



中國港灣工程有限責任公司

香港代表： 振華工程有限公司

CHINA HARBOUR ENGINEERING COMPANY LIMITED
HONG KONG REPRESENTATIVE: ZHEN HUA ENGINEERING CO., LTD.

Date : 09 December 2016
Our Ref. : CHEC300/OUT/2016/12/04.01/018453

By Hand

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

Attn : Mr. Michael Tovey
The Engineer's Representative

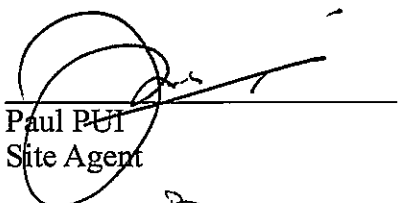
Dear Sir,

Contract No. HY/2013/03
Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities –
Vehicle Clearance Plazas and Ancillary Buildings and Facilities
EP Condition 5.4 – Monthly EM&A Report (Sep 2016)

Pursuant to the Condition 5.4 of the EP-353/2009/K, we are pleased to submit one soft copy and three copies of the certified Monthly EM&A Report (Rev.3) for September 2016 for your on-ward submission.

Thank you for your kind attention.

Yours faithfully,
For and on behalf of
China Harbour Engineering Co. Ltd.


Paul PUI
Site Agent

PP/FH/MC/BW/mt

Encl.

MATERIALAB CONSULTANTS LIMITED

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Profit Industrial Building,
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MaterialLab

Report No.: 0165/15/ED/0591

**MONTHLY ENVIRONMENTAL MONITORING & AUDIT
REPORT (Rev. 3)**

September 2016

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/0591

Prepared by: Sandra Pang

Reviewed by: Bong Yu

Certified by:


Arthur Cheng
Environmental Team Leader

9 December 2016

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
Updated Monthly Environmental Monitoring & Audit Report for September
2016**

Reference is made to the Environmental Team's submission of Updated Monthly Environmental Monitoring & Audit Report for September 2016 (Rev. 3) certified by the ET Leader (ET's ref.: "MCL/ED/0713/2016/C" dated 9 December 2016) and provided to us via e-mail on 9 December 2016.

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.

To ensure Conditions 5.4 and 5.5 of the EP can be satisfied, it is reminded that the ET Leader shall review the progress and programme of the works to check that relevant environmental laws have not been violated, and that any foreseeable potential for violating laws can be prevented and relevant Contractor(s) shall regularly copy relevant statutory and associated documents to the ET Leader so that checking can be carried out as per Section 15.2.3 and 15.2.4 of the approved EM&A manual respectively.

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)

Q:\Projects\HYDZHMBEEM00\02_Proj_Mgt\02_Corr\HYDZHMBEEM00_0_4836L.16.doc

CHEC

Mr. Johnason Ko

(By Fax: 2887 3014)

Internal: DY, YH, ENPO Site

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Website : www.materialab-consultant.com

Date 09 December 2016
Our Ref. MCL/ED/0713/2016/C

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 September 2016 (Rev.3) for your verification.

Should you require further information, please do not hesitate to contact our Miss Scarlet Cheng at 3565 4156 or the undersigned at 3565 4115.

Yours faithfully,
for and on behalf of
MATERIALAB CONSULTANTS LIMITED



Arthur Cheng
Environmental Team Leader

AC/by

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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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 13th Monthly EM&A Report for the Contract which summaries findings of the EM&A programme during the reporting period from 01 September 2016 to 30 September 2016 (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 13 September 2016 to 30 September 2016) (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: 01, 08, 15, 22 and 28 September 2016 (15, 22 and 28 September 2016 for Contract No. HY/2013/06 within Contract No. HY/2013/03 works area).

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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 was one complaint received in relation to the environmental impact during the reporting period.

Log No.	Environmental Complaint Ref. No.	Date of Complaint Receipt	Description
002	ENPO-C0100	22 September 2016	Water

After investigation, it was concluded that the complaint was not related to 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

- i. Site Investigation at Portion G & N;
- ii. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
- iii. Piling at Portion C, STP, Area G (Bridge A1 & A9), Box Culvert B & C;
- iv. CUE Construction at Portion B, C & J;
- v. Drainage & Sewerage Work at Portion B, H1, H2, J, P, G & A1;
- vi. Radiation Screen Wall and Sign Gantry Footing at Portion B;
- vii. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;
- viii. Bridge Works at A1 to A9;
- ix. Site Foundation Works at Portion K;
- x. Cover Walkway at Portion H1 & H2;
- xi. Box Culvert D at Portion A1; Shuttle kiosk & Subway at Portion E; and

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- xii. 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. Conduit duct laying at CUE Kiosk.

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1. INTRODUCTION

1.1 Background

1.1.1 MaterialLab 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 thirteenth 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 September 2016 to 30 September 2016 (reporting period) under Contract No. HY/2013/03 (from 13 September 2016 to 30 September 2016 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:

- a. Cargo clearance facilities including kiosks for clearance of good vehicles, customs inspection platforms, X-ray building, etc.;
- b. Passenger related facilities including processing kiosks and examination facilities for private cars and coaches, annexure for examination of accompanying passengers of private cars, etc.;
- c. 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;
- d. 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

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- system including traffic control and surveillance system (TCSS), etc.;
- 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	34652899
	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

- i. Site Investigation at Portion G;
- ii. Piling at Portion C, STP, Area G (Bridge A1 – A5, A7b, A8 & A9), Box Culvert B & C;
- iii. Building at Portion A1, B, G, STP & Pumping Stations;
- iv. CUE Construction at Portion B, C & J;
- v. Drainage & Sewerage Work at Portion B, H1, H2, G & A1;
- vi. Radiation Screen Wall and Sign Gantry Footing at Portion B;

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- vii. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;
- viii. Bridge Works at A1 to A6;
- ix. Site Foundation Works at Portion K;
- x. Cover Walkway at Portion H1 & H2; and
- xi. 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. Conduit duct laying at CUE Kiosk.
- 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 was 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 ($\mu\text{g}/\text{m}^3$)	Limit Level ($\mu\text{g}/\text{m}^3$)
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 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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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 exceedances were 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 sites allocated to this Project are the Mud Pit CMP2 of the Confined Marine Sediment Disposal Facility to the South of The Brothers (or at the East of Sha Chau). As advised by CEDD in the memo dated 19 February 2016, from 00:00 on 22 March 2016 onward, the disposal space at CMP2 of the South of The Brothers is closed and all disposal of contaminated sediment is to be carried out at CMP Vd to the East of Sha Chau (ESC).

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 moored 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 September 2016. The summary of marine sediment disposed up to end September 2016 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
Total	15.856	36.016	24.058	75.930

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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 were conducted on 01, 08, 15, 22 and 28 September 2016 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area on 15, 22 and 28 September 2016) by the representatives of Engineer, Contractor, ET and IEC (IEC for 22 September 2016).
- 7.1.3 Particular observations during the site inspection and corrective actions undertaken by the Contractor are described below:

For Contract No. HY/2013/03

26 Aug 2016

1. CHEC was reminded to increase watering for dust suppression on site. Subsequently, watering was increased for dust suppression on site. The observation was closed on 01 September 2016.
2. CHEC was reminded to remove general refuse accumulated at A2 Bridge area. Subsequently, general refuse was removed at A2 Bridge area. The observation was closed on 08 September 2016.

01 Sept 2016

1. CHEC is reminded to provide drip tray for chemicals at CUE & Box Culvert. Subsequently, chemicals were removed at CUE & Box Culvert. The observation was closed on 08 September 2016.
2. CHEC is reminded to remove stagnant water on site. Subsequently, stagnant water was removed on site. The observation was closed on 08 September 2016.
3. CHEC is reminded to ensure no oil leakage from the generator at Box Culvert. Subsequently, no oil leakage from the generator at Box Culvert. The observation was closed on 08 September 2016.

08 Sept 2016

1. CHEC was reminded to clear the stagnant water accumulated at CUE works area. Subsequently, stagnant water was cleared at CUE works area. The observation was closed on 15 September 2016.

15 Sept 2016

1. CHEC was reminded to clear the stagnant water accumulated at Building 037. Subsequently, stagnant water was cleared at Building 037. The observation was closed on 28 September 2016.
2. CHEC was reminded to remove the general refuse accumulated at Building 037. Subsequently, general refuse was removed at Building 037. The observation was closed on 28 September 2016.

22 Sept 2016

1. CHEC was reminded to provide drip tray for chemical containers at Bridge A7 Area. Subsequently, additional drip tray was provided for chemical container at Bridge A7 Area. The observation was closed on 28 September 2016.

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28 Sept 2016

1. CHEC was reminded to increase watering for dust suppression on site. 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 area

15 Sept 2016

1. Nil findings.

22 Sept 2016

1. Nil findings.

28 Sept 2016

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 6.816 (in'000m³) of excavated marine sediment (from Contract No. HY/2013/03), 0.000 (in'000m³) of Inert C & D Wastes and 0.327 (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 tonnes of paper/cardboard packaging were generated and recycled (from Contract No. HY/2013/06 within Contract No. HY/2013/03 works area) in this reporting period.
- 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**.

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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 September 2016 would be provided to ER, ETL, IEC/ENPO for checking within the month of October 2016.
- 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.
- 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 was one complaint 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
002	ENPO-C0100	22 September 2016	Water

- 7.6.2 The complaint was received by EPD from a member of the public on 22 September 2016 and was referred by EPD to the ENPO. Then the ENPO forwarded the complaint by email to the

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R.E. (AECOM Asia Co. Ltd.), the Contractor (China Harbour Engineering Co. Ltd.) and the ET (MaterialLab Consultants Ltd.) of Contract No. HY/2013/03 on 22 September 2016.

Details of Complaint

One complaint was forwarded by IEC on 22 September 2016, with the information provided by Ms. Catrina Chan from the EPD.

A member of the public complained about two site flat top barges came from Tuen Mun everyday and observed that whitish effluent discharged into the sea from 1800 to 0400 near Cell No. 54 to 55 of HZMB construction site which creates pollution, requests follow-up and response.

Investigation of Complaint

Date Complaint Investigated by Environmental Team: 23 September 2016

Summary of Investigation

Interview was conducted on 23 September 2016 with Mr. Marko Chan, Environmental Officer of the CHEC and site management. As confirmed with construction team of Contract No. HY/2013/03, they don't have any activities at Cell No. 54 to 55 of HZMB construction site which is outside the site boundary of Contract No. HY/2013/03. There was no flat top barges travelled to or from Tuen Mun at Cell No. 54 to 55 of HZMB construction site during complained hours i.e. 1800-0400 and there was no marine construction activity during the restricted hours from 01 to 22 September 2016.

Investigation Results

The ET of Contract No. HY/2013/03 concluded that the captioned complaint is not related to the construction site 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: W1 –

1. barges and hopper dredgers shall have tight fitting seals to their bottom openings to prevent leakage of material;
2. any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes;
3. 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;
4. excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved;
5. adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;
6. all vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; and
7. 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.

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Follow up status (complaints)

During weekly site audit on 01, 08, 15 and 22 September 2016, ET confirmed the Contractor had provided workable and effective water mitigation measures, comprising well-maintained plants without effluent discharge into the sea for the time period between 0700 and 1900 hours on normal weekdays.

Recommendation to the Contractor

The Contractor was reminded to continue to fully maintain all water quality mitigation measures.

Follow up Status (Overall)

The captioned complaint is not valid and therefore, no additional follow-up action is needed. However, ET proposed recommendation to contractor in particular to the following aspect when there are marine construction activities.

Water Quality:

1. barges and hopper dredgers shall have tight fitting seals to their bottom openings to prevent leakage of material;
2. any pipe leakages shall be repaired quickly. Plant should not be operated with leaking pipes;
3. 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;
4. excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved;
5. adequate freeboard shall be maintained on barges to reduce the likelihood of decks being washed by wave action;
6. all vessels shall be sized such that adequate clearance is maintained between vessels and the sea bed at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; and
7. 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.

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

7.6.4 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 October 2016:

For Contract No. HY/2013/03

- i. Site Investigation at Portion G & N;
- ii. Building at Portion A1, B, G, N, J, STP & Pumping Stations;
- iii. Piling at Portion C, STP, Area G (Bridge A1 & A9), Box Culvert B & C;
- iv. CUE Construction at Portion B, C & J;
- v. Drainage & Sewerage Work at Portion B, H1, H2, J, P, G & A1;
- vi. Radiation Screen Wall and Sign Gantry Footing at Portion B;
- vii. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert C at Portion G;
- viii. Bridge Works at A1 to A9;
- ix. Site Foundation Works at Portion K;
- x. Cover Walkway at Portion H1 & H2;
- xi. Box Culvert D at Portion A1; Shuttle kiosk & Subway at Portion E; and
- xii. 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. Conduit duct laying at CUE Kiosk.

8.2 Environmental Site Inspection Schedule for the Coming Month

8.2.1 The tentative schedule for weekly site inspections for October 2016 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 01, 08, 15, 22 and 28 September 2016 for Contract No. HY/2013/03 (includes Contract No. HY/2013/06 within Contract No. HY/2013/03 works area on 15, 22 and 28 September 2016). Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site inspections.
- 9.8 There was one complaint received in relation to two site flat top barges came from Tuen Mun everyday and observed that whitish effluent discharged into the sea from 1800 to 0400 near Cell No. 54 to 55 of HZMB construction site which creates pollution during the reporting period. After investigation, it was found that the complaint was not related to Contract No. HY/2013/03.
- 9.9 There were no notifications of summons or prosecutions received during the reporting period.

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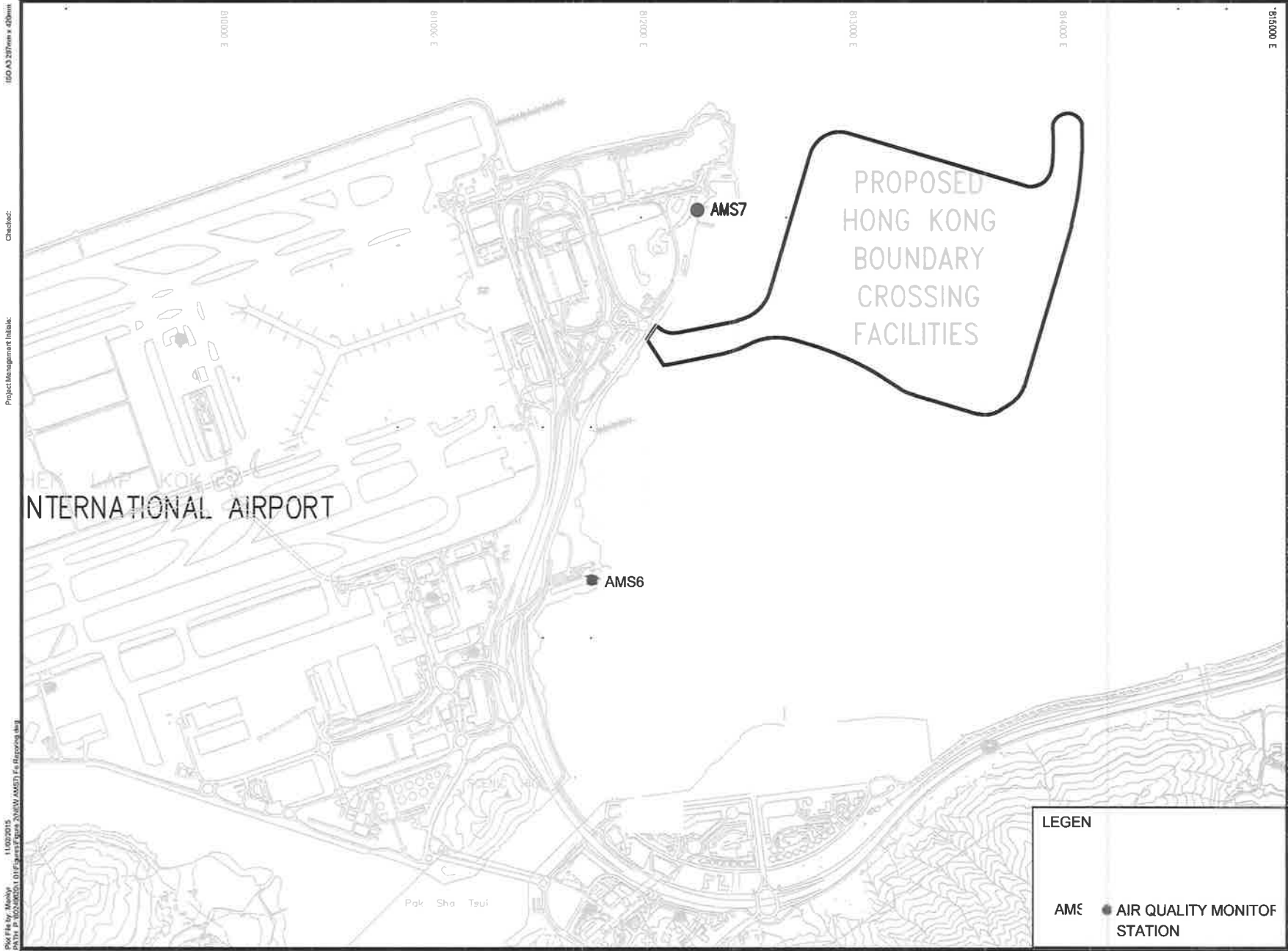
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Figure 1

Air Quality Monitoring Stations



ISO A3 300mm x 400mm
 Checked:
 Project Management Table:
 11/02/2015
 P:\1502\150201\01\150201.dwg
 P:\1502\150201\01\150201.dwg
 P:\1502\150201\01\150201.dwg

AECOM

**AIR QUALITY AND NOISE
 MONITORING STATIONS
 FOR HKBCF**

**HONG KONG - ZHUHAI - MACAO BRIDGE
 HONG KONG BOUNDARY CROSSING FACILITIES
 - RECLAMATION WORKS**
 Project No. : -

LEGEN
 AMS ● AIR QUALITY MONITOR
 STATION

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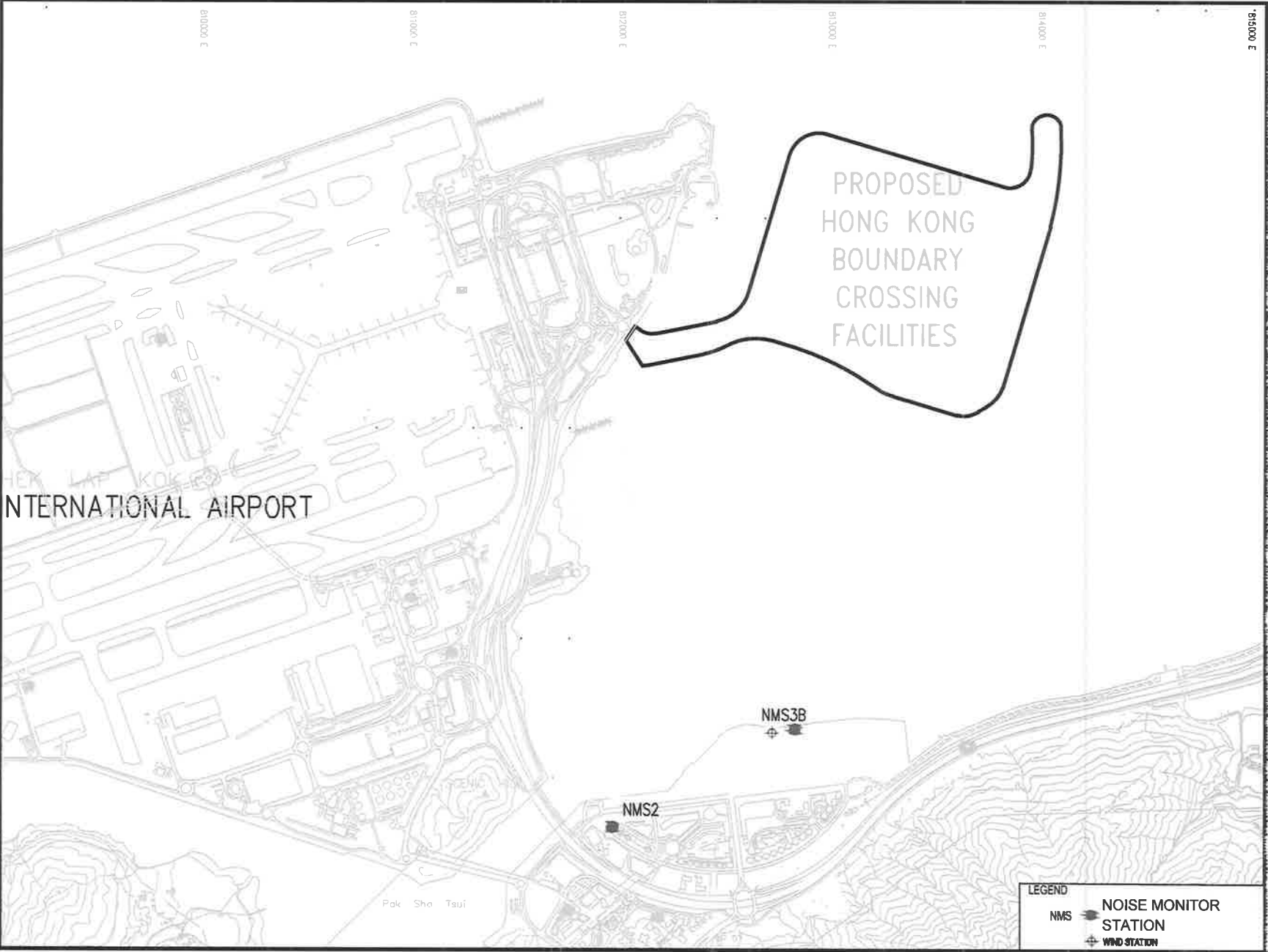
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Figure 2

Noise Monitoring Stations

Plot File by: Manly
DATE: 20200603 09:50:57
11/02/2015
Project Management (tab):
150' x 350' x 400m
C:\data



3 000918

AECOM

AIR QUALITY AND NOISE MONITORING STATIONS FOR HKBCF

HONG KONG - ZHUHAI - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- RECLAMATION WORKS

Project No. :

MATERIALAB CONSULTANTS LIMITED

Room 723 & 725, 7/F, Block B,
Profit Industrial Building,
1-15 Kwai Fung Crescent, Kwai Fong,
Hong Kong.

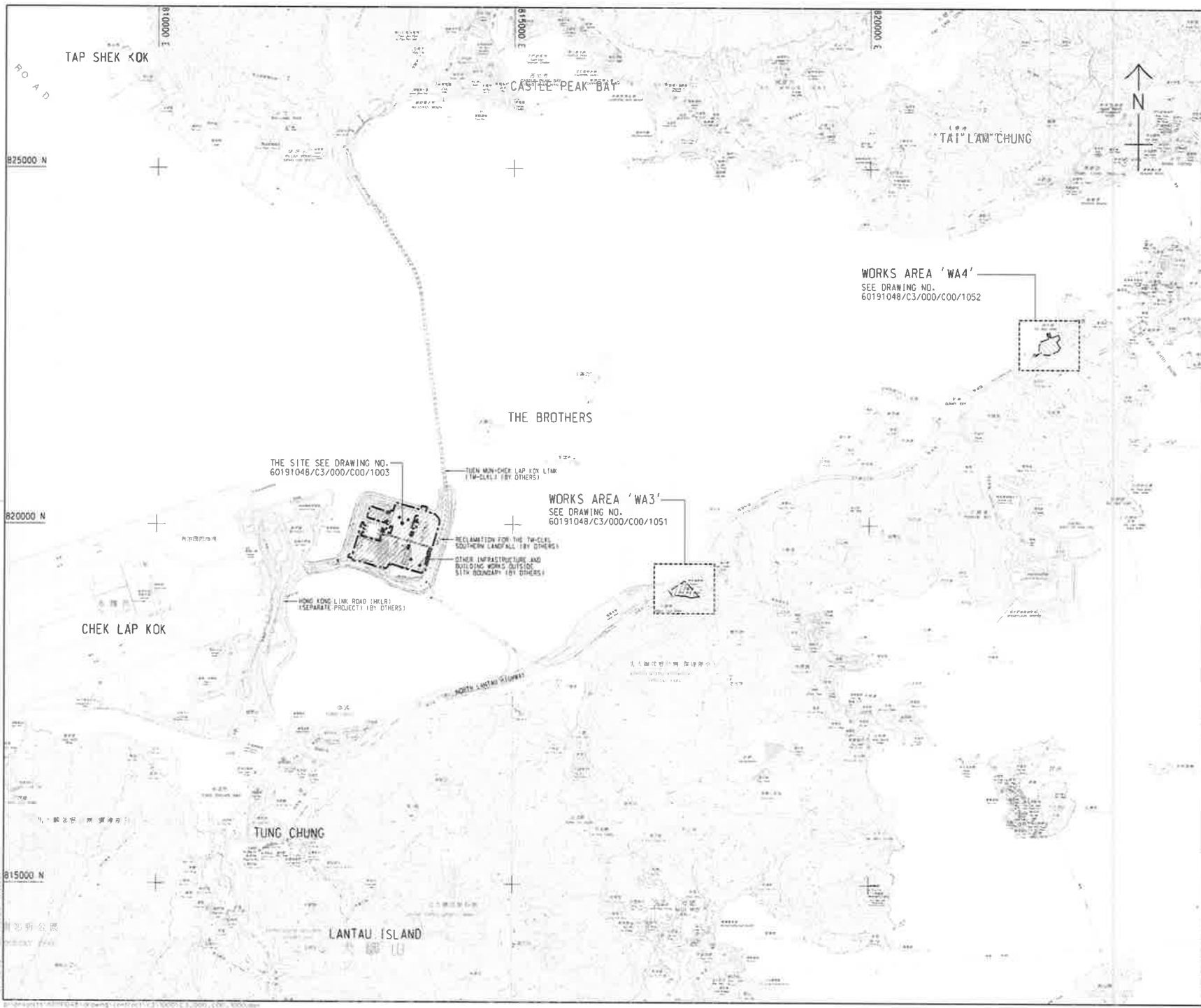
Tel : (852)-24508238
Fax : (852)-24508032
Email : mcl@fugro.com

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 a thin white border.

Report No.: 0165/15/ED/0591

Appendix A

Location of Works Areas



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



WORKS AREA 'WA4'
SEE DRAWING NO.
60191048/C3/000/C00/1052

THE SITE SEE DRAWING NO.
60191048/C3/000/C00/1003

WORKS AREA 'WA3'
SEE DRAWING NO.
60191048/C3/000/C00/1051

THE NEW CHEE LAP KON LINK
(TM-CLEKL) (BY OTHERS)

RECLAMATION FOR THE TM-CLEKL
SOUTHERN LANDFILL (BY OTHERS)

HONG KONG LINK ROAD (HKLRI)
(SEPARATE PROJECT) (BY OTHERS)

ROAD

TAP SHEK KOK

CASTLE PEAK BAY

TAI LAM CHUNG

THE BROTHERS

CHEK LAP KOK

TUNG CHUNG

LANTAU ISLAND

TENDER DRAWING	REVISED	DATE
	BWC SC	MAR. 14

HA HIGHWAYS DEPARTMENT
香港公路局
Hong Kong - China - Main Bridge Hong Kong Project Management Office

HONG KONG - CHINA - MACAO BRIDGE
HONG KONG BOUNDARY CROSSING FACILITIES
- VEHICLE CLEARANCE PLACES AND
ANCILLARY BUILDINGS AND FACILITIES

SITE LOCATION PLAN

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

DRGNO 60191048/C3/000/C00/1000
圖號編號

DESIGNED BY BWCN	DATE 01/2013-03	NO. OF SHEETS 047	TOTAL 178
CHECKED BY WSY	SCALE AS SHOWN	UNIT METRES	

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SETTING OUT POINT

POINT	EASTING	NORTHING
301	817467.255	819162.683
302	817314.741	819069.828
303	817327.338	819049.295
304	817440.855	819117.811
305	817340.825	819027.314
306	817387.550	819023.403
307	817367.861	819043.396
308	817466.133	819091.047
309	817469.783	819087.181
310	817513.449	819113.764
311	817347.917	819016.082
312	817450.595	819032.307
313	817445.369	819013.157
314	817551.154	819201.055
315	817533.345	818951.306
316	817520.285	819000.420
317	817495.827	819059.596
318	817522.110	819075.588
319	817546.404	819028.472
320	817546.507	819008.526
321	817549.551	818998.921

817200 E

817400 E

817600 E

NORTH LINTAU HIGHWAY



WORKS AREA WA3
TUNG CHUNG

LOCATION PLAN
SCALE 1 : 2500

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 8200m² (WHOLE)

FOR CONSTRUCTION

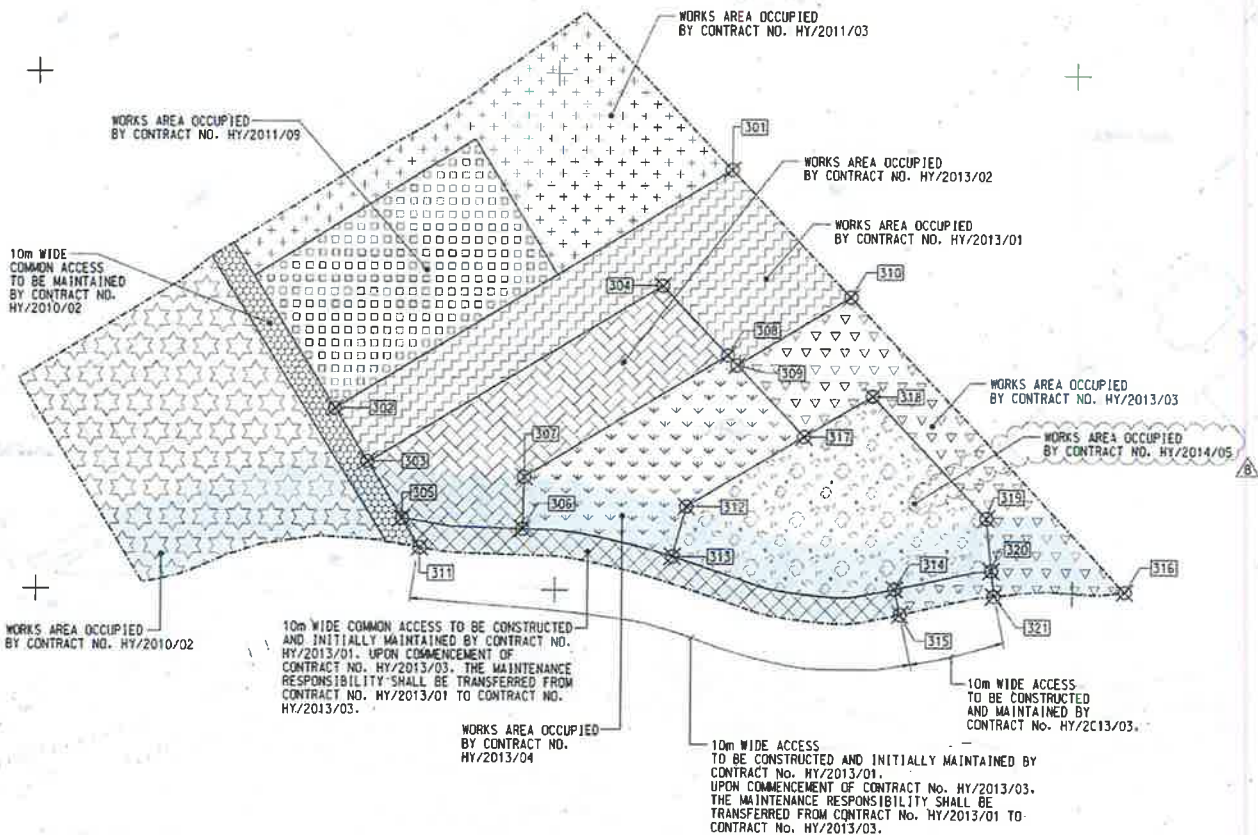
C	WORKING DRAWING	2013/03	MAT.15
B	TENDER ADDENDUM NO. 2	2013/03	MAT.14
A	TENDER ADDENDUM NO. 1	2013/03	APP.14
-	TENDER DRAWING	2013/03	MAT.14

WORKS AREA WA3

AECOM Aedas
Rogers Stirk Harbour + Partners
BURO HAPPOLD ATKINS ADI

DRG/NO: 60191048/C3/000/C00/1051C

DATE: 2013/03	SCALE: A1 : 1000	WORKING DRAWING
DATE: 2013/03	SCALE: METRES	© COPYRIGHT RESERVED



10m WIDE COMMON ACCESS TO BE CONSTRUCTED AND INITIALLY MAINTAINED BY CONTRACT NO. HY/2013/01. UPON COMMENCEMENT OF CONTRACT NO. HY/2013/03, THE MAINTENANCE RESPONSIBILITY SHALL BE TRANSFERRED FROM CONTRACT NO. HY/2013/01 TO CONTRACT NO. HY/2013/03.

10m WIDE ACCESS TO BE CONSTRUCTED AND INITIALLY MAINTAINED BY CONTRACT NO. HY/2013/01. UPON COMMENCEMENT OF CONTRACT NO. HY/2013/03, THE MAINTENANCE RESPONSIBILITY SHALL BE TRANSFERRED FROM CONTRACT NO. HY/2013/01 TO CONTRACT NO. HY/2013/03.

CONTROLLED DOCUMENT

FILE NO. 37 - 2013/03/15 - WA053

SETTING OUT POINT

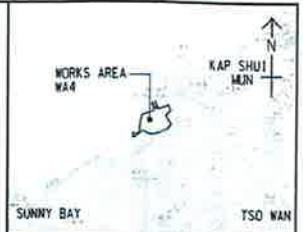
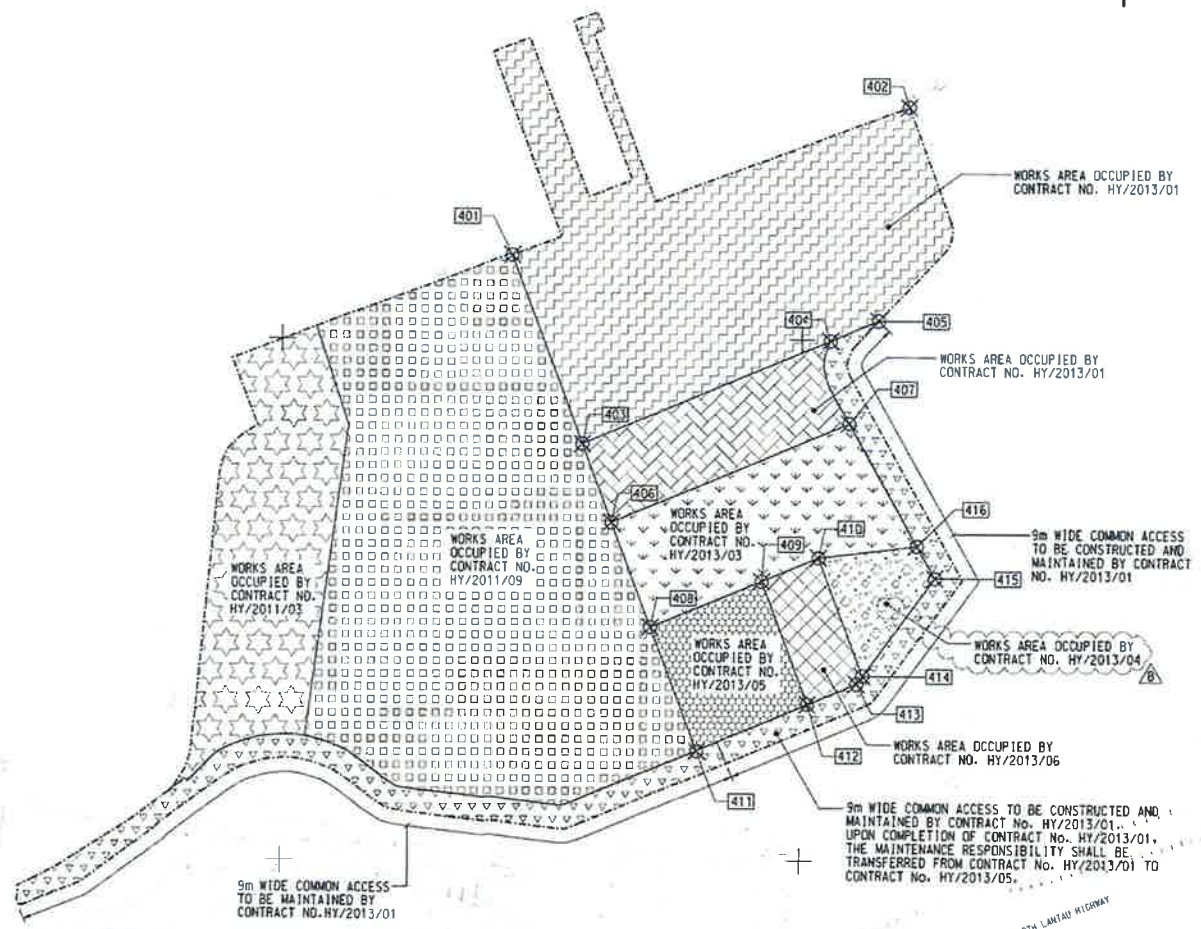
POINT	EASTING	NORTHING
401	822489.151	822632.315
402	822640.593	822689.415
403	822515.508	822559.848
404	822610.940	822599.642
405	822629.428	822607.359
406	822626.988	822529.813
407	822618.348	822587.950
408	822542.232	822489.581
409	822584.983	822507.428
410	822606.866	822516.561
411	822640.278	822441.956
412	822602.949	822460.010
413	822621.914	822467.559
414	822624.100	822470.998
415	822651.725	822508.856
416	822644.758	822527.192

822400 E

822600 E

822600 N

822400 N



LOCATION PLAN
SCALE 1 : 2500

- 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
FOR CONSTRUCTION

C	WORKING DRAWING	REVISED BY	DATE
B	TENDER ADDENDUM NO. 2	REVISED BY	DATE
A	TENDER ADDENDUM NO. 1	REVISED BY	DATE
-	TENDER DRAWING	REVISED BY	DATE

HONG KONG HIGHWAYS DEPARTMENT
HONG KONG-BRITAIN CROSSING PROJECT
HONG KONG-BRITAIN CROSSING FACILITIES
VEHICLE CLEARANCE PLAZAS AND
ANCILLARY BUILDINGS AND FACILITIES

WORKS AREA WA4

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

DRAWING NO. 60191048/C3/000/C00/1052C

PROJECT NO.	HY/2013/03	SCALE	AS SHOWN
DATE	MAY 14 2014	DATE	MAY 14 2014
SCALE	AS SHOWN	SCALE	AS SHOWN
DATE	MAY 14 2014	DATE	MAY 14 2014

WORKING DRAWING

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The logo for MaterialLab, featuring the word "MaterialLab" in a bold, sans-serif font. The text is centered between two thick, horizontal black bars.

Report No.: 0165/15/ED/0591

Appendix B

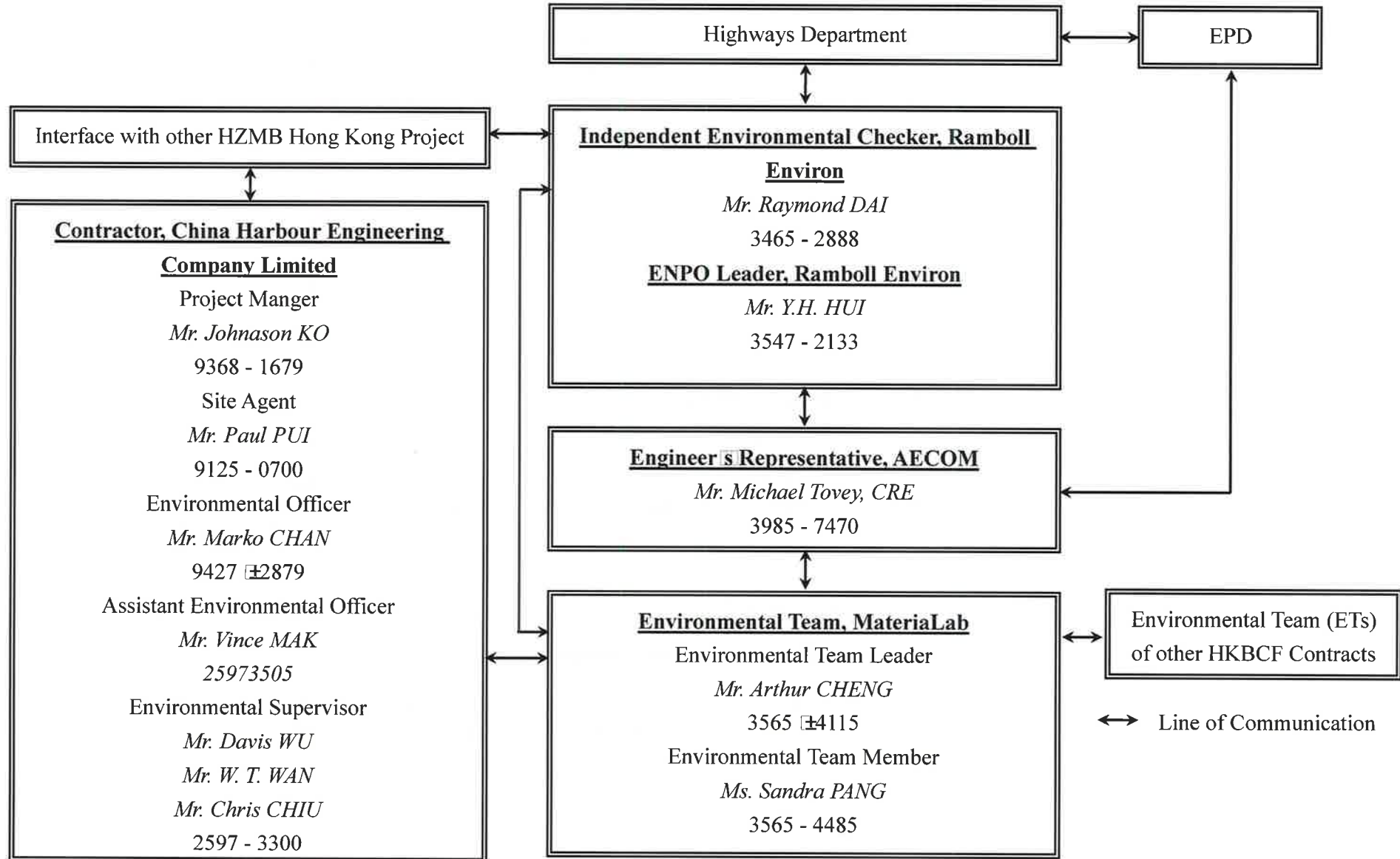
Project Organization for Environmental Works

CHINA HARBOUR ENGINEERING COMPANY LIMITED



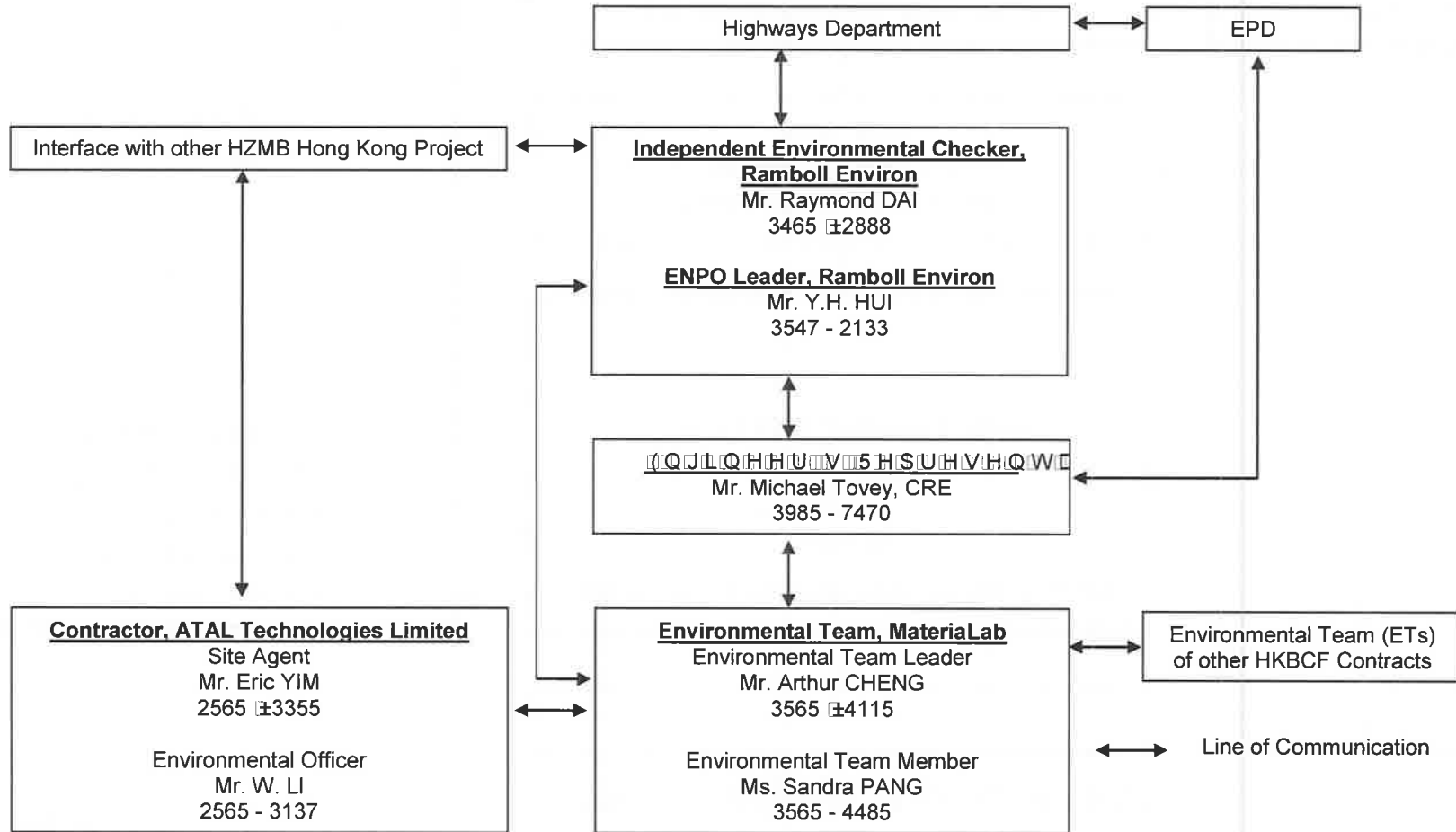
Contract No. HY/2013/03 Hong Kong-Zhuhai-Macao Bridge, Hong Kong Boundary Crossing
Facilities ☒ Vehicle Clearance Plazas and Ancillary Buildings and Facilities

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



MATERIALAB CONSULTANTS LIMITED

Room 723 & 725, 7/F, Block B,

Profit Industrial Building,

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Report No.: 0165/15/ED/0591

Appendix C

Construction Programme

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
HKBCF - VCP & Ancillary Buildings and Facilities, DWP Rev. 3, DD 30 Sep. 16													
CONTRACT DATES													
Key Dates													
A1150	16)	0	0	0%		15-Nov-16*	-36						
Site Access & Possession													
Possession of Portion of Site													
A0010	Possession of Portion A1 (<= 70 days)	0	0	100%		07-Sep-16 A							
A0020	Possession of Portion A2 (<= 75 days)	0	0	100%		07-Sep-16 A							
A0030	Possession of Portion B (<=100 days)	0	0	0%		30-Sep-16*	-439						
A0050	Possession of Portion D (<=220 days)	0	0	0%		30-Sep-16*	-319						
A0060	Possession of Portion E (<=160 days)	0	0	0%		30-Sep-16*	-379						
A0080	Possession of Portion G (<=225 days)	0	0	0%		30-Sep-16*	-314						
A0090	Possession of Portion H1 (<=273 days)	0	0	0%		30-Sep-16*	-338						
A0100	Possession of Portion H2 (<=273 days)	0	0	0%		30-Sep-16*	-344						
A0110	Possession of Portion J (<=320 days)	0	0	0%		30-Sep-16*	-295						
A0150	Possession of Portion N (<=345 days)	0	0	0%		30-Sep-16*	-194						
A0160	Possession of Portion P (<=502 days)	0	0	0%		30-Sep-16*	-37						
A0170	Possession of Portion Q (<=500 days)	0	0	0%		30-Sep-16*	-39						
Access to Locations of the Site													
A0210	Contract Date for Access to Location 1.1 (490 days)	0	0	0%		30-Sep-16*	-49						
A0220	Contract Date for Access to Location 1.2 (405 days)	0	0	0%		30-Sep-16*	-134						
A0230	Contract Date for Access to Location 1.3 (488 days)	0	0	0%		30-Sep-16*	-105						
A0240	Contract Date for Access to Location 1.4 (488 days)	0	0	0%		30-Sep-16*	-105						
A0250	Contract Date for Access to Location 1.5 (580 days)	0	0	0%		09-Nov-16*	0						
A0280	Contract Date for Access to Location 1.7A (610 days)	0	0	0%		09-Dec-16*	0						
A0290	Contract Date for Access to Location 1.7B (610 days)	0	0	0%		09-Dec-16*	0						
A0300	Contract Date for Access to Location 1.7C (610 days)	0	0	0%		09-Dec-16*	0						
A0310	Contract Date for Access to Location 1.8 PCB (Basement level up to ground floor slab) (395 days)	0	0	0%		30-Sep-16*	-144						
A0320	Contract Date for Access to Location 1.8 PCB (Ground Floor level or above) (515 days)	0	0	0%		30-Sep-16*	-24						
A0330	Contract Date for Access to External Area for Contract HY/2013/01 for ELV System Installation (570 days)	0	0	0%		30-Oct-16*	0						
A0340	Contract Date for Access to External Area for Contract HY/2013/02 for ELV System Installation (560 days)	0	0	0%		20-Oct-16*	0						
A0350	Contract Date for Access to External Area for Contract HY/2013/04 ELV System Installation (560 days)	0	0	0%		20-Oct-16*	0						
PRELIMINARY													
Precast Yard for Bridge Segement													
A0630	Segement Manufacture	300	122	59.33%	17-Jun-16 A	28-Feb-17	115						
PORTION A1													
Portion A1 Structures													
Bridge A9													
Bored Pile													
SA9120	Bored pile for A9 Bridge, 10 no.	70	49	30%	17-May-16 A	28-Nov-16	-31						

- Actual Work
- Remaining Work
- Critical
- ◆ Milestone

THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
Page 1 of 19

Date	Revision	Checked	Approved
30-Jul-16	3MRP updated as of 30 July 2016	ZJ	
31-Aug-16	3MRP updated as of 31 Aug. 2016	ZJ	
30-Sep-16	3MRP updated as of 30 Sep. 2016	ZJ	

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
SA9140	Pile testing	7	7	0%	30-Sep-16	08-Oct-16	-31						
Pile Cap													
SA9210	Cap - A905	30	30	0%	11-Oct-16	14-Nov-16	-31						
SA9220	Cap - P904	30	30	0%	11-Oct-16	14-Nov-16	13						
SA9230	Cap - P903	30	30	0%	15-Nov-16	19-Dec-16	-31						
SA9240	Cap - P902	30	30	0%	15-Nov-16	19-Dec-16	25						
SA9250	Cap - A901	30	30	0%	20-Dec-16	26-Jan-17	36						
Pier & Abutment													
SA9310	Abutment A905	30	30	0%	15-Nov-16	19-Dec-16	24						
SA9320	Pier P904	25	25	0%	15-Nov-16	13-Dec-16	13						
SA9330	Pier P903	25	25	0%	20-Dec-16	20-Jan-17	-31						
SA9340	Pier P902	25	25	0%	20-Dec-16	20-Jan-17	25						
Structure Deck													
SA9400	Falsework for Deck A905 - P904	14	14	0%	20-Dec-16	07-Jan-17	24						
Retaining Wall W8-1													
SW8110	Construction of Retaining Wall W8-1 (U-shape, 4 bays)	80	80	0%	19-Sep-16 A	06-Jan-17	145						
Retaining Wall W9-1													
SW9110	Construction of Retaining Wall W9-1 (U-shape, 4 bays) (+PL Test)	80	80	0%	19-Sep-16 A	06-Jan-17	167						
Box Culvert D													
Box Culvert D Construction													
SD0140	Box Culvert D Construction (Stage 1, Bay 33 - 35)	50	15	70%	17-May-16 A	19-Oct-16	98						
SD0150	Box Culvert D Construction (Stage 2, Bay 36 - 38)	50	35	30%	27-Jul-16 A	11-Nov-16	155						
SD0160	Box Culvert D Construction (Stage 3, Bay 39 - 42)	50	40	20%	08-Aug-16 A	17-Nov-16	123						
SD0170	Box Culvert D Construction (Stage 4, Bay 19 - 21 & 24 - 32)	75	68	10%	08-Aug-16 A	20-Dec-16	123						
SD0180	Box Culvert D Backfilling	75	75	0%	20-Dec-16	24-Mar-17	123						
047 - Fresh Water Pumping Station, Portion A1 & A2													
A04715	Removal of Surcharge	22	0	100%	04-Jul-16 A	31-Aug-16 A							
A04720	Excavation + Blinding	12	12	0%	30-Sep-16	15-Oct-16	-229						
A04730	Pile Testing	7	7	0%	17-Oct-16	24-Oct-16	-229						
A04740	Water Tank Construction	58	58	0%	25-Oct-16	03-Jan-17	-229						
049 - Sewage Treatment Plant, Portion A1 & A2													
A04945	Removal of Surcharge	22	0	100%	01-Aug-16 A	30-Aug-16 A							
A04946	Excavation to 0.0mPD/+4.9mPD	10	9	10%	19-Sep-16 A	12-Oct-16	-275						
A04948	Pile Testing	14	14	0%	13-Oct-16	28-Oct-16	-161						
A04950	Sheet Piling as ELS1 for Equalization Tanks	40	40	0%	13-Oct-16	28-Nov-16	-275						
A04960	Sheet Piling as ELS2 for Sludge Holding Tanks	20	20	0%	22-Oct-16	14-Nov-16	-161						
A04970	Sheet Piling as ELS3 for MBR Tanks	10	0	100%	21-Sep-16 A	28-Sep-16 A							
B04960	ELS1 + Blinding for Equalization Tanks	14	14	0%	22-Oct-16	07-Nov-16	-275						
B04970	Constructing Base Slab for Equalization Tanks	15	15	0%	08-Nov-16	24-Nov-16	-275						
B04980	Backfilling + Removing 3rd Strut of ELS1	6	6	0%	25-Nov-16	01-Dec-16	-275						
B04990	Constructing Wall Stem for Equalization Tanks	27	27	0%	02-Dec-16	05-Jan-17	-275						

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

THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
Page 2 of 19

Date	Revision	Checked	Approved
30-Jul-16	3MRP updated as of 30 July 2016	ZJ	
31-Aug-16	3MRP updated as of 31 Aug. 2016	ZJ	
30-Sep-16	3MRP updated as of 30 Sep. 2016	ZJ	

HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
C04930	ELS2 + Blinding for Equalization Tanks	10	10	0%	15-Nov-16	25-Nov-16	-161						
C04940	Constructing Base Slab of Equalization Tanks	20	20	0%	26-Nov-16	19-Dec-16	-161						
C04950	Backfilling + Removal Strut of ELS2	5	5	0%	20-Dec-16	24-Dec-16	-161						
C04960	Constructing Wall Stem of Sludge Holding Tanks	20	20	0%	28-Dec-16	20-Jan-17	-161						
D04910	ELS3 w/struts + Blinding for MBR Tanks	5	5	5%	29-Sep-16 A	06-Oct-16	-130						
D04920	Constructing Base Slab for MBR Tanks	30	30	0%	06-Oct-16	11-Nov-16	-129						
D04930	Constructing Wall Stem for MBR Tanks	25	25	0%	11-Nov-16	10-Dec-16	-129						
D04940	Water-tightness Test for MBR Tanks	12	12	0%	10-Dec-16	24-Dec-16	-129						
D04950	Backfilling + Removal of ELS3	12	12	0%	24-Dec-16	11-Jan-17	-129						
Completion of Fire Services Installation and Equipment (FCD)													
F04950	Provision of Approved Building Plans by the Engineer	0	0	0%		30-Sep-16	33						
Waterworks Ordinance (WSD)													
G04910	Provision of Approval Letter and approved Drawings by the Engineer	0	0	0%		30-Sep-16	12						
G04920	Submission of WWO46 - Part I & II (Inside Services)	24	24	0%	03-Oct-16	31-Oct-16	12						
Portion A1 Buildings													
012 - DOI Disinsection Area and Store Room 1 at Portion A1													
A01250	Finishing	80	64	20%	27-Aug-16 A	15-Dec-16	86						
A01260	BS for Office Accomodation (Stage 8)	73	58	20%	29-Aug-16 A	09-Dec-16	12						
A01270	BS + E&M for Office Accomodation (Stage 9)	80	80	0%	09-Dec-16	20-Mar-17	12						
A01280	Other BS + E&M Installation	150	150	0%	30-Sep-16	01-Apr-17	20						
036 - Weigh Station													
A03665	External Wall Plaster & Tile	75	37	50.67%	02-May-16 A	14-Nov-16	60						
A03670	BS for Office Accomodation (Stage 8)	90	51	43.33%	13-Jan-16 A	30-Nov-16	9						
A03680	BS + E&M for Office Accomodation (Stage 9)	90	90	0%	01-Dec-16	22-Mar-17	9						
A03690	Other BS + E&M Installation	183	158	13.66%	02-Nov-15 A	12-Apr-17	114						
B03620	WWO 46 Part I & II Submission	0	0	0%		21-Nov-16	140						
037 C&ED Tower Cum Inbound Cargo Examination Building (Portion A1 & B)													
A03738	DDA Submission/Approval for Curtain Wall/Metal Roof/Alum. Cladding	75	23	69.33%	30-Jun-16 A	28-Oct-16	60						
A03740	Steel Frame Structure Installation	90	90	0%	30-Sep-16	18-Jan-17	8						
A03742A	Mock-up Sample for Curtain Wall	50	50	0%	29-Oct-16	28-Dec-16	60						
A03742B	Mock-up Sample for Cladding	50	50	0%	29-Oct-16	28-Dec-16	60						
A03742C	Mock-up Sample for Mesh Screen Wall (SS41) & Balustrade	25	25	0%	30-Sep-16	31-Oct-16	99						
A03742D	Mock-up Sample for Painted Concrete Wall	25	3	88%	01-Aug-16 A	01-Nov-16	221						
A03742F	Mock-up Sample for External Wall Tiling	25	25	0%	30-Sep-16	31-Oct-16	147						
A03744	Curtain Wall/Metal Roof/Aluminium Cladding Installation	100	100	0%	29-Dec-16	05-May-17	174						
A03746	Blockwall Laying	100	50	50%	02-Jul-16 A	29-Nov-16	74						
A03748	Wall/Ceiling Plastering/Tiling	100	50	50%	29-Jul-16 A	29-Dec-16	74						
A03752	Floor Screed/Tiling	100	100	0%	30-Sep-16	02-Feb-17	72						

■ Actual Work
■ Remaining Work
■ Critical
◆ Milestone

THREE MONTH ROLLING PROGRAMME
 VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
 Page 3 of 19

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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities 30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016				2017	
								Sep	Oct	Nov	Dec	Jan	
A03760	BS for Office Accomodation (Stage 8)	88	88	0%	30-Sep-16	16-Jan-17	-194						
A03790	Other BS + E&M Installation	235	235	0%	30-Sep-16	19-Jul-17	6						
B03720	WWO 46 Part I & II Submission	0	0	0%	21-Nov-16		57						
041 Fire Station Cum Ambulance Depot													
A04105	Excavation + Blinding	14	0	100%	24-May-16 A	31-Aug-16 A							
A04110	Substructure	84	3	96.43%	13-Jun-16 A	04-Oct-16	-96						
A04120	Super Structure, G/F to 1/F	80	62	22.5%	09-Jul-16 A	13-Dec-16	-96						
A04122	Super Structure, 1/F to 2/F (incl. parapet wall and planter wall)	80	80	0%	30-Sep-16	06-Jan-17	-96						
A04124	DDA Submission/Approval for Cladding & Curtain Wall	60	60	0%	30-Sep-16	10-Dec-16	13						
A04126	Cladding & Curtain Wall Installation (incl. steel & metal works)	150	150	0%	12-Dec-16	19-Jun-17	13						
B04120	WWO 46 Part I & II Submission	0	0	0%	21-Nov-16		27						
042 Drill Tower													
A04250	Super Structure	69	7	89.86%	05-May-16 A	08-Oct-16	-6						
A04260	Finishing	80	80	0%	11-Oct-16	14-Jan-17	63						
A04270	BS for Office Accomodation (Stage 8)	65	65	0%	11-Oct-16	24-Dec-16	-6						
A04280	BS + E&M for Office Accomodation (Stage 9)	84	84	0%	28-Dec-16	10-Apr-17	-6						
A04290	Other BS + E&M Installation	160	160	0%	31-Oct-16	18-May-17	109						
043 DOH Office + Store Room													
A04330	Super Structure	60	26	56.67%	27-May-16 A	01-Nov-16	-40						
A04340	Water Tanks for F.S./Sprinkler Pump Room	120	120	0%	02-Nov-16	28-Mar-17	4						
A04360	DDA Submission for Cladding & Curtain Wall	75	75	0%	30-Sep-16	30-Dec-16	81						
A04380	BS for Office Accomodation (Stage 8)	69	69	0%	02-Nov-16	24-Jan-17	-19						
B04310	Other BS + E&M Installation	170	170	0%	21-Nov-16	21-Jun-17	-40						
B04330	Stainless Steel Mesh Installation	100	100	0%	02-Nov-16	04-Mar-17	155						
B04340	Metal Windows/Louvres/Doors/Railing etc. installation	136	136	0%	02-Nov-16	20-Apr-17	119						
B04350	Blockworks	50	50	0%	02-Nov-16	31-Dec-16	61						
B04360	Wall Plastering/Tiling	50	50	0%	30-Nov-16	02-Feb-17	61						
C04310	C/S Wall Plastering	48	48	0%	02-Nov-16	29-Dec-16	183						
C04340	WWO 46 Part I & II Submission	0	0	0%	21-Nov-16		21						
052 - Transforms (Zone 4)													
A05235	Energisation by CLP	50	10	80%	24-Feb-16 A	13-Oct-16	36						
A05240	BS + E&M Installation (KD9)	66	14	78.79%	02-Nov-15 A	18-Oct-16	-14						
A05250	Ceiling/Wall Painting Finish & Floor Screed	100	26	74%	31-May-16 A	01-Nov-16	-26						
A05260	External Wall Plaster & Wall (KD10)	100	100	0%	02-Nov-16	04-Mar-17	-26						
Completion of Fire Services Installation and Equipment (FCD)													
F05240	Provision of Approved Building Plans by the Engineer	0	0	0%		30-Sep-16	15						
Waterworks Ordinance (WSD)													
G05210	Provision of Approval Letter and approved Drawings by the Engineer	0	0	0%		30-Sep-16	-19						

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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
B10500	Shop Drawings & Material Submission	69	69	0%	30-Sep-16	07-Dec-16	-54						
	Facade Envelop Structure Installation												
B10580	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	108						
B10590	Fabrication of F/C System	60	60	0%	07-Nov-16	18-Jan-17	108						
External Works for Portion A1													
Drainage Works													
A1S010	Initial Survey	6	0	100%	17-Aug-15 A	10-Sep-16 A							
ED0020	Drainage Works (773m & 34MHs), Stage 1 (Western)	100	20	80%	16-Sep-15 A	25-Oct-16	-209						
ED0030	Sewerage (300m & 9MHs), Stage 1 (Western)	100	20	80%	04-Jan-16 A	25-Oct-16	-209						
ED5590	Drainage Works (774m & 35MHs), Stage 2 (Middle)	100	100	0%	26-Oct-16	25-Feb-17	-209						
ED5600	Sewerage (300m & 9MHs), Stage 2 (Middle)	100	100	0%	26-Oct-16	25-Feb-17	-209						
Waterpipe Laying													
EW5010	Fresh Water Main Laying (700 m), Stage 1 (Western)	75	75	0%	30-Sep-16	30-Dec-16	-214						
EW6010	Flushing Water Main Laying (322 m), Stage 1 (Western)	75	75	0%	30-Sep-16	30-Dec-16	-214						
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
EU5260	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV	200	200	0%	01-Nov-16	07-Jul-17	-1						
PORTION A2													
Portion A2 Structures													
048 - Reclaimed Water Pumping Station, Portion A2													
A04825	Removal of surcharge	22	0	100%	04-Jul-16 A	30-Aug-16 A							
A04830	Sheet Piling as ELS for Basement 1	12	12	0%	30-Sep-16	15-Oct-16	-208						
A04840	Pile testing	7	7	0%	17-Oct-16	24-Oct-16	-208						
A04850	Excavation + Blinding for Basement 1	20	20	0%	25-Oct-16	16-Nov-16	-208						
A04860	Basement 1 Construction	40	40	0%	17-Nov-16	05-Jan-17	-208						
Retaining Wall W9-2													
SW9210	Construction of Retaining Wall W9-2 (U-shape, 6 bays)	120	120	0%	30-Sep-16	25-Feb-17	122						
External Works for Portion A2													
Drainage Works													
A2S010	Initial Survey	6	6	0%	30-Sep-16	07-Oct-16	-114						
PORTION B													
Portion B Structures													
Retaining Wall W7-2													
S70870	Construction of Retaining Wall W7-2 (L-shape, 1 bays)	25	25	0%	07-Nov-16	05-Dec-16	187						
Retaining Wall W6-1													
S62050	Construction of Retaining Wall W6-1 (L-shape, 4 bays)	80	64	20%	12-Jul-15 A	23-Jan-17	143						
Bay 4 - 19 of CUE/Staff Subway													
C02760	Internal Finishes & Cable Containment (KD1)	100	80	20%	01-Aug-16 A	06-Jan-17	-284						
C02770	BS + E&M Installation for ACVSS (Stage 1)	100	90	10%	22-Aug-16 A	18-Jan-17	-284						
Bay 20 - 24 of CUE/Staff Subway													

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
C02820	Bay 20 - 24 Construction - Base Slab	63	25	60.32%	25-Feb-16 A	31-Oct-16	-242						
C02830	Bay 20 - 24 Construction - Wall + Top Slab	100	80	20%	03-May-16 A	06-Jan-17	-273						
C02840	Internal Finishes & Cable Containment (KD1)	100	100	0%	07-Oct-16	08-Feb-17	-273						
C02850	BS + E&M Installation for ACVSS (Stage 1)	100	100	0%	05-Nov-16	08-Mar-17	-273						
C02860	Chilled Water Pipe (CUE) installation	50	50	0%	23-Dec-16	25-Feb-17	-264						
Bay 25 - 29 of CUE/Staff Subway													
C02920	Bay 25 -29 Construction - Base Slab	28	11	60%	03-May-16 A	15-Oct-16	-268						
C02930	Bay 25 - 29 Construction - Wall + Top Slab	100	40	60%	04-Jul-16 A	17-Nov-16	-268						
C02960	Internal Finishes & Cable Containment (KD1)	100	100	0%	30-Sep-16	02-Feb-17	-268						
C02970	BS + E&M Installation for ACVSS (KD1)	100	100	0%	31-Oct-16	02-Mar-17	-268						
C02980	Chilled Water Pipe (CUE) installation	50	50	0%	17-Dec-16	20-Feb-17	-259						
Portion B Buildings													
027/028 Inbound Kiosks & 029 Outbound Kiosks													
A02700	Submission & Approval for Steel Works	98	26	73.47%	01-Apr-16 A	01-Nov-16	-155						
A02710	Pre-fabrication for the Steel Kiosks	100	50	50%	01-Aug-16 A	29-Nov-16	-155						
A02715	Mock up for Steel Kiosks	100	50	50%	01-Aug-16 A	29-Nov-16	-150						
A02718	Mock up for Goods Vehicle Canopy	25	25	0%	01-Nov-16	29-Nov-16	-20						
A02720	Super structure	100	95	5%	17-Sep-16 A	08-Feb-17	-160						
A02730	Construction of Subway Entrance	25	25	0%	05-Sep-16 A	11-Nov-16	15						
A02740	Construction of Subway Toilets	25	25	0%	12-Nov-16	10-Dec-16	15						
A02780	BS + E&M for AVCSS Works (KD18A)	54	54	0%	02-Dec-16	09-Feb-17	-160						
027/028 Inbound Kiosks & 029 Outbound Kiosks, Section IX, Subject to Excision													
B02730	Submission & Approval for Steel Works	75	0	100%	01-Apr-16 A	31-Aug-16 A							
B02740	Pre-fabrication for the Steel Kiosks	100	50	50%	01-Aug-16 A	29-Nov-16	-48						
B02750	Super structure	96	96	0%	30-Nov-16	28-Mar-17	-48						
B02760	BS + E&M for AVCSS Works (KD18C)	84	84	0%	21-Dec-16	05-Apr-17	-48						
026 Inbound IMMD and BOH Secondary Screening Building													
A02630	Super Structure	75	25	66.67%	16-Feb-16 A	31-Oct-16	-55						
A02640	Finishing	150	150	0%	01-Nov-16	08-May-17	67						
A02650	Contractor's Design Submission for SS Mesh Screen & Approval	100	100	0%	01-Nov-16	03-Mar-17	67						
A02660	Contractor's Design Submission for Aluminium Cladding & Approval	50	50	0%	01-Nov-16	30-Dec-16	67						
A02670	BS for Office Accomodation (Stage 8)	90	90	0%	01-Nov-16	20-Feb-17	-55						
A02690	Other BS + E&M Installation	180	171	5%	01-Feb-16 A	21-Jun-17	60						
B02610	Lift Installation	75	75	0%	06-Dec-16	09-Mar-17	192						
054 Inbound Fixed X-ray Building													
A05455	Superstructure, 1/F to 2/F (incl. parapet wall and planter wall)	35	12	65.71%	20-Jun-16 A	15-Oct-16	-42						

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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
A05460	Finishing	150	98	34.67%	02-Jul-16 A	27-Jan-17	-38						
A05465	BS + E&M for Tx Room to CLP (Stage 5)	70	0	100%	02-Jul-16 A	30-Aug-16 A							
A05467	Energisisation by CLP	75	75	0%	30-Sep-16	30-Dec-16	102						
A05470	BS for Office Accommodation (Stage 8)	90	90	0%	17-Oct-16	04-Feb-17	-42						
A05490	Other BS + E&M Installation	180	171	5%	08-Feb-16 A	17-May-17	81						
B05410	Lift Installation	75	75	0%	14-Dec-16	17-Mar-17	15						
Completion of Fire Services Installation and Equipment (FCD)													
F05440	Provision of Approved Building Plans by the Engineer	0	0	0%		30-Sep-16	126	◆ Provision of Approved Building Plans by the Engineer					
Waterworks Ordinance (WSD)													
G05410	Provision of Approval Letter and approved Drawings by the Engineer	0	0	0%		30-Sep-16	32	◆ Provision of Approval Letter and approved Drawings by the Engineer					
038 AFCD Office													
A03810	Excavation + Blinding	7	0	100%	18-Jul-16 A	02-Sep-16 A							
A03820	Substructure	24	24	0%	19-Oct-16	15-Nov-16	-214						
039 Police Main Building													
A03910	Excavation + Blinding	12	0	100%	18-Jul-16 A	02-Sep-16 A							
A03920	Substructure	70	36	48.57%	03-Sep-16 A	12-Nov-16	-262						
A03930	#S # # %' I'	75	75	0%	14-Nov-16	15-Feb-17	-262						
040 Incident Control Tower													
A04010	Excavation + Blinding	10	0	100%	18-Jul-16 A	02-Sep-16 A							
A04020	Substructure	14	14	0%	30-Sep-16	18-Oct-16	-214						
A04040	Super Structure	97	97	0%	16-Nov-16	15-Mar-17	-214						
Facade Cladding System													
B04010	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	47						
B04020	Fabrication of F/C System	60	60	0%	07-Nov-16	18-Jan-17	47						
Glass Wall													
C04010	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	75						
C04020	Fabrication of Glass Wall	60	60	0%	07-Nov-16	18-Jan-17	75						
102 HKPF UVSS Monitor Room													
A10205	Excavation + Blinding	7	0	100%	16-Apr-16 A	23-Sep-16 A							
A10210	Substructure (Raft Foundation)	45	42	6.67%	24-Sep-16 A	19-Nov-16	-97						
A10220	Super Structure	45	45	0%	21-Nov-16	14-Jan-17	-97						
Metal Canopy and Roof Installation													
B10210	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	22						
B10212	Fabrication of MC/R	60	60	0%	07-Nov-16	18-Jan-17	22						
103 Police Inspection Post													
A10310	Excavation + Blinding	5	5	0%	11-Oct-16	15-Oct-16	-82						
A10330	Raft Foundation	20	20	0%	17-Oct-16	08-Nov-16	-82						
A10340	Super Structure (Roof Slabs)	40	40	0%	09-Nov-16	24-Dec-16	-82						
A10350	Finishing (False Ceiling) (KD9)	60	60	0%	28-Dec-16	11-Mar-17	-56						
A10360	BS for Office Accommodation (Stage 8)	80	80	0%	28-Dec-16	05-Apr-17	-82						

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								Sep	Oct	Nov	Dec	Jan	
HPL Composite Panel Cladding System													
B10310	Shop Drawing Submission and Approval	30	30	0%	23-Nov-16	29-Dec-16	88						
057 - Transformers (Zone 2)													
A05730	Superstructure	104	76	26.92%	20-Aug-16 A	31-Dec-16	-306						
Completion of Fire Services Installation and Equipment (FCD)													
F05740	Provision of Approved Building Plans by the Engineer	0	0	0%		30-Sep-16	78						
Waterworks Ordinance (WSD)													
G05710	Provision of Approval Letter and approved Drawings by the Engineer	0	0	0%		30-Sep-16	31						
107 - C&ED Mobile X-ray Operation Office (Cargo), Portion B													
C10710	Excavation + Blinding	7	7	0%	30-Sep-16	08-Oct-16	-95						
C10720	Raft Foundation	32	32	0%	11-Oct-16	16-Nov-16	-95						
C10730	Superstructure (Roof Slabs)	62	62	0%	17-Nov-16	03-Feb-17	-95						
113 - Field Kiosk for Access Control, Portion B													
B11310	Excavation + Blinding	7	0	100%	31-Aug-16 A	30-Sep-16 A							
B11320	Raft Foundation	32	32	0%	30-Sep-16	08-Nov-16	-167						
B11330	Superstructure (Roof Beams & Slabs)	60	60	0%	09-Nov-16	20-Jan-17	-167						
External Works for Portion B													
Works in Location 1.7A													
BB1480	ELV Works & T&C in Location 1.7A	125	125	0%	10-Dec-16	18-May-17	0						
Works in Location 1.7B													
BB1490	ELV Works & T&C in Location 1.7B	125	125	0%	10-Dec-16	18-May-17	0						
Drainage Works													
ED1540	Drainage Works (1130m & 60 MHs), Stage 1 (S/W)	90	0	100%	17-Dec-15 A	30-Sep-16	-3						
ED3580	Sewerage (275m & 8MHs), Stage 1 (S/W)	90	1	98.89%	02-Jan-16 A	30-Sep-16	-4						
ED5650	Drainage Works (1130m & 60MHs), Stage 2 (S/E)	90	25	72.22%	01-Mar-16 A	31-Oct-16	0						
ED5660	Sewerage (300m & 8MHs), Stage 2 (S/E)	90	25	72.22%	01-Mar-16 A	31-Oct-16	0						
ED5670	Drainage Works (1130m & 60MHs), Stage 3 (N/W)	90	90	0%	01-Nov-16	20-Feb-17	0						
ED5680	Sewerage (300m & 8MHs), Stage 3 (N/W)	90	90	0%	01-Nov-16	20-Feb-17	0						
Waterpipe Laying													
EW1550	Fresh Water Main Laying (472m), Stage 1 (S/W)	60	60	0%	30-Sep-16	10-Dec-16	-35						
EW1560	Flushing Water Main Laying (460m), Stage 1 (S/W)	60	60	0%	30-Sep-16	10-Dec-16	-35						
EW6080	Fresh Water Main Laying (500m), Stage 2 (S/E)	90	90	0%	12-Dec-16	01-Apr-17	-35						
EW6090	Flushing Water Main Laying (460m), Stage 2 (S/E)	90	90	0%	12-Dec-16	01-Apr-17	-35						
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
EU5300	Duct & Cable Laying for Utilities/Telecom	300	300	0%	20-Oct-16	23-Oct-17	-35						
Roadworks													
ER1640	Subbase (10000 ton), Stage 1 (N/W)	75	75	0%	13-Oct-16	11-Jan-17	-5						
ER3590	Bitumen Pavement (14000 ton), Stage 1 (N/W)	75	75	0%	10-Nov-16	11-Feb-17	-5						
ER3600	Rigid Pavement (594 m3), Footpath & EVA, Stage 1 (N/W)	75	75	0%	10-Nov-16	11-Feb-17	-5						
Sign Gantry ADS 306A & ADS 306B													
ES5230	Submission and approval for Sign Gantry	180	0	100%	01-Jun-16 A	30-Aug-16 A							

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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

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								Sep	Oct	Nov	Dec	Jan	
ES5240	Fabrication & Delivery of Sign Gantrys to Site	250	245	2%	30-Sep-16 A	31-Jul-17	2						
PORTION C													
Portion C Buildings													
009 - Staff Subway Entrance (Bay 0 - 3) & Shuttle Bus Kiosks													
A00930	Constructing Wall + Top Slab of Bay 0 - 3	50	7	86%	20-Jun-16 A	08-Oct-16	-319						
A00940	Finishing	50	50	0%	30-Sep-16	29-Nov-16	-319						
A00950	BS + E&M for AVCSS works (KD 1)	50	50	0%	12-Oct-16	08-Dec-16	-319						
B00910	Substructure and Staircase Construction (Portion B&C)	50	50	0%	09-Dec-16	11-Feb-17	-319						
104 - DOH Secondary Screening Station, at Portion C													
Facade Cladding System													
A10460	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	26						
A10465	Fabrication of F/C System	60	60	0%	07-Nov-16	18-Jan-17	26						
External Works for Portion C													
Works in Location 1.2, 1.8 & 011 - Emergency Generator Building													
BB1440	Works & T&C in Location 1.2	90	90	0%	30-Sep-16	18-Jan-17	167						
BB1460	ELV System Installation for Contract HY/2013/01	50	50	0%	31-Oct-16	29-Dec-16	273						
PORTION D													
Portion D Building													
113 - Field Kiosk for Access Control, Portion D													
C11350	Excavation & Blinding	5	0	100%	26-Sep-16 A	30-Sep-16 A							
C11360	Raft Foundation	30	30	0%	30-Sep-16	05-Nov-16	-143						
C11370	Superstructure (Roof Beams & Slabs)	60	60	0%	07-Nov-16	18-Jan-17	-40						
D11340	BS for Office Accommodation (Stage 8)	70	70	0%	25-Nov-16	21-Feb-17	-40						
External Works for Portion D													
Drainage Works													
B00050	Initial Survey	6	6	0%	30-Sep-16	07-Oct-16	-119						
SG3640	Drainage Works (361m & 14MHs)	100	100	0%	07-Nov-16	09-Mar-17	-143						
SG3760	Sewerage (121m & 6MHs)	100	100	0%	07-Nov-16	09-Mar-17	-143						
Waterpipe Laying													
SW3650	Fresh Water Main Laying (108m)	100	100	0%	05-Dec-16	07-Apr-17	-143						
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
B11480	ELV System Installation for Contract HY/2013/02	61	61	0%	21-Oct-16	03-Jan-17	270						
SU5340	Duct & Cable Laying for Utilities/Telecom, CLP, BS & ELV	100	100	0%	14-Sep-16 A	02-Feb-17	145						
SU5350	Duct & Cable Laying for TCSS & Lighting	100	100	0%	05-Dec-16	07-Apr-17	-143						
Works of Car Park Management System at Location 1.5, 1.6A & 1.6B													
SR5540	Works & T&C for Car Park Management System at Location 1.5	97	97	0%	10-Nov-16	09-Mar-17	0						
PORTION E													
Portion E Building													
006 - Shuttle Bus Kiosk & Staff Subway Entrance, at Portion E & M													
A00610	ELS + Blinding for Subway	12	12	0%	08-Oct-16	22-Oct-16	-231						
A00620	Constructing base of Subway	25	25	0%	24-Oct-16	21-Nov-16	-231						
A00630	Constructing wall stem + top slab of Subway	40	40	0%	22-Nov-16	10-Jan-17	-231						
External Works for Portion E													

- Actual Work
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
Drainage Works													
B00060	Initial Survey	6	6	0%	30-Sep-16	07-Oct-16	-231						
PORTION G, H1 & H2													
Portion G Structures													
Box Culvert C													
Steel H Pile													
SC0240	Removal of surcharge	26	0	100%	01-Aug-16 A	31-Aug-16 A							
SC0250	Sheeting Piling for (approx 150m long), Stage 1	6	0	100%	01-Sep-16 A	07-Sep-16 A							
SC0260	Box C - 67 nos. of driven H pile, Stage 1	12	0	100%	08-Sep-16 A	30-Sep-16 A							
SC0270	Box C - 38 nos. of driven H pile, Stage 2	9	9	0%	30-Sep-16 A	12-Oct-16	-197						
SC0280	Box C - 54 nos. of driven H pile, Stage 3	11	11	0%	13-Oct-16	25-Oct-16	-197						
Box Culvert Structure													
SC0310	Box C - Branch Construction	45	45	0%	26-Oct-16	16-Dec-16	72						
SC0320	Box C - Branch Backfilling	30	30	0%	17-Dec-16	24-Jan-17	72						
SC0380	Box C - Construction of Main Body	150	150	0%	26-Oct-16	29-Apr-17	-197						
Bridge A1													
Bored Pile													
SA1130	Bore pile for other 2 nos. (A106)	24	12	50%	29-Aug-16 A	15-Oct-16	77						
SA1140	Pile Testing	7	7	0%	17-Oct-16	24-Oct-16	77						
Pile Cap													
SA1210	Cap - A106	30	30	0%	25-Oct-16	28-Nov-16	77						
Pier & Abutment													
SA1310	Abutment A106	30	30	0%	29-Nov-16	05-Jan-17	77						
SA1350	Pier P105	25	0	100%	15-Aug-16 A	17-Sep-16 A							
Structure Deck													
SA1420	Deck on P103 & P104 + Stressing	60	30	50%	29-Aug-16 A	05-Nov-16	79						
SA1440	Deck on P102, P103 + Stressing	60	36	40%	09-Aug-16 A	12-Nov-16	134						
SA1470	Falsework for Deck P104, P105	14	14	0%	25-Nov-16	10-Dec-16	49						
SA1480	Deck on P104, P105 + Stressing	60	60	0%	12-Dec-16	25-Feb-17	49						
Bridge A2													
Structure Deck													
SA2440	Deck on P202, P203, P601 + Stressing	60	36	40%	15-Aug-16 A	12-Nov-16	0						
Bridge A3													
Bored Pile													
SA3160	Pile Testing for P304a/b	7	7	0%	30-Sep-16	08-Oct-16	16						
Pile Cap													
SA3220	Cap - P304a/b	30	30	0%	11-Oct-16	14-Nov-16	16						
SA3230	Cap - P302	30	0	100%	18-Jul-16 A	02-Sep-16 A							
SA3240	Cap - P303	30	30	0%	11-Oct-16	14-Nov-16	16						
SA3250	Cap - A305	30	30	0%	30-Sep-16	05-Nov-16	53						
Pier & Abutment													

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
SA3320	Pier P304a, P304b	25	25	0%	15-Nov-16	13-Dec-16	21						
SA3330	Abutment A305	30	30	0%	14-Dec-16	20-Jan-17	21						
SA3340	Pier P302	25	13	50%	03-Sep-16 A	17-Oct-16	41						
SA3350	Pier P303	25	25	0%	15-Nov-16	13-Dec-16	16						
Structure Deck													
SA3410	Falsework for Deck P301 - P302	14	14	0%	17-Oct-16	02-Nov-16	56						
SA3420	Deck on P301 - P302 + Stressing	75	75	0%	02-Nov-16	04-Feb-17	70						
SA3430	Falsework for Deck P302 - P303	14	14	0%	19-Dec-16	06-Jan-17	16						
Bridge A4													
Bored Pile													
SA4130	Pile Testing	7	7	0%	30-Sep-16	08-Oct-16	4						
Pile Cap													
SA4210	Cap - P401	30	30	0%	11-Oct-16	14-Nov-16	4						
SA4220	Cap - P402	30	30	0%	15-Nov-16	19-Dec-16	14						
Pier & Abutment													
SA4310	Pier P401	25	25	0%	15-Nov-16	13-Dec-16	4						
SA4320	Pier P402	25	25	0%	20-Dec-16	20-Jan-17	14						
Structure Deck													
SA4410	Falsework for Deck P502b, P401	14	14	0%	14-Dec-16	31-Dec-16	4						
Bridge A5													
Bored Pile													
SA5150	Pile Testing for A503 & P506	6	6	0%	30-Sep-16	07-Oct-16	-274						
SA5160	Pile Testing for A501 & P502a/b, P507	6	0	100%	23-Aug-16 A	30-Aug-16 A							
Pile Cap													
SA5210	Cap - P504	30	1	96.67%	19-Sep-16 A	30-Sep-16	-269						
SA5220	Cap - P505	30	1	96.67%	19-Sep-16 A	30-Sep-16	-269						
SA5230	Cap - P503	30	30	0%	08-Oct-16	12-Nov-16	-274						
SA5240	Cap - P506	30	30	0%	14-Nov-16	17-Dec-16	-274						
SA5250	Cap - A501	30	30	0%	30-Sep-16	05-Nov-16	77						
SA5260	Cap - P502a/b	30	30	0%	30-Sep-16	05-Nov-16	11						
SA5270	Cap - P507	35	0	100%	31-Aug-16 A	22-Sep-16 A							
Pier & Abutment													
SA5310	Pier P504	25	25	0%	03-Oct-16	01-Nov-16	-189						
SA5320	Pier P505	25	25	0%	03-Oct-16	01-Nov-16	-234						
SA5330	Pier P503	25	25	0%	14-Nov-16	12-Dec-16	-9						
SA5340	Pier P506	25	25	0%	19-Dec-16	19-Jan-17	-274						
SA5350	Pier P507	35	32	10%	23-Sep-16 A	08-Nov-16	-227						
SA5360	Pier P502a/b	25	25	0%	07-Nov-16	05-Dec-16	11						
SA5370	Abutment A501	30	30	0%	07-Nov-16	10-Dec-16	77						
Structure Deck													
SA5410	Falsework for Deck P504 - P505	14	14	0%	02-Nov-16	17-Nov-16	-189						
SA5420	Deck on P504, P505 + Stressing	90	90	0%	18-Nov-16	09-Mar-17	-189						
Bridge A6													
Pile Cap													

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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
SA6270	Cap - A607/711	40	0	100%	30-Jun-16 A	30-Sep-16 A							
Pier & Abutment													
SA6330	Pier P603	25	0	100%	30-Jun-16 A	31-Aug-16 A							
SA6370	Abutment A607	30	30	0%	30-Sep-16	05-Nov-16	-60						
Structure Deck													
SA6400	Falsework for Deck P601, P602	14	14	0%	04-Oct-16	20-Oct-16	-179						
SA6410	Deck on P601, P602 + Stressing	36	36	0%	21-Oct-16	01-Dec-16	-179						
SA6420	Falsework for Deck P602, P603	14	14	0%	07-Nov-16	22-Nov-16	-179						
SA6430	Deck on P602, P603 + Stressing	36	36	0%	23-Nov-16	06-Jan-17	-179						
Bridge A7a, A7b, A7c													
Bored Pile													
SA7160	Bore Piling for A701, P702 - P705, 10 Nr.	42	0	100%	20-Nov-15 A	31-Aug-16 A							
SA7230	Pile Testing for A701, P702, P703	7	7	0%	30-Sep-16	08-Oct-16	50						
Pile Cap													
SA7340	Cap for P704	30	0	100%	27-Jul-16 A	09-Sep-16 A							
SA7350	Cap for P705	30	0	100%	27-Jul-16 A	06-Sep-16 A							
SA7360	Cap for P702	30	30	0%	11-Oct-16	14-Nov-16	50						
SA7370	Cap for P703	30	30	0%	11-Oct-16	14-Nov-16	75						
SA7380	Cap for A701	30	30	0%	11-Oct-16	14-Nov-16	100						
Pier & Abutment													
SA7540	Pier P704	25	13	50%	10-Sep-16 A	17-Oct-16	153						
SA7550	Pier P705	25	18	30%	07-Sep-16 A	22-Oct-16	70						
SA7560	Pier P702	25	25	0%	15-Nov-16	13-Dec-16	50						
SA7570	Pier P703	25	25	0%	14-Dec-16	14-Jan-17	50						
SA7620	Pier P710	25	0	100%	01-Aug-16 A	31-Aug-16 A							
SA7650	Abutment A711	30	30	0%	30-Sep-16	05-Nov-16	-60						
Structure Deck													
SA7710	Falsework for Deck P706, P707, P712 (A7b)	14	0	100%	16-Aug-16 A	31-Aug-16 A							
SA7720	Deck on P706, P707 & P712 (Bridge A7b) + Stressing	95	51	46.32%	01-Sep-16 A	30-Nov-16	-174						
SA7730	Falsework for Deck P705 - P706	15	15	0%	24-Nov-16	10-Dec-16	93						
SA7740	Deck on P705 & P706 (Bridge A7a) + Stressing	36	36	0%	12-Dec-16	25-Jan-17	109						
SA7750	Falsework for Deck P704, P705	14	14	0%	28-Dec-16	13-Jan-17	93						
SA7850	Falsework for Deck P707, P708 (A7c)	14	14	0%	21-Nov-16	06-Dec-16	-174						
SA7860	Deck on P707, P708 (Bridge A7c) + Stressing	75	75	0%	07-Dec-16	10-Mar-17	-174						
SA7940	Parapet for Bridge A7b (8 pour) & E&M Works	50	50	0%	01-Dec-16	03-Feb-17	234						
Bridge A8													
Pile Cap													
SA8210	Cap - Abutment A804	30	25	16.67%	19-Sep-16 A	31-Oct-16	123						
SA8220	Cap for P802	30	0	100%	30-Aug-16 A	13-Sep-16 A							

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								Sep	Oct	Nov	Dec	Jan	
SA8230	Cap for P803	30	0	100%	30-Aug-16 A	22-Sep-16 A							
Pier & Abutment													
SA8310	Abutment A804	30	30	0%	01-Nov-16	05-Dec-16	123						
SA8320	Pier P802	25	25	0%	30-Sep-16	31-Oct-16	48						
SA8330	Pier P803	25	25	0%	30-Sep-16	31-Oct-16	88						
Structure Deck													
SA8410	Falsework for Deck P801, P802	14	14	0%	15-Nov-16	30-Nov-16	36						
SA8420	Deck on P802, P802 + Stressing	75	75	0%	01-Dec-16	04-Mar-17	36						
Retaining Walls W1-1, W3-1, W5-1 & W7-1													
Retaining Wall W3-1													
SW3130	Bored Pile for W3-1, 16 Nr.	101	101	0%	11-Oct-16*	11-Feb-17	-14						
Retaining Wall W5-1													
SW5010	Construction of Retaining Wall W5-1 (L-shape, 5 bays)	100	100	0%	12-Dec-16	18-Apr-17	77						
Portion G Buildings													
033 Inbound Private Car Exam Building													
A03320	Super Structure	40	25	37.5%	11-May-16 A	31-Oct-16	-140						
A03330	Finishing	90	90	0%	01-Nov-16	20-Feb-17	-140						
A03360	External Works	70	70	0%	01-Nov-16	24-Jan-17	55						
A03370	BS for Office Accomodation (Stage 8)	70	70	0%	01-Sep-16 A	24-Jan-17	-19						
A03390	Other BS + E&M Installation	130	130	0%	19-Nov-16	02-May-17	56						
Glass Canopy Installation													
B03300	Shop Drawing Submission and Approval	30	0	100%	01-Jun-16 A	31-Aug-16 A							
B03305	Fabrication of Glass Canopy	60	60	0%	30-Sep-16	10-Dec-16	-65						
B03350	Casted-in Items Installation	40	40	0%	12-Dec-16	02-Feb-17	-65						
Aluminium Metal Canopy													
B03310	Shop Drawing Submission and Approval	30	0	100%	01-Jun-16 A	31-Aug-16 A							
B03315	Fabrication of F/C System	60	60	0%	30-Sep-16	10-Dec-16	122						
B03320	Casted-in Items Installation	50	50	0%	12-Dec-16	14-Feb-17	122						
034 Satellite RCP South													
A03430	Raft Foundation	30	0	100%	06-Jul-16 A	15-Sep-16 A							
A03440	Super Structure (Roof Beams & Slabs)	40	36	10%	19-Sep-16 A	12-Nov-16	-79						
A03450	Finishing	60	60	0%	14-Nov-16	25-Jan-17	-79						
A03460	BS for Office Accomodation (Stage 8)	59	59	0%	14-Nov-16	24-Jan-17	-19						
A03480	Other BS + E&M Installation	130	130	0%	02-Dec-16	16-May-17	127						
S S Facade Greenery System													
B03410	Shop Drawing Submission for Approval	30	30	0%	30-Sep-16	05-Nov-16	92						
B03415	Fabrication of SS F/G System	60	60	0%	07-Nov-16	18-Jan-17	92						
035 - Sewage Pumping Station, Portion G													
A03540	Sheet Piling as ELS for Wet Well	12	0	100%	23-Jun-16 A	10-Sep-16 A							
A03560	ELS + Blinding for Wet Well	10	10	0%	12-Sep-16 A	13-Oct-16	-127						
A03570	Constructing of Base Slab of Wet Well	20	20	0%	14-Oct-16	05-Nov-16	-127						

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								Sep	Oct	Nov	Dec	Jan	
A03580	Constructing of Wall Stem of Wet Well	25	25	0%	07-Nov-16	05-Dec-16	-127						
A03590	Water-tightness Test for Wet Wells	12	12	0%	06-Dec-16	19-Dec-16	-127						
B03510	Backfilling + Removal of ELS	10	10	0%	20-Dec-16	03-Jan-17	-127						
051 Transformers (Zone 5)													
A05150	Finishing	60	30	50%	16-May-16 A	05-Nov-16	-67						
A05165	Energisation by CLP	75	45	40%	27-Jun-16 A	23-Nov-16	76						
A05170	BS for Office Accommodations (KD9)	115	51	55.65%	02-Jul-16 A	30-Nov-16	-16						
A05180	BS + E&M for Office Accommodation (KD10)	115	115	0%	01-Dec-16	25-Apr-17	-16						
A05190	Other BS + E & M Installation	150	122	18.67%	22-Feb-16 A	28-Feb-17	55						
Completion of Fire Services Installation and Equipment (FCD)													
F05140	Provision of Approved Building Plans by the Engineer	0	0	0%		30-Sep-16	75						
Waterworks Ordinance (WSD)													
G05120	Submission of WWO46 - Part I & II (Inside Services)	6	6	0%	30-Sep-16	07-Oct-16	73						
100 Inbound Traffic Control Kiosk													
A10000	Excavation + Blinding	5	0	100%	01-Sep-16 A	03-Sep-16 A							
A10010	Raft Foundation	30	0	100%	05-Sep-16 A	14-Sep-16 A							
A10040	Super Structure (Roof Beams & Slabs)	67	25	62.69%	15-Sep-16 A	31-Oct-16	-166						
A10050	Finishing	45	45	0%	01-Nov-16	22-Dec-16	-166						
A10070	BS + E&M for AVCSS Works (KD18A)	86	86	0%	01-Nov-16	15-Feb-17	-166						
HPL Composite Panel Cladding System													
B10010	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	52						
B10015	Fabrication of F/C System	60	60	0%	07-Nov-16	18-Jan-17	52						
112 Field Kiosk for Taxi Queuing Area													
A35200	Excavation + Blinding	5	0	100%	12-Sep-16 A	24-Sep-16 A							
A35210	Foundation	15	15	0%	30-Sep-16	19-Oct-16	172						
A35220	Structure	30	30	0%	20-Oct-16	23-Nov-16	172						
A35230	Finishing	45	45	0%	24-Nov-16	18-Jan-17	257						
B11520	BS + E & M Installation	130	130	0%	24-Nov-16	08-May-17	172						
External Works for Portion G, H1 & H2													
<i>Works within Portion H1 & H2 except the ELV Works in the Hong Kong Side PTI</i>													
EU1560	Drainage & Sewerage Works within Portion H1 & H2 in the Hong Kong Side PTI (KD20)	178	142	20%	03-May-16 A	24-Mar-17	-275						
<i>All Works within the Boundary defined in Drawing No. 60191048/C3/000/C00/1050</i>													
BEU1570	Drainage & Sewerage Works (incl. CLP) within the Boundary defined in Drawing No. 60191048/C3/000/1050	178	142	20%	03-May-16 A	24-Mar-17	-280						
Drainage Works													
AS0080	Initial Survey	12	12	0%	30-Sep-16	15-Oct-16	-249						
ED4070	Drainage Works (6954m & 393MHs)	120	96	20%	03-May-16 A	12-Aug-17	-197						
ED4190	Sewerage (437m & 12MHs)	120	108	10%	03-May-16 A	07-Aug-17	-191						
Sign Gantry DS40, DS41 & DS75													

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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

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								Sep	Oct	Nov	Dec	Jan	
ES0020	Sign Gantry DS40 Pre-bored H Piling, 12 Nr.	30	30	0%	30-Sep-16	05-Nov-16	137						
ES0040	Sign Gantry DS41 Driven Piling 4 Nr.	7	7	0%	30-Sep-16	08-Oct-16	220						
ES0080	Testing for Pre-bored H Piling	50	50	0%	30-Nov-16	02-Feb-17	147						
ES0170	Submission and approval for Sign Gantry	90	0	100%	02-May-16 A	31-Aug-16 A							
ES0180	Fabrication & Delivery of Sign Gantrys to Site	250	250	0%	30-Sep-16	05-Aug-17	-3						
Canopy and Covered Walkway													
CC1310	Shop drawing, Approved & Fabrication	150	150	0%	30-Sep-16	01-Apr-17	27						
PORTION J													
Portion J Structure													
Bay 30 - 41 of CUE/Staff Subway (Portion J)													
B03040	Bay 30 - 33 Construction - Base Slab	28	21	25%	30-Apr-16 A	26-Oct-16	-254						
B03050	Bay 30 - 33 Construction - Wall + Top Slab	100	100	0%	30-Sep-16	02-Feb-17	-254						
B03210	ELS + blinding (Bay 34 - 41) (8 bay)	55	25	54.55%	29-Aug-16 A	31-Oct-16	-238						
B03220	Bay 34 - 39 Construction - Base Slab	75	75	0%	01-Nov-16	02-Feb-17	-220						
B03230	Bay 34 - 39 Construction - Wall + Top Slab, Staircase	75	75	0%	30-Nov-16	03-Mar-17	-227						
B03240	Bay 40 - 41 Construction - Base Slab	75	75	0%	03-Nov-16	04-Feb-17	-238						
B03250	Bay 40 - 41 Construction - Wall + Top Slab, Staircase	75	75	0%	25-Nov-16	27-Feb-17	-238						
030 Outbound Private Car & GV Kiosks													
A03010	Submission & Approval for Steel Works	60	0	100%	01-Apr-16 A	30-Sep-16 A							
A03020	Pre-fabrication for the Steel Kiosks	84	84	0%	30-Sep-16	11-Jan-17	-156						
030 Outbound Kiosks, Section IX, Subject to Excision													
C03010	Submission & Approval for Steel Works	100	0	100%	01-Apr-16 A	30-Sep-16 A							
C03020	Pre-fabrication for the Steel Kiosks	100	100	0%	30-Sep-16	02-Feb-17	-86						
Portion J Buildings													
024 Outbound Private Car Exam Building													
A02400	Excavation + Blinding	10	10	0%	07-Oct-16	19-Oct-16	-121						
A02410	Raft Foundation	30	30	0%	20-Oct-16	23-Nov-16	-121						
A02420	Super Structure	40	40	0%	24-Nov-16	12-Jan-17	-121						
Glass Canopy Installation													
B02410	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	-70						
B02415	Fabrication of F/C System	60	60	0%	07-Nov-16	18-Jan-17	-70						
Aluminium Metal Canopy													
B02450	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	-55						
B02455	Fabrication of F/C System	60	60	0%	07-Nov-16	18-Jan-17	-55						
031 Outbound IMM and DOH Secondary Screen Building													
A03100	Excavation + Blinding (+ PL Test)	10	7	30%	19-Sep-16 A	08-Oct-16	-87						
A03110	Raft Foundation	35	35	0%	11-Oct-16	19-Nov-16	-87						
A03140	Super Structure	89	89	0%	21-Nov-16	10-Mar-17	-87						
060 - Single Storey Support Building Associated with Buildings 044 & 045													
Waterworks Ordinance (WSD)													
G06020	Submission of WWO46 - Part I & II (Inside Services)	6	6	0%	13-Dec-16	19-Dec-16	13						
061 Telecom Building													
A06120	Excavation + Blinding	5	5	0%	30-Sep-16	06-Oct-16	-64						
A06130	Raft Foundation	25	25	0%	07-Oct-16	05-Nov-16	-64						

- Actual Work
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
A06140	Super Structure	40	40	0%	07-Nov-16	22-Dec-16	-64						
A06150	Finishing (KD9)	60	60	0%	23-Dec-16	09-Mar-17	-54						
A06160	BS for Office Accommodations (KD9)	70	70	0%	23-Dec-16	21-Mar-17	-64						
Aluminium Metal Canopy													
B06110	Shop Drawing Submission and Approval	30	30	0%	23-Nov-16	29-Dec-16	108						
101 Outbound Traffic Control Kiosk													
A10100	Excavation + Blinding	5	5	0%	30-Sep-16	06-Oct-16	-159						
A10110	Raft Foundation	13	13	0%	07-Oct-16	22-Oct-16	-159						
A10130	Super Structure (Roof Beams & Slabs)	30	30	0%	24-Oct-16	26-Nov-16	-159						
A10140	Finishing	45	45	0%	28-Nov-16	21-Jan-17	74						
A10150	BS + E&M for AVCSS Works (KD18A)	60	60	0%	28-Nov-16	11-Feb-17	-159						
A10160	BS + E&M for AVCSS Cabling (KD18B)	68	68	0%	28-Nov-16	21-Feb-17	-102						
A10170	BS for Office Accommodations (KD9)	70	70	0%	28-Nov-16	23-Feb-17	-42						
A10190	Other BS + E & M Installation	130	130	0%	16-Dec-16	31-May-17	153						
HPL Composite Panel Cladding System													
B10110	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	127						
B10120	Fabrication of HPL Cladding	60	60	0%	07-Nov-16	18-Jan-17	127						
External Works for Portion J													
Works in Location 1.7B													
EU1500	ELV Works & T&C in Location 1.7B	125	125	0%	10-Dec-16	18-May-17	0						
Works in Location 1.7C													
EU1530	ELV Works & T&C in Location 1.7C	125	125	0%	10-Dec-16	18-May-17	0						
Drainage Works													
AS0110	Initial Survey	6	0	100%	19-Sep-16 A	29-Sep-16 A							
ED4220	Drainage Works (1700m & 86MHs), Stage 1 (Northern)	150	143	5%	25-Apr-16 A	24-Mar-17	-26						
ED4340	Sewerage (425m & 11MHs), Stage 1 (Northern)	150	143	5%	01-Jun-16 A	24-Mar-17	-26						
Waterpipe Laying													
EW4230	Fresh Water Main Laying (770m), Stage 1 (Northern)	100	100	0%	19-Dec-16	26-Apr-17	-26						
EW4240	Flushing Water Main Laying (431m), Stage 1 (Northern)	100	100	0%	19-Dec-16	26-Apr-17	-26						
Sign Gantry DS104													
ES0140	Sign Gantry DS104 P-bored Piling, 8 Nr.	30	30	0%	07-Nov-16	10-Dec-16	137						
ES5140	Submission and approval for Sign Gantry	60	60	0%	30-Sep-16	10-Dec-16	-13						
ES5150	Fabrication & Delivery of Sign Gantrys to Site	200	200	0%	12-Dec-16	17-Aug-17	-13						
PORTION K, L, M, S & T													
Portion M Buildings													
108 - C&ED Mobile X-ray Operation Office, Portion M													
HPL Composite Panel Cladding System													
C10810	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	86						
C10820	Fabrication of HPL Cladding	60	60	0%	07-Nov-16	18-Jan-17	86						
104 DOP Screening Station, at Portion M													
Facade Envelop Structure Installation													
D10450	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	131						
D10455	Fabrication of F/C System	60	60	0%	07-Nov-16	18-Jan-17	131						
External Works													
Additional Works (Filling & RE Slope), SA1													

- Actual Work
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Sep-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
ED3110	Design of RE Slope	41	0	100%	01-Aug-16 A	17-Sep-16 A		█					
ED3120	Approval of RE Slope by GEO/AECOM	86	76	11.63%	19-Sep-16 A	31-Dec-16	18		█	█	█	█	
ED3210	C1 Contractor to Completed cooling mains at east Portion (Stage1)	0	0	0%		30-Sep-16	61			◆			
ED3220	Removal of Access & Form another Temp. Access for Cooling Main	12	12	0%	30-Sep-16	15-Oct-16	50		█				
ED3240	Fill Platform from +11.5PD to +13.5mPD	41	0	100%	08-Aug-16 A	10-Sep-16 A		█					
ED3250	Add surcharge to Platform at +14.5mPD	18	0	100%	12-Sep-16 A	15-Sep-16 A		█					
ED3260	Consolidation of fill at the Platform	61	46	25%	16-Sep-16 A	14-Nov-16	-117		█	█			
ED3270	Remove surcharge at the edge of Platform (North, Portion S, KD32)	21	21	0%	19-Dec-16*	14-Jan-17	-125					█	
ED3280	Remove surcharge at the Platform (East, Portion T, KD33)	21	21	0%	19-Dec-16*	14-Jan-17	-126					█	
ED3310	C1 Contractor to Complete Footbridge Supports at the South Portion	0	0	0%		02-Nov-16*	-243						◆
ED3320	Fill Platform from +11.5PD to near PCB (South)	24	24	0%	03-Nov-16	30-Nov-16	-197				█		
ED3330	Add surcharge to Platform at +14.5mPD near PCB (South)	18	18	0%	01-Dec-16	21-Dec-16	-197					█	
ED3340	Consolidation of fill at the Platform (South)	61	61	0%	22-Dec-16	20-Feb-17	-238						█
ED3410	C2 Contractor to complete abutment at the North (2 nos)	0	0	0%		02-Nov-16*	0						◆
ED3420	Fill Slope around C2 abutments	50	50	0%	03-Nov-16	03-Jan-17	10				█		
Canopy and Covered Walkway													
CC1400	Shop drawing, Approved & Fabrication	150	150	0%	30-Sep-16	01-Apr-17	12						█
PORTION N													
Portion N Structure													
Box Culvert B													
Bored Pile													
SB0510	Additional pre-drill	26	0	100%	01-Aug-16 A	31-Aug-16 A							
SB0540	Preliminary piles	12	0	100%	05-Sep-16 A	17-Sep-16 A		█					
SB0550	Loading Test	12	1	91.67%	19-Sep-16 A	30-Sep-16	25		█				
SB0560	Install H-piles	25	25	0%	03-Oct-16	01-Nov-16	44			█			
SB0590	Box B - Bore Pile (14 nos.)	144	144	0%	02-Nov-16	29-Apr-17	0					█	
Box Culvert Structure													
SB0710	Box B - Construction (Stage 1)	75	75	0%	02-Nov-16	03-Feb-17	44					█	
SB0715	Handover from RC (1/11/16)	0	0	0%		01-Nov-16*	0						◆
SB0722	Box B - Temporary Works for Construction of Outfall Structure	120	120	0%	02-Nov-16	28-Mar-17	59					█	
Portion N Buildings													
104 DOH Screening Station at Portion N													
C10405	Excavation + Blinding	5	5	0%	30-Sep-16	06-Oct-16	-24				█		
C10410	Structure (Raft Foundation)	25	25	0%	07-Oct-16	05-Nov-16	-24				█		
C10420	Finishing	45	45	0%	07-Nov-16	30-Dec-16	3					█	
E10410	BS for Office Accommodations (KD9)	70	70	0%	07-Nov-16	02-Feb-17	-24						█

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Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					2017
								Sep	Oct	Nov	Dec	Jan	
E10430	Other BS + E & M Installation	130	130	0%	25-Nov-16	09-May-17	96						
Facade Envelop Structure Installation													
D10410	Shop Drawing Submission and Approval	30	30	0%	15-Oct-16	18-Nov-16	131						
D10415	Fabrication of F/C System	60	60	0%	19-Nov-16	03-Feb-17	131						
106 C&ED Detention Area Guard Booth													
A10600	Excavation + Blinding	5	5	0%	30-Sep-16	06-Oct-16	-76						
A10610	Structure (Raft Foundation)	20	20	0%	07-Oct-16	31-Oct-16	-76						
A10640	Finishing	45	45	0%	01-Nov-16	22-Dec-16	8						
E10640	BS for Office Accommodations (KD9)	70	70	0%	01-Nov-16	24-Jan-17	-19						
E10660	Other BS + E & M Installation	130	130	0%	19-Nov-16	02-May-17	26						
Facade Envelop Structure Installation													
B10610	Shop Drawing Submission and Approval	30	30	0%	29-Nov-16	05-Jan-17	83						
107 C&ED Mobile X-ray Operation Office, Portion N													
A10700	Excavation + Blinding	5	5	0%	07-Oct-16	13-Oct-16	-61						
A10710	Substructure (Raft Foundation)	25	25	0%	01-Nov-16	29-Nov-16	-76						
A10740	Super Structure	35	35	0%	30-Nov-16	12-Jan-17	-76						
External Works for Portion N													
Works in Location 1.7A													
EU1540	ELV Works & T&C in Location 1.7A	125	125	0%	10-Dec-16	18-May-17	0						
Drainage Works													
AS0150	Initial Survey	12	12	0%	30-Sep-16	15-Oct-16	-151						
ED4620	Drainage Works (964m & 56MHs), Stage 1 (Southern)	75	75	0%	17-Oct-16	14-Jan-17	0						
ED4650	Sewerage (383m & 12MHs), Stage 1 (Southern)	75	75	0%	17-Oct-16	14-Jan-17	0						
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
EU5470	Duct & Cable Laying for TCSS & Lighting	125	125	0%	15-Nov-16	20-Apr-17	-151						
PORTION P													
Portion Structure													
Retaining Wall RW1													
RW1110	Construction of Retaining Wall RW1 (U-shape, 5 bays)	100	100	0%	30-Sep-16	02-Feb-17	152						
Portion P Buildings													
105 IMMD Guard Booth, Portion P													
Facade Envelop Structure Installation													
A10560	Shop Drawing Submission and Approval	30	30	0%	30-Sep-16	05-Nov-16	116						
A10565	Fabrication of F/C System	60	60	0%	07-Nov-16	18-Jan-17	116						
External Works for Portion P													
Drainage Works													
AS0160	Initial Survey	6	6	0%	30-Sep-16	07-Oct-16	-31						
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
EU5490	Duct & Cable Laying for TCSS & Lighting (KD15)	24	24	0%	19-Oct-16	15-Nov-16	-31						
PORTION Q													
External Works for Portion Q													
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting													
ED5570	Duct & Cable Laying for Utilities/Telecom	50	50	0%	08-Oct-16	06-Dec-16	210						
ED5580	Duct & Cable Laying for TCSS & Lighting	34	34	0%	08-Oct-16	17-Nov-16	-29						
EU1490	ELV System Installation for Contract HY/2013/04	50	50	0%	21-Oct-16	17-Dec-16	281						
Roadworks													
AS0170	Initial Survey	6	6	0%	30-Sep-16	07-Oct-16	-29						
ER4920	Subbase (104 ton)	75	75	0%	12-Oct-16	10-Jan-17	210						

■ Actual Work
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016		
								Sep	Oct	Nov
ER4950	Bitumen Pavement (215 ton)	75	75	0%	12-Nov-16	14-Feb-17	210			
Railing										
ER4890	Railing	75	75	0%	14-Dec-16	17-Mar-17	210			
Road Furniture										
ER4900	Road Furniture	75	75	0%	14-Dec-16	17-Mar-17	210			
Landscape Works										
A5170	Design and Procurement for Irrigation System	200	110	45%	02-Jul-16 A	17-Jan-17	0			

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THREE MONTH ROLLING PROGRAMME
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Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossi

Key Dates

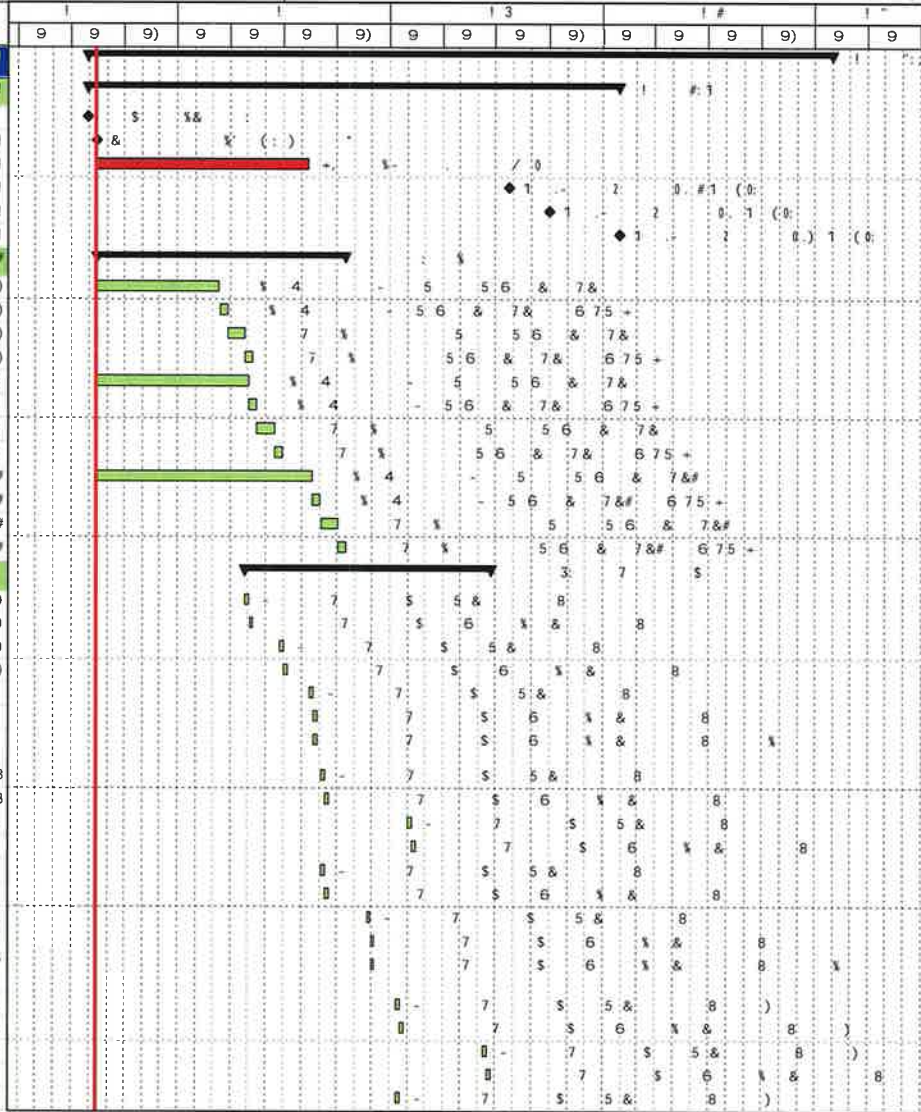
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Site and Facility Inspection

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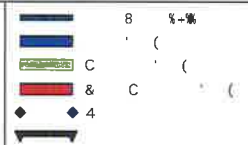
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!	8 57 & 1 (! 00) ! 170	3	\$	8	8 57 & 1 (! 00) ! 170: 3 \$
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!	8 57 & 1 (! 100) ! 170	3	\$	8	8 57 & 1 (! 100) ! 170: 3 \$
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!	8 57 E? 1 (! "0& \$ 0) ! 170	3	\$	8	8 57 E? 1 (! "0& \$ 0) ! 170: 3 \$
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)!	8 57 - & 1 (! 100) ! 170)	5 3	8	8 57 - & 1 (! 100) ! 170:) 5 3
)	8 57 - & 1 (! 10& \$ 0) #! 170		*	8	8 57 - & 1 (! 10& \$ 0) #! 170: *
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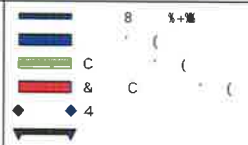


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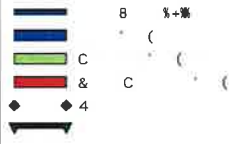
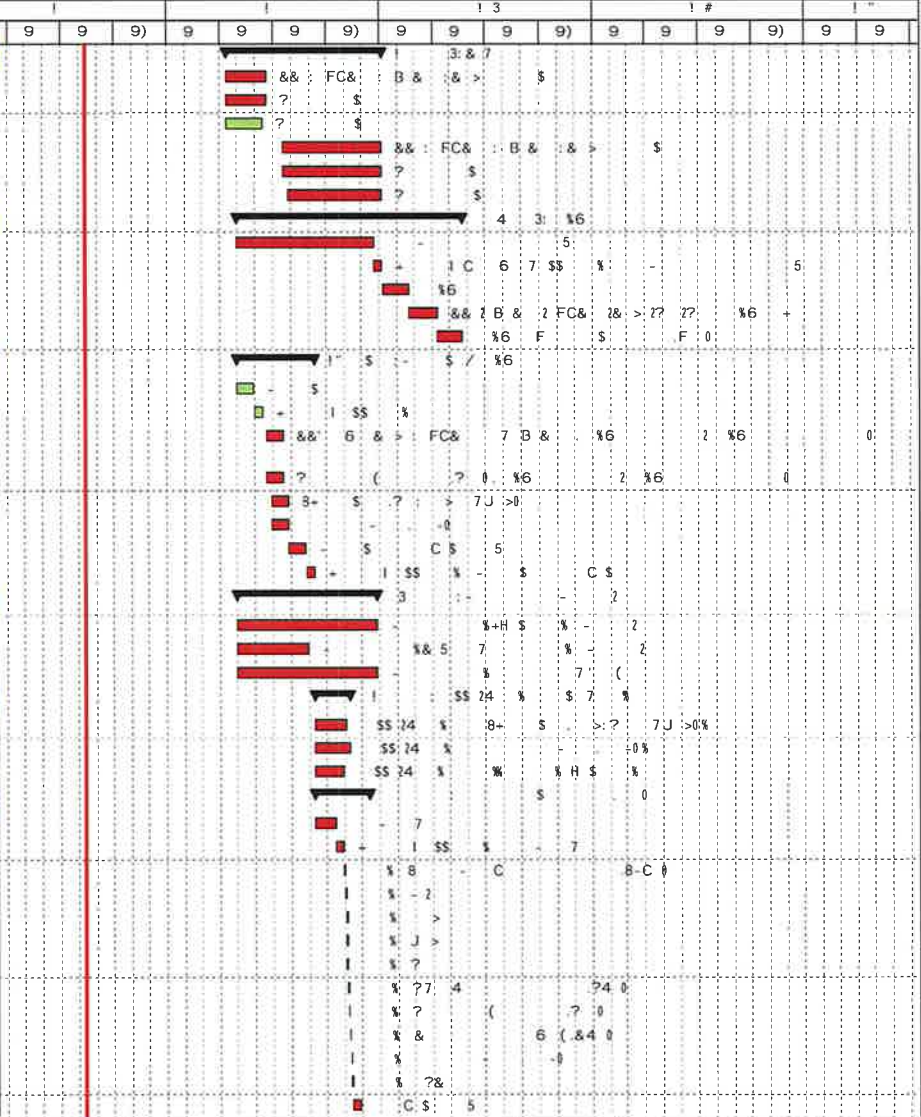


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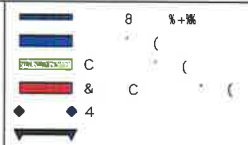


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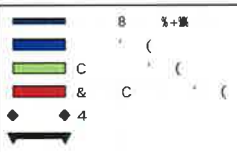


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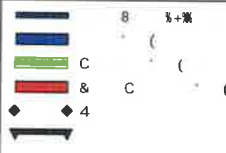
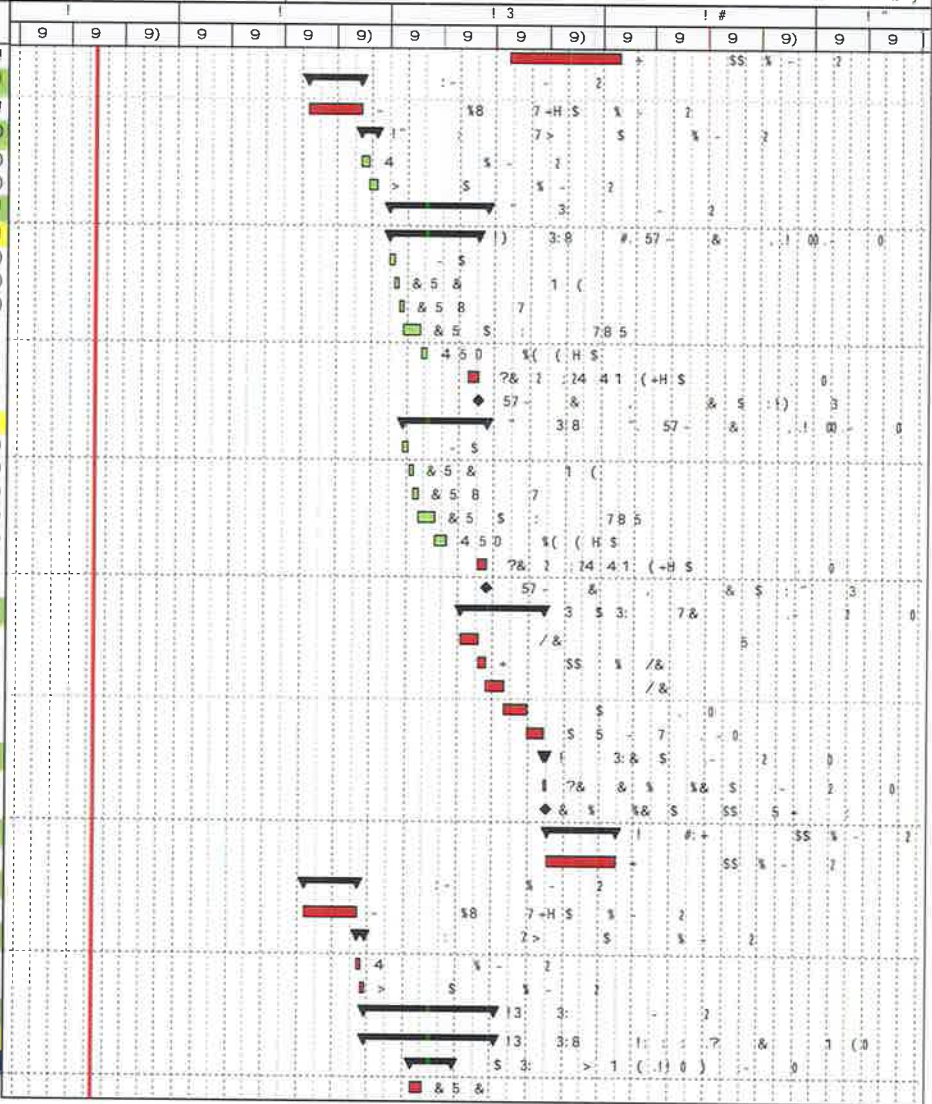


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Delivery and Bench Acceptance Test for Phase 2/Section II			
Installation - Phase 2 / Section II			
Location 8(Inbd Private Car Annex (025)) (Phase 2)			
Location 9(Outbd Private Car Annex (032)) (Phase 2)			
Test and Commissioning (Phase 2 / Section II)			
Completion (Phase 2 / Section II)			
Engineering Support for Phase 2 / Section II			
Procurement for Phase2 / Section III			
Delivery and Bench Acceptance Test for Phase2 / Section III			
Installation - Phase 2 / Section III			
Location 10,11,12,13 (Vehicle Clearance Kiosks)			
Shuttle Bus Kiosks (006) - 4 nos (Phase 2)			



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Report No.: 0165/15/ED/0591

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 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. 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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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 lines above and below it.

Report No.: 0165/15/ED/0591

Appendix E

Waste Flow Table



Monthly Summary of Waste Flow Table for 2016 (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	0.992	0	0	0.073
Feb	0.000	0	0	0	0.000	0	0	0	0	0.093
Mar	0.087	0	0	0	0.087	0	0.392	0	0	0.200
Apr	0.184	0	0	0	0.184	0	0.411	0	0	0.224
May	0.203	0	0	0	0.203	0	0	0	0	0.293
Jun	0.244	0	0	0	0.244	0	0.413	0	0	0.322
Jul	2.429	0	0	0	2.429	0	0.419 ⁽³⁾	0	0	0.312
Aug	0.057	0	0	0	0.057	0	0.340 ⁽⁴⁾	0	0	0.288
Sept	0.000	0	0	0	0.000	0	0	0	0	0.327
Oct										
Nov										
Dec										
Total	3.204	0.000	0.000	0.000	3.204	0.000	2.967	0.000	0.000	2.132

Notes:

- (1) Broken concrete for recycling into aggregates.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) 0.419 (in '000 Kg) of paper/cardboard packaging was updated compared to previous monthly report.
- (4) 0.340 (in '000 Kg) of paper/cardboard packaging was updated compared to previous monthly report.

Monthly Summary of Excavated Marine Sediment for 2016 (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	1.950	0	0	1.950
Feb	2.328	0	0	2.328
Mar	2.464	0	0	2.464
Apr	5.602	0	0	5.602
May	0	0	0	0
Jun	4.584	0	0	4.584
Jul	10.728	0	0	10.728
Aug	1.544	0	0	1.544
Sep	6.816	0	0	6.816
Oct				
Nov				
Dec				
Total	36.016	0.000	0.000	36.016

Project name 工程項目名稱 :HKBCF-AVCSS HY/2013/06

Location 工程地點:Artificial Island of HKIAP

Year:2016

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, 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./ 估計數量	Act./ (實際數量)	Est./ 估計數量	Act./ (實際數量)	Est./ 估計數量	Act./ (實際數量)	Est./ 估計數量	Act./ (實際數量)	Est./ 估計數量	Act./ (實際數量)	Est./ 估計數量	Act./ (實際數量)	Est./ 估計數量	Act./ (實際數量)	Est./ 估計數量	Act./ (實際數量)	Est./ 估計數量	Act./ (實際數量)		
January																				
February																				
March																				
April																				
May																				
June																				
July																				
August																				
September	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.002	0.002	N/A	N/A	0.002	0.002	
October																				
November																				
December																				
Total	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	0.002	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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Report No.: 0165/15/ED/0591

Appendix F

Environmental Licenses and Permits

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

(update: 03/10/2016)

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)	WT00022391-2015	Main Site Area	06-May-15	04-Sep-15	04-Sep-15	30-Sep-20	Valid	
9	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0607-16	Main Site Area	02-Jun-16	16-Jun-16	19-Jun-16	18-Sep-16	Superseded	
10	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	PP-RS0020-16	Portion A, G & H	13-Jul-16	27-Jul-16	28-Jul-16	24-Jan-17	Superseded	
11	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0933-16	Main Site Area	18-Aug-16	01-Sep-16	05-Sep-16	31-Dec-16	Valid	
12	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0960-16	Main Site Area	06-Sep-16	15-Sep-16	19-Sep-16	18-Dec-16	Valid	
13	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 from 03-Oct-16	

14	Permit issued Under the Dumping at Sea Ordinance	EP/MD/17-088	East of Sha Chau (CMP Vd)	16-Aug-16	26-Aug-16	01-Sep-16	30-Sep-16	Valid until 30-Sep-16	
15	Permit issued Under the Dumping at Sea Ordinance	EP/MD/17-105	East of Sha Chau (CMP Vd)	15-Sep-16	27-Sep-16	01-Oct-16	31-Oct-16	Valid from 01-Oct-16	

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

(update: 03/10/2016)

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	

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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 be 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
		<p>enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and</p> <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 or 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	V
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	V
S5.5.6.4	A5	5) Implement regular dust monitoring under EM&A programme during the construction stage.	Selected Representative dust monitoring station	V
S5.5.7.1	A6	<p>The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant;</p> <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	<p>The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point:</p> <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	V
Construction Noise (Air borne)				
S6.4.10	N1	<p>1) Use of good site practices to limit noise emissions by considering the following:</p> <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	V

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><u>Construction and Demolition Material</u></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

Reporting Period	Cumulative Statistics		
	Complaints	Notifications of Summons	Successful Prosecutions
This reporting period	1	0	0
From commencement date of construction to end of reporting month	2	0	0

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

Reporting Period	Cumulative Statistics		
	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/0591

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 September 2016

Sep-2016						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1 Environmental Site Inspection	2	3
4	5	6	7	8 Environmental Site Inspection	9	10
11	12	13	14	15 Environmental Site Inspection	16 Public Holiday	17
18	19	20	21	22 Environmental Site Inspection	23	24
25	26	27	28 Environmental Site Inspection	29	30	

Tentative Environmental Site Inspection Schedule for October 2016

Oct-2016						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Public Holiday
2	3	4	5	6 Environmental Site Inspection	7	8
9	10 Public Holiday	11	12	13 Environmental Site Inspection	14	15
16	17	18	19	20	21 Environmental Site Inspection	22
23	24	25	26	27 Environmental Site Inspection	28	29
30	31					

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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 September 2016

Sep-2016						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15 Environmental Site Inspection	16 Public Holiday	17
18	19	20	21	22 Environmental Site Inspection	23	24
25	26	27	28 Environmental Site Inspection	29	30	

Tentative Environmental Site Inspection Schedule for October 2016

Oct-2016						
Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1 Public Holiday
2	3	4	5	6 Environmental Site Inspection	7	8
9	10 Public Holiday	11	12	13 Environmental Site Inspection	14	15
16	17	18	19	20	21 Environmental Site Inspection	22
23	24	25	26	27 Environmental Site Inspection	28	29
30	31					