufacture products for FAT																	
A2980	Supply/Manufacture LED Display (ODB, VID and XDB) for FAT	54	10-Sep-16	02-Nov-16	0	Supply/Manufacture LED Display (ODB, VID and XDB) for FAT																					
A2990	Supply/Manufacture All-In-One Panel (AIOP) for FAT	62	10-Sep-16	10-Nov-16	0	Supply/Manufacture All-In-One Panel (AIOP) for FAT																					
A3000	Supply/Manufacture off-the-shelf equipment for FAT	50	10-Sep-16	29-Oct-16	0	Supply/Manufacture off-the-shelf equipment for FAT																					
Factory Acceptance Test (FAT)						94	10-Sep-16	12-Dec-16	0	12-Dec-16, Factory Acceptance Test (FAT)																	
A2120	FAT Procedure Document	36	10-Sep-16	15-Oct-16	0	FAT Procedure Document																					
A2121	Engineer's Approval for FAT Procedure Document	14	16-Oct-16	29-Oct-16	0	Engineer's Approval for FAT Procedure Document																					
A3050	FAT for Licence Plate Recognition System (LPRS)	2	30-Oct-16	31-Oct-16	0	FAT for Licence Plate Recognition System (LPRS)																					
A3060	FAT for PA/Intercom	2	01-Nov-16	02-Nov-16	0	FAT for PA/Intercom																					
A3090	FAT for ODB	2	03-Nov-16	04-Nov-16	0	FAT for ODB																					
A3100	FAT for XDB	2	03-Nov-16	04-Nov-16	0	FAT for XDB																					
A3110	FAT for VID	2	03-Nov-16	04-Nov-16	0	FAT for VID																					
A3120	FAT for Video Management System (VMS)	2	05-Nov-16	06-Nov-16	0	FAT for Video Management System (VMS)																					
A3130	FAT for Vehicle Tracking System (VTS)	2	07-Nov-16	08-Nov-16	0	FAT for Vehicle Tracking System (VTS)																					
A3140	FAT for Communication Network (CMN)	2	09-Nov-16	10-Nov-16	0	FAT for Communication Network (CMN)																					
A3150	FAT for All-In-One Panel (AIOP)	2	11-Nov-16	12-Nov-16	0	FAT for All-In-One Panel (AIOP)																					
A3160	FAT for AVCSS System Test	2	13-Nov-16	14-Nov-16	0	FAT for AVCSS System Test																					
A4360	FAT Report Submission	14	15-Nov-16	28-Nov-16	0	FAT Report Submission																					

