

Your ref.

Our ref. 5140819/18.30/OC045/KC/RL

Date: 19 January 2018

By Post and e-mail (Alfred.She@lcwjv.com)

Leighton – Chun Wo Joint Venture
39/F Sun Hung Kai Centre
30 Harbour Road
Hong Kong

Attn: Mr. Alfred She

Dear Mr. She,

**Contract No. HY/2014/05
Hong Kong – Zhuhai – Macao Bridge
Hong Kong Boundary Crossing Facilities –
Remaining Ancillary Buildings and Facilities
Certification of Monthly EM&A Report No. 22**

Atkins China Limited certifies, in the capacity of Environmental Team Leader, that the Monthly EM&A Report No. 22 for December 2017 (Revision 4) conforms the requirements provided in Condition 5.4 of the Environmental Permit No. EP-353/2009/K.

**Yours faithfully,
for and on behalf of
Atkins China Limited**



**Keith Chau
Environmental Team Leader**

cc.

1. AECOM – Mr. Malcolm Sage (By Fax.: 3468 2076)
2. IEC/ENPO – Mr. Raymond Dai & Mr. Y.H. Hui (By Fax.: 3465 2899)

19 January 2018

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. Malcolm Sage

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/2014/05 – HZMB HKBCF – Remaining Ancillary Buildings and
Facilities
Monthly Environmental Monitoring & Audit Report for December 2017**

Reference is made to the Environmental Team's submission of Monthly Environmental Monitoring & Audit Report for December 2017 (Rev. 4) certified by the ET Leader (ET's ref.: "5140819/18.30/OC045/KC/RL" dated 19 January 2018) and provided to us via e-mail on 19 January 2018.

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

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

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

Yours faithfully,
For and on behalf of
Ramboll 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) |
| | Atkins | Mr. Keith Chau | (By Fax: 2890 6343) |
| | LCWJV | Mr. Iain Hubert | (By Fax: 3621 0180) |

Internal: DY, YH, TM, HW, WC, ENPO Site

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Contract No. HY/2014/05

**Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing Facilities – Remaining Ancillary
Buildings and Facilities**

**Monthly EM&A Report No. 22
(Covering the Period from 1 December 2017 to 31 December 2017)**

19 January 2018

Revision 4

Main Contractor



**Leighton - Chun Wo
Joint Venture**

Environmental Team

ATKINS

Member of the SNC-Lavalin Group

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Executive Summary

This Monthly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract No. HY/2014/05 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HZMB HKBCF) – Remaining Ancillary Buildings and Facilities (includes the construction works of Contract No. HY/2013/06 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System and Contract No. HY/2014/04 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Gantry Type X-ray Vehicle Inspection System within Contract No. HY/2014/05 works area) (hereafter referred to as “the Contract”) for the Highways Department of Hong Kong Special Administrative Region (HKSAR). Contract No. HY/2014/05 was awarded to Leighton – Chun Wo Joint Venture (construction works of Contract No. HY/2013/06 was awarded to ATAL Technologies Limited and Contract No. HY/2014/04 was awarded to Rapiscan Systems Pte Ltd within Contract No. HY/2014/05 works area) (hereafter referred to as “the Contractor”) and Atkins China Limited was appointed as the Environmental Team (ET) by the Contractor.

Contract No. HY/2014/05 (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area) is part of HZMB HKBCF Project which is a “Designated Project” under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap 499) and Environmental Impact Assessment (EIA) Report (Register No. AEIAR-145/2009) was prepared for the Project. The current Environmental Permit (EP) No. EP-353/2009/K for HKBCF was issued on 11 April 2016. These documents are available through the EIA Ordinance Register. The construction works of the Contract No. HY/2014/05 commenced on 29 February 2016 while the construction works of the Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area commenced on 3 January 2017 and 13 February 2017 respectively.

Atkins China Limited 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 to the Contract.

This is the twenty-second monthly EM&A Report for the Contract No. HY/2014/05 which summarizes findings of the EM&A works during the reporting period from 1 to 31 December 2017 (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area).

Environmental Monitoring and Audit Progress

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 air quality and noise monitoring works for the Contract are covered by Contract No. HY/2013/01 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HZMB HKBCF) – Passenger Clearance Building 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 Nos. HY/2013/01 and HY/2011/03. However, this is subject to ENPO’s final decision on which ET should carry out the monitoring work at these stations.

The dates of site inspection for the Contract No. HY/2014/05 (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area) during the reporting period are listed below:

Environmental Site Inspection: 4, 13, 18 and 27 December 2017

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. No Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at AMS7 by the Environmental Team of Contract No. HY/2013/01 during the reporting period.

There was one AL exceedance of 24-hr TSP at ASM3B was recorded on 23 December 2017 by the Environmental Team of Contract No. HY/2013/01 during the reporting period, after investigation, the exceedance was not related to the Contract. Details of the exceedance shall be referred to the monthly EM&A report prepared by Contract No. HY/2013/01. The IR was provided in **Appendix J**.

There was no Action and Limit Level exceedance for noise recorded at NMS2 and NMS3B by the Environmental Team of Contract No. HY/2013/01 during the reporting period.

Complaint Log

There was no complaint 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 Change

There was no reporting change during the reporting period.

Future Key Issues

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

For Contract No. HY/2014/05

- Architectural Builder's Work and Finishes (ABWF) & Mechanical, Electrical and Plumbing works (MEP) - Internal work of Buildings 022, 023, 025, 032, 044, 045, 050H1, 050H2, 050A1, 050A2, 053 and 058
- Architectural Builder's Work and Finishes (ABWF) - External work of Buildings 021, 022, 023, 025, 032, 044, 045, 050H1, 050H2, 050A1, 050A2, 053, 058 and 059
- ABWF works (roof) of Buildings 021, 023, 025, 032, 044, 050H1, 050H2, 050A1, 050A2, 053 and 058
- Utilities and Drainage installation of Buildings 023, 032, 045, 050H1, 050H2 and 050A1 and 050A2
- Landscape works: roof greening of Buildings 023, 025, 032, 044 and 045

For Contract No. HY/2013/06 within Contract No. HY/2014/05 works area

- Building 025 and 032 - Conduit Installation & Cabling

For Contract No. HY/2014/04 within Contract No. HY/2014/05 works area

- Building 053 - Installation of field devices
- Building 054 - Installation of field devices
- Building 058 – Radiation Testing
- Building 059 – Radiation Testing

1 Introduction

1.1 Basic Project Information

1.1.1 This Monthly Environmental Monitoring and Audit (EM&A) Report is prepared for Contract No. HY/2014/05 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HZMB HKBCF) – Remaining Ancillary Buildings and Facilities (includes the construction works of Contract No. HY/2013/06 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System and Contract No. HY/2014/04 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Gantry Type X-ray Vehicle Inspection System within Contract No. HY/2014/05 works area) (hereafter referred to as “the Contract”) for the Highways Department of Hong Kong Special Administrative Region (HKSAR). Contract No. HY/2014/05 was awarded to Leighton – Chun Wo Joint Venture (construction works of Contract No. HY/2013/06 was awarded to ATAL Technologies Limited and Contract No. HY/2014/04 was awarded to Rapiscan Systems Pte Ltd within Contract No. HY/2014/05 works area) (hereafter referred to as “the Contractor”) and Atkins China Limited was appointed as the Environmental Team (ET) by the Contractor.

1.1.2 Contract No. HY/2014/05 (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area) is part of HZMB HKBCF which is a “Designated Project” under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap 499). An Environmental Impact Assessment (EIA) Report (Register No. AEIAR-145/2009) was prepared for the Project. The current Environmental Permit (EP) No. EP-353/2009/K for HKBCF was issued on 11 April 2016. These documents are available through the EIA Ordinance Register. The construction works of the Contract No. HY/2014/05 commenced on 29 February 2016 while the construction works of the Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area commenced on 3 January 2017 and 13 February 2017 respectively. The works areas of the Contract are shown in **Appendix A**.

1.1.3 The proposed works under this Contract comprise the following:

For Contract No. HY/2014/05

(i) Construction of the following ancillary buildings and facilities including architectural and builder works, structural steel canopy, reinforced concrete frames, foundations, curtain wall facade, building services and electrical and mechanical works:

- Public Toilets at Vehicle Clearance Plaza (VCP);
- Customs and Excise Department (C&ED) Dangerous Good Store (Building 021);
- Customs Detective Dog Base Building (Building 022);
- C&ED Outbound Cargo Examination Building and Examination Platform (Building 023);
- Inbound Private Car Annexure (Building 025);
- Outbound Private Car Annexure (Building 032);
- E&M maintenance Building (Building 044);
- Highways Depot & Administration Building (Building 045);
- Outbound X-ray Building (Building 053);
- Outbound X-ray Scan Tunnel (Building 058); and
- Inbound X-ray Scan Tunnel (Building 059).

(ii) Construction of civil provisions, cable containment and power supply for the following systems:

- Automatic Vehicle Clearance Support System (AVCSS) installed by Contract No. HY/2013/06; and

- Gantry Type X-ray Vehicle Inspection System installed by Contract No. HY/2014/04.
- (iii) Supply and installation of Mobile X-ray Vehicle Inspection System and other standalone equipment;
- (iv) Construction of minor civil engineering works at the periphery of buildings;
- (v) Construction of minor Landscape hardworks and softworks; and
- (vi) Other works which are shown on Drawings or specified in the Specification or which may be ordered in accordance with the Contract.

For Contract No. HY/2013/06 within Contract No. HY/2014/05 works area

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

For Contract No. HY/2014/04 within Contract No. HY/2014/05 works area

- (i) The Gantry Type X-ray Vehicle Inspection System (GXRVIS) aims to provide an integrated, innovative, efficient and effective vehicle inspection system at the inbound and outbound boundary control points of Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF) for supporting the operations of Customs & Excise Department (C&ED);
- (ii) Design, supply, deliver to HKBCF, installation, test and commissioning and maintenance of two sets of Gantry Type X-ray Vehicle Inspection System and all related components necessary for the complete operation of the system; and
- (iii) Design, supply, install, test, commission and maintain of the Radioactive Threat Detection Systems integrated into the Gantry Type X-ray Vehicle Inspection Systems.

