



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 : 15 August 2016

Our Ref. : CHEC300/OUT/2016/08/04.05/012937

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

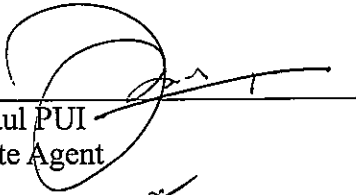
Dear Sir,

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 (July 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.1) for July 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/VM/mt

Encl.

MATERIALAB CONSULTANTS LIMITED

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Report No.: 0165/15/ED/0529

**MONTHLY ENVIRONMENTAL MONITORING & AUDIT
REPORT (Rev. 1)**

July 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/0529

Prepared by: Sandra Pang

Reviewed by: Bong Yu

Certified by:



Arthur Cheng
Environmental Team Leader

12 August 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
Monthly Environmental Monitoring & Audit Report for July 2016**

Reference is made to the Environmental Team's submission of Monthly Environmental Monitoring & Audit Report for July 2016 (Rev. 1) certified by the ET Leader (ET's ref.: "MCL/ED/0453/2016/C" dated 11 August 2016) and provided to us via e-mail on 12 August 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.

The Contractor and Environmental Team are reminded to pay close attention on implementation of Regular Marine Traffic Routes Plan and timely submission of required records to relevant parties in accordance with the plan.

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

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



Raymond Dai
Independent Environmental Checker

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

Internal: DY, YH, ENPO Site

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Date 11 August 2016
Our Ref. MCL/ED/0453/2016/C

Ramboll Environ Hong Kong Limited
(formerly ENVIRON Hong Kong Limited)
Room 2403, 24/F, Jubilee Centre,
18 Fenwick Street, 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 July 2016 (Rev.1) for your verification.

Should you require further information, please do not hesitate to contact our Miss Sandra Pang 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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Report No.: 0165/15/ED/0529

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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" (hereafter referred to as "the Contract") for the Highways Department of Hong Kong Special Administrative Region (HKSAR). The Contract was awarded to China Harbour Engineering Co. Limited (hereafter referred to as "the Contractor") and MaterialLab Consultants Limited (MCL) was appointed as the Environmental Team (ET) by the Contractor.

The Contract 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 the Contract took place on 10 April 2015 while the construction works and the EM&A programme of this Contract commenced on 29 August 2015.

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 11th Monthly EM&A Report for the Contract which summaries findings of the EM&A programme during the reporting period from 01 July 2016 to 31 July 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 during the reporting period are listed below:

Environmental Site Inspection: 08, 15, 22 and 29 July 2016.

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.

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

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

Complaint Log

There were no complaints received in relation to the environmental impact during the reporting period.

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:

- 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;
- vii. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert D 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.

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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” (“the Contract”) for the Highways Department of Hong Kong Special Administrative Region (HKSAR).

1.1.2 The Contract 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 eleventh EM&A report to document the findings of site inspection activities and EM&A programme carried out by the Contractor from 01 July 2016 to 31 July 2016 (reporting period) under Contract No. HY/2013/03 and is submitted to fulfil Condition 5.4 of the EP.

1.2 Project Description

1.2.1 The works to be executed under this Contract 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 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.

1.3 Project Organisation

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1.3.1 The Project Organisation for Environmental Works 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

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 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.

1.4 Construction Programme

1.4.1 The construction programme is provided in **Appendix C**.

1.5 Construction Works Undertaken during the Reporting Period

1.5.1 The construction works of this Contract commenced on 29 August 2015. During this reporting period, the following major site activities were commenced:

- Site Investigation at Portion G;
- Piling at Portion A1, STP, G (Bridge A1 – A5, A7b, A8 & A9);
- Building at Portion A1 & G;
- CUE Construction, Drainage & Sewerage Work, Radiation Screen Wall and Sign Gantry Footing at Portion B;
- Bridge construction, High Mast Lighting Foundation, Pumping Station & Box Culvert D at Portion G; and
- 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.

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

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

6.3 Quantity Disposed

6.3.1 Marine sediment extracted from bored piling from this Contract was disposed to allocated dumping site in July 2016. The summary of marine sediment disposed up to end July 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)			
	HY/2013/02	HY/2013/03	HY/2013/04	Total
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
Total	11.744	27.656	15.742	55.142

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Report No.: 0165/15/ED/0529

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 were conducted on 08, 15, 22 and 29 July 2016 by the representatives of Engineer, Contractor, ET and IEC (IEC for 22 July 2016).
- 7.1.3 Particular observations during the site inspection and corrective actions undertaken by the Contractor are described below:

30 June 2016

- 1. CHEC is reminded to remove stagnant water at CUE. Subsequently, Stagnant water was removed at CUE. The observation was closed on 08 July 2016.

08 July 2016

- 1. CHEC was reminded to maintain good housekeeping on site at CUE. Subsequently, housekeeping was maintained on site at CUE. The observation was closed on 15 July 2016.
- 2. CHEC was reminded to remove stagnant water at Building 026. Subsequently, stagnant water was removed at Building 026. The observation was closed on 15 July 2016.
- 3. CHEC was reminded to properly store chemical on site at Building 037. Subsequently, chemical container was removed at Building 037. The observation was closed on 15 July 2016.
- 4. CHEC was reminded to remove stagnant water under generator at Building 037. Subsequently, generator was removed at Building 037. The observation was closed on 15 July 2016.

15 July 2016

- 1. CHEC was reminded to remove stagnant water accumulated at CUE works area. Subsequently, stagnant water was removed at CUE works area. The observation was closed on 22 July 2016.

22 July 2016

- 1. CHEC was reminded to increase watering for dust suppression at haul roads. Subsequently, watering was increased for dust suppression at haul roads. The observation was closed on 29 July 2016.
- 2. CHEC was reminded to provide the noise emission label for powered mechanical at CUE works area. Subsequently, the powered mechanical without the noise emission label was removed at CUE works area. The observation was closed on 29 July 2016.
- 3. CHEC was reminded to cover the stockpile with tarpaulin sheets near Building 037. Subsequently, the stockpile near Building 037 was removed. The observation was closed on 29 July 2016.
- 4. CHEC was reminded to remove the stagnant water accumulated in Building 037. Subsequently, stagnant water was removed in Building 037. The observation was closed on 29 July 2016.

29 July 2016

- 1. CHEC was reminded to remove stagnant water accumulated at CUE works area. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

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2. CHEC was reminded to remove stagnant water accumulated in Building 042. Follow-up actions for outstanding observation will be checked in the upcoming site inspections and reported in the coming reporting period.

7.2 Advice on the Solid and Liquid Waste Management Status

- 7.2.1 The Contractor 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 is detailed in **Appendix E**.
- 7.2.3 10.728 (in'000m³) of excavated marine sediment (from Contract No. HY/2013/03), 2.429 (in'000m³) of Inert C & D Wastes and 0.312 (in'000m³) of Non-inert C & D Wastes were generated 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 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.

7.3 Environmental Licenses and Permits

- 7.3.1 The valid environmental licenses and permits during the reporting period are summarized in **Appendix F**.

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 July 2016 would be provided to ER, ETL, IEC/ENPO for checking within the month of August 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

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- 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 were no complaints received in relation to the environmental impact during the reporting period. The details of cumulative statistics of Environmental Complaints are provided in **Appendix H**.
- 7.6.2 There was no notification for summons or prosecutions received in relation to the environmental impact during this reporting period.
- 7.6.3 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 August 2016:

- 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;
- vii. Sewerage Pumping Station, High Mast Lighting Foundation & Box Culvert D 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.

8.2 Environmental Site Inspection Schedule for the Coming Month

8.2.1 The tentative schedule for weekly site inspections for August 2016 is provided in **Appendix I**.

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9. CONCLUSIONS

- 9.1 Commencement of the Contract took place on 10 April 2015. The commencement date for construction works and the EM&A programme of the Contract commenced on 29 August 2015.
- 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 08, 15, 22 and 29 July 2016. Recommendations on remedial actions were given to the Contractor for the deficiencies identified during the site inspections.
- 9.8 There were no complaints received in relation to the environmental impact during the reporting period.
- 9.9 There were no notifications of summons or prosecutions received during the reporting period.

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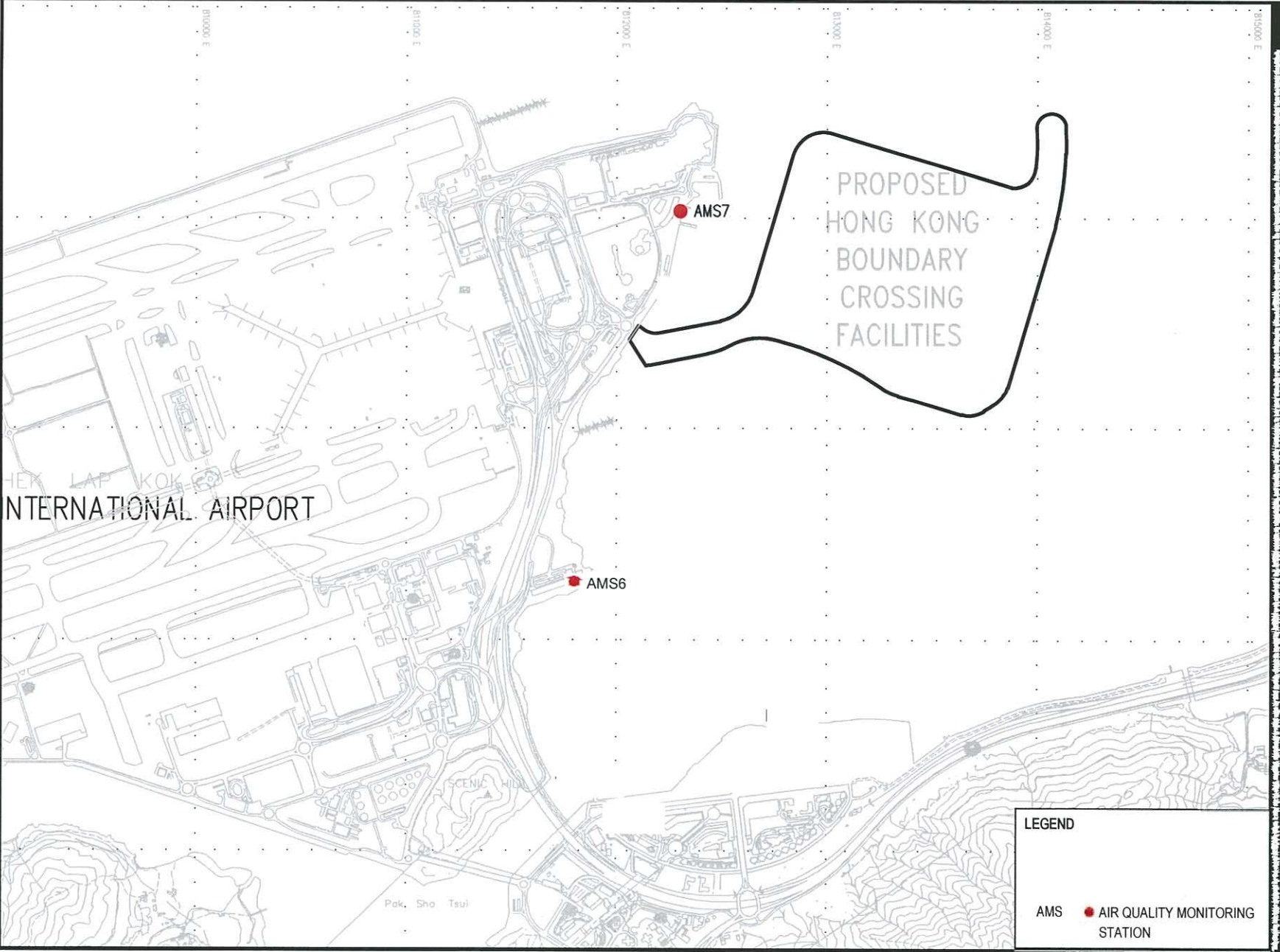
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Figure 1