Programme No.: HZMB-DWP Data Date: 14-Aug-15		Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS)		Date	Revision	Checked	Approved
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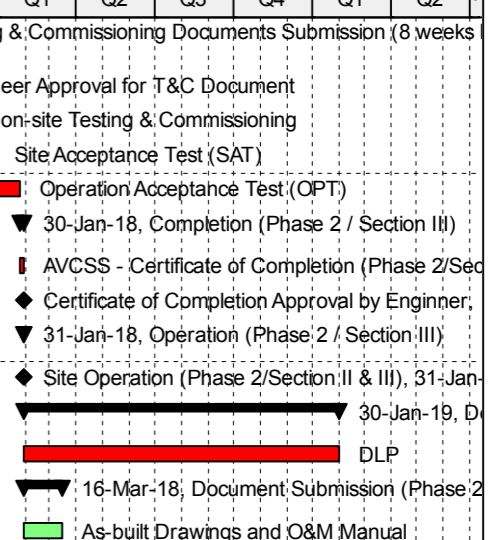
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015		2016				2017				2018				2019		
						Q2	Q3	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A4370	Engineer's Approval for FAT Report Submission	14	29-Nov-16	12-Dec-16	0																	
Supply/Manufacture Equipment		60	13-Dec-16	10-Feb-17	0																	
A6830	Supply/Manufacture LED (ODB, VID and XDB) Display for installation	45	13-Dec-16	26-Jan-17	0																	
A6840	Supply/Manufacture AIOP for installation	60	13-Dec-16	10-Feb-17	0																	
Delivery and Bench Acceptance Test for Phase 1/ Section I		176	30-Aug-16	21-Feb-17	0																	
A6740	Material On-Site for Phase 1/Section I	6	28-Dec-16	02-Jan-17	0																	
A6750	Material Bench Acceptance Test for Phase 1/Section I	5	03-Jan-17	07-Jan-17	0																	
A6850	Cable On-Site for Phase 1/Section I	14	30-Aug-16	12-Sep-16	0																	
A6960	AIOP On-Site for Phase 1/Section I	6	11-Feb-17	16-Feb-17	0																	
A6970	AIOP Bench Acceptance Test for Phase 1/Section I	5	17-Feb-17	21-Feb-17	0																	
A6980	LED (ODB, VID and XDB) On-Site for Phase 1/Section I	5	27-Jan-17	31-Jan-17	0																	
A6990	LED (ODB, VID and XDB) Bench Acceptance Test for Phase 1/Section I	5	01-Feb-17	05-Feb-17	0																	
Installation - Phase 1 / Section I		290	13-Sep-16	29-Jun-17	20																	
Location 1(PCB (001) Basement)		35	11-Oct-16	14-Nov-16	0																	
A3081	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
Location 1(PCB (001) ELV Room (Grid Line E3))		35	11-Oct-16	14-Nov-16	0																	
A3101	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
Location 2(PCB (001) Ground Floor ELV Room (Grid Line E3))		35	11-Oct-16	14-Nov-16	0																	
A3121	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
Location 2(PCB (001) Ground Floor DOH Port Health Control Room (Grid Line BD))		171	11-Oct-16	30-Mar-17	0																	
A2041	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
A2042	Cable Testing	54	15-Nov-16	07-Jan-17	0																	
A2043	Intercom and PA system Installation	65	08-Jan-17	13-Mar-17	0																	
A2044	Intercom and PA system tuning	17	14-Mar-17	30-Mar-17	0																	
Location 2(PCB (001) First Floor Main Server Room)		175	11-Oct-16	03-Apr-17	0																	
A2001	Cable Laying and termination at Location 1 and Location 2	35	11-Oct-16	14-Nov-16	0																	
A2002	Cable Testing	43	15-Nov-16	27-Dec-16	0																	
A2003	AVCSS Network and Server Installation	49	28-Dec-16	14-Feb-17	0																	
A2004	AVCSS Network and Server Tuning	48	15-Feb-17	03-Apr-17	0																	
Location 3(Inbd Cargo Exam Bldg (037) Inspector Offices 128,129,130,131,128,12)		133	10-Jan-17	22-May-17	0																	
A3241	Cable Laying and termination in Location 3 and Location 3a	35	10-Jan-17	13-Feb-17	0																	
A3242	AVCSS SURCON WS and 55" LCD Installation	28	14-Feb-17	13-Mar-17	0																	
A3243	VTS WS Installation	28	14-Feb-17	13-Mar-17	0																	
A3245	SURCON, WS Tuning	70	14-Mar-17	22-May-17	0																	
Location 3(Inbd Cargo Exam Bldg (037) ELV Room)		28	13-Dec-16	09-Jan-17	0																	
A3210	Cable Laying and termination between Location 3 and CUE	28	13-Dec-16	09-Jan-17	0																	
Location 3(Inbd Cargo Exam Bldg (037) Platform Control Room)		133	10-Jan-17	22-May-17	0																	
A2071	Cable Laying and termination in Location 3 and Location 3a	35	10-Jan-17	13-Feb-17	0																	
A2072	AVCSS SYSCON WS and 55" TV Wall Installation	14	14-Feb-17	27-Feb-17	0																	
A2074	AVCSS SYSCON WS Tuning	84	28-Feb-17	22-May-17	0																	
Location 3(Inbd Cargo Exam Bldg (037) MDF Room)		28	13-Dec-16	09-Jan-17	0																	
A3190	Cable Laying and termination between Location 3 and CUE	28	13-Dec-16	09-Jan-17	0																	
Location 3a(Inbd Cargo Exam Bldg (037) ROCARS Room)		133	10-Jan-17	22-May-17	0																	
A2091	Cable Laying and termination in Location 3 and Location 3a	35	10-Jan-17	13-Feb-17	0																	
A2092	AVCSS SYSCON,SURCON and Intercom Installation	49	14-Feb-17	03-Apr-17	0																	

Programme No.: HZMB-DWP Data Date: 14-Aug-15	<ul style="list-style-type: none"> Actual Level of Effort Actual Work Remaining Work Critical Remaining Work Milestone summary 	Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS)		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>14-Nov-16</td> <td>Rev.: 0</td> <td>WC</td> <td>LC</td> </tr> </table>	Date	Revision	Checked	Approved	14-Nov-16	Rev.: 0	WC	LC
Date	Revision	Checked	Approved									
14-Nov-16	Rev.: 0	WC	LC									