1.1.4 This is the twenty-second Monthly EM&A Report for the Contract No. HY/2014/05 which summarizes the findings of the EM&A programme during the reporting period from 1 to 31 December 2017. (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area).

1.2 Project Organisation

1.2.1 The project organization structure and lines of communication with respect to the on-site environmental management structure is shown in **Appendix B**. The key personnel contact names and numbers are summarized in **Table 1-1**.

Table 1-1 Contact Information of Key Personnel

| Party | Position | Name | Telephone | Fax |
|--|-------------------------------------|--------------|-----------|-----------|
| <u>For Contract No. HY/2014/05</u> | | | | |
| Engineer or Engineer's Representative (AECOM Asia Co. Ltd.) | Chief Registered Architect | Malcolm Sage | 3958 7330 | 3468 2076 |
| Environmental Project Office / Independent Environmental Checker | Environmental Project Office Leader | Y. H. Hui | 3465 2888 | 3465 2899 |

| Party | Position | Name | Telephone | Fax |
|--|-------------------------------------|--------------|-----------|-----------|
| (Ramboll Environ Hong Kong Limited) | Independent Environmental Checker | Raymond Dai | 3465 2888 | 3465 2899 |
| Contractor (Leighton – Chun Wo Joint Venture) | Site Agent | Albert Chan | 3973 0514 | 3621 0180 |
| | Environmental Officer | Alfred She | 39730484 | 3621 0180 |
| Environmental Team (Atkins China Limited) | Environmental Team Leader | Keith Chau | 2972 1721 | 2890 6343 |
| 24 hours complaint hotline | --- | --- | 3958 7300 | --- |
| For Contract No. HY/2013/06 within Contract No. HY/2014/05 works area | | | | |
| Engineer or Engineer's Representative (AECOM Asia Co. Ltd.) | Chief Registered Architect | Malcolm Sage | 3958 7330 | 3468 2076 |
| Environmental Project Office / Independent Environmental Checker (Ramboll Environ Hong Kong Limited) | Environmental Project Office Leader | Y. H. Hui | 3465 2888 | 3465 2899 |
| | Independent Environmental Checker | Raymond Dai | 3465 2888 | 3465 2899 |
| Contractor (ATAL Technologies Limited) | Site Agent | Mr. Eric Yim | 2565 3355 | 3162 5217 |
| | Environmental Officer | Mr. W. Li | 2565 3137 | 3162 5217 |
| Environmental Team (Atkins China Limited) | Environmental Team Leader | Keith Chau | 2972 1721 | 2890 6343 |
| 24 hours complaint hotline | --- | --- | 6509 0375 | --- |
| For Contract No. HY/2014/04 within Contract No. HY/2014/05 works area | | | | |
| Engineer or Engineer's Representative (AECOM Asia Co. Ltd.) | Chief Registered Architect | Malcolm Sage | 3958 7330 | 3468 2076 |
| Environmental Project Office / Independent Environmental Checker (Ramboll Environ Hong Kong Limited) | Environmental Project Office Leader | Y. H. Hui | 3465 2888 | 3465 2899 |
| | Independent Environmental Checker | Raymond Dai | 3465 2888 | 3465 2899 |
| Contractor (Rapiscan Systems Pte Ltd) | Site Agent | Ringo Yau | 9833 1402 | 2707 0816 |
| | Environmental Officer | Clarie Tsang | 6371 1362 | --- |
| Environmental Team (Atkins China Limited) | Environmental Team Leader | Keith Chau | 2972 1721 | 2890 6343 |

| Party | Position | Name | Telephone | Fax |
|----------------------------|----------|------|-----------|-----|
| 24 hours complaint hotline | --- | --- | 9833 1420 | --- |

1.3 Construction Programme

1.3.1 A copy of the Contractor's construction programme is provided in **Appendix C**.

1.4 Construction Works Undertaken During the Reporting Period

1.4.1 A summary of the construction activities undertaken during this reporting period is shown below:

For Contract No. HY/2014/05

- ABWF & MEP works (Internal) of Buildings 022, 023, 025, 032, 044, 045, 050H1, 050H2, 050A1, 050A2, 053 and 058
- Utilities and Drainage installation of Buildings 023, 025, 032, 045, 050H1, 050H2 and 050A1
- ABWF & MEP works (External) of Buildings 021, 022, 023, 025, 032, 044, 045, 050H1, 050H2, 050A1, 050A2, 053 and 058
- Construction of Planter Box and Ramp of Building 023
- Landscape works: roof greening of Buildings 025, 032 and 044

For Contract No. HY/2013/06 within Contract No. HY/2014/05 works area

- As confirmed by Contractor, construction works for Contract No. HY/2013/06 were not conducted within Contract No. HY/2014/05 works area in December 2017.

For Contract No. HY/2014/04 within Contract No. HY/2014/05 works area

- Installation of software at Buildings 053 and 054
- Radiation Testing at Buildings 058 and 059

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/2011/03 Hong Kong-Zhuhai-Macao Bridge Hong Kong Link Road – Section between Scenic Hill and HKBCF and Contract No. HY/2013/01 HZMB HKBCF – Passenger Clearance Building.
- 2.1.2 The ET of the Contract or another ET of the HZMB project is required to conduct 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 Nos. HY/2011/03 and HY/2013/01. **Figure 2.1** shows the locations of the air monitoring stations.

Table 2-1 Construction Dust Monitoring Locations

| ID | Location Description |
|----------------------|----------------------------------|
| AMS 6 ⁽¹⁾ | Dragonair/CNAC (Group) Building |
| AMS 7 ⁽¹⁾ | Hong Kong SkyCity Marriott Hotel |

Remark:

- (1) The ET of this Contract should conduct impact air quality monitoring at the AMS listed in the table as part of EM&A programme according to the latest notification from ENPO when the monitoring station(s) is/are no longer covered by another ET of the HZMB project.

2.2 Monitoring Requirements

- 2.2.1 The monitoring requirements, monitoring equipment, monitoring parameters, frequency and duration, monitoring methodology, monitoring schedule, meteorological information are detailed in the monthly EM&A Reports prepared for Contract Nos. HY/2011/03 and HY/2013/01.
- 2.2.2 The Action and Limit Levels for 1-hr TSP and 24-hr TSP are provided in **Table 2-2** and **Table 2-3**, respectively.

Table 2-2 Action and Limit Levels for 1-hr TSP

| Monitoring Station | Action Level, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|--|--|---------------------------------------|
| AMS 6 – Dragonair / CNAC (Group) Building (HKIA) | 360 | 500 |
| AMS 7 - Hong Kong SkyCity Marriott Hotel | 370 | |

Table 2-3 Action and Limit Levels for 24-hr TSP

| Monitoring Station | Action Level, $\mu\text{g}/\text{m}^3$ | Limit Level, $\mu\text{g}/\text{m}^3$ |
|--|--|---------------------------------------|
| AMS 6 – Dragonair / CNAC (Group) Building (HKIA) | 173 | 260 |
| AMS 7 - Hong Kong SkyCity Marriott Hotel | 183 | |

- 2.2.3 The event and action plan is provided in **Appendix D**.
- 2.2.4 If exceedance(s) at these station(s) 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 Nos. HY/2011/03 and HY/2013/01, 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. No Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at AMS7 by the Environmental Team of Contract No. HY/2013/01 during the reporting period.
- 2.3.3 There was one AL exceedance of 24-hr TSP at ASM3B was recorded on 23 December 2017 by the Environmental Team of Contract No. HY/2013/01 during the reporting period, after investigation, the exceedance was not related to the Contract. Details of the exceedance shall be referred to the monthly EM&A report prepared by Contract No. HY/2013/01. The IR was provided in **Appendix J**.

3 Noise Monitoring

3.1 Monitoring Locations

3.1.1 The noise monitoring works for the Contract are covered by Contract No. HY/2013/01 HZMB HKBCF – Passenger Clearance Building. The ET of the Contract or another ET of the HZMB project is required to conduct impact noise monitoring at NMS2 and NMS3B as part of EM&A programme if these noise monitoring stations are no longer covered under Contract No. HY/2013/01. **Figure 3.1** shows the locations of noise monitoring stations.

Table 3-1 Construction Noise Monitoring Locations

| ID | Location Description |
|-------------------------|---|
| NMS2 ⁽¹⁾ | Seaview Crescent |
| NMS3B ⁽¹⁾⁽²⁾ | Site Boundary of Site Office Area at Works Area WA2 |

Remarks:

- (1) The ET of this Contract should conduct impact noise monitoring at the NMS listed in the table as part of EM&A programme according to the latest notification from ENPO when the monitoring station(s) is/are no longer covered by another ET of the HZMB project.
- (2) The Action and Limit Levels for schools will be applied for this alternative monitoring location.

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/2013/01.

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

| Parameter | Action Level | Limit Level |
|--|---|-------------|
| 07:00 – 19:00 hours on normal weekdays | When one documented complaint is received | 75 dB(A)* |

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.

* Limit level is 70 dB(A) for schools and 65 dB(A) during school examination period.

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

3.2.4 If exceedance(s) at these station(s) 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.

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/2013/01. No noise exceedances were recorded at stations NMS2 and NMS3B by the ET of Contract No. HY/2013/01 during the reporting period.

4 Environmental Site Inspection and Audit

4.1 Site Inspection

- 4.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for the Contract No. HY/2014/05 (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area). During the reporting period, site inspections were carried out on 4, 13, 18 and 27 December 2017.
- 4.1.2 Particular observations for Contract No. HY/2014/05 and Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area during the site inspections and corrective actions undertaken by the Contractor are described in **Tables 4-1, 4-2 and 4-3**.