Air Quality Monitoring Stations



LEGEND

AMS ● AIR QUALITY MONITORING STATION

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Figure 2

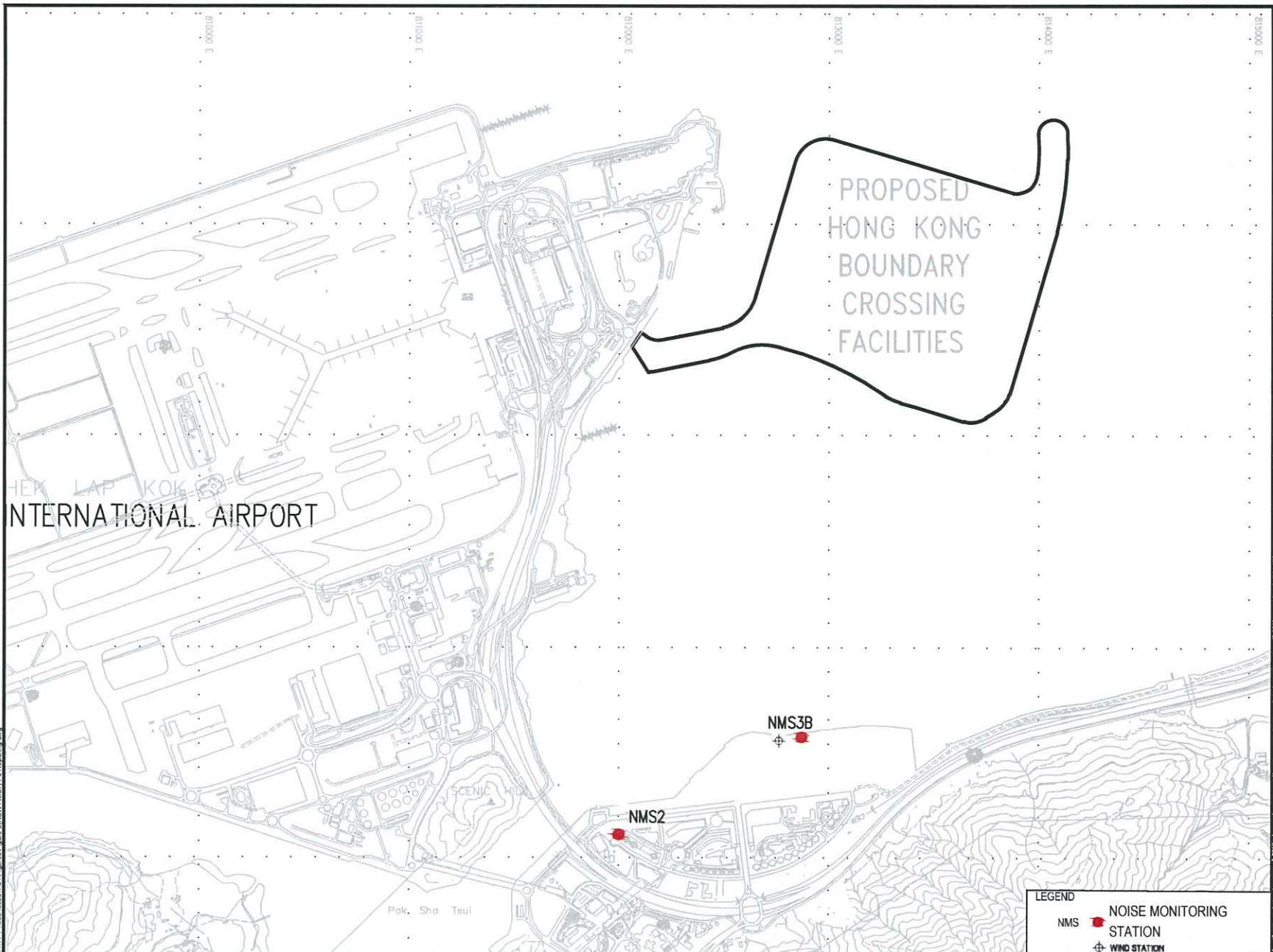
Noise Monitoring Stations

ISO A3 297mm x 420mm

Checked:

Project Management Initials:

Plot File by: Mackay
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11/02/2015



LEGEND

NMS NOISE MONITORING STATION

WIND STATION

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

AIR QUALITY AND NOISE
 MONITORING STATIONS
 FOR HKBCF



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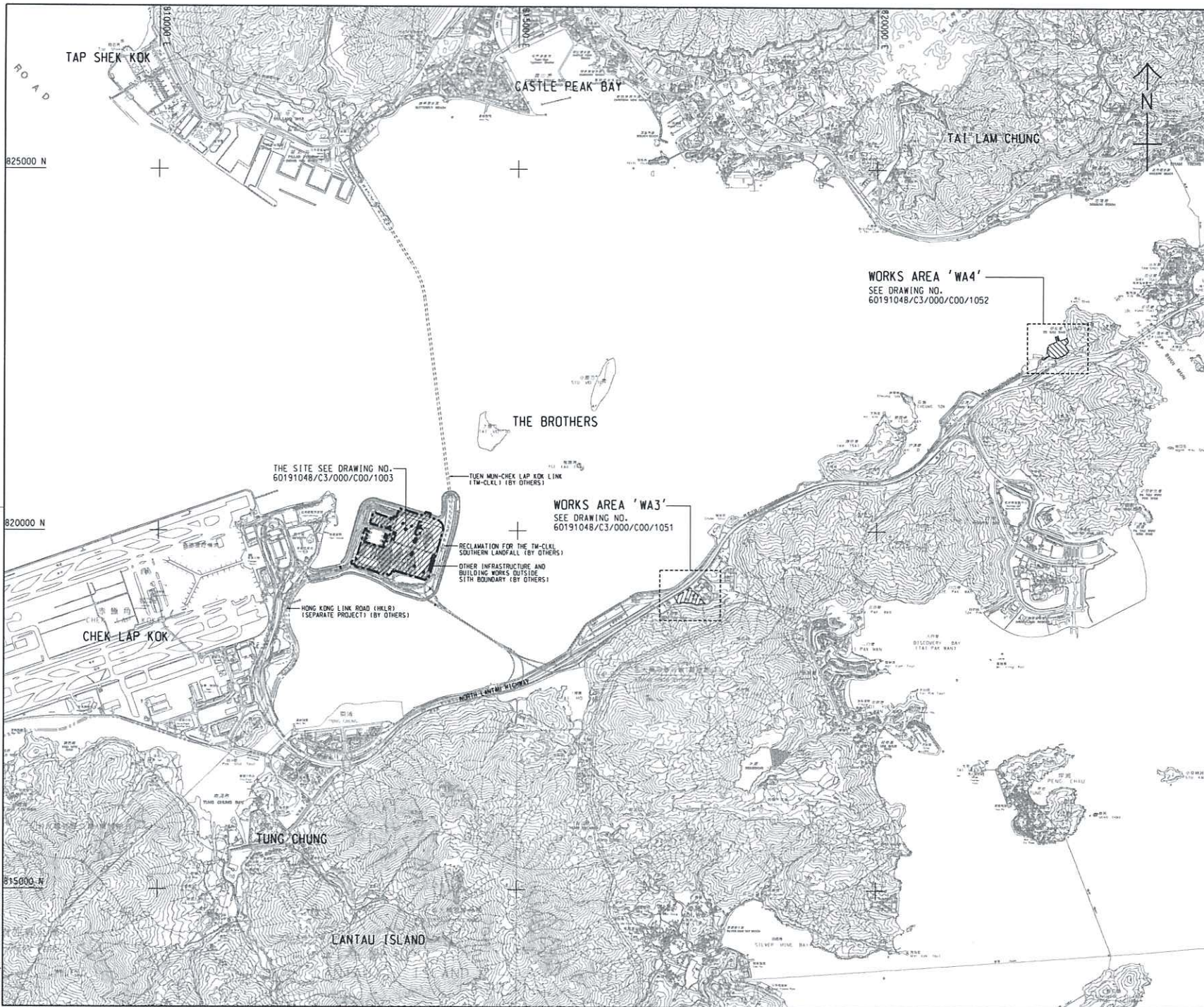
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Appendix A

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.



825000 N

820000 N

815000 N

Plot File by 2014/3/26 WANGSY

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		MAR. 14

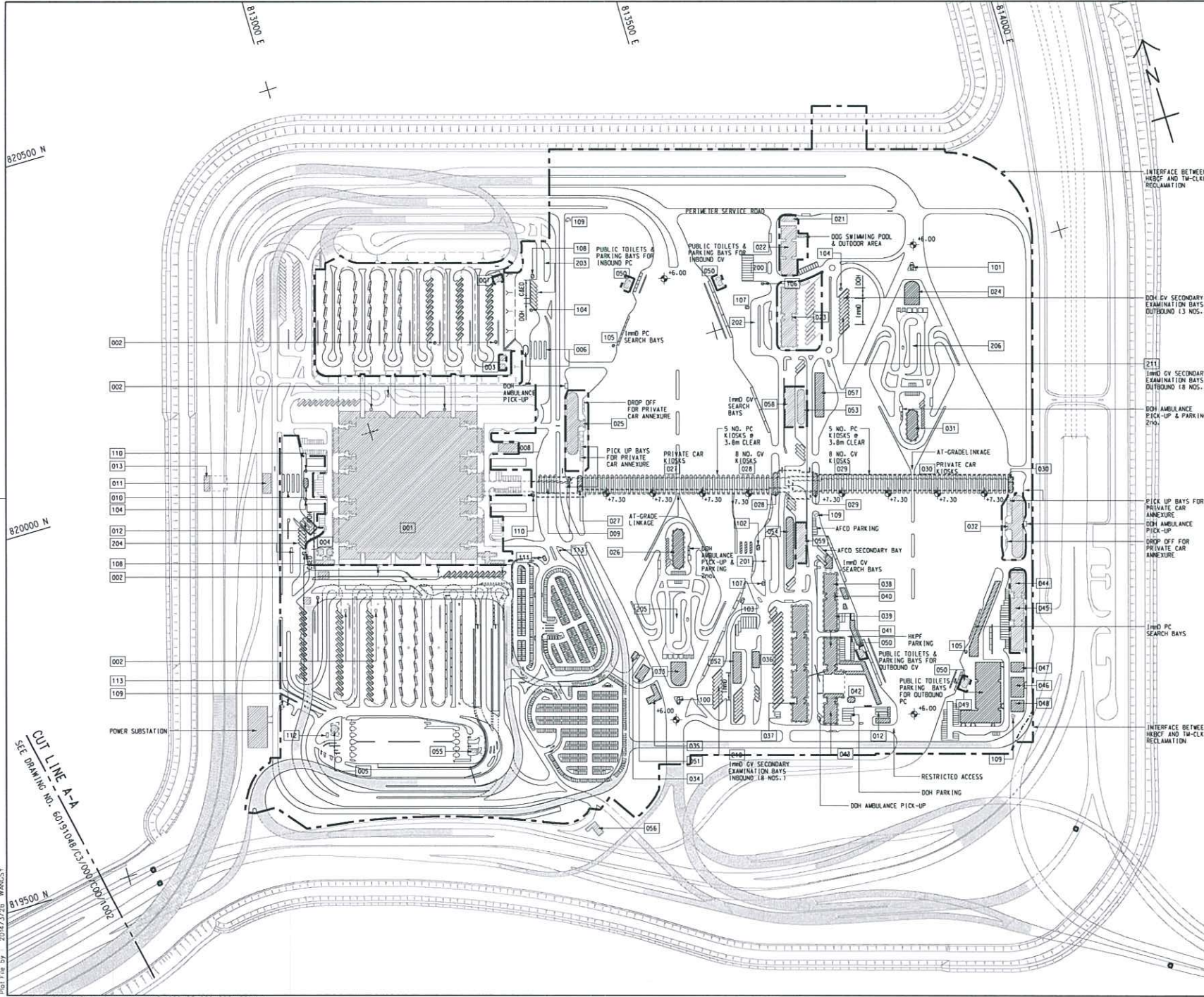
香港路政處
HONG KONG HIGHWAYS DEPARTMENT
 港珠澳大橋粵港邊境管理處
 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office

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

SITE LOCATION PLAN

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

DRGNO. 圖紙編號	60191048/C3/000/C00/1000
DESIGNED BY 繪圖	BWCW
CHECKED BY 校核	WST
SCALE 比例	A1 : 25000
DIMENSIONS ARE IN 尺寸	METRES
DATE 日期	HY/2013/03
APPROVED BY 核准	TKH
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NOTE:
 1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. 60191048/C3/000/C00/1003.

- LEGEND:**
- SITE BOUNDARY
 - VIADUCT
 - BUILDING/FACILITIES

INTERFACE BETWEEN HBBP AND TM-CLL RECLAMATION

211 IMMO CV SECONDARY EXAMINATION BAYS (OUTBOUND 18 NOS.)

210 IMMO CV SECONDARY EXAMINATION BAYS (OUTBOUND 18 NOS.)

DOH AMBULANCE PICK-UP & PARKING 2100

PICK UP BAYS FOR PRIVATE CAR ANNEXURE

DOH AMBULANCE PICK-UP

DROP OFF FOR PRIVATE CAR ANNEXURE

IMMO CV SEARCH BAYS

INTERFACE BETWEEN HBBP AND TM-CLL RECLAMATION

NO.	DESCRIPTION	DATE
1	ISSUED FOR TENDER	14 MAR 2014

香港路政處
 HIGHWAYS DEPARTMENT
 香港路政工程署
 Highway Engineering Department
 香港中環皇后大道中
 HONG KONG CENTRAL MANAGEMENT OFFICE

HONG KONG-ZHUNAI-MACAO BRIDGE
 HONG KONG BOUNDARY CROSSING FACILITIES
 - VEHICLE CLEARING PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
 Figure 1-1
 Current Layout Plan

SHEET 1 OF 2

AECOM Aedas
 Rogers Stirk Harbour + Partners
 BURO HAPPOLD ATKINS ADI

DRGNO: 60191048/C3/000/C00/1001
 圖紙編號

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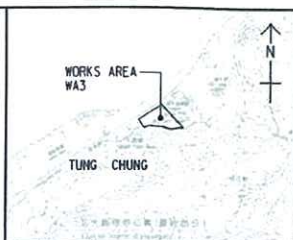
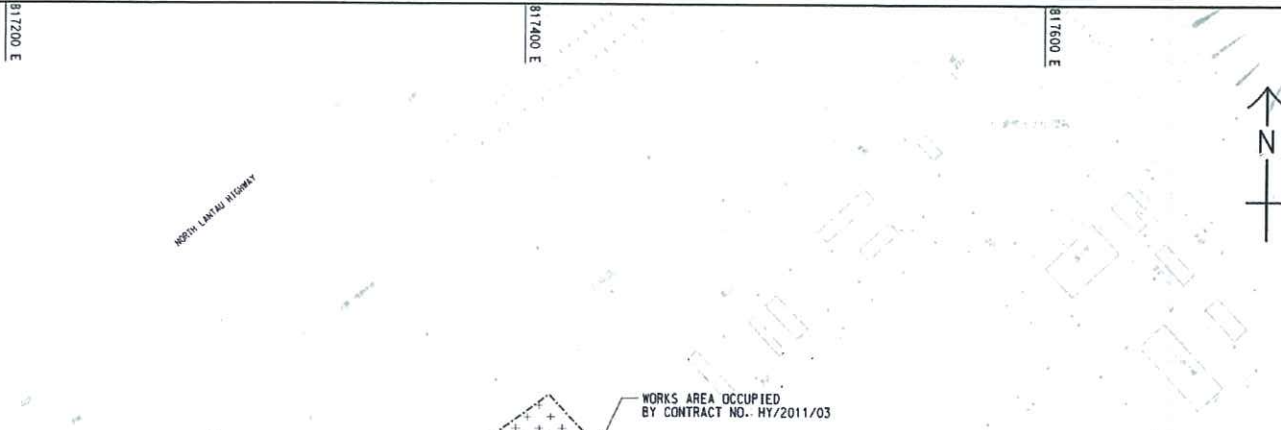
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CUT LINE A-A
 SEE DRAWING NO. 60191048/C3/000/C00/1002

SETTING OUT POINT

POINT	EASTING	NORTHING
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305	817340.825	819027.314
306	817387.350	819023.403
307	817387.861	819043.396
308	817466.133	819091.047
309	817469.783	819087.181
310	817513.449	819113.764
311	817347.717	819016.082
312	817450.595	819032.307
313	817445.369	819013.157
314	817531.154	819001.065
315	817533.345	818991.306
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318	817522.110	819075.388
319	817566.404	819028.472
320	817568.507	819008.526
321	817569.551	818998.621



LOCATION PLAN
SCALE 1 : 25000

NOTES:

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

LEGEND:

- WORKS AREA BOUNDARY**
- PORTION 3.1
 - PORTION 3.2
 - PORTION 3.3
 - PORTION 3.4
 - PORTION 3.5
 - PORTION 3.6
 - PORTION 3.7
 - PORTION 3.8
 - PORTION 3.9
 - PORTION 3.10
 - NON-BUILDING AREA 200m² (WHOLE)

FOR CONSTRUCTION

C	WORKING DRAWING	HW/2013/03	MAY.15
B	TENDER ADDENDUM NO. 2	HW/2013/03	MAY.14
A	TENDER ADDENDUM NO. 1	HW/2013/03	APR.14
-	TENDER DRAWING	HW/2013/03	MAR.14

ROADS AND HIGHWAYS DEPARTMENT
香港公路局
Hong Kong Road and Highways Department
HONG KONG - ZHONGJI - MACAO BRIDGE

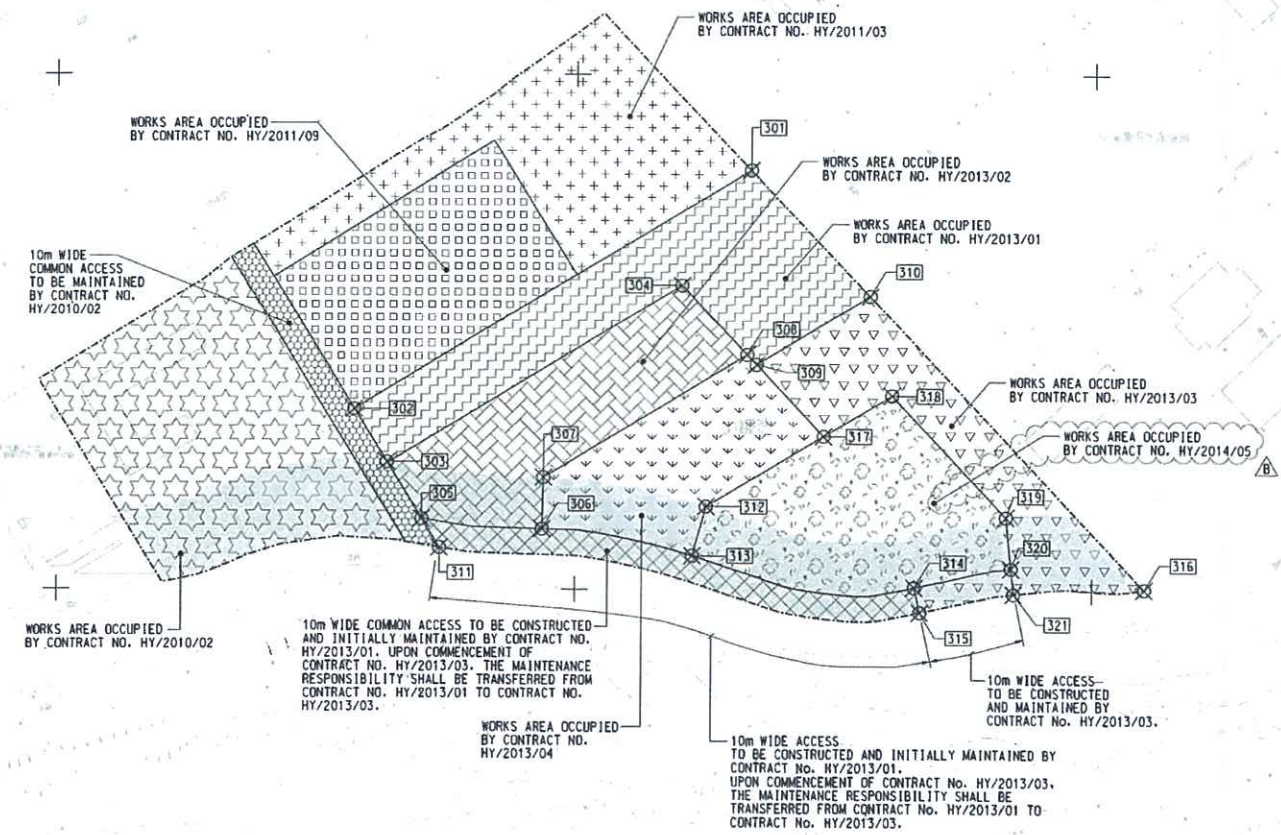
HONG KONG BOUNDARY CROSSING FACILITIES
- VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

WORKS AREA WA3

AECOM Aedas
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WORKING DRAWING		
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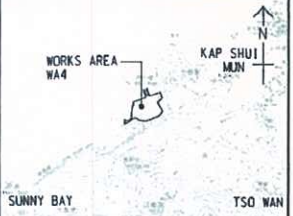
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414	822624.130	822470.998
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416	822644.758	822521.192

822600 N

822400 N

822400 E

822600 E



LOCATION PLAN
SCALE 1 : 25000

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LEGEND:

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	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

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BY:	DESIGNER	DATE	CHK	DATE

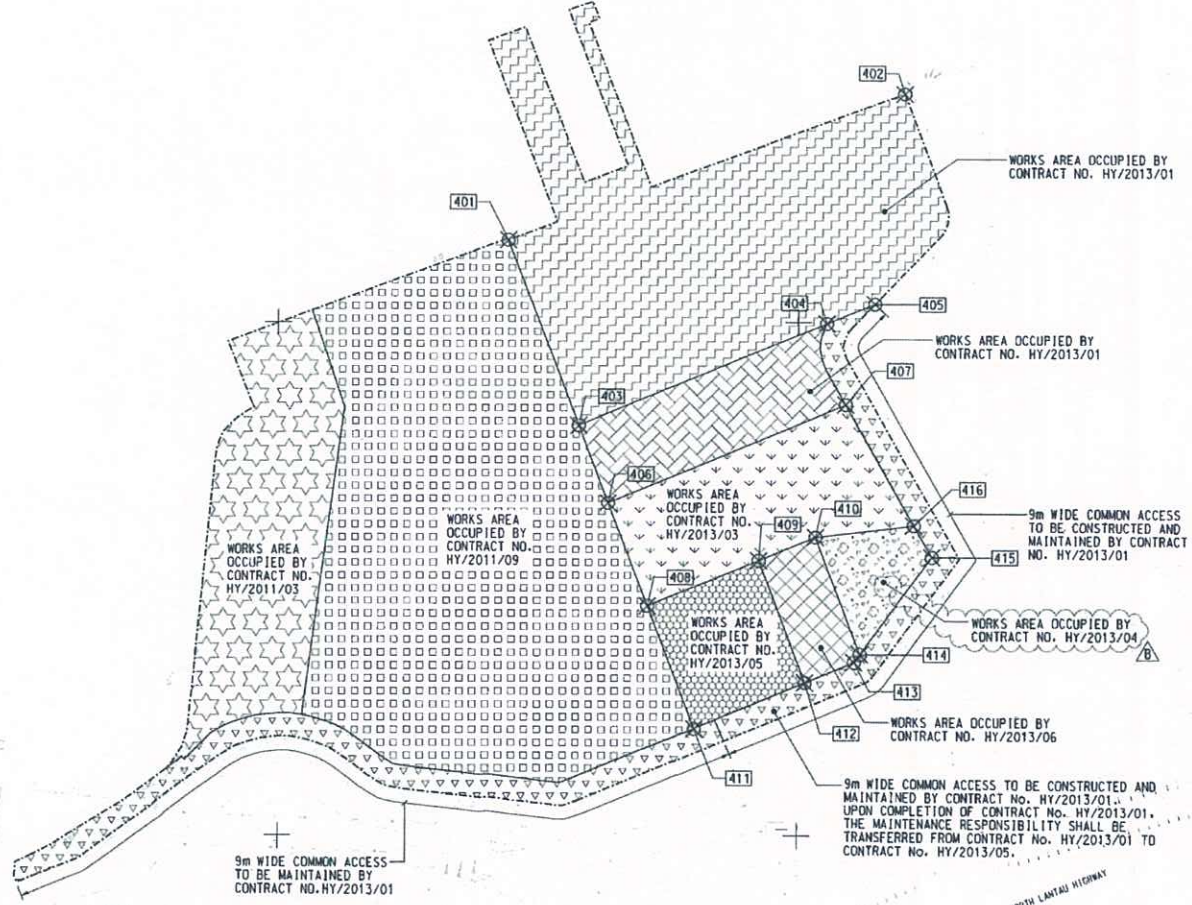
ROADWORKS DEPARTMENT
香港路政工程處
HONG KONG ROADWORKS DEPARTMENT
HONG KONG ROADWORKS DEPARTMENT
HONG KONG ROADWORKS DEPARTMENT

WORKS AREA WA4

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

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

DESIGNED BY	BMCW	DATE	HY/2013/03	SCALE	1:1000
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SCALE	1:1000	UNIT	METRES	WORKING DRAWING	
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Appendix B

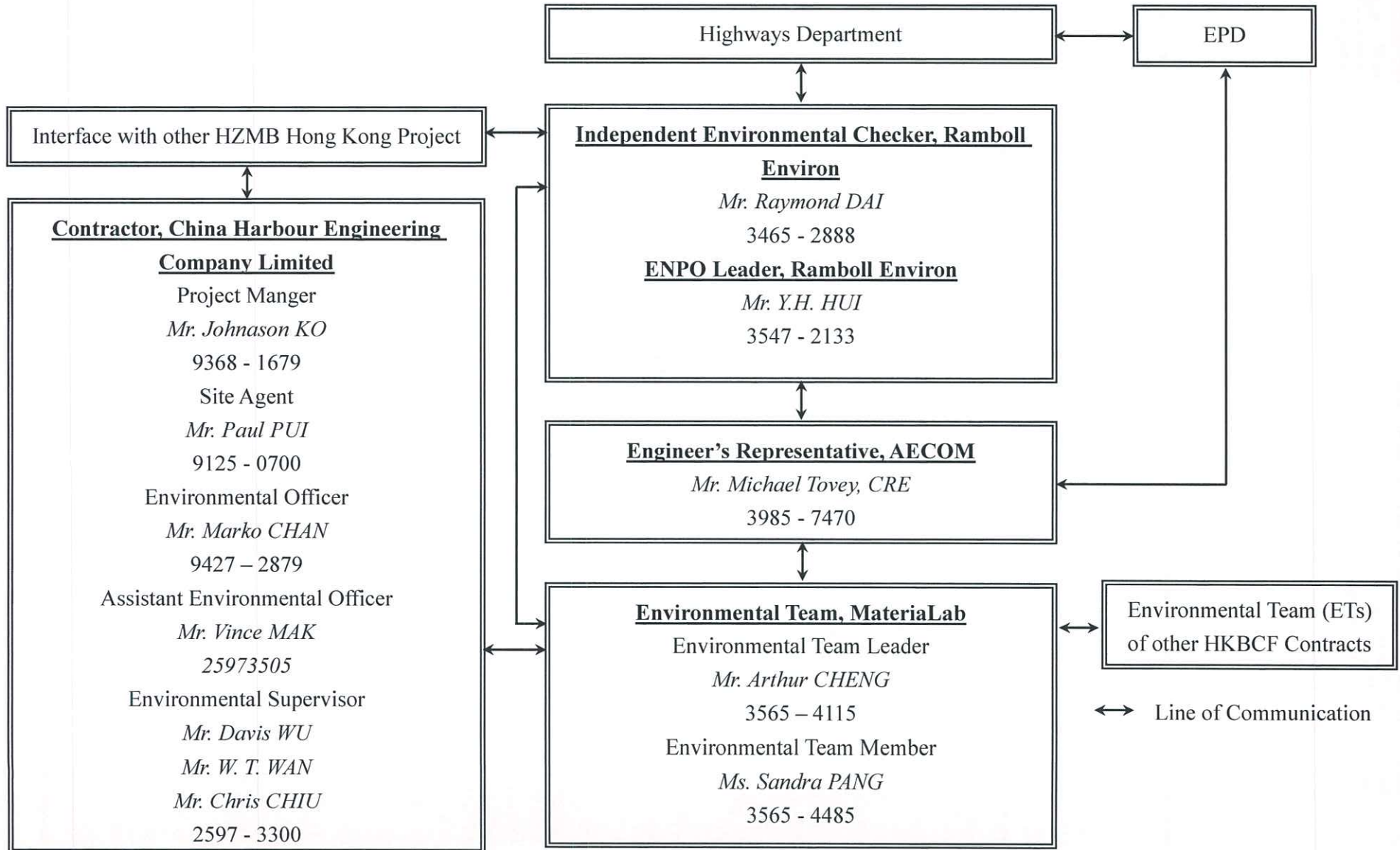
Project Organization for Environmental Works

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



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Appendix C

Construction Programme

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016									
								Jul	Aug	Sep	Oct	Nov					
HKBCF - VCP DRMs Programme, (IWP 04), UD 300616, EOT No. 1																	
CONTRACT DATES																	
Key Dates																	
A1150	KD15 Achievement of Stage 14 of the Works (548 days; 08 Oct. 16)	0	0	0%		08-Oct-16*	0										◆ KD15 Achievement of Sta
Site Access & Possession																	
Possession of Portion of Site																	
A0010	Possession of Portion A1 (<= 70 days)	0	0	0%		31-Jul-16*	-408										◆ Possession of Portion A1 (<= 70 days)
A0020	Possession of Portion A2 (<= 75 days)	0	0	0%		31-Jul-16*	-403										◆ Possession of Portion A2 (<= 75 days)
A0030	Possession of Portion B (<=100 days)	0	0	0%		31-Jul-16*	-378										◆ Possession of Portion B (<=100 days)
A0040	Possession of Portion C (<=100 days)	0	0	0%		26-Aug-16*	-405										◆ Possession of Portion C (<=100 days)
A0050	Possession of Portion D (<=220 days)	0	0	0%		31-Jul-16*	-258										◆ Possession of Portion D (<=220 days)
A0060	Possession of Portion E (<=160 days)	0	0	0%		31-Jul-16*	-318										◆ Possession of Portion E (<=160 days)
A0080	Possession of Portion G (<=225 days)	0	0	0%		31-Jul-16*	-265										◆ Possession of Portion G (<=225 days)
A0090	Possession of Portion H1 (<=273 days)	0	0	0%		31-Jul-16*	-205										◆ Possession of Portion H1 (<=273 days)
A0100	Possession of Portion H2 (<=273 days)	0	0	0%		31-Jul-16*	-205										◆ Possession of Portion H2 (<=273 days)
A0110	Possession of Portion J (<=320 days)	0	0	0%		31-Jul-16*	-158										◆ Possession of Portion J (<=320 days)
A0120	Possession of Portion K (<=478 days)	0	0	0%		31-Jul-16*	-79										◆ Possession of Portion K (<=478 days)
A0130	Possession of Portion L (<=478 days)	0	0	0%		31-Jul-16*	-12										◆ Possession of Portion L (<=478 days)
A0140	Possession of Portion M (<=478 days)	0	0	0%		31-Jul-16*	-134										◆ Possession of Portion M (<=478 days)
A0150	Possession of Portion N (<=345 days)	0	0	0%		01-Aug-16*	-135										◆ Possession of Portion N (<=345 days)
A0160	Possession of Portion P (<=502 days)	0	0	0%		23-Aug-16*	0										◆ Possession of Portion P (<=502 days)
Access to Locations of the Site																	
A0210	Contract Date for Access to Location 1.1 (490 days)	0	0	0%		11-Aug-16*	0										◆ Contract Date for Access to Location 1.1 (490 days)
A0220	Contract Date for Access to Location 1.2 (405 days)	0	0	0%		31-Jul-16*	-73										◆ Contract Date for Access to Location 1.2 (405 days)
A0230	Contract Date for Access to Location 1.3 (488 days)	0	0	0%		09-Aug-16*	0										◆ Contract Date for Access to Location 1.3 (488 days)
A0240	Contract Date for Access to Location 1.4 (488 days)	0	0	0%		09-Aug-16*	0										◆ Contract Date for Access to Location 1.4 (488 days)
A0310	Contract Date for Access to Location 1.8 PCB (Basement level up to ground floor slab) (395 days)	0	0	0%		31-Jul-16*	-83										◆ Contract Date for Access to Location 1.8 PCB (Basement level up to ground floor sl
A0320	Contract Date for Access to Location 1.8 PCB (Ground Floor level or above) (515 days)	0	0	0%		05-Sep-16*	0										◆ Contract Date for Access to Location 1.8 PCB (Groun
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										◆ Contract
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										◆ Contract Date fo
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										◆ Contract Date fo
PRELIMINARY																	
Precast Yard for Bridge Segment																	
A0630	Segment Manufacture	300	285	5%	17-Jun-16 A	18-Jul-17	-86										
PORTION A1																	
Portion A1 Structures																	
Bridge A9																	
Bored Pile																	
S91015	Bored piles for P904, A905, 4nos	58	58	0%	01-Aug-16	08-Oct-16	-51										
S91020	Bored piles, 6 nos. (2 cast)	29	19	35%	17-May-16 A	01-Nov-16	-51										
S91030	Pile testing for P904, A905	7	7	0%	25-Oct-16	01-Nov-16	-32										
Retaining Wall W8-1																	

<ul style="list-style-type: none"> Actual Work Remaining Work Critical ◆ Milestone 	THREE MONTH ROLLING PROGRAMME VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES Page 1 of 15	<table border="1"> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> <tr> <td>31-May-16</td> <td>3MRP updated as of 31 May 2016</td> <td>ZJ</td> <td></td> </tr> <tr> <td>30-Jun-16</td> <td>3MRP updated as of 30 June 2016</td> <td>ZJ</td> <td></td> </tr> <tr> <td>30-Jul-16</td> <td>3MRP updated as of 31 Jul. 2016</td> <td>ZJ</td> <td></td> </tr> </table>	Date	Revision	Checked	Approved	31-May-16	3MRP updated as of 31 May 2016	ZJ		30-Jun-16	3MRP updated as of 30 June 2016	ZJ		30-Jul-16	3MRP updated as of 31 Jul. 2016	ZJ	
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Jul-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					
								Jul	Aug	Sep	Oct	Nov	
S82110	Construction of Retaining Wall W8-1 (U-shape, 4 bays)	80	80	0%	21-Oct-16	25-Jan-17	7						
Box Culvert D													
Bored Pile													
SD0040	Bored Piling for Box Culvert D 45 nr. (41 no. cast)	128	0	100%	05-Oct-15 A	13-Jul-16 A							
SD0090	Box Culvert D Pile Testing (Stage 2)	7	0	100%	14-Jul-16 A	21-Jul-16 A							
SD0130	Box Culvert D Pile Testing (Stage 3)	7	0	100%	14-Jul-16 A	21-Jul-16 A							
SD0140	Box Culvert D Pile Testing (Stage 4)	7	7	0%	19-Sep-16	26-Sep-16	-6						
Box Culvert D Construction													
SD0060	Box Culvert D Construction (Bay 32 - 36)	50	45	10%	17-May-16 A	22-Sep-16	72						
SD0070	Box Culvert D Construction (Bay 37 - 42)	50	50	1%	02-Jul-16 A	28-Sep-16	68						
SD0110	Box Culvert D Construction (Stage 3)	50	50	0%	27-Jul-16 A	28-Sep-16	-8						
SD0150	Box Culvert D Construction (Stage 4)	75	75	0%	29-Sep-16	29-Dec-16	-8						
047 - Fresh Water Pumping Station, Portion A1 & A2													
A04710	Piling 4nr. (4 cast)	34	0	100%	25-Apr-16 A	02-Jul-16 A							
A04720	Excavation + Blinding	12	12	0%	01-Aug-16	13-Aug-16	-106						
A04730	Pile Testing	7	7	0%	15-Aug-16	22-Aug-16	-106						
A04740	Water Tank Construction	58	58	0%	23-Aug-16	01-Nov-16	-106						
049 - Sewage Treatment Plant, Portion A1 & A2													
A04940	Bored Piling (39 Nr.) (38 Nr. cast)	148	0	100%	29-Dec-15 A	13-Jul-16 A							
A04945	Removal of Surcharge	22	18	18.18%	14-Jul-16 A	20-Aug-16	-188						
A04950	Sheet Piling as ELS1 for Equalization Tanks	13	13	0%	22-Aug-16	05-Sep-16	-182						
A04960	Sheet Piling as ELS2 for Sludge Holding Tanks	13	13	0%	22-Aug-16	05-Sep-16	-188						
A04970	Sheet Piling as ELS3 for Basement	25	25	0%	06-Sep-16	06-Oct-16	-182						
A04980	Pile Testing in ELS1	7	7	0%	06-Sep-16	13-Sep-16	-178						
B04910	Pile Testing for others	7	7	0%	06-Sep-16	13-Sep-16	-188						
B04960	ELS1 + Blinding for Equalization Tanks	14	14	0%	14-Sep-16	30-Sep-16	-178						
B04970	Constructing Base Slab for Equalization Tanks	15	15	0%	03-Oct-16	20-Oct-16	-178						
B04980	Backfilling + Removing 3rd Strut of ELS1	6	6	0%	21-Oct-16	27-Oct-16	-178						
B04990	Constructing Wall Stem for Equalization Tanks	20	20	0%	28-Oct-16	19-Nov-16	-178						
C04930	ELS2 + Blinding for Equalization Tanks	10	10	0%	03-Oct-16	14-Oct-16	-188						
C04940	Constructing Base Slab of Equalization Tanks	20	20	0%	15-Oct-16	07-Nov-16	-122						
D04910	ELS3 w/struts + Blinding for Basement	30	30	0%	15-Oct-16	18-Nov-16	-188						
Portion A1 Buildings													
012 - DOH Disinsection Area and Store Room 1, at Portion A1													
A01210	Excavation & Blinding (+ PL Test)	10	0	100%	30-May-16 A	16-Jul-16 A							
A01220	Raft Foundation	20	0	100%	18-Jul-16 A	23-Jul-16 A							
A01240	Superstructure	35	34	2%	25-Jul-16 A	09-Sep-16	14						
A01250	Finishing	80	80	0%	09-Sep-16	15-Dec-16	87						
A01260	BS for Office Accomodation (Stage 8)	73	73	0%	09-Sep-16	07-Dec-16	14						

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THREE MONTH ROLLING PROGRAMME
VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Jul-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016					
								Jul	Aug	Sep	Oct	Nov	
A01280	Other BS + E&M Installation	150	150	0%	29-Sep-16	01-Apr-17	71						
036 - Weigh Station													
A03640	Finishing	120	27	77.5%	13-Jan-16 A	31-Aug-16	111						
A03670	BS for Office Accomodation (Stage 8)	90	18	80%	13-Jan-16 A	20-Aug-16	93						
A03680	BS + E&M for Office Accomodation (Stage 9)	90	90	0%	22-Aug-16	07-Dec-16	93						
A03690	Other BS + E&M Installation	180	102	43.33%	02-Nov-15 A	30-Nov-16	169						
037 C&ED Tower Cum Inbound Cargo Examination Building (Portion A1 & B)													
A03740	Steel Frame Structure	90	90	0%	01-Aug-16	16-Nov-16	181						
A03750	Finishing	200	165	17.5%	30-May-16 A	18-Feb-17	106						
A03760	BS for Office Accomodation (Stage 8)	63	63	0%	01-Aug-16	15-Oct-16	-118						
A03770	BS + E&M for Office Accomodation (Stage 9)	90	90	0%	17-Oct-16	04-Feb-17	48						
A03780	BS + E&M for AVCSS Works (KD18A)	52	52	0%	17-Oct-16	15-Dec-16	-118						
A03790	Other BS + E&M Installation	235	173	26.38%	15-Dec-15 A	28-Feb-17	98						
041 Fire Station Cum Ambulance Deport													
A04100	Excavation + Blinding (+ PL Test)	14	0	100%	24-May-16 A	16-Jul-16 A							
A04110	Substructure	84	27	67.86%	13-Jun-16 A	31-Aug-16	-152						
A04120	Super Structure	160	160	0%	01-Sep-16	16-Mar-17	-152						
042 Drill Tower													
A04250	Super Structure	69	26	62.32%	05-May-16 A	30-Aug-16	-32						
A04260	Finishing	80	80	0%	31-Aug-16	05-Dec-16	-32						
A04270	BS for Office Accomodation (Stage 8)	65	65	0%	31-Aug-16	17-Nov-16	26						
A04290	Other BS + E&M Installation	160	160	0%	21-Sep-16	05-Apr-17	68						
043 DOH Office													
A04340	Super Structure	60	18	70%	27-May-16 A	20-Aug-16	40						
A04350	Finishing	120	120	0%	22-Aug-16	14-Jan-17	63						
A04370	BS for Office Accomodation (Stage 8)	69	69	0%	22-Aug-16	12-Nov-16	40						
B04310	Other BS + E&M Installation	170	170	0%	09-Sep-16	06-Apr-17	67						
043 DOH Office (Store Room)													
B04370	Super Structure with Water Tank	51	18	64.71%	27-May-16 A	20-Aug-16	113						
B04380	Finishing	50	50	0%	22-Aug-16	21-Oct-16	113						
B04390	Other BS + E&M Installation	90	90	0%	22-Oct-16	10-Feb-17	113						
052 - Transforms (Zone 4)													
A05235	Energisation by CLP	50	10	80%	24-Feb-16 A	11-Aug-16	207						
A05240	BS Installation (KD9)	66	17	75%	02-Nov-15 A	19-Aug-16	111						
A05250	Finishing (KD10)	87	9	90%	14-Dec-15 A	10-Aug-16	111						
A05260	Completion of remaining works	66	66	0%	19-Aug-16	08-Nov-16	189						
External Works for Portion A1													
Drainage Works													

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

30-Jul-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016				
								Jul	Aug	Sep	Oct	Nov
SG0020	Drainage Works (2025m & 94MHs)	250	225	10%	16-Sep-15 A	06-May-17	-95					
SG0030	Sewerage (869m & 25MHs)	250	225	10%	04-Jan-16 A	06-May-17	-95					
Waterpipe Laying												
SW5010	Fresh Water Main Laying (1660m)	250	250	0%	21-Sep-16	27-Jul-17	-95					
SW6010	Flushing Water Main Laying (967m)	250	250	0%	21-Sep-16	27-Jul-17	-95					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting												
SU5260	Duct Laying for Utilities/Telecom Cabling	250	250	0%	21-Sep-16	27-Jul-17	-95					
PORTION A2												
Portion A2 Structures												
048 - Reclaimed Water Pumping Station, Portion A2												
A04830	Sheet Piling as ELS for Basement 1	12	12	0%	01-Aug-16	13-Aug-16	-117					
A04840	Pile testing	7	7	0%	15-Aug-16	22-Aug-16	-117					
A04850	Excavation + Blinding for Basement 1	10	10	0%	23-Aug-16	02-Sep-16	-117					
A04860	Basement 1 Construction	40	40	0%	03-Sep-16	22-Oct-16	-117					
A04865	Water-tightness Test for Basement 1	12	12	0%	24-Oct-16	05-Nov-16	-117					
Retaining Wall W9-2												
S90850	Construction of Retaining Wall W9-2 (U-shape, 6 bay)	120	120	0%	12-Aug-16	05-Jan-17	26					
External Works for Portion A2												
Drainage Works												
B00020	Initial Survey	6	6	0%	01-Aug-16	06-Aug-16	-294					
PORTION B												
Portion B Structures												
Retaining Wall W6-1												
S62050	Construction of Retaining Wall W6-1 (L-shape, 4 bays)	80	80	0%	29-Sep-16	05-Jan-17	36					
027 - Staff Subway												
C02750	Bay 14-19 Construction - Wall + Top Slab	30	0	100%	17-Feb-16 A	14-Jul-16 A						
C02760	Internal Finishes & Cable Containment (KD1)	30	30	0%	01-Aug-16	03-Sep-16	-132					
C02770	BS + E&M Installation for ACVSS (Stage 1)	30	30	0%	11-Aug-16	14-Sep-16	-132					
028 - Staff Subway												
C02820	Bay 20-24 Construction - Base Slab	28	63	0%	25-Feb-16 A	15-Oct-16	-248					
C02830	Bay 20-24 Construction - Wall + Top Slab	150	127	15.33%	03-May-16 A	31-Dec-16	-248					
029 - Staff Subway												
C02920	Bay 25-29 Construction - Base Slab (27 & 28 cast)	22	11	50%	03-May-16 A	12-Aug-16	-121					
C02930	Bay 25-29 Construction - Wall + Top Slab (27 & 28 cast)	28	14	50%	04-Jul-16 A	16-Aug-16	-121					
C02940	Bay 30-33 Construction - Base Slab (Bay 30 cast)	21	16	25%	30-Apr-16 A	18-Aug-16	-137					
C02950	Bay 30-33 Construction - Wall + Top Slab	27	27	0%	01-Aug-16	31-Aug-16	-137					
C02960	Internal Finishes & Cable Containment (KD1)	21	21	0%	19-Aug-16	12-Sep-16	-137					
C02970	BS + E&M Installation for ACVSS (Stage 1)	20	20	0%	29-Aug-16	21-Sep-16	-137					
Portion B Buildings												
027/028 Inbound Kiosks & 029 Outbound Kiosks												

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**THREE MONTH ROLLING PROGRAMME
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities 30-Jul-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016				
								Jul	Aug	Sep	Oct	Nov
A02700	Submission & Approval for Steel Works	50	26	48%	01-Apr-16 A	30-Aug-16	-222					
A02710	Pre-fabrication for the Steel Kiosks	100	100	0%	31-Aug-16	30-Dec-16	-222					
027/028 Inbound Kiosks & 029 Outbound Kiosks, Section IX, Subject to Excision												
B02730	Submission & Approval for Steel Works	75	26	65.33%	01-Apr-16 A	30-Aug-16	-95					
B02740	Pre-fabrication for the Steel Kiosks	100	100	0%	31-Aug-16	30-Dec-16	-95					
026 Inbound IMMMD and DOH Secondary Screening Building												
A02630	Super Structure	70	52	25.71%	16-Feb-16 A	30-Sep-16	-60					
A02640	Finishing	75	75	0%	03-Oct-16	31-Dec-16	144					
A02670	BS for Office Accommodation (Stage 8)	90	90	0%	03-Oct-16	19-Jan-17	-31					
A02690	Other BS + E&M Installation	180	171	5%	01-Feb-16 A	23-May-17	32					
054 Inbound Fixed X-ray Building												
A05440	Super Structure for Tx Room	60	0	100%	02-Mar-16 A	28-Jul-16 A						
A05450	Other Superstructure	65	65	0%	01-Aug-16	18-Oct-16	-168					
A05460	Finishing	150	150	0%	01-Aug-16	01-Feb-17	121					
A05465	BS + E&M for Tx Room to CLP (Stage 5)	97	97	0%	01-Aug-16	24-Nov-16	-172					
A05470	BS for Office Accommodation (Stage 8)	90	90	0%	19-Oct-16	07-Feb-17	-44					
A05490	Other BS + E&M Installation	180	171	5%	08-Feb-16 A	08-Jun-17	19					
038 AFCD Office												
A03810	Excavation + Blinding (+ PL Test)	7	7	0%	18-Jul-16 A	19-Aug-16	-166					
A03820	Substructure	24	24	0%	29-Aug-16	26-Sep-16	-173					
A03830	Super Structure	90	90	0%	27-Sep-16	14-Jan-17	-117					
039 Police Main Building												
A03910	Excavation + Blinding (+ PL Test)	12	12	0%	18-Jul-16 A	13-Aug-16	-254					
A03920	Substructure	70	70	0%	15-Aug-16	07-Nov-16	-254					
040 Incident Control Tower												
A04010	Excavation + Blinding (+ PL Test)	10	10	0%	18-Jul-16 A	11-Aug-16	-173					
A04020	Substructure	14	14	0%	12-Aug-16	27-Aug-16	-173					
A04040	Super Structure	97	97	0%	27-Sep-16	23-Jan-17	-173					
Facade Cladding System												
B04010	Shop Drawing Submission and Approval	30	30	0%	01-Aug-16	03-Sep-16	-19					
B04020	Fabrication of F/C System	60	60	0%	05-Sep-16	16-Nov-16	-19					
Glass Wall												
C04010	Shop Drawing Submission and Approval	30	30	0%	06-Oct-16	10-Nov-16	-56					
102 HKPF UVSS Monitor Room												
A10220	Super Structure	45	18	60%	20-May-16 A	20-Aug-16	23					
A10230	Finishing (False Ceiling) (KD9)	70	70	0%	22-Aug-16	14-Nov-16	39					
A10240	BS for Office Accommodation (Stage 8)	80	80	0%	22-Aug-16	25-Nov-16	23					
A10270	Other BS + E&M Installation	150	150	0%	09-Sep-16	13-Mar-17	87					
103 Police Inspection Post												
A10310	Excavation + Blinding	5	5	0%	09-Aug-16	13-Aug-16	-31					

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THREE MONTH ROLLING PROGRAMME
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								Jul	Aug	Sep	Oct	Nov
B10310	Shop Drawing Submission and Approval	30	30	0%	23-Sep-16	29-Oct-16	-69					
057 Transformers (Zone 2)												
A05710	Excavation + Blinding	10	0	100%	27-Jun-16 A	23-Jul-16 A						
A05720	Raft Foundation	52	52	0%	25-Jul-16 A	30-Sep-16	-296					
A05730	Superstructure	65	65	0%	03-Oct-16	17-Dec-16	-296					
107 - C&ED Mobile X-ray Operation Office (Cargo), Portion B												
C10710	Excavation + Blinding	7	7	0%	01-Aug-16	08-Aug-16	-120					
C10720	Raft Foundation	32	32	0%	09-Aug-16	14-Sep-16	-120					
C10730	Superstructure (Roof Slabs)	62	62	0%	15-Sep-16	29-Nov-16	-120					
113 - Field Kiosk for Access Control, Portion B												
B11310	Excavation + Blinding	7	0	100%	29-Jun-16 A	09-Jul-16 A						
B11320	Raft Foundation	32	32	0%	01-Aug-16	06-Sep-16	-116					
B11330	Superstructure (Roof Beams & Slabs)	60	60	0%	07-Sep-16	18-Nov-16	-116					
External Works for Portion B												
Radiation Screen Wall, Portion B												
BB1580	Construction of Radiation Screen Wall	75	52	30.67%	07-Mar-16 A	30-Sep-16	12					
Drainage Works												
SG1540	Drainage Works (4397m & 174MHs)	300	225	25%	17-Dec-15 A	06-May-17	-161					
SG3580	Sewerage (1330m & 34MHs)	300	225	25%	02-Jan-16 A	06-May-17	-161					
Waterpipe Laying												
SW1550	Fresh Water Main Laying (1972m)	300	300	0%	01-Aug-16	04-Aug-17	-161					
SW1560	Flushing Water Main Laying (1851m)	300	300	0%	01-Aug-16	04-Aug-17	-161					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting												
SU5300	Duct Laying for Utilities/Telecom Cabling	300	300	0%	01-Aug-16	04-Aug-17	-161					
SU5310	Duct Laying for TCSS & Lighting	100	100	0%	25-Oct-16	24-Feb-17	-108					
Roadworks												
SR1640	Subbase (43152 ton)	342	342	0%	08-Aug-16	29-Sep-17	-161					
SR3590	Bitumen Pavement (61126 ton)	342	342	0%	05-Sep-16	31-Oct-17	-161					
SR3600	Rigid Pavement (594 m3), Footpath & EVA	342	342	0%	05-Sep-16	31-Oct-17	-161					
Sign Gantry ADS 306A & ADS 306B												
SS5230	Submission and approval for Sign Gantry	100	80	20%	03-May-16 A	04-Nov-16	-159					
PORTION C												
Portion C Buildings												
010 - Inbound Coach Kiosk & Staff Subway Entrance												
A01010	Substructure and Staircase Construction	60	60	0%	01-Aug-16	12-Oct-16	-262					
A01020	Kiosk Superstructure	100	100	0%	13-Oct-16	13-Feb-17	-262					
009 - Shuttle Bus Kiosk & Staff Subway Entrance												
A00910	ELS + Blinding (Bay 0-3) (4 bay)	42	0	100%	06-May-16 A	09-Jul-16 A						
A00920	Constructing Base Slab of Bay 0-3 (Bay 3 cast)	28	0	100%	14-May-16 A	30-Jul-16 A						
A00930	Constructing Wall + Top Slab of Bay 0-3 (Bay 2 & 3 cast)	37	30	18.92%	20-Jun-16 A	03-Sep-16	-203					

■ Actual Work
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■ Critical
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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				
								Jul	Aug	Sep	Oct	Nov
A00940	Finishing	30	30	0%	24-Aug-16	28-Sep-16	-203					
A00950	BS + E&M for AVCSS works (Stage 1)	30	30	0%	02-Sep-16	08-Oct-16	-203					
B00910	Substructure and Staircase Construction (Portion B&C)	43	43	0%	11-Oct-16	29-Nov-16	-203					
012 - DOH Disinsection Area and Store Room 1, at Portion C												
B01210	Excavation & Blinding	10	10	0%	01-Aug-16	11-Aug-16	-14					
B01220	Raft Foundation	20	20	0%	12-Aug-16	03-Sep-16	-8					
B01230	Superstructure	35	35	0%	05-Sep-16	18-Oct-16	-8					
B01240	Finishing	80	80	0%	19-Oct-16	23-Jan-17	56					
B01270	BS for Office Accomodation (Stage 8)	70	70	0%	19-Oct-16	11-Jan-17	-8					
104 - DOH Secondary Screening Station, at Portion C												
A10420	Excavation & Blinding	5	5	0%	27-Aug-16	01-Sep-16	-27					
Facade Cladding System												
A10460	Shop Drawing Submission and Approval	30	30	0%	27-Aug-16	03-Oct-16	2					
A10465	Fabrication of F/C System	60	60	0%	04-Oct-16	13-Dec-16	2					
108 C&ED Mobile X-ray Machine Operation Office, Portion C												
A10805	Excavation & Blinding	5	5	0%	02-Sep-16	07-Sep-16	-57					
A10810	Raft Foundation	25	25	0%	08-Sep-16	08-Oct-16	-57					
A10840	Super Structure (Roof Beams & Slabs)	40	40	0%	11-Oct-16	25-Nov-16	-57					
HPL Composite Panel Cladding System												
A10800	Shop Drawing Submission and Approval	30	30	0%	06-Oct-16	10-Nov-16	1					
110 IMMD Guard Booth (Type 2)												
A11020	Excavation & Blinding	5	5	0%	02-Sep-16	07-Sep-16	-27					
A11030	Substructure	25	25	0%	08-Sep-16	08-Oct-16	-1					
A11080	Finishing	45	45	0%	11-Oct-16	01-Dec-16	98					
A11090	BS for Office Accomodation (Stage 8)	70	70	0%	11-Oct-16	03-Jan-17	-1					
B11020	Other BS + E&M Installation	130	130	0%	29-Oct-16	06-Apr-17	67					
Facade Envelop Structure Installation												
A11040	Shop Drawing Submission and Approval	30	30	0%	27-Aug-16	03-Oct-16	33					
A11045	Fabrication of F/C System	60	60	0%	04-Oct-16	13-Dec-16	33					
111 Field Kiosk for Carpark Operator												
A11120	Excavation & Blinding	5	5	0%	27-Aug-16	01-Sep-16	-52					
HPL Composite Panel Cladding System												
B11110	Shop Drawing Submission and Approval	30	30	0%	27-Aug-16	03-Oct-16	33					
B11120	Fabrication of HPL Cladding	60	60	0%	04-Oct-16	13-Dec-16	33					
113 - Field Kiosk for Access Control, Portion C												
C11310	Excavation & Blinding	5	5	0%	27-Aug-16	01-Sep-16	-77					
C11320	Raft Foundation	30	30	0%	02-Sep-16	08-Oct-16	-77					
C11330	Superstructure (Roof Beams & Slabs)	60	60	0%	11-Oct-16	19-Dec-16	-77					
External Works for Portion C												
Works in Location 1.2, 1.8 & 011 - Emergency Generator Building												
BB1440	Works in Location 1.2	90	90	0%	01-Aug-16	16-Nov-16	91					
Drainage Works												
B00040	Initial Survey	12	12	0%	27-Aug-16	09-Sep-16	-239					
SG2400	Drainage Works (1695m & 32MHs)	120	120	0%	11-Oct-16	06-Mar-17	-262					
SG3610	Sewerage (186m & 4MHs)	120	120	0%	13-Oct-16	08-Mar-17	-142					
PORTION D												
Portion D Building												
113 - Field Kiosk for Access Control, Portion D												

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								Jul	Aug	Sep	Oct	Nov
C11350	Excavation & Blinding	5	5	0%	08-Sep-16	13-Sep-16	-27					
C11360	Raft Foundation	30	30	0%	14-Sep-16	21-Oct-16	-27					
C11370	Superstructure (Roof Beams & Slabs)	60	60	0%	22-Oct-16	03-Jan-17	-27					
External Works for Portion D												
Drainage Works												
B00050	Initial Survey	6	6	0%	01-Aug-16	06-Aug-16	-33					
SG3640	Drainage Works (555m & 13MHs)	90	90	0%	08-Aug-16	23-Nov-16	-33					
SG3760	Sewerage (121m & 6MHs)	100	100	0%	08-Aug-16	05-Dec-16	-33					
Waterpipe Laying												
SW3650	Fresh Water Main Laying (108m)	100	100	0%	07-Oct-16	08-Feb-17	-33					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting												
B11480	ELV System Installation for Contract HY/2013/02	60	60	0%	21-Oct-16	31-Dec-16	144					
SU5340	Duct Laying for Utilities/Telecom Cabling	100	100	0%	07-Oct-16	08-Feb-17	-33					
SU5350	Duct Laying for TCSS & Lighting	100	100	0%	07-Oct-16	08-Feb-17	-33					
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-Aug-16	20-Aug-16	-105					
A00620	Constructing base of Subway	25	25	0%	22-Aug-16	20-Sep-16	-105					
A00630	Constructing wall stem + top slab of Subway	40	40	0%	21-Sep-16	08-Nov-16	-105					
External Works for Portion E												
Drainage Works												
B00060	Initial Survey	6	6	0%	01-Aug-16	06-Aug-16	-105					
PORTION G, H1 & H2												
Portion G Structures												
Box Culvert C												
Steel H Pile												
SC5130	Box C - 164 nos. of driven H pile	60	60	0%	01-Aug-16	12-Oct-16	-122					
SC5530	Testing	50	50	0%	12-Sep-16	11-Nov-16	-108					
Box Culvert Structure												
SC0310	Box C - Branch Construction	45	45	0%	13-Oct-16	03-Dec-16	-44					
SC0380	Box C - Construction of Main Body	142	142	0%	13-Oct-16	03-Apr-17	-122					
Bridge A1												
Bored Pile												
S10120	Bored pile, 10 nos. (8 No. cast)	58	12	80%	29-Feb-16 A	13-Aug-16	19					
Pile Cap												
S10510	Cap - Pier A106	30	30	0%	25-Aug-16	30-Sep-16	19					
S10530	Cap - Pier P102, P105	30	0	100%	15-Jun-16 A	20-Jul-16 A						
Pier & Abutment												
S10610	Abutment A106	30	30	0%	30-Sep-16	07-Nov-16	19					
S10620	Pier P103, P104	25	0	100%	20-Jun-16 A	18-Jul-16 A						
S10630	Pier P102, P105 (P102 cast)	25	13	50%	27-Jun-16 A	15-Aug-16	76					
Structure Deck												
S10760	Construct Bridge Deck, Bridge A1	125	125	0%	25-Jul-16 A	02-Sep-17	-112					

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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					
								Jul	Aug	Sep	Oct	Nov	
Bridge A2													
Structure Deck													
S21570	Construct Deck, Bridge A2	120	108	10%	23-May-16 A	14-Aug-17	-102						
Bridge A3													
Bored Pile													
S31630	Bore piling for A305, P304a/b (5 Nr.)	43	0	100%	06-Jun-16 A	30-Jul-16 A							
S31640	Bore piling for P302, P303, A305 (6Nr.)	34	0	100%	13-Jun-16 A	31-Jul-16 A							
S31670	Pile Testing for P304a/b	7	7	0%	05-Aug-16	12-Aug-16	15						
S31680	Pile Testing for P302, P303 & A305	7	7	0%	12-Aug-16	19-Aug-16	11						
Pile Cap													
S32030	Cap - P304a/b	30	30	0%	13-Aug-16	17-Sep-16	15						
S32040	Cap - Pier P302, P303, A305	30	30	0%	20-Aug-16	24-Sep-16	11						
Pier & Abutment													
S32120	Pier P304a, P304b	25	25	0%	19-Sep-16	19-Oct-16	15						
S32130	Abutment A305	30	30	0%	26-Sep-16	01-Nov-16	11						
S32150	Pier P302, P303	25	25	0%	20-Oct-16	17-Nov-16	15						
Bridge A4													
Bored Pile													
S42320	Bore pile 4 Nr.	33	0	100%	01-Jun-16 A	30-Jul-16 A							
S42340	Pile Testing	7	7	0%	10-Aug-16	17-Aug-16	-214						
Pile Cap													
S42360	Cap - Pier P401	30	30	0%	18-Aug-16	22-Sep-16	-214						
S42370	Cap - Pier P402	30	30	0%	18-Aug-16	22-Sep-16	-214						
Pier & Abutment													
S42380	Pier P401	25	25	0%	23-Sep-16	24-Oct-16	-214						
S42390	Pier P402	25	25	0%	23-Sep-16	24-Oct-16	-214						
Structure Deck													
S42460	Construct Deck, Bridge A4	90	90	0%	25-Oct-16	13-Feb-17	-214						
Bridge A5													
Bored Pile													
S52630	Bore piling for 19 Nr. (18 cast)	60	15	75%	09-May-16 A	17-Aug-16	-171						
S52640	Pile Testing for P504, P505	7	7	0%	01-Aug-16	08-Aug-16	-171						
S52650	Pile Testing for A503 & P506	7	7	0%	22-Aug-16	29-Aug-16	-159						
S52660	Pile Testing for A501 & P502a/b, P507	7	7	0%	29-Aug-16	05-Sep-16	-145						
Pile Cap													
S52710	Cap for P504, P505	30	30	0%	09-Aug-16	12-Sep-16	-171						
S52720	Cap - Pier P503, P506	30	30	0%	13-Sep-16	20-Oct-16	-171						
S52730	Cap - Pier A501, P502a/b, P507	35	35	0%	06-Sep-16	19-Oct-16	-145						
Pier & Abutment													
S52800	Pier P504, P505	25	25	0%	13-Sep-16	14-Oct-16	-166						
S52820	Pier P503, P506	25	25	0%	21-Oct-16	18-Nov-16	-171						
S52830	Pier P507	35	35	0%	20-Oct-16	29-Nov-16	170						
S52850	Abutment A501	30	30	0%	20-Oct-16	23-Nov-16	-3						
Bridge A6													
Pile Cap													

- █ Actual Work
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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				
								Jul	Aug	Sep	Oct	Nov
S63410	Cap - P606, P607/711 (606 cast)	40	20	50%	24-May-16 A	23-Aug-16	-123					
S63430	Cap - P604, P605	30	0	100%	20-May-16 A	02-Jul-16 A						
Pier & Abutment												
S63350	Pier P601, P606 (P601 cast)	25	6	75%	29-Mar-16 A	08-Aug-16	-79					
S63360	Pier P604, P605	25	13	50%	02-Jul-16 A	15-Aug-16	-86					
S63370	Pier P602, P603 (602 cast)	25	13	50%	06-Jun-16 A	15-Aug-16	-86					
S63380	Abutment A607	30	30	0%	24-Aug-16	28-Sep-16	-123					
Structure Deck												
S63880	Construct Deck, Bridge A6	135	135	0%	29-Sep-16	14-Mar-17	-123					
Bridge A7a, A7b, A7c												
Bored Pile												
S74170	Bore Piling for A701, P702 - P705, 10 Nr. (9 Nr. done)	42	4	90%	20-Nov-15 A	05-Aug-16	-53					
S74920	Pile Testing for A701, P702, P703	7	7	0%	17-Aug-16	25-Aug-16	-39					
Pile Cap												
S74210	Cap for P706, P707, P712	30	0	100%	01-Jun-16 A	02-Jul-16 A						
S74220	Cap for P704, P705	30	30	0%	01-Aug-16	03-Sep-16	-48					
S74230	Cap for P702, P703	30	30	0%	05-Sep-16	12-Oct-16	-48					
S74240	Cap for A701	30	30	0%	05-Sep-16	12-Oct-16	-28					
Pier & Abutment												
S74310	Pier P706, P707, P712 (706 cast)	25	18	30%	02-Jul-16 A	20-Aug-16	20					
S74320	Pier P704, P705	25	25	0%	05-Sep-16	05-Oct-16	7					
S74330	Pier P702, P703	25	25	0%	13-Oct-16	10-Nov-16	-48					
S74350	Abutment A701	30	30	0%	13-Oct-16	16-Nov-16	-28					
S74390	Pier P708, P709 (P708 cast)	25	6	75%	02-Jul-16 A	08-Aug-16	56					
S74450	Abutment A711	30	30	0%	29-Sep-16	04-Nov-16	-18					
Bridge A8												
Bored Pile												
S86130	Bore pile P802, P803, A804, 6 Nr.	87	0	100%	27-Jan-16 A	13-Jul-16 A						
S86140	Pile Testing for A804	7	7	0%	01-Aug-16	08-Aug-16	5					
S86150	Pile Testing for P802, P803	7	7	0%	01-Aug-16	08-Aug-16	35					
Pile Cap												
S86210	Cap - Abutment A804	30	30	0%	09-Aug-16	12-Sep-16	5					
S86220	Cap for P802, P803	30	30	0%	13-Sep-16	20-Oct-16	5					
Pier & Abutment												
S86250	Abutment A804	30	30	0%	13-Sep-16	20-Oct-16	7					
S86260	Pier P802, P803	25	25	0%	21-Oct-16	18-Nov-16	5					
Retaining Walls W1-1, W3-1, W5-1 & W7-1												
Retaining Wall W3-1												
S37130	Bored Pile for W3-1, 16 Nr.	118	118	0%	05-Aug-16	24-Dec-16	-53					
Portion G Buildings												
033 Inbound Private Car Exam Building												

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								Jul	Aug	Sep	Oct	Nov
A03320	Super Structure	40	39	2.5%	11-May-16 A	14-Sep-16	-13					
A03330	Finishing	90	90	0%	15-Sep-16	04-Jan-17	-13					
A03360	External Works	70	70	0%	15-Sep-16	08-Dec-16	92					
A03370	BS for Office Accommodation (Stage 8)	70	70	0%	15-Sep-16	08-Dec-16	18					
Glass Canopy Installation												
B03300	Shop Drawing Submission and Approval	30	30	0%	19-Sep-16	25-Oct-16	-40					
B03305	Fabrication of Glass Canopy	60	60	0%	26-Oct-16	06-Jan-17	-40					
Aluminium Metal Canopy												
B03310	Shop Drawing Submission and Approval	30	30	0%	19-Sep-16	25-Oct-16	-25					
B03315	Fabrication of F/C System	60	60	0%	26-Oct-16	06-Jan-17	-25					
034 Satellite RCP South												
A03400	Excavation + Blinding (+ PL Test)	5	0	100%	25-May-16 A	05-Jul-16 A						
A03430	Raft Foundation	30	4	86.67%	06-Jul-16 A	04-Aug-16	24					
A03440	Super Structure (Roof Beams & Slabs)	40	40	0%	05-Aug-16	21-Sep-16	24					
A03450	Finishing	60	60	0%	22-Sep-16	02-Dec-16	84					
A35030	BS for Office Accommodation (Stage 8)	59	59	0%	22-Sep-16	01-Dec-16	24					
A35050	Other BS + E&M Installation	130	130	0%	13-Oct-16	20-Mar-17	81					
035 - Sewage Pumping Station, Portion G												
A03540	Sheet Piling as ELS for Wet Well	12	12	0%	25-Jun-16 A	13-Aug-16	-95					
A03550	Pile Testing, 5 Nr.	7	7	0%	15-Aug-16	22-Aug-16	-95					
A03560	ELS + Blinding for Wet Well	10	10	0%	23-Aug-16	02-Sep-16	-95					
A03570	Constructing of Base Slab of Wet Well	20	20	0%	03-Sep-16	27-Sep-16	-95					
A03580	Constructing of Wall Stem of Wet Well	25	25	0%	28-Sep-16	28-Oct-16	-95					
A03590	Water-tightness Test for Wet Wells	12	12	0%	29-Oct-16	11-Nov-16	-95					
051 Transformers (Zone 5)												
A05150	Finishing	60	36	40%	16-May-16 A	10-Sep-16	87					
A05165	Energisation by CLP	50	50	0%	09-Jul-16 A	28-Sep-16	165					
A05170	BS for Office Accommodations (KD9)	70	70	0%	02-Jul-16 A	24-Oct-16	57					
A05180	BS + E&M for Office Accommodation (KD10)	70	70	0%	25-Oct-16	17-Jan-17	61					
A05190	Other BS + E & M Installation	150	147	2%	22-Feb-16 A	25-Jan-17	124					
100 Inbound Traffic Control Kiosk												
A10000	Excavation + Blinding (PL test commenced on 26/1/16)	5	5	0%	01-Aug-16	05-Aug-16*	-140					
A10010	Raft Foundation	15	15	0%	06-Aug-16	23-Aug-16	-140					
A10040	Super Structure (Roof Beams & Slabs)	30	30	0%	24-Aug-16	28-Sep-16	-140					
A10050	Finishing	45	45	0%	29-Sep-16	22-Nov-16	-140					
A10070	BS + E&M for AVC SS Works (KD18A)	86	86	0%	29-Sep-16	12-Jan-17	-140					
HPL Composite Panel Cladding System												
B10010	Shop Drawing Submission and Approval	30	30	0%	01-Aug-16	03-Sep-16	66					
B10015	Fabrication of F/C System	60	60	0%	05-Sep-16	16-Nov-16	66					
External Works for Portion G, H1 & H2												
<i>Works within Portion H1 & H2 except the ELV Works in the Hong Kong Side PTI</i>												

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								Jul	Aug	Sep	Oct	Nov
BB1560	Works within Portion H1 & H2 in the Hong Kong Side PTI (KD20)	100	100	0.5%	30-May-16 A	06-Sep-17	-164					
All Works within the Boundary defined in Drawing No. 60191048/C3/000/C00/1050												
BB1570	All Works within the Boundary defined in Drawing No. 60191048/C3/000/1050, excluding Portion H1 & H2 & Bridges	126	126	0%	26-Sep-16	28-Feb-17	-14					
Drainage Works												
B00080	Initial Survey	12	12	0%	01-Aug-16	13-Aug-16	-199					
SG4070	Drainage Works (3748m & 191MHs)	84	77	8%	03-May-16 A	17-May-17	-33					
SG4190	Sewerage (422m & 12MHs)	84	77	8%	01-Jun-16 A	17-May-17	-33					
Sign Gantry DS40, DS41 & DS75												
SS0020	Sign Gantry DS40 Pre-bored H Piling, 12 Nr.	30	30	0%	01-Aug-16	03-Sep-16	61					
SS0040	Sign Gantry DS41 Driven Piling 4 Nr.	7	7	0%	13-Oct-16	20-Oct-16	84					
SS0080	Testing for Pre-bored H Piling	50	50	0%	29-Sep-16	28-Nov-16	71					
SS0170	Submission and approval for Sign Gantry	90	52	42.22%	31-Aug-16 A	30-Sep-16	-81					
SS0180	Fabrication & Delivery of Sign Gantries to Site	200	200	0%	03-Oct-16	08-Jun-17	-81					
PORTION J												
Portion J Structure												
030 Outbound Staff Subway (Portion J)												
B03010	ELS + blinding (Bay 34-41) (8 bay)	55	55	0%	01-Aug-16	05-Oct-16	-127					
B03020	Bay 34-39 Construction - Base Slab	34	34	0%	08-Sep-16	20-Oct-16	-127					
B03030	Bay 34-39 Construction - Wall + Top Slab	43	43	0%	30-Sep-16	21-Nov-16	-127					
B03040	Bay 40-41 Construction - Base Slab	34	34	0%	08-Sep-16	20-Oct-16	-127					
B03050	Bay 40-41 Construction - Wall + Top Slab, Staircase	43	43	0%	30-Sep-16	21-Nov-16	-127					
B03060	Internal Finishes & Cable Containment (KD2)	30	30	0%	28-Oct-16	01-Dec-16	-127					
030 Outbound Private Car & GV Kiosks												
A03010	Submission & Approval for Steel Works	60	26	56.67%	01-Apr-16 A	30-Aug-16	-131					
A03020	Pre-fabrication for the Steel Kiosks	84	84	0%	31-Aug-16	09-Dec-16	-131					
030 Outbound Kiosks, Section IX, Subject to Excision												
C03010	Submission & Approval for Steel Works	100	26	74%	01-Apr-16 A	30-Aug-16	-95					
C03020	Pre-fabrication for the Steel Kiosks	100	100	0%	31-Aug-16	30-Dec-16	-95					
Portion J Buildings												
024 Outbound Private Car Exam Building												
A02400	Excavation + Blinding	10	10	0%	06-Aug-16	17-Aug-16	-93					
A02410	Raft Foundation	30	30	0%	18-Aug-16	22-Sep-16	-93					
A02420	Super Structure	40	40	0%	23-Sep-16	10-Nov-16	-93					
Glass Canopy Installation												
B02410	Shop Drawing Submission and Approval	30	30	0%	01-Aug-16	03-Sep-16	-19					
B02415	Fabrication of F/C System	60	60	0%	05-Sep-16	16-Nov-16	-19					
Aluminium Metal Canopy												
B02450	Shop Drawing Submission and Approval	30	30	0%	01-Aug-16	03-Sep-16	-4					
B02455	Fabrication of F/C System	60	60	0%	05-Sep-16	16-Nov-16	-4					
031 Outbound IMMD and DOH Secondary Screen Building												
A03100	Excavation + Blinding	10	10	0%	15-Aug-16	25-Aug-16	-51					
A03110	Raft Foundation	35	35	0%	26-Aug-16	07-Oct-16	-51					
A03140	Super Structure	89	89	0%	08-Oct-16	24-Jan-17	-51					

- Actual Work
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THREE MONTH ROLLING PROGRAMME
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31-May-16	3MRP updated as of 31 May 2016	ZJ	
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HZMB HK Boundary Crossing Facilities - Vehicle Clearance Plazas and Ancillary Buildings and Facilities

30-Jul-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016				
								Jul	Aug	Sep	Oct	Nov
060 - Single Storey Support Building Associated with Buildings 044 & 045												
A06000	Excavation + Blinding	5	5	0%	03-Oct-16	07-Oct-16	-171					
A06010	Raft Foundation (Traper)	25	25	0%	08-Oct-16	07-Nov-16	-171					
A06040	Excavation + Blinding (Strip part)	15	15	0%	08-Oct-16	26-Oct-16	-50					
061 Telecom Building												
A06120	Excavation + Blinding	5	5	0%	01-Aug-16	05-Aug-16	-13					
A06130	Raft Foundation	25	25	0%	03-Oct-16	01-Nov-16	-60					
Aluminium Metal Canopy												
B06110	Shop Drawing Submission and Approval	30	30	0%	23-Sep-16	29-Oct-16	31					
101 Outbound Traffic Control Kiosk												
A10100	Excavation + Blinding	5	5	0%	01-Aug-16	05-Aug-16	-108					
A10110	Raft Foundation	13	13	0%	19-Oct-16	02-Nov-16	-168					
HPL Composite Panel Cladding System												
B10110	Shop Drawing Submission and Approval	30	30	0%	01-Aug-16	03-Sep-16	51					
B10120	Fabrication of HPL Cladding	60	60	0%	05-Sep-16	16-Nov-16	51					
External Works for Portion J												
Drainage Works												
B00110	Initial Survey	6	6	0%	01-Aug-16	06-Aug-16	-77					
SG4220	Drainage Works (3435m & 117MHs)	180	173	4%	25-Apr-16 A	01-Apr-17	-99					
SG4340	Sewerage (845m & 22MHs)	180	173	4%	01-Jun-16 A	01-Apr-17	-99					
Waterpipe Laying												
SW4230	Fresh Water Main Laying (1541m)	180	180	0%	27-Sep-16	10-May-17	-99					
SW4240	Flushing Water Main Laying (862m)	180	180	0%	02-Sep-16	12-Apr-17	-79					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting												
SU5420	Duct Laying for Utilities/Telecom Cabling	180	180	0%	27-Sep-16	10-May-17	-99					
SU5430	Duct Laying for TCSS & Lighting	180	180	0%	27-Sep-16	10-May-17	-99					
Sign Gantry DS104												
SS0140	Sign Gantry DS104 P-bored Piling, 8 Nr.	30	30	0%	05-Sep-16	12-Oct-16	61					
SS5140	Submission and approval for Sign Gantry	60	60	0%	01-Aug-16	12-Oct-16	-69					
SS5150	Fabrication & Delivery of Sign Gantrys to Site	180	180	0%	13-Oct-16	24-May-17	-69					
PORTION K, L & M												
Portion K Building												
002 - C&ED Observation Guard Booth												
A00210	Excavation + Blinding	5	5	0%	12-Aug-16	17-Aug-16	-34					
Portion M Buildings												
108 - C&ED Mobile X-ray Operation Office, Portion M												
B10800	Excavation + Blinding	5	5	0%	01-Aug-16	05-Aug-16	-94					
B10810	Substructure (raft Foundation)	20	20	0%	06-Aug-16	29-Aug-16	-94					
B10840	Super Structure (Roof beams & Slabs)	30	30	0%	30-Aug-16	05-Oct-16	-94					
B10850	Finishing	30	30	0%	06-Oct-16	10-Nov-16	186					
B10860	BS for Office Accommodations (KD9)	70	70	0%	06-Oct-16	29-Dec-16	2					
B10880	Other BS + E & M Installation	130	130	0%	26-Oct-16	01-Apr-17	70					
HPL Composite Panel Cladding System												
C10810	Shop Drawing Submission and Approval	30	30	0%	01-Aug-16	03-Sep-16	10					
C10820	Fabrication of HPL Cladding	60	60	0%	05-Sep-16	16-Nov-16	10					
104 DOH Screening Station, at Portion M												
C10400	Excavation + Blinding	5	5	0%	06-Aug-16	11-Aug-16	-49					

- Actual Work
- Remaining Work
- Critical
- Milestone

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

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

30-Jul-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016				
								Jul	Aug	Sep	Oct	Nov
C10430	Structure (Raft Foundation)	20	20	0%	06-Oct-16	29-Oct-16	-94					
Facade Envelop Structure Installation												
D10450	Shop Drawing Submission and Approval	30	30	0%	01-Aug-16	03-Sep-16	55					
D10455	Fabrication of F/C System	60	60	0%	05-Sep-16	16-Nov-16	55					
External Works												
Additional Works (Filling & RE Slope) & Drainage Works												
SG0010	Initial Survey for Portion K, L, & M	6	6	0%	08-Jun-16 A	06-Aug-16	-107					
SG0090	Additional Works (Filling & RE Slope)	148	133	10%	08-Jun-16 A	10-Jan-17	-76					
Slope Works at Portion M												
SL0020	Cutting Existing Slope	30	30	0%	08-Aug-16	10-Sep-16	-91					
SL0030	Laying Granular Fill & Backfilling Slope	30	30	0%	12-Sep-16	19-Oct-16	-91					
SL0040	Further Backfilling Slope	60	60	0%	20-Oct-16	30-Dec-16	-91					
Canopy and Covered Walkway												
CC1400	Shop drawing, Approved & Fabrication	136	136	0%	01-Aug-16	12-Jan-17	-65					
PORTION N												
Portion N Structure												
Box Culvert B												
Bored Pile												
SB0570	Box B - Bore Pile, 30 nos.	85	85	0%	02-Aug-16	11-Nov-16	-7					
Portion N Buildings												
104 DOH Screening Station, at Portion N												
C10405	Excavation + Blinding	5	5	0%	02-Aug-16	06-Aug-16	26					
C10410	Structure (Raft Foundation)	25	25	0%	08-Aug-16	05-Sep-16	26					
C10420	Finishing	45	45	0%	06-Sep-16	31-Oct-16	195					
E10410	BS for Office Accommodations (KD9)	70	70	0%	06-Sep-16	29-Nov-16	26					
E10430	Other BS + E & M Installation	130	130	0%	26-Sep-16	04-Mar-17	94					
Facade Envelop Structure Installation												
D10410	Shop Drawing Submission and Approval	30	30	0%	17-Aug-16	21-Sep-16	52					
D10415	Fabrication of F/C System	60	60	0%	22-Sep-16	02-Dec-16	52					
106 C&ED Detention Area Guard Booth												
A10600	Excavation + Blinding	5	5	0%	02-Aug-16	06-Aug-16	31					
A10610	Structure (Raft Foundation)	20	20	0%	08-Aug-16	30-Aug-16	31					
A10640	Finishing	45	45	0%	31-Aug-16	25-Oct-16	200					
E10640	BS for Office Accommodations (KD9)	70	70	0%	31-Aug-16	23-Nov-16	31					
E10660	Other BS + E & M Installation	130	130	0%	20-Sep-16	27-Feb-17	99					
Facade Envelop Structure Installation												
B10610	Shop Drawing Submission and Approval	30	30	0%	03-Oct-16	07-Nov-16	4					
107 C&ED Mobile X-ray Operation Office, Portion N												
A10700	Excavation + Blinding	5	5	0%	08-Aug-16	12-Aug-16	54					
A10710	Substructure (Raft Foundation)	25	25	0%	31-Aug-16	29-Sep-16	39					
A10740	Super Structure	35	35	0%	30-Sep-16	11-Nov-16	39					
External Works for Portion N												
Drainage Works												
B00150	Initial Survey	12	12	0%	02-Aug-16	15-Aug-16	-101					
SG4520	Drainage Works (3359m & 107MHs)	126	126	0%	16-Aug-16	16-Jan-17	-29					
SG4640	Sewerage (383m & 12MHs)	126	126	0%	16-Aug-16	16-Jan-17	-29					
Waterpipe Laying												

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

30-Jul-16

Activity ID	Activity Name	Original Duration	Remaining Duration	% Complete	Start	Finish	Total Float	2016				
								Jul	Aug	Sep	Oct	Nov
SW4530	Fresh Water Main Laying (641m)	126	126	0%	13-Sep-16	16-Feb-17	-29					
SW4540	Flushing Water Main Laying (413m)	126	126	0%	13-Sep-16	16-Feb-17	-29					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting												
SU5460	Duct Laying for Utilities/Telecom Cabling	126	126	0%	13-Sep-16	16-Feb-17	-29					
SU5470	Duct Laying for TCSS & Lighting	125	125	0%	14-Sep-16	16-Feb-17	-101					
PORTION P												
Portion Structure												
Retaining Wall RW1												
S10810	Construction of Retaining Wall RW1 (U-shape, 5 bays)	100	100	0%	24-Aug-16	21-Dec-16	56					
Portion P Buildings												
105 IMMD Guard Booth, Portion P												
A10510	Excavation + Blinding	5	5	0%	24-Aug-16	29-Aug-16	42					
Facade Envelop Structure Installation												
A10560	Shop Drawing Submission and Approval	30	30	0%	24-Aug-16	28-Sep-16	50					
A10565	Fabrication of F/C System	60	60	0%	29-Sep-16	09-Dec-16	50					
External Works for Portion P												
Drainage Works												
B00160	Initial Survey	6	6	0%	24-Aug-16	30-Aug-16	0					
SG4670	Drainage Works (4651m & 129MHs)	105	105	0%	31-Aug-16	06-Jan-17	40					
SG4790	Sewerage (269m & 7MHs)	105	105	0%	31-Aug-16	06-Jan-17	40					
Waterpipe Laying												
SW4680	Fresh Water Main Laying (1270m)	105	105	0%	29-Sep-16	07-Feb-17	40					
SW4690	Flushing Water Main Laying (455m)	105	105	0%	29-Sep-16	07-Feb-17	40					
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting												
SU5480	Duct Laying for Utilities/Telecom Cabling	105	105	0%	29-Sep-16	07-Feb-17	41					
SU5490	Duct Laying for TCSS & Lighting (KD15)	24	24	0%	09-Sep-16	08-Oct-16	0					
PORTION Q												
External Works for Portion Q												
Duct Laying for Utilities/Telecom Cabling, TCSS & Lighting												
B11490	ELV System Installation for Contract HY/2013/04	50	50	0%	21-Oct-16	17-Dec-16	154					
Landscape Works												
A5170	Design and Procurement for Irrigation System	230	230	0%	31-Jul-16	17-Mar-17	2					

- Actual Work
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VEHICLE CLEARANCE PLAZAS AND ANCILLARY BUILDINGS AND FACILITIES

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Report No.: 0165/15/ED/0529

Appendix D

Event / Action Plan

Appendix D –

Event / Action Plan for Air Quality and Noise Monitoring

Event / Action Plan for Air Quality

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

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

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

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

Event / Action Plan for Construction Noise Monitoring

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

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

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MaterialLab

Report No.: 0165/15/ED/0529

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 ⁽³⁾	0	0	0.322
Jul	2.429	0	0	0	2.429	0	0	0	0	0.312
Aug										
Sept										
Oct										
Nov										
Dec										
Total	3.147	0.000	0.000	0.000	3.147	0.000	2.208	0.000	0.000	1.517

Notes:

- (1) Broken concrete for recycling into aggregates.
- (2) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (3) 0.413 (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				
Sep				
Oct				
Nov				
Dec				
Total	27.656	0.000	0.000	27.656

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Appendix F

Environmental Licenses and Permits

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

(update: 01/08/2016)

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	02-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	02-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	14-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	24-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	24-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	28-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	05-May-15	04-Sept-15	04-Sept-15	30-Sept-20	Valid	
9	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	PP-RS0009-16	Portion G	02-Mar-16	16-Mar-16	21-Mar-16	20-Jul-16	Valid until 20-Jul-16	
10	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0348-16	Main Site Area	29-Mar-16	12-Apr-16	15-Apr-16	14-Jul-16	Valid until 14-Jul-16	
11	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0607-16	Main Site Area	01-Jun-16	16-Jun-16	19-Jun-16	18-Sep-16	Valid	
12	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0629-16	Floating Concrete Batching Plant	01-Jun-16	16-Jun-16	19-Jun-16	18-Dec-16	Valid	
13	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	GW-RS0639-16	Main Site Area	01-Jun-16	16-Jun-16	15-Jul-16	14-Oct-16	Valid after GW-RS0348-16 expire	

Item	Permit/Licence Registration	Permit No.	Work Area	Application Date	Issue Date	Valid Date		Status	Remark
						From	To		
14	Construction Noise Permit Pursuant to Section 8(6) of the Noise Control Ordinance	PP-RS0020-16	Main Site Area	13-Jul-16	27-Jul-16	28-Jul-16	24-Jan-17	Valid	
15	Permit issued Under the Dumping at Sea Ordinance	EP/MD/17-040	East of Sha Chau (CMP Vd)	30-May-16	13-Jun-16	14-Jun-16	13-Jul-16	Superseded by EP/MD/17-062	
16	Permit issued Under the Dumping at Sea Ordinance	EP/MD/17-062	East of Sha Chau (CMP Vd)	28-Jun-16	12-Jul-16	14-Jul-16	13-Aug-16	Valid	

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Report No.: 0165/15/ED/0529

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
		enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and <ul style="list-style-type: none"> Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site 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	The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant; <ul style="list-style-type: none"> Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP; Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; The materials which may generate airborne dusty emissions should be wetted by water spray system; All receiving hoppers should be enclosed on three sides up to 3m above unloading point; All conveyor transfer points should be totally enclosed; All access and route roads within the premises should be paved and wetted; and Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body 	Selected Representative dust monitoring station	N/A
S5.5.2.7	A7	The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point: <ul style="list-style-type: none"> All road surface within the barging facilities will be paved; Dust enclosures will be provided for the loading ramp; Vehicles will be required to pass through designated wheels wash facilities; and Continuous water spray at the loading points 	All construction sites	V
Construction Noise (Air borne)				
S6.4.10	N1	1) Use of good site practices to limit noise emissions by considering the following: <ul style="list-style-type: none"> only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; 	All construction sites	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	<u>Construction and Demolition Material</u> The following mitigation measures should be implemented in handling the waste: <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	<p><u>C&D Waste</u></p> <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	<p><u>Chemical Waste</u></p> <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	<p><u>Sewage</u></p> <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	<p><u>General Refuse</u></p> <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
		<ul style="list-style-type: none"> washing bay and the public road should be surfaced with crushed stone or coarse gravel; 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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MaterialLab

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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

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	1	0	0

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Appendix I

Environmental Site Inspection Schedule

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Report No.: 0165/15/ED/0529

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 July 2016

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

Tentative Environmental Site Inspection Schedule for August 2016

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