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015				2016				2017				2018				2019	
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A4140	Outbound VID field equipment installation (8 VID)	32	03-Apr-17	04-May-17	0																		
A4150	Outbound VTS field equipment installation (3 RFID + 3 Cameras)	16	11-Apr-17	26-Apr-17	0																		
A4170	Outbound TLS field equipment installation (4 TLS)	8	27-Apr-17	04-May-17	0																		
A4180	Outbound VID, VTS and TLS field equipment tuning	18	05-May-17	22-May-17	0																		
Underground Ducting between Inbd Cargo Exam Bldg (037) and CUE																							
A3810	Cable Laying and termination (note: Access Date by C03)	35	08-Jan-17	11-Feb-17	0																		
Underground Ducting between Inbd Cargo Exam Bldg (037) and Inbd Vehicle Clea																							
A3830	Cable Laying and termination (note: Access Date by C03)	26	12-Feb-17	09-Mar-17	0																		
Underground Ducting between CUE and Outbd Car Exam Bldg (023)																							
A3850	Cable Laying and termination (note: Access Date by C03)	24	10-Mar-17	02-Apr-17	0																		
Underground Ducting Between Outbd Cargo Exam Bldg (023) and Outbd Vehicle C																							
A3870	Cable Laying and termination (note: Access Date by C03)	24	03-Apr-17	26-Apr-17	0																		
Underground Ducting between CUE and Outbd Vehicle Clearance Plaza																							
A3890	Cable Laying and termination (note: Access Date by C03)	26	27-Apr-17	22-May-17	0																		
On-Site Test and Commissioning (Phase 1 / Section I)																							
A2150	Testing & Commissioning Documents Submission (8 weeks before Testings carried out)	30	15-Jan-17*	13-Feb-17	84																		
A2151	Engineer Approval for T&C Document	14	14-Feb-17	27-Feb-17	84																		
A2152	Joint Site Inspection for Permanent Power/Tele-communication for Initial on-site testing	14	17-Mar-17*	30-Mar-17	0																		
A2153	Initial on-site Testing & Commissioning	53	31-Mar-17	22-May-17	0																		
Site Acceptance Test (Phase 1 / Section I)																							
A6601	Interface Readiness CED(LBS, CED IT, Metro-Ethernet) and IMMD (AVS)	36	17-Apr-17*	22-May-17	0																		
A6602	SAT for AVCSS	28	23-May-17	19-Jun-17	0																		
A6603	SAT for Location 18 (AVCSS SURCON and 55" LCD)	5	30-Jun-17	04-Jul-17	0																		
A6630	SAT Test Document Submission	30	20-Jun-17	19-Jul-17	0																		
A6640	Software Manual Documentations Submission	30	20-Jun-17	19-Jul-17	0																		
Security Risk Assessment and Audit																							
A6800	SRAA (Assessment)	9	23-May-17	31-May-17	0																		
A6810	Fix per SRAA Assessment	40	01-Jun-17	10-Jul-17	0																		
A6820	SRAA Audit	9	11-Jul-17	19-Jul-17	0																		
Operability Period Test (Phase 1 / Section I)																							
A5610	Joint Site Inspection for utilities, telecom connection and metro ethernet for OPT	7	13-Jun-17*	19-Jun-17	0																		
A5620	Operability Period Test (OPT) Phase 1	15	20-Jun-17	04-Jul-17	0																		
A5650	Operability Period Test (OPT) Phase 2	15	05-Jul-17	19-Jul-17	0																		
Completion (Phase 1 /Section I)																							
A2230	AVCSS - Certificate of Completion (Phase 1/Section I)	5	20-Jul-17	24-Jul-17	0																		
A2231	Certificate of Completion Approval by Engineer	0		24-Jul-17	0																		
Training and Document (Phase 1 /Section I)																							
A2180	Training Materials & Documentation Submission	30	21-Feb-17*	22-Mar-17	14																		
A2190	Operation and Maintenance Training	110	23-Mar-17	10-Jul-17	14																		
Operation (Phase 1 /Section I)																							
A2240	Site Operation (Phase 1/Section I)	0	25-Jul-17	25-Jul-17	0																		
Engineering Support for Phase 1 / Section I																							
		190	25-Jul-17	30-Jan-18	0																		

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Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015			2016				2017				2018				2019		
						Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
A2370	Testing & Commissioning Documents Submission (8 weeks before Testings carried out)	30	30-Aug-17*	28-Sep-17	0																		
A2371	Engineer Approval for T&C Document	14	29-Sep-17	12-Oct-17	0																		
A2373	Initial on-site Testing & Commissioning	98	07-Jul-17	12-Oct-17	0																		
A2380	Site Acceptance Test (SAT)	75	13-Oct-17	26-Dec-17	0																		
A2390	Operation Acceptance Test (OPT)	30	27-Dec-17	25-Jan-18	0																		
Completion (Phase 2 / Section III)		5	26-Jan-18	30-Jan-18	0																		
A2400	AVCSS - Certificate of Completion (Phase 2/Section III)	5	26-Jan-18	30-Jan-18	0																		
A4330	Certificate of Completion Approval by Enginner	0		30-Jan-18	0																		
Operation (Phase 2 / Section III)		0	31-Jan-18	31-Jan-18	365																		
A2420	Site Operation (Phase 2/Section II & III)	0	31-Jan-18		365																		
Defect Liability Period (DLP)		365	31-Jan-18	30-Jan-19	0																		
A2430	DLP	365	31-Jan-18	30-Jan-19	0																		
Document Submission (Phase 2 / Section III)		45	31-Jan-18	16-Mar-18	320																		
A4340	As-built Drawings and O&M Manual	45	31-Jan-18	16-Mar-18	320																		



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Appendix D

Event / Action Plan

Appendix D –

Event / Action Plan for Air Quality and Noise Monitoring

Event / Action Plan for Air Quality

Event	Action			
	ET	IEC	ER	Contractor
Action Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.

Event	Action			
	ET	IEC	ER	Contractor
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise Implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> 1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.

Event	Action			
	ET	IEC	ER	Contractor
Limit Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.

Event	Action			
	ET	IEC	ER	Contractor
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedances abated.

Event / Action Plan for Construction Noise Monitoring

Event	Action			
	ET	IEC	ER	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify IEC and Contractor; 2. Identify source, investigate the causes of exceedance and propose remedial measures; 3. Report the results of investigation to the IEC,ER and Contractor; 4. Discuss with the Contractor and formulate remedial measures; 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IEC; 2. Implement noise mitigation proposals.

Event	Action			
	ET	IEC	ER	Contractor
Limit Level	<ol style="list-style-type: none"> 1. Inform IEC, ER, EPD and Contractor; 2. Identify source; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractors remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Require Contractor to propose remedial measures for the analysed noise problem; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

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Appendix E

Waste Flow Table



Monthly Summary of Waste Flow Table for 2017 (year)

Name of Person completing the Record: Marko Chan

Month	Actual Quantities of Inert C&D Materials Generated Monthly					Actual Quantities of Non-inert C&D Wastes Generated Monthly				
	Total Quantity Generated	Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
		(see Note 1)						(see Note 2)		
(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 Kg)	(in '000 Kg)	(in '000 Kg)	(in '000 Kg)	(in '000m ³)	
Jan	0.000	0	0	0	0.000	0	0	0	0	0.580
Feb	0.000	0	0	0	0.000	0	0	0	0	0.585
Mar	0.000	0	0	0	0.000	0	0	0	0	0.999
Apr										
May										
Jun										
Jul										
Aug										
Sept										
Oct										
Nov										
Dec										
Total	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.164

Notes: (1) Broken concrete for recycling into aggregates.
 (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.

Monthly Summary of Excavated Marine Sediment for 2017 (year)

Month	Total Quantity of Excavated Marine Sediment Generated in '000m ³	Reused in this contract in '000m ³	Reused in other Projects in '000m ³	Disposed of at CMP in '000m ³
Jan	0.656	0	0	0.656
Feb	0.264	0	0	0.264
Mar	0.000	0	0	0.000
Apr				
May				
Jun				
Jul				
Aug				
Sep				
Oct				
Nov				
Dec				
Total	0.920	0.000	0.000	0.920



ATAL Technologies Ltd.

Contract No. HY/2013/06 HKBCF Automatic Vehicle Clearance Support System

Location: Artificial Island of HKIAP (C3 Area)

Ver: 1st
Date: Jan 2017

Monthly Summary Waste Flow Table for 2017

Month	Inert C&D Waste disposal / 墮性廢物 (in tonnes) (see Note 1)						Non-inert C&D Waste disposal 非墮性廢物 (in tonnes)		Waste to be recycled and returned / 可再循環利用或回收的廢物								Total Quantity Generated 總生產量			
	Reused in the Work Package (e.g. backfilling) 再用於工程 (如回填)		Reused in other Projects 再用於其他工程		Inert Waste (e.g. soil, broken concrete, rubble, fill material etc.) 墮性廢物 (如泥, 石矢頭, 石, 填料等)		Others (e.g. general refuse, broken formwork etc) 其他 (如垃圾, 廢板枋等)		Metals 金屬		Plastic 塑膠		Paper/cardboard packaging 廢紙/包裝紙類		Chemical Waste 化學廢物					
	(b)		(c)		(d)		(e)		(in tonnes)		(in tonnes)		(in tonnes)		(in litre)				(a)=(b+c+d+e)	
	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量	Est. Qty. 估計數量	Act. Qty. 實際數量			Est. Qty. 估計數量	Act. Qty. 實際數量
January	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000	
February	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000	
March	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	
April																				
May																				
June																				
July																				
August																				
September																				
October																				
November																				
December																				
Total	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.005	0.005	0.000	0.000	0.004	0.004	0.000	0.000	0.002	0.002		

Notes: (1) The quantiles of C&D Materials, in tonne, was calculated by multiply the estimated volume, in m3, with the density of the soil, which is 1.5 gcm⁻³.

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Appendix F

Environmental Licenses and Permits

Appendix F - Environmental Permit / Licences Summary for Contract No. HY/2013/03

(update: 18/04/2017)

Item	Permit/Licence Registration	Permit No.	Work Area	Application Date	Issue Date	Valid Date		Status	Remark
						From	To		
1	Environmental Permit Pursuant to Environmental Impact Assessment Ordinance	EP-353/2009/K	HKBCF	24-Mar-16	11-Apr-16	11-Apr-16	Nil	Valid	
2	Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	Ref No. 387703	Main Site Area	15-Apr-15	15-Apr-15	15-Apr-15	Nil	Valid	
3	Notification Pursuant to Section 3(1) of The Air Pollution Control (Construction Dust) Regulation	Ref No. 387735	Works Area WA3	15-Apr-15	15-Apr-15	15-Apr-15	Nil	Valid	
4	Billing A/C for Construction Waste Disposal Pursuant to Section 6 & 9 of the Waste Disposal (Charges for Disposal of Construction waste) Regulation	A/C No. 7022228	Main Site Area, WA3 & 4	15-Apr-15	06-May-15	06-May-15	Nil	Valid	
5	Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation	5213-951-C1186-28	Main Site Area	28-Apr-15	01-Jun-15	01-Jun-15	Nil	Valid	
6	Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation	5213-974-C3597-03	Works Area WA4	28-Apr-15	01-Jun-15	01-Jun-15	Nil	Valid	
7	Water Discharge License Pursuant to Water Pollution Control Ordinance (Cap 358)	WT00022180-2015	Works Area WA3	29-Apr-15	04-Aug-15	03-Aug-15	31-Aug-20	Valid	
8	Water Discharge License Pursuant to Water Pollution Control Ordinance (Cap 358)	WT00025384-2016	Main Site Area	09-Mar-16	10-Nov-16	10-Nov-16	30-Sep-20	Valid	
9	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	PP-RS0028-16	Portion A, G, H & N	15-Sep-16	29-Sep-16	03-Oct-16	02-Apr-17	Valid until 02-Apr-17	
10	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1267-16	Main Site Area	02-Dec-16	16-Dec-16	19-Dec-16	18-Mar-17	Valid until 18-Mar-17	
11	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS1329-16	Main Site Area	09-Dec-16	23-Dec-16	01-Jan-17	30-Apr-17	Valid	
12	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0205-17	Main Site Area	01-Mar-17	15-Mar-17	19-Mar-17	18-Jun-17	Valid	
13	Permit issued Under the Dumping at Sea Ordinance	EP/MD/17-170	East of Sha Chau (CMP Vd)	12-Jan-17	24-Jan-17	05-Feb-17	04-Mar-17	Valid until 04-Mar-17	
14	Permit issued Under the Dumping at Sea Ordinance	EP/MD/17-190	East of Sha Chau (CMP Vd)	01-Mar-17	17-Mar-17	20-Mar-17	19-Apr-17	Valid	
15	Specified Process License for Tar and Bitumen Works Pursuant to Section 14 of the Air Pollution Control Ordinance	L-15-039(1)	Temporary Asphalt Mixing Facility	05-Dec-16	16-Mar-17	16-Mar-17	15-Mar-19	Valid	

Environmental Permit / Licences Summary for Contract No. HY/2013/06 within the HY/2013/03 site works area

(update: 18/04/2017)

Item	Permit/Licence Registration	Permit No.	Work Area	Application Date	Issue Date	Valid Date		Status	Remark
						From	To		
1	Environmental Permit Pursuant to Environmental Impact Assessment Ordinance	EP-353/2009/K	HKBCF	24-Mar-16	11-Apr-16	11-Apr-16	Nil	Valid	
2	Billing A/C for Construction Waste Disposal Pursuant to Section 6 & 9 of the Waste Disposal (Charges for Disposal of Construction waste) Regulation	A/C No. 7023015	Main Site Area	07-Aug-15	20-Aug-15	20-Aug-15	Nil	Valid	
3	Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	#

The Contractor of Contract No. HY/2013/06 was advised to register as a chemical waste producer when chemical waste is expected to generate for the foreseeable future from the operations.

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Report No.: 0165/15/ED/0761

Appendix G

Implementation Schedule for Environmental Mitigation Measures (EMIS)

Appendix G – Implementation Schedule of Environmental Mitigation Measures (EMIS)

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
Air Quality				
S5.5.6.1	A1	1) The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation	All construction sites	V
S5.5.6.2	A2	2) Proper watering of exposed spoil should be undertaken throughout the construction phase: <ul style="list-style-type: none"> Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads; A stockpile of dusty material should not extend beyond the pedestrian barriers, fencing or traffic cones. The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle; Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; 	All construction sites	V
S5.5.6.2	A2	<ul style="list-style-type: none"> When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period; The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials, Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously; Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet; Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; Any skip hoist for material transport should be totally enclosed by impervious sheeting; Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top 	All construction sites	V
S5.5.6.2	A2	<ul style="list-style-type: none"> Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally 	All construction sites	N/A

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and <ul style="list-style-type: none"> Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site r part of the construction site where the exposed earth lies 		
S5.5.6.3	A3	3) The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase.	All construction sites	√
S5.5.6.4	A4	4) Engineer to incorporate the controlled measures into the Particular Specification (PS) for the civil work. The PS should also draw the contractor's attention to the relevant latest Practice Notes issued by EPD.	All construction sites	√
S5.5.6.4	A5	5) Implement regular dust monitoring under EM&A programme during the construction stage.	Selected Representative dust monitoring station	√
S5.5.7.1	A6	The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant; <ul style="list-style-type: none"> Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP; Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; The materials which may generate airborne dusty emissions should be wetted by water spray system; All receiving hoppers should be enclosed on three sides up to 3m above unloading point; All conveyor transfer points should be totally enclosed; All access and route roads within the premises should be paved and wetted; and Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body 	Selected Representative dust monitoring station	N/A
S5.5.2.7	A7	The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point: <ul style="list-style-type: none"> All road surface within the barging facilities will be paved; Dust enclosures will be provided for the loading ramp; Vehicles will be required to pass through designated wheels wash facilities; and Continuous water spray at the loading points 	All construction sites	√
Construction Nose (Air borne)				
S6.4.10	N1	1) Use of good site practices to limit noise emissions by considering the following: <ul style="list-style-type: none"> only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; 	All construction sites	√

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<ul style="list-style-type: none"> mobile plant should be sited as far away from NSRs as possible and practicable; material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. 		
S6.4.11	N2	2) Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	All construction sites	V
S6.4.12	N3	3) Install movable noise barriers (typically density@14kg/m acoustic mat or full enclosure close to noisy plants including compressor, generators, saw.	For plant items listed in Appendix 6D of the EIA report at all construction sites	N/A
S6.4.13	N4	4) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards.	For plant items listed in Appendix 6D of the EIA report at all construction site	V
S6.4.14	N5	5) Sequencing operation of construction plants where practicable	All construction sites where practicable	V
S5.1	N6	6) Implement a noise monitoring under EM&A programme.	Selected representative noise monitoring station	V
Sediment				
S7.3	S1	1) The requirements as recommended in ETWB TC 34/2002 Management of Dredged/Excavated Sediment shall be included in the Particular Specification as appropriate.	All construction sites	V
Waste Management (Construction Waste)				
S8.3.8	WM1	<p>Construction and Demolition Material</p> <p>The following mitigation measures should be implemented in handling the waste:</p> <ul style="list-style-type: none"> 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; and Implement an enhanced Waste Management Plan similar to E7WBTC (Works) No. 19/2005 - "Environmental Management on Construction Sites" to encourage on-site sorting of C&D materials and to minimize their generation during the course of construction. In addition, disposal of the C&D materials onto any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final 	All construction sites	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		disposal sites to the Project Proponent and get its approval before implementation		
S8.3.9- S8.3.11	WM2	<u>C&D Waste</u> <ul style="list-style-type: none"> • Standard formwork or pre-fabrication should be used as far as practicable in 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. Use of wooden hoardings should not be used, as in other projects. 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. • 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. 	All construction sites	V
S8.2.12- S8.3.15	WM3	<u>Chemical Waste</u> <ul style="list-style-type: none"> • Chemical waste that is produced, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. • Containers used for the storage of chemical wastes should 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 liters unless the specification has been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the regulation. • The storage area for chemical wastes should be clearly labeled and used solely for the storage of chemical waste; enclosed on at least 3 sides; have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20 % of the total volume of waste stored in that area, whichever is the greatest; have adequate ventilation; covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated. • Disposal of chemical waste should be via a licensed waste collector; be to a facility licensed to receive chemical waste, such as the Chemical Waste Treatment Centre which also offers chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD. 	All construction sites	V
S8.3.16	WM4	<u>Sewage</u> <ul style="list-style-type: none"> • Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly. 	All construction sites	V
S8.3.17	WM5	<u>General Refuse</u> <ul style="list-style-type: none"> • General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes. • A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by 	All construction sites	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<p>law.</p> <ul style="list-style-type: none"> • Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible. • Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme should be considered by the Contractor. • Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including reduction, reuse and recycling of wastes. 		
Water Quality (Construction Phase)				
S9.11.1.7	W2	<p><u>Land Works</u></p> <p>General construction activities on land should also be governed by standard good working practice. Specific measures to be written into the works contracts should include:</p> <ul style="list-style-type: none"> • wastewater from temporary site facilities should be controlled to prevent direct discharge to surface or marine waters; • sewage effluent and discharges from on-site kitchen facilities shall be directed to Government sewer in accordance with the requirements of the WPCO or collected for disposal offsite. The use of soakaways shall be avoided; • storm drainage shall be directed to storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sediment basins. Channels, earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks; • silt removal facilities, channels and manholes shall be maintained and any deposited silt and grit shall be removed regularly, including specifically at the onset of and after each rainstorm; • temporary access roads should be surfaced with crushed stone or gravel; • rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities; • measures should be taken to prevent the washout of construction materials, soil, silt or debris into any drainage system; • open stockpiles of construction materials (e.g. aggregates and sand) on site should be covered with tarpaulin or similar fabric during rainstorms; • manholes (including any newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers; • discharges of surface run-off into foul sewers must always be prevented in order not to unduly overload the foul sewerage system; 	Land-based works area	V
S9.11.1.7	W2	<ul style="list-style-type: none"> • all vehicles and plant should be cleaned before they leave the construction site to ensure that no earth, mud or debris is deposited by them on roads. A wheel washing bay should be provided at every site exit; • wheel wash overflow shall be directed to silt removal facilities before being discharged to the storm drain; • the section of construction road between the wheel 	Land-based works area	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		<p>washing bay and the public road should be surfaced with crushed stone or coarse gravel;</p> <ul style="list-style-type: none"> • wastewater generated from concreting, plastering, Internal decoration, cleaning work and other similar activities, shall be screened to remove large objects; • vehicle and plant servicing areas, vehicle wash bays and lubrication facilities shall be located under roofed areas. The drainage in these covered areas shall be connected to foul sewers via a petrol interceptor in accordance with the requirements of the WPCO or collected for off site disposal; • the contractors shall prepare an oil / chemical cleanup plan and ensure that leakages or spillages are contained and cleaned up immediately; • waste oil should be collected and stored for recycling or disposal, in accordance with the Waste Disposal Ordinance; • all fuel tanks and chemical storage areas should be provided with locks and be sited on sealed areas. The storage areas should be surrounded by bunds with a capacity equal to 110% of the storage capacity of the largest tank; and • surface run-off from bunded areas should pass through oil/grease traps prior to discharge to the stormwater system. 		
Ecology (Construction Phase)				
S10.7	E4	<ul style="list-style-type: none"> • Watering to reduce dust generation; prevention of siltation of freshwater habitats; Site runoff should be desilted, to reduce the potential for suspended sediments, organics and other contaminants to enter streams and standing freshwater 	Land-based works areas	V
S10.7	E5	<ul style="list-style-type: none"> • Good site practices, including strictly following the permitted works hours, using quieter machines where practicable, and avoiding excessive lightings during night time 	Land-based works areas	V
S10.7	E8	<ul style="list-style-type: none"> • Control vessel speed • Skipper training • Predefined and regular routes for working vessels; avoid Brother Islands. 	Marine Traffic	V
Fisheries				
S11.7	F4	<ul style="list-style-type: none"> • Maritime Oil Spill Response Plan (MOSRP); • Contingency plan. 	HKBCF	V
Landscape & Visual (Detailed Design Phase)				
S14.3.3.1	LV1	<p>General design measures include:</p> <ul style="list-style-type: none"> • Roadside planting and planting along the edge of the HKBCF Island is proposed; • Transplanting of mature trees in good health and amenity value where appropriate and reinstatement of areas disturbed during construction by compensatory hydro-seeding and planting; • Protection measures for the trees to be retained during construction activities; • Optimizing the sizes and spacing of the bridge columns; • Fine-tuning the location of the bridge columns to avoid visually-sensitive locations; • Providing planting area around peripheral of HKBCF for tree planting screening effect; • Providing salt-tolerant native trees along the planter strip at affected seawall and newly reclaimed coastline; • For HKBCF, providing aesthetic architectural design on the related buildings (e.g. similar materials for PCB building facade to Airport buildings, roof planting and subtle materials for other facilities buildings and so on), and the related infrastructure (e.g. parapet planting and 	HKBCF	V

EIA Ref.	EM&A Log Ref.	Recommended Mitigation Measures	Location of the measures	Implementation Status
		transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF; and <ul style="list-style-type: none"> • Fine-tuning the sizes of the structural members to minimize the bulkiness of buildings and adjustment of building arrangement to minimise disturbance to surrounding vegetation in the HKBCF. 		
Landscape & Visual (Construction Phase)				
S14.3.3.3	LV2	Mitigate both Landscape and Visual Impacts G1. Grass-hydroseed bare soil surface and stock pile areas. G2. Add planting strip and automatic irrigation system if appropriate at some portions of bridge footbridge to screen bridge and traffic. G3. Not applicable as this is for HKLR. G4. For HKBCF, providing aesthetic architectural design on the related buildings (e.g. similar materials for PCB building facade to Airport buildings, roof planting and subtle materials for other facilities buildings and so on), and the related infrastructure (e.g. parapet planting and transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF G5. Vegetation reinstatement and upgrading to disturbed areas G6. Maximizing new tree shrub and other vegetation planting to compensate tree felled and vegetation removed G7. Providing planting area around peripheral of HKBCF for tree planting screening effect; G8. Plant salt-tolerant native and shrubs etc along the planter strip at affected seawall. G9. Reserve of loose natural granite rocks for re-use, Provide new coastline to adopt "natural-look" by means of using armour rocks in the form of natural rock materials and planting strip area accommodating screen buffer to enhance "natural-look" of the new coastline.	HKBCF	N/A
S14.3.3.3	LV3	<u>Mitigate Visual Impacts</u> V1. Minimize time for construction activities during construction period. V2. Provide screen hoarding at the portion of the project site / works areas / storage areas near VSRs who have close low-level views to the Project during HKBCF construction.	HKBCF	N/A
EM&A				
S15.2.2	EM1	An Independent Environmental Checker needs to be employed as per the EM&A Manual	All construction sites	V
S15.5 – S15.6	EM2	1) An Environmental Team needs to be employed as per the EM&A Manual. 2) Prepare a systematic Environmental Management Plan to ensure effective implementation of the mitigation measures. 3) An environmental impact monitoring needs to be implementing by the Environmental Team to ensure all the requirements given in the EM&A Manual are fully complied with.	All construction sites	V

Legend: V = implemented;

x = not implemented;

N/A = not applicable

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Appendix H

Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions

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Appendix H –

Statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

For Contract No. HY/2013/03

Cumulative Statistics			
Reporting Period	Complaints	Notifications of Summons	Successful Prosecutions
This reporting period	2	0	0
From commencement date of construction to end of reporting month	7	0	0

For Contract No. HY/2013/06 within Contract No. HY/2013/03 works area

Cumulative Statistics			
Reporting Period	Complaints	Notifications of Summons	Successful Prosecutions
This reporting period	0	0	0
From commencement date of construction to end of reporting month	0	0	0

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Appendix I

Environmental Site Inspection Schedule

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Report No.: 0165/15/ED/0761

Contract No. HY/2013/03
HZMB HKBCF – Vehicle Clearance Plazas and Ancillary Buildings and Facilities
Weekly Environmental Site Inspection Schedule

Environmental Site Inspection Schedule for March 2017

Mar-2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 Environmental Site Inspection	3	4
5	6	7	8	9 Environmental Site Inspection	10	11
12	13	14	15	16 Environmental Site Inspection	17	18
19	20	21	22	23	24 Environmental Site Inspection	25
26	27	28	29	30 Environmental Site Inspection	31	

Tentative Environmental Site Inspection Schedule for April 2017

Apr-2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5 Environmental Site Inspection	6	7	8
9	10	11	12 Environmental Site Inspection	13	14	15
16	17	18	19	20 Environmental Site Inspection	21	22
23	24	25	26	27	28 Environmental Site Inspection	29
30						

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**Contract No. HY/2013/06 (within Contract No. HY/2013/03 works area)
 HZMB HKBCF – Automatic Vehicle Clearance Support System
 Weekly Environmental Site Inspection Schedule**

Environmental Site Inspection Schedule for March 2017

Mar-2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1	2 Environmental Site Inspection	3	4
5	6	7	8	9 Environmental Site Inspection	10	11
12	13	14	15	16 Environmental Site Inspection	17	18
19	20	21	22	23	24 Environmental Site Inspection	25
26	27	28	29	30 Environmental Site Inspection	31	

Tentative Environmental Site Inspection Schedule for April 2017

Apr-2017						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4	5 Environmental Site Inspection	6	7	8
9	10	11	12 Environmental Site Inspection	13	14	15
16	17	18	19	20 Environmental Site Inspection	21	22
23	24	25	26	27	28 Environmental Site Inspection	29
30						