Table 4-1 Summary of Environmental Site Inspections for Contract No. HY/2014/05

| Date of Audit | Observations | Actions Taken by Contractor / Recommendation | Date of Observations Closed |
|------------------|---|--|--|
| 27 November 2017 | <ol style="list-style-type: none"> 1. A stock of more than 20 bags of cement was not covered properly at Building 045. 2. No drip tray was provided for chemical containers outside Building 023. | <ol style="list-style-type: none"> 1. The stock of dusty materials at Building 045 was removed. 2. The chemical containers at Building 023 were removed. | 4 December 2017 |
| 4 December 2017 | <ol style="list-style-type: none"> 1. No drip tray and chemical label were provided for a chemical container at Building 023. | <ol style="list-style-type: none"> 1. Chemical container was removed at Building 023. | 13 December 2017 |
| 13 December 2017 | <ol style="list-style-type: none"> 1. NRMM label missing for the excavator was observed and the colour of a NRMM label for a crane was faded near Building 044. | <ol style="list-style-type: none"> 1. NRMM label was provided for the excavator and the crane was removed from the site near Building 044. | 18 December 2017 |
| 18 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil | N/A |
| 27 December 2017 | <ol style="list-style-type: none"> 1. Concrete breaking was observed without water spraying at Building 022. | <ol style="list-style-type: none"> 1. The Contractor was reminded to provide water spraying for dusty operation. | Follow-up action undertaken by the Contractor will be inspected during the site inspection to be undertaken in January 2018. |

Table 4-2 Summary of Environmental Site Inspections for Contract No. HY/2013/06 within Contract No. HY/2014/05 works area

| Date of Audit | Observations | Actions Taken by Contractor / Recommendation | Date of Observations Closed |
|------------------|--|--|-----------------------------|
| 4 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |
| 13 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |
| 18 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |
| 27 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |

Table 4-3 Summary of Environmental Site Inspections for Contract No. HY/2014/04 within Contract No. HY/2014/05 works area

| Date of Audit | Observations | Actions Taken by Contractor / Recommendation | Date of Observations Closed |
|------------------|--|--|-----------------------------|
| 4 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |
| 13 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |
| 18 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |
| 27 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |

4.1.3 Particular observations (Landscape works) for Contract No. HY/2014/05 during the site inspections and corrective actions undertaken by the Contractor are described in **Tables 4-4**. The landscape work of green roof for Contract No. HY/2014/05 was commenced on 11 December 2017. The implementation of mitigation measures for landscape and visual resources recommended in the EIA Report were monitored during the reporting period. Landscape and visual mitigation measures in accordance with the EP, EIA and EM&A Manual were implemented by the Contractor.

Table 4-4 Summary of Environmental Site Inspections (Landscape works) for Contract No. HY/2014/05 works area

| Date of Audit | Observations | Actions Taken by Contractor / Recommendation | Date of Observations Closed |
|------------------|--|--|-----------------------------|
| 13 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |
| 27 December 2017 | No particular environmental issue was recorded during the site inspection. | Nil. | Nil. |

- 4.1.4 The Contractor has rectified most of the observations as identified during environmental site inspections during this reporting month. Follow-up actions for outstanding observations will be inspected in January 2018.

4.2 Advice on the Solid and Liquid Waste Management Status

- 4.2.1 The Contractor of Contract No. HY/2014/05 registered as a chemical waste producer. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 4.2.2 The Contractor of Contract No. HY/2014/05 was reminded that chemical waste should be properly treated and stored temporarily in designated chemical waste storage areas on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.
- 4.2.3 The monthly summary of waste flow table for Contract No. HY/2014/05 (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area) are detailed in **Appendix E**.

4.3 Environmental Licenses and Permits

- 4.3.1 The valid environmental licenses and permits for Contract No. HY/2014/05 during the reporting period (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area) are summarized in **Appendix F**.
- 4.3.2 The Contractors of Contract No. HY/2013/06 and Contract No. HY/2014/04 were advised to register as a chemical waste producer when chemical waste will be expected to generate for the foreseeable future from the operations (For Registration as Waste Producer Pursuant to Waste Disposal (Chemical Waste) (General) Regulation).

4.4 Implementation Status of Environmental Mitigation Measures

- 4.4.1 In response to the site audit findings, the Contractors carried out corrective actions.
- 4.4.2 The Contractor conducts watering on all exposed soil within the Contract site and associated works areas 8 times per day when construction activities are being undertaken.
- 4.4.3 A summary of the Implementation Schedule of Environmental Mitigation Measures (EMIS) is presented in **Appendix G**. Most of the necessary mitigation measures were implemented properly.

4.5 Summary of Exceedance of the Environmental Quality Performance Limit

- 4.5.1 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. No Action

and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at AMS7 by the Environmental Team of Contract No. HY/2013/01 during the reporting period.

- 4.5.2 There was one AL exceedance of 24-hr TSP at ASM3B was recorded on 23 December 2017 by the Environmental Team of Contract No. HY/2013/01 during the reporting period, after investigation, the exceedance was not related to the Contract. Details of the exceedance shall be referred to the monthly EM&A report prepared by Contract No. HY/2013/01. The IR was provided in **Appendix J**.
- 4.5.3 There was no Action and Limit Level exceedance for noise recorded at NMS2 and NMS3B by the Environmental Team of Contract No. HY/2013/01 during the reporting period.

4.6 Summary of Complaints, Notification of Summons and Successful Prosecution

- 4.6.1 There was no complaint received in relation to the environmental impact during the reporting period.
- 4.6.2 Statistics on environmental complaints, notifications of summons and successful prosecutions are summarized in **Appendix H**.

5 Future Key Issues

5.1 Construction Programme for the Coming Months

5.1.1 As informed by the Contractor, the major construction activities for January 2018 are summarized in **Table 5-1**.

Table 5-1 Construction Activities for January 2018

| Site Area | Description of Activities |
|---|-------------------------------------|
| <u>For Contract No. HY/2014/05</u> | |
| Buildings 022, 023, 025, 032, 044, 045, 050H1, 050H2, 050A1, 050A2, 053 and 058 | ABWF & MEP works (Internal) |
| Buildings 021, 022, 023, 025, 032, 044, 045, 050H1, 050H2, 050A1, 050A2, 053, 058 and 059 | ABWF works (External) |
| Buildings 021, 023, 025, 032, 044, 050H1, 050H2, 050A1, 050A2, 053 and 059 | ABWF works (roof) |
| Buildings 023, 032, 045, 050H1, 050H2, 050A1 and 050A2 | Utilities and Drainage Installation |
| Buildings 023, 025, 032, 044 and 045 | Landscape works: roof greening |
| <u>For Contract No. HY/2013/06 within Contract No. HY/2014/05 works area</u> | |
| Buildings 025 and 032 | Conduit Installation & Cabling |
| <u>For Contract No. HY/2014/04 within Contract No. HY/2014/05 works area</u> | |
| Buildings 053 and 054 | Installation of field devices |
| Buildings 058 and 059 | Radiation testing |

5.2 Environmental Site Inspection Schedule for the Coming Month

5.2.1 The tentative schedule for weekly site inspections for January 2018 is provided in **Appendix I**.

6 Conclusions

6.1 Conclusions

- 6.1.1 The construction works of the Contract No. HY/2014/05 commenced on 29 February 2016, while the construction works of the Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area commenced on 3 January 2017 and 13 February 2017 respectively. The twenty-second Monthly EM&A Report for Contract No. HY/2014/05 summarizes findings of the EM&A works during the reporting period from 1 to 31 December 2017 (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area).
- 6.1.2 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. No Action and Limit Level exceedance of 1-hr TSP level and 24-hr TSP level recorded at AMS7 by the Environmental Team of Contract No. HY/2013/01 during the reporting period.
- 6.1.3 There was one AL exceedance of 24-hr TSP at ASM3B was recorded on 23 December 2017 by the Environmental Team of Contract No. HY/2013/01 during the reporting period, after investigation, the exceedance was not related to the Contract. Details of the exceedance shall be referred to the monthly EM&A report prepared by Contract No. HY/2013/01. The IR was provided in **Appendix J**.
- 6.1.4 There was no Action and Limit Level exceedance for noise recorded at NMS2 and NMS3B by the Environmental Team of Contract No. HY/2013/01 during the reporting period.
- 6.1.5 Environmental site inspections were carried out on 4, 13, 18 and 27 December 2017 for the Contract No. HY/2014/05 (includes the construction works of Contract No. HY/2013/06 and Contract No. HY/2014/04 within Contract No. HY/2014/05 works area). Recommendations on remedial actions were given to the Contractors for the deficiencies identified during the site inspection.
- 6.1.6 There was no complaint received in relation to the environmental impact during the reporting period.
- 6.1.7 No notification of summons and successful prosecution was received during the reporting period.



FIGURES

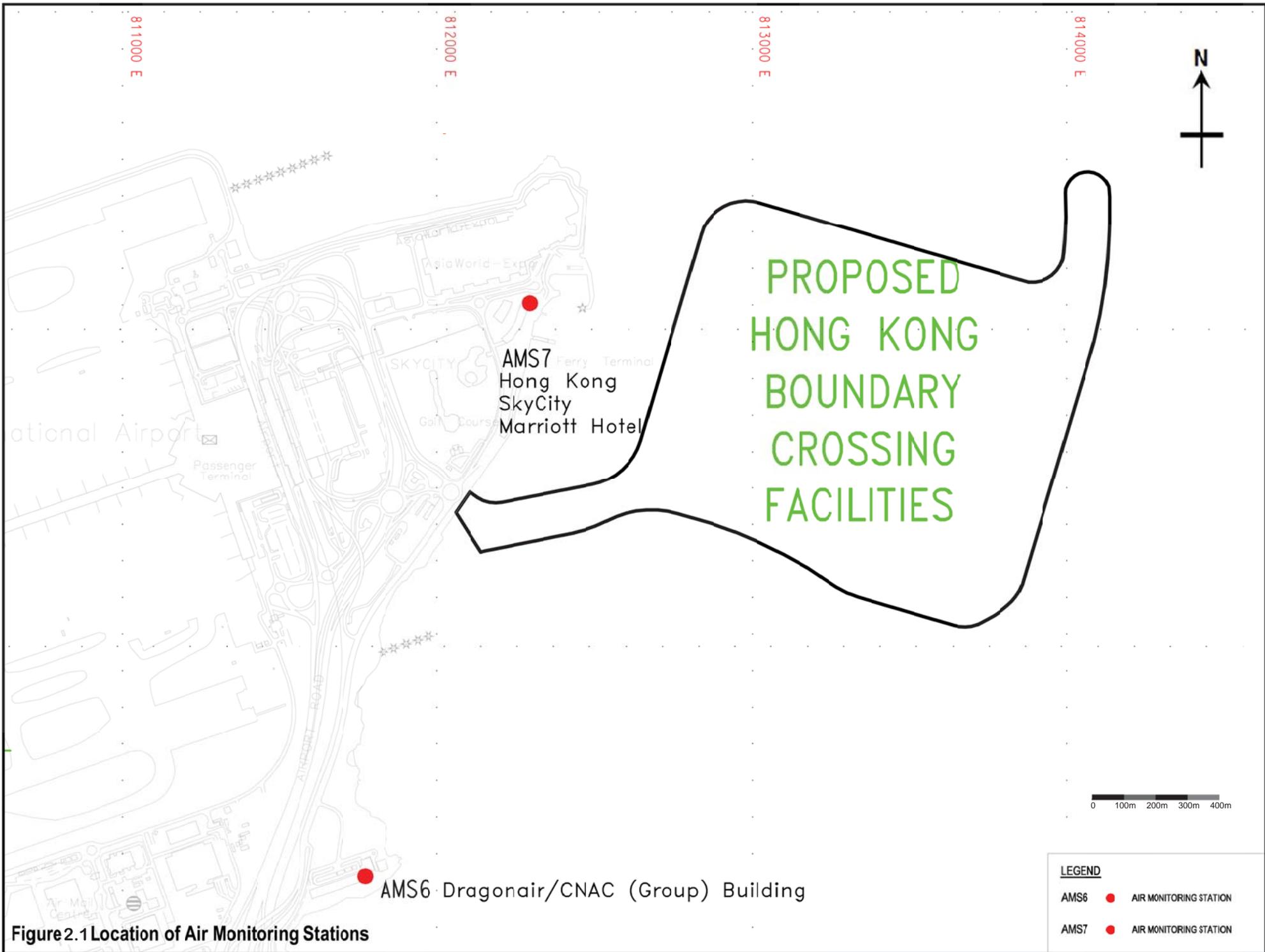


Figure 2.1 Location of Air Monitoring Stations

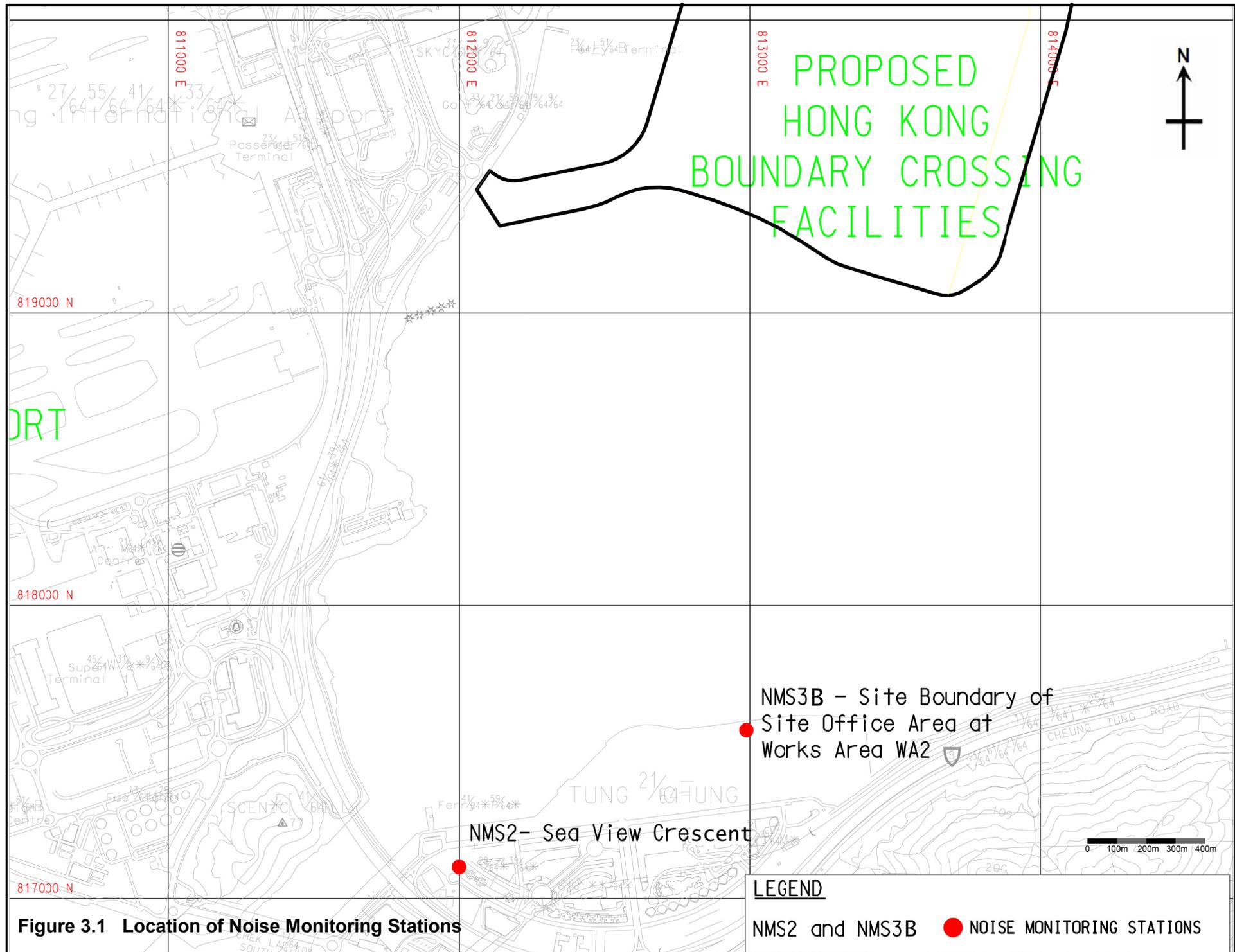


Figure 3.1 Location of Noise Monitoring Stations

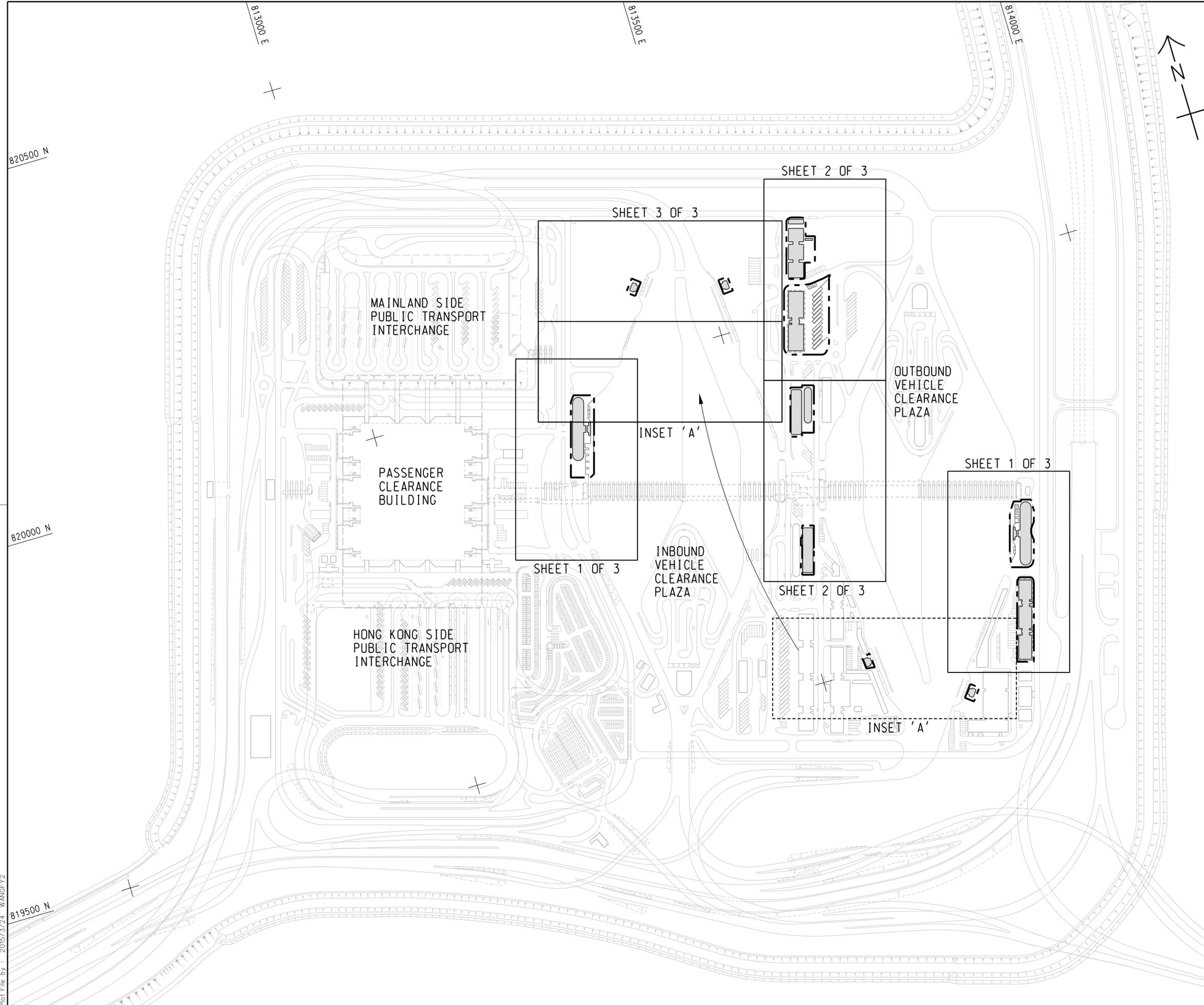
LEGEND

NMS2 and NMS3B ● NOISE MONITORING STATIONS



APPENDIX A

Location of Works Areas



Plot File by : 2015/3/24 WANGFY2

| | | | |
|------------------|------------------|----------|---------|
| - TENDER DRAWING | | BWCW SCI | MAR.15 |
| REV. 修改 | DESCRIPTION 內容摘要 | D.C. 圖號 | DATE 日期 |

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HONG KONG-ZHUHAI-MACAO BRIDGE
 HONG KONG BOUNDARY CROSSING FACILITIES
 - REMAINING ANCILLARY BUILDINGS AND FACILITIES

KEY PLAN

AECOM
 Rogers Stirk Harbour + Partners
 BURO HAPPOLD ATKINS ADI

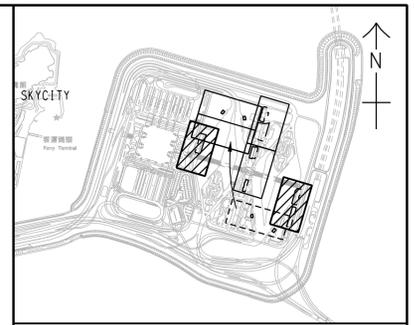
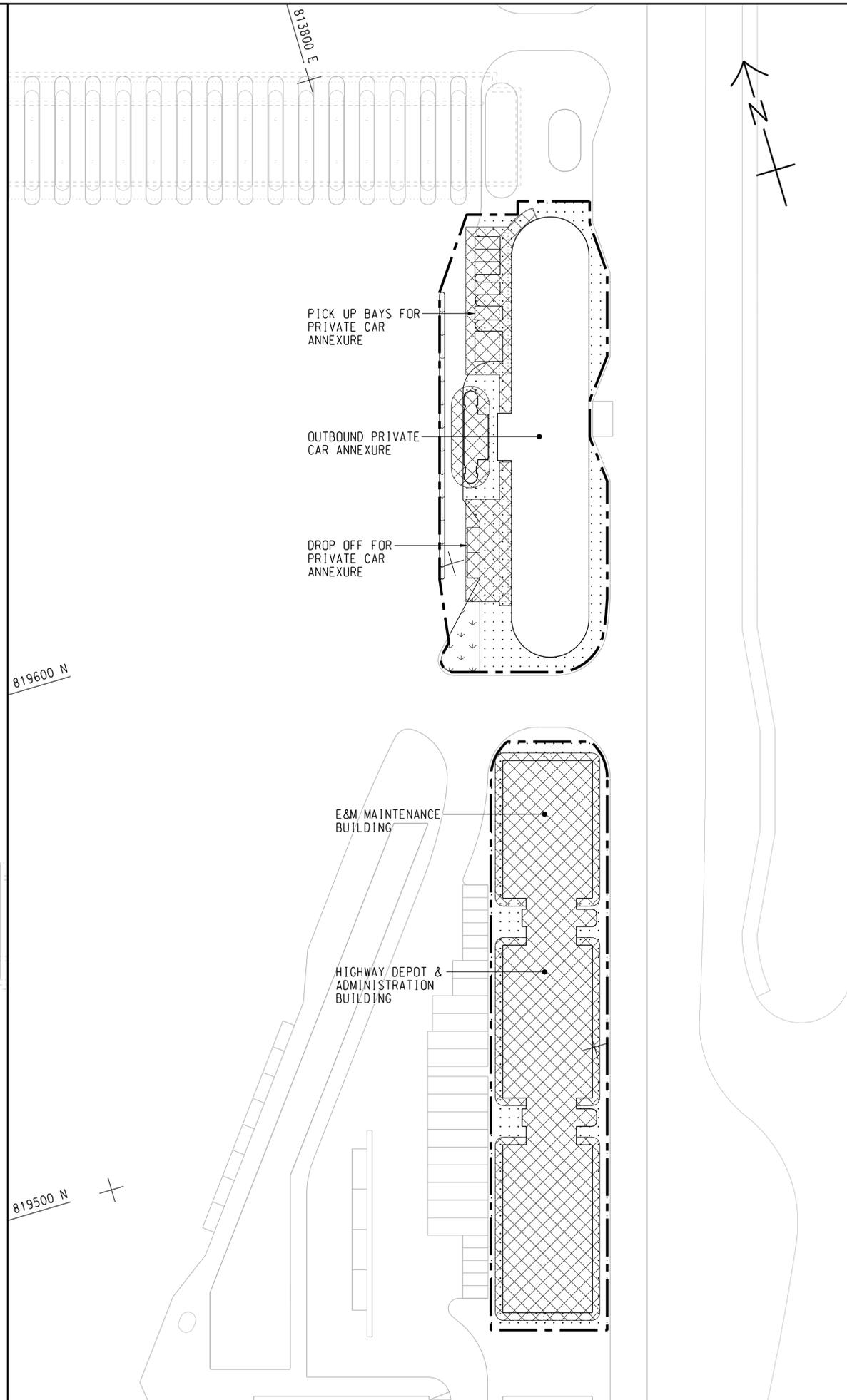
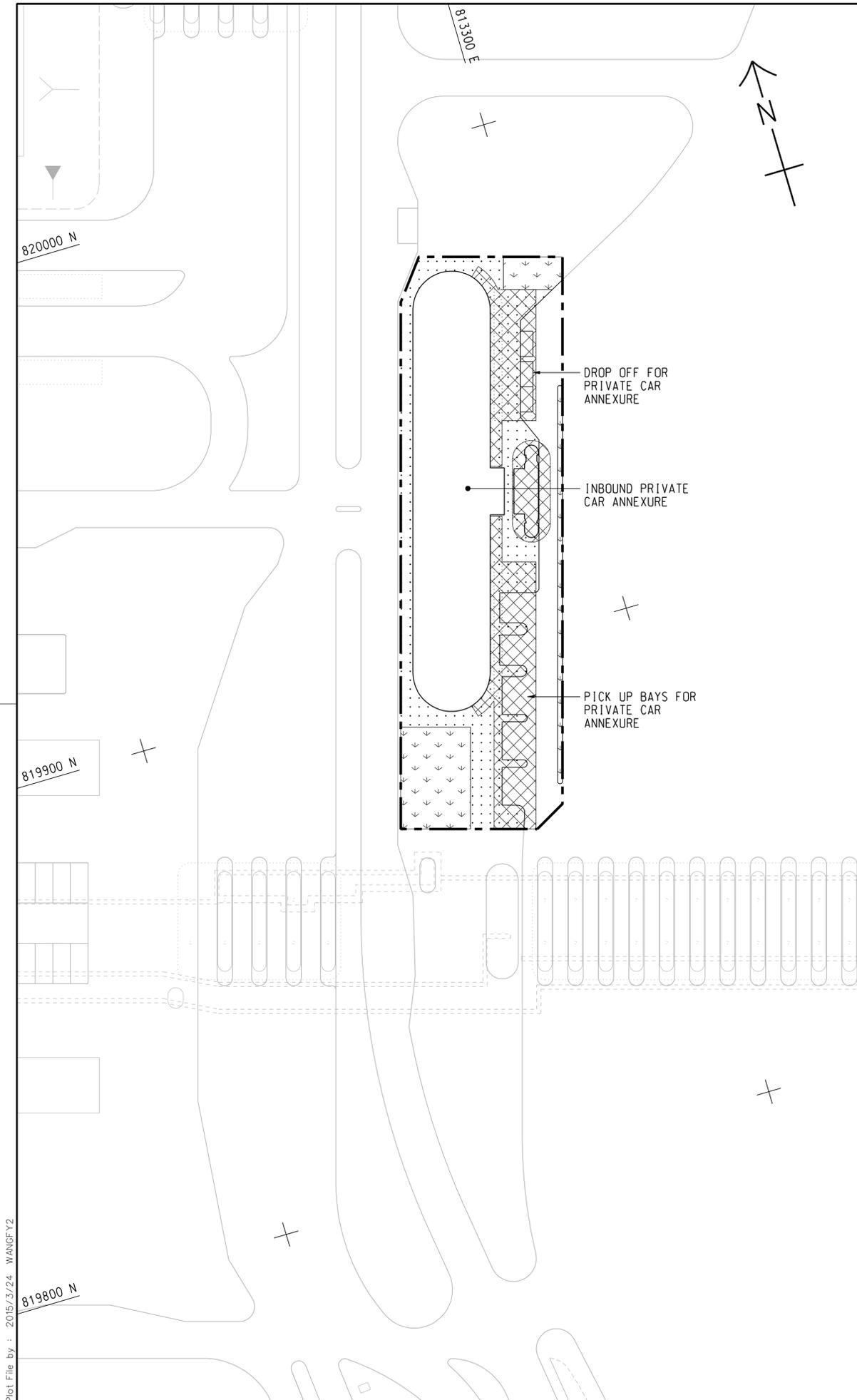
Aedas

DRG.NO. 60191048/C8/000/C00/1010
 圖紙編號

| | | | | | |
|----------------|------|-------------------|------------|----------------------|-----|
| DESIGNED BY 設計 | BWCW | CONTRACT NO. 合約編號 | HY/2014/05 | P. Dir. APPROVED 批准人 | TKH |
| DRAWN BY 繪圖 | WSY | STATUS 階段 | | | |

SCALE 比例 A1 1 : 2500

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SCALE 1 : 20000

NOTE:
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LEGEND:

| | |
|--|---|
| | SITE BOUNDARY |
| | FOOTPATH (DETAILS REFER TO LANDSCAPE DETAIL DRAWINGS) |
| | CANOPY |
| | PLANTING AREA |

| | | |
|-----------|--------------------|-----------|
| REV. / 修改 | DESCRIPTION / 內容摘要 | DATE / 日期 |
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GENERAL LAYOUT PLAN

SHEET 1 OF 3

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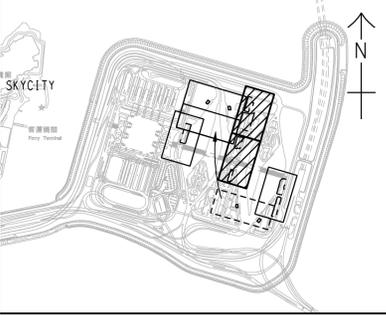
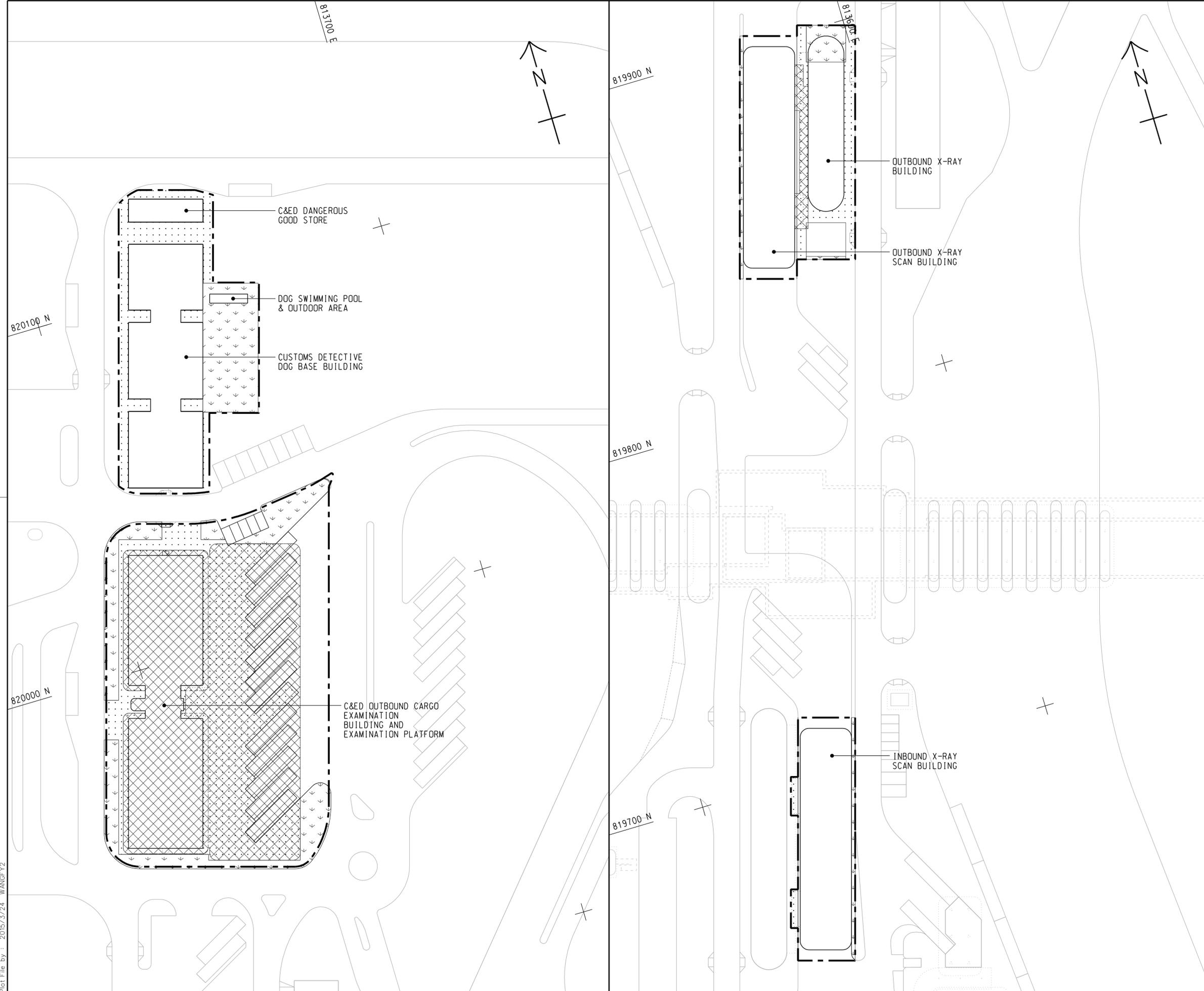
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|------------------|---------------------|---------------|
| DESIGNED BY / 設計 | CONTRACT NO. / 合約編號 | P. Dir. / 批准人 |
| BWCW | HY/2014/05 | TKH |

| | |
|---------------|-------------|
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| WSY | 初步 |

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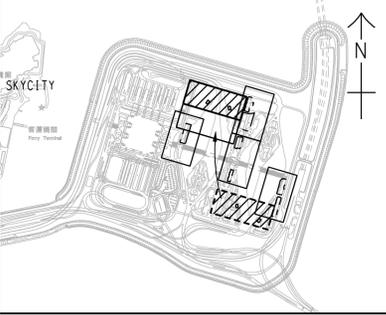
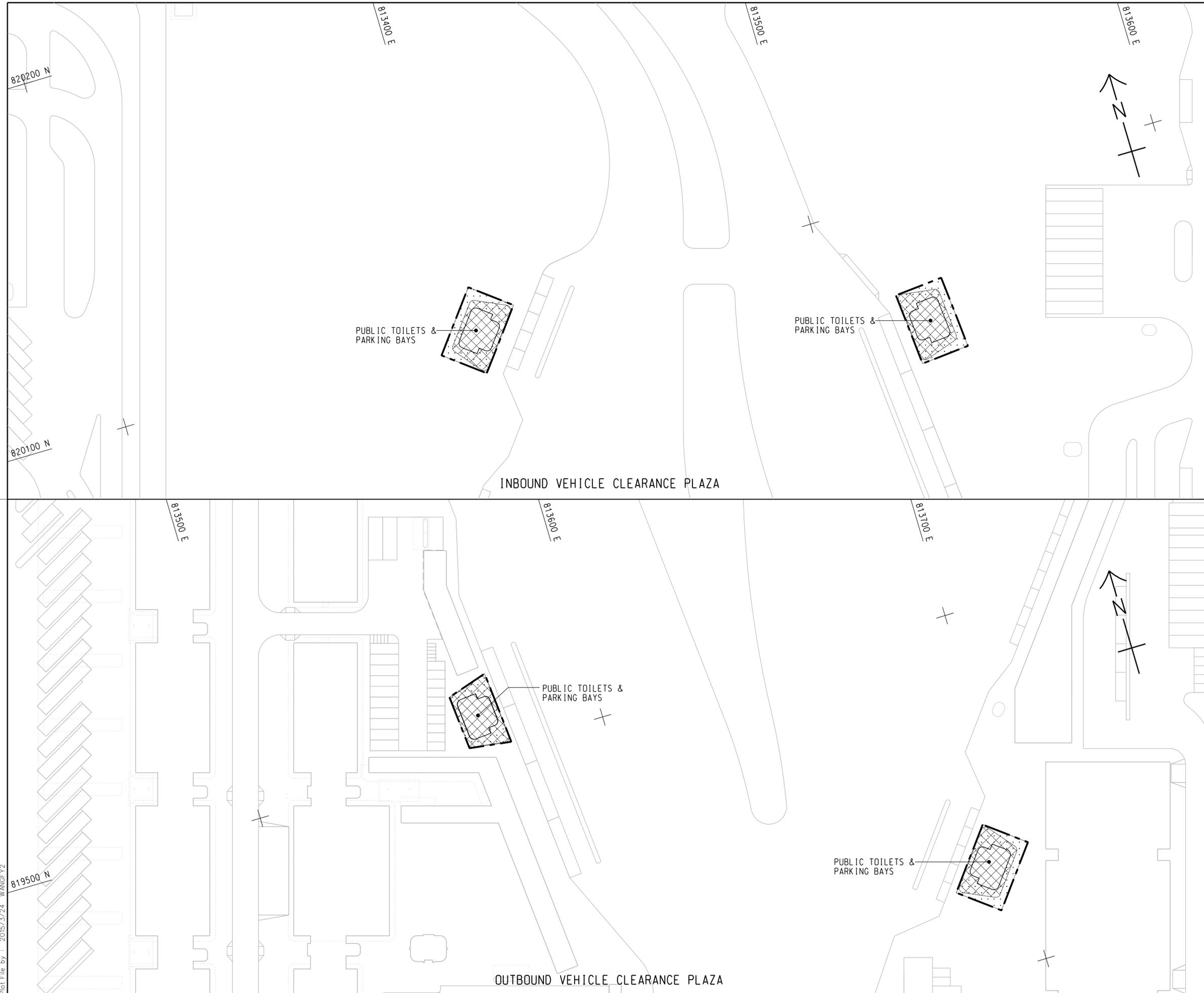
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| DESIGNED BY 設計 | CONTRACT NO. 合約編號 | P. Dir. APPROVED 批准人 |
| BWCW | HY/2014/05 | TKH |

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| DRAWN BY 繪圖 | STATUS 階段 |
| WSY | 初步 |

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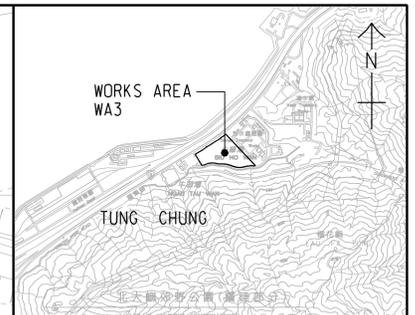
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SETTING OUT POINT

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| 302 | 817314.741 | 819069.828 |
| 303 | 817327.338 | 819049.295 |
| 304 | 817440.865 | 819117.811 |
| 305 | 817340.825 | 819027.314 |
| 306 | 817387.350 | 819023.403 |
| 307 | 817387.861 | 819043.396 |
| 308 | 817466.133 | 819091.047 |
| 309 | 817469.783 | 819087.181 |
| 310 | 817513.449 | 819113.764 |
| 311 | 817347.717 | 819016.082 |
| 312 | 817450.595 | 819032.307 |
| 313 | 817445.369 | 819013.157 |
| 314 | 817531.154 | 819001.065 |
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| 317 | 817495.827 | 819059.596 |
| 318 | 817522.110 | 819075.388 |
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| 320 | 817568.507 | 819008.526 |
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LOCATION PLAN
SCALE 1 : 25000

NOTES:

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

LEGEND:

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

| | | |
|------|----------------|---------|
| REV. | DESCRIPTION | DATE |
| - | TENDER DRAWING | MAR. 15 |

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WORKS AREA WA3

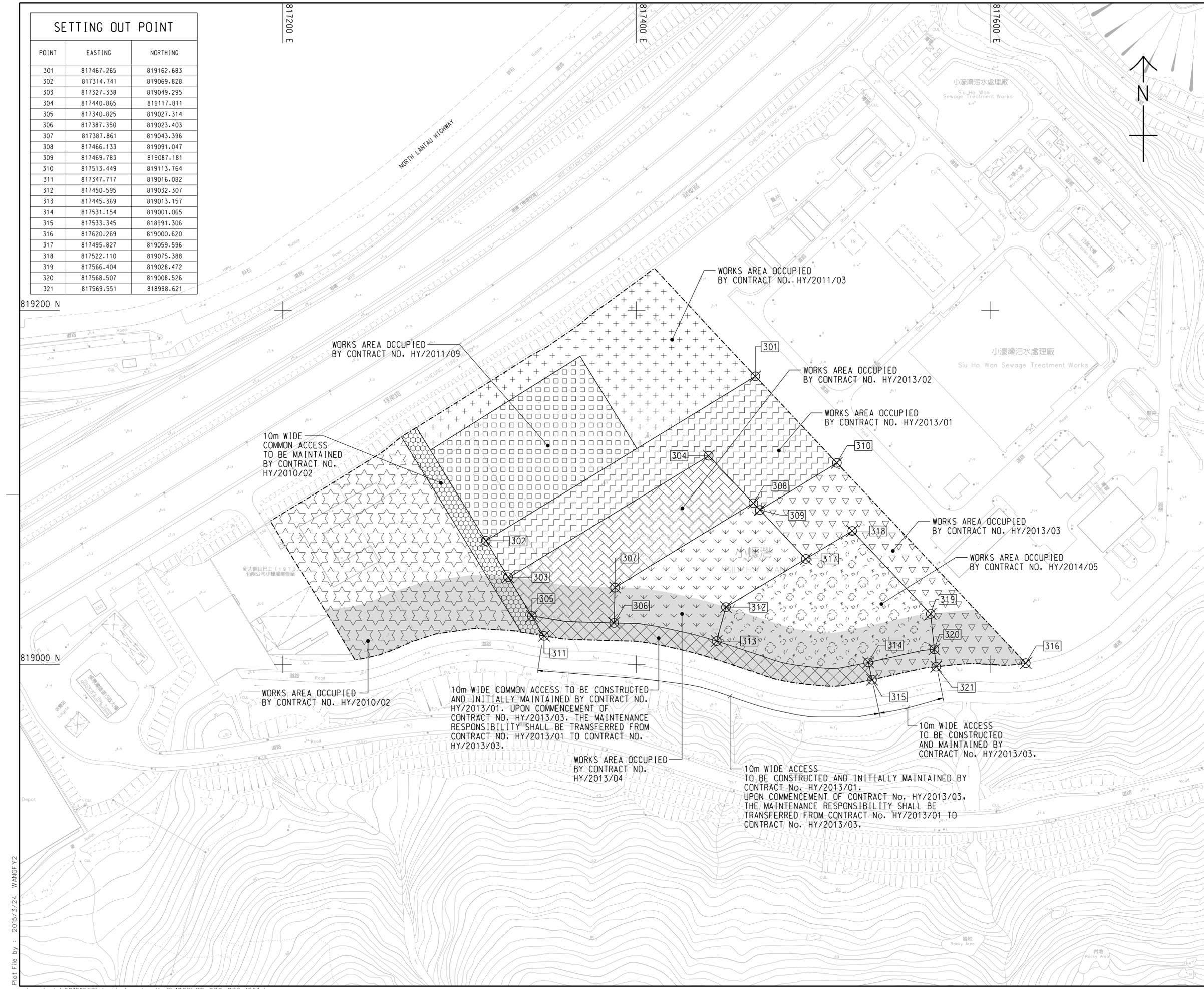
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| DRAWN BY 繪圖 | STATUS 階段 |
| WSY | 初步 |
| SCALE 比例 | DIMENSIONS ARE IN 尺寸單位 |
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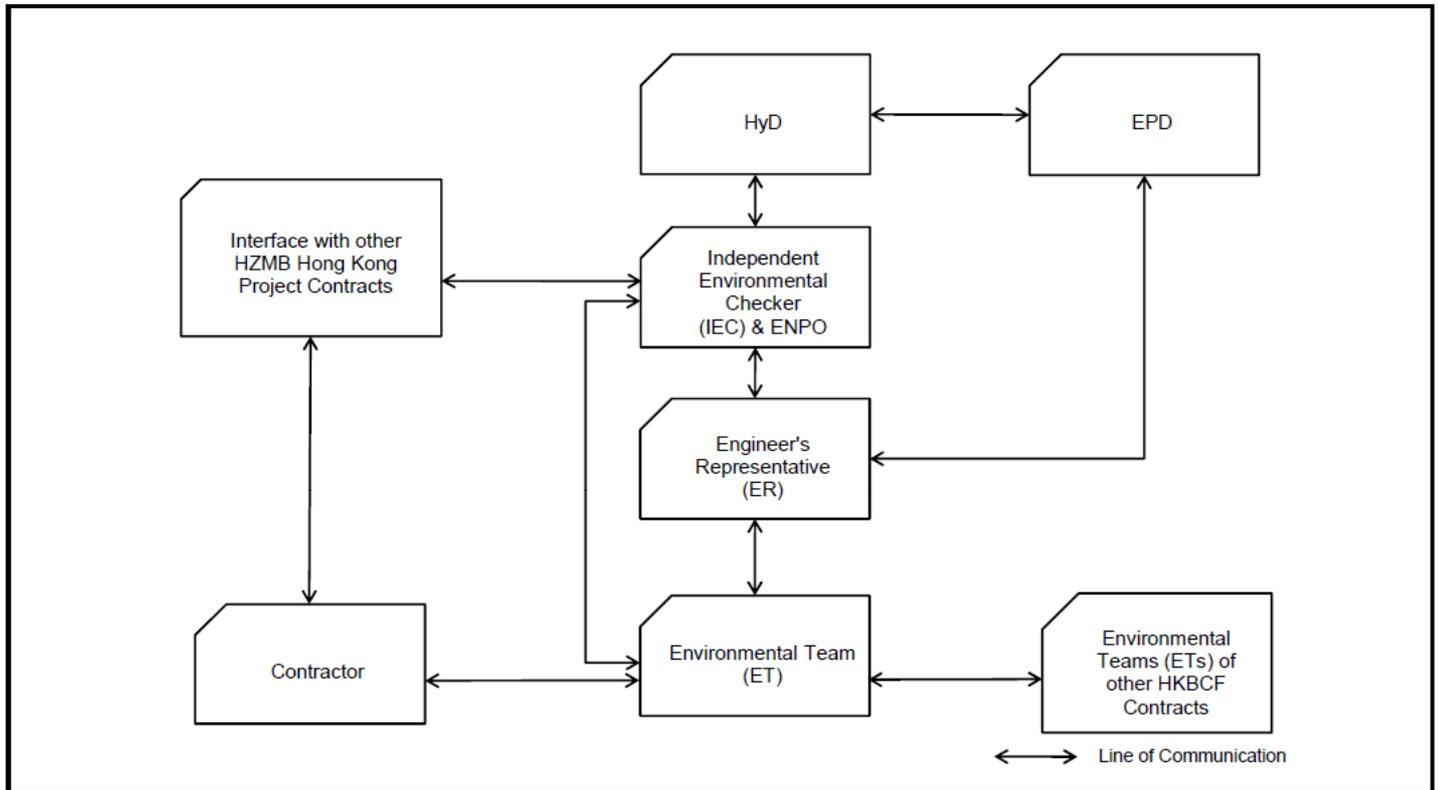
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APPENDIX B

Project Organization for Environmental Works

Project Organisation for Environmental Works





APPENDIX C

Construction Programme



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | | March 2018 | |
|---|---|---------------|----|---------------|----|----|----|--------------|----|----|----|---------------|----|----|----|------------|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 |
| C8 - 3 Month Rolling Programme, Stated 01 January 2018 | | | | | | | | | | | | | | | | | |
| PROGRAMME SUMMARY | | | | | | | | | | | | | | | | | |
| Fire Service Inspection Schedule Summary | | | | | | | | | | | | | | | | | |
| GENERAL/PRELIMINARIES | | | | | | | | | | | | | | | | | |
| DESIGN AND ENGINEERING | | | | | | | | | | | | | | | | | |
| PROCUREMENT, MANUFACTURING & DELIVERIES | | | | | | | | | | | | | | | | | |
| CONSTRUCTION | | | | | | | | | | | | | | | | | |
| Building 021 - C&ED Dangerous Goods Store | | | | | | | | | | | | | | | | | |
| Raft | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | |
| RAB-21-0410 | 021 - Power On | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | |
| RAB-21-0345 | KD4C - Projected achievement of Stage 4C of the Works | | | | | | | | | | | | | | | | |
| RAB-KD4C10 | 021 - End Users and MoM handover inspection | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | |
| RAB-21-0270 | 021 - Install Railing 50m | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | |
| Facade | | | | | | | | | | | | | | | | | |
| RAB-21-0320 | 021 - Snagging and Remedials (External) | | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | |
| RAB-21-380 | 021 - Prepare Sub Grade | | | | | | | | | | | | | | | | |
| RAB-21-390 | 021 - Lay Granular Sub-Base | | | | | | | | | | | | | | | | |
| RAB-21-360 | 021 - Concrete Block Paving | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | |
| Dangerous Goods Licence | | | | | | | | | | | | | | | | | |
| RAB-21-0350 | 021 - DG Licence Iprocessing & Inspection | | | | | | | | | | | | | | | | |
| RAB-21-0360 | 021 - Issue DG Licence | | | | | | | | | | | | | | | | |
| Fire Services Department (VAC) | | | | | | | | | | | | | | | | | |
| RAB-FSD-300 | 021 - FS Inspection Period | | | | | | | | | | | | | | | | |
| RAB-FSD-310 | 021 - Fire Certificate Obtained (Form 172) Handover | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | |
| RAB-21-2190 | 021 - Submit As-Built Drawings to the Engineer | | | | | | | | | | | | | | | | |
| RAB-21-2200 | 021 - Engineer Inspection Period | | | | | | | | | | | | | | | | |
| RAB-21-2210 | 021 - Engineer Issue Occupation Permit | | | | | | | | | | | | | | | | |
| RAB-KD154 | KD4 - Projected completion of Section IV of the Works (670 days) Building 0 | | | | | | | | | | | | | | | | |
| Building 022 - Customs Detective Dog Base Building | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | |
| Raft Foundations | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | |
| Walls & Columns | | | | | | | | | | | | | | | | | |
| Roof Slab | | | | | | | | | | | | | | | | | |
| North Structure | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | |
| Middle Structure | | | | | | | | | | | | | | | | | |

█ Remaining Level of Effort
 █ Actual Work
 █ Critical Remaining ...
█ Actual Level of Effort
 █ Remaining Work
 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | March 2018 | | | | |
|---|---|---------------|----|---------------|----|----|----|--------------|----|----|----|---------------|----|----|------------|----|----|----|--|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 | |
| Cure and Strip | | | | | | | | | | | | | | | | | | | |
| South Structure | | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | | | |
| North | | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | | |
| RAB-22-0910 | 022 - Power On | | | | | | | | | | | | | | | | ◆ | | |
| Degree 3 | | | | | | | | | | | | | | | | | | | |
| RAB-22-0865 | 022 - Ceiling Frame & Board Panel | [Blue bar] | | | | | | | | | | | | | | | | | |
| RAB-22-8395 | 022 - Wall Tiling & Painting | [Blue bar] | | | | | | | | | | | | | | | | | |
| RAB-22-8275 | 022 - MEP Final Fix | [Blue bar] | | | | | | | | | | | | | | | | | |
| RAB-22-8365 | 022 - Floor Finish Other Than Early Handovr Rooms | [Blue bar] | | | | | | | | | | | | | | | | | |
| RAB-22-8265 | 022 - Door Panel & Ironmongery | [Blue bar] | | | | | | | | | | | | | | | | | |
| RAB-22-8295 | 022 - Snagging and Remedials (Bldg. Internal) | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-22-0870 | 022 - MEP Balance of Works | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-22-0980 | 022 - End Users and MOM Handover Inspection | ◆ | | | | | | | | | | | | | | | | | |
| RAB-22-0950 | 022 - ABWF and MEP works to Degree 3 (KD5C) | ◆ | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | | |
| Facade | | | | | | | | | | | | | | | | | | | |
| RAB-22-0470 | 022 - External Painting, Tiling & Cladding | [Blue bar] | | | | | | | | | | | | | | | | | |
| RAB-22-0710 | Snag Listing - Bldg. External & External Works | [Red bar] | | | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | | | |
| RAB-22-2100 | 022 - Prepare Sub Grade | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-22-2120 | 022 - Lay Granular Sub-Base | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-22-2140 | 022 - Concrete Block Paving | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-22-2170 | 022 - Landscaping for Outdoor Excise Lawn | [Green bar] | | | | | | | | | | | | | | | | | |
| Roof Finishes - North | | | | | | | | | | | | | | | | | | | |
| RAB-22-0720 | 022 - Make good external surfaces | [Red bar] | | | | | | | | | | | | | | | | | |
| Specialist Installations | | | | | | | | | | | | | | | | | | | |
| Window Wall | | | | | | | | | | | | | | | | | | | |
| Dog Swimming Pool | | | | | | | | | | | | | | | | | | | |
| RAB-22-0600 | 022 - Tiling to Dog Swimming Pool | [Blue bar] | | | | | | | | | | | | | | | | | |
| RAB-22-0490 | 022 - Backfill to ground level at Dog Swimming Pool | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-22-0640 | 022 - Plumbing and filtration systems | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-22-0630 | 022 - Metalworks and Railings | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-22-0700 | 022 - Snagging and Remedials - Dog Pool | [Red bar] | | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | | |
| RAB-TC22-1000 | 022 - T&C (HVAC, FS, P&D, OTHERS) | [Blue bar] | | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | | | |
| BEE0 | | | | | | | | | | | | | | | | | | | |
| RAB-BEE-120 | 022 - Registered Energy Assessor Inspection & Certification | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-BEE-130 | 022 - Submit REA Certification to EDMS | ◆ | | | | | | | | | | | | | | | | | |
| RAB-BEE-140 | 022 - EDMS Issue of Cert of Compliance Registration (COCR) | [Red bar] | | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | | |
| RAB-WSD-804 | 022 - Submit WWO 46 Pt. IV | ◆ | | | | | | | | | | | | | | | | | |
| RAB-WSD-254 | 022 - WSD's Processing/Inspection/Meter Connection | [Red bar] | | | | | | | | | | | | | | | | | |
| RAB-WSD-264 | 022 - Permanent Water ON/WSD Issue WWO 46 Part V Cert & Water Cor | ◆ | | | | | | | | | | | | | | | | | |

█ Remaining Level of Effort
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█ Actual Level of Effort
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3-Month Rolling Programme Update, 01 Jan. 2018

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| Fire Services Department (VAC) | | | | | | | | | | | | | | | | | | |
| Fire Services Water (FS) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-330 | 022 - FS Inspection Period, FS | | | | | | | | | | | | | | | | | |
| RAB-FSD-590 | 022 - Issuance of FS 172, FS Certificate of Compliance, FS | | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-22-2220 | 022 - Submit Building 022 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| RAB-22-2230 | 022 - Engineer Inspection Period | | | | | | | | | | | | | | | | | |
| RAB-22-2240 | 022 - Engineer Issue Occupation Permit | | | | | | | | | | | | | | | | | |
| RAB-KD144 | KD5 - Projected completion of Section V of the Works (670 days) Building 2: | | | | | | | | | | | | | | | | | |
| Building 023 - C&ED Outbound Cargo Examination Building and Examination Platform | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft Foundations - Inspection Platform | | | | | | | | | | | | | | | | | | |
| Raft Foundations - Main Building | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| Ground Floor | | | | | | | | | | | | | | | | | | |
| Planters | | | | | | | | | | | | | | | | | | |
| RAB-23-6230 | 023 - Construct South Planter Box and Ramp | | | | | | | | | | | | | | | | | |
| Supporting Walls and Columns to +12.85mPD | | | | | | | | | | | | | | | | | | |
| First Floor | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| Supporting Walls and Columns to +17.1mPD | | | | | | | | | | | | | | | | | | |
| Roof | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| Supporting Walls and Columns to +19.1mPD | | | | | | | | | | | | | | | | | | |
| Lift Doghouse | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | | |
| Ground Floor | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-23-5610 | 023 - Frame for Wall Panel & Cladding + Louver, G/F | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-23-5930 | 023 - Wall Finish - Paint & Tile, G/F | | | | | | | | | | | | | | | | | |
| RAB-23-6220 | 023 - Floor Finish Other Than Carpet, G/F | | | | | | | | | | | | | | | | | |
| RAB-23-5760 | 023 - Ceiling Frame, G/F | | | | | | | | | | | | | | | | | |
| RAB-23-6380 | 023 - MEP Final Fix, G/F | | | | | | | | | | | | | | | | | |
| RAB-23-5660 | 023 - Door Frame/Panel & Ironmongery, G/F | | | | | | | | | | | | | | | | | |
| RAB-23-6410 | 023 - Ceiling Plaster Board, G/F | | | | | | | | | | | | | | | | | |
| RAB-23-6180 | 023 - Floor Carpet Finish, G/F | | | | | | | | | | | | | | | | | |
| RAB-23-6190 | 023 - Access to End Users, KD3C' - C3, C6 & C7 | | | | | | | | | | | | | | | | | |
| First Floor | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-23-8085 | 023 - Frame for Wall Panel & Cladding + Louver, 1/F | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-23-8175 | 023 - Wall Finish - Paint & Tile, 1/F | | | | | | | | | | | | | | | | | |
| RAB-23-8105 | 023 - Ceiling Frame, 1/F | | | | | | | | | | | | | | | | | |
| RAB-23-8205 | 023 - Floor Finish Other Than Carpet, 1/F | | | | | | | | | | | | | | | | | |
| RAB-23-8145 | 023 - Glazing, 1/F | | | | | | | | | | | | | | | | | |
| RAB-23-8155 | 023 - Door Panel/Ironmongery & Glass Baluster, 1/F | | | | | | | | | | | | | | | | | |
| RAB-23-8185 | 023 - Ceiling Plaster Board, 1/F | | | | | | | | | | | | | | | | | |

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| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 |
| RAB-23-8195 | 023 - Floor Carpet Finish, 1/F | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-8265 | 023 - MEP Balance of Works | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-2290 | 023 - Snag Listing & Remedial Works - Building Internal | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-8225 | 023 - Handover Rooms Ready to End Users***, KD3C Target to Achieve | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-5970 | 023 - ABWF and MEP works to Degree 3 (KD3E) | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6040 | 023 - End Users and MOM Handover Inspection | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-8255 | 023 - ABWF and MEP works to Degree 3 - Remaining Area- 1/F | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Roof Level Dog House | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6280 | 023 - ABWF and MEP works to Degree 2 R/F | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6340 | 023 - ABWF and MEP works to Degree 3 R/F | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| External Finishes | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Facade | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| At Grade | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-5650 | 023 - External Painting | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-5740 | 023 - Prepare Sub Grade | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-5820 | 023 - Laying Geo Textile | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-5910 | 023 - Lay Granular Sub-Base | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-5940 | 023 - Laying Course | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6050 | 023 - Concrete Block Paving | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6160 | 023 - Make good external surfaces | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Curtain Wall | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| East | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6810 | 023 - Install Primary Steelwork for Curtain Wall (Bracket Support) - E | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6820 | 023 - Install Secondary Steelwork for Curtain Wall (Mullion, etc) - E | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6830 | 023 - Glazing to Window Wall - E | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| West | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6840 | 023 - Install Primary Steelwork for Window Wall (Bracket Support) - W | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6850 | 023 - Install Secondary Steelwork for Window Wall (Mullion, etc) - W | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6860 | 023 - Glazing to Window Wall - W | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Roof Finishes | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-5920 | 023 - Install Railing | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Green Roof | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Specialist Installations | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| PV Installation | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6360 | 023 - Cable containment and grid cable wiring | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6390 | 023 - Sub-array junction box installation & Connection | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6400 | 023 - DC cable wiring from PV panel to EL room | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Steel Canopy | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6290 | 023 - Install Metal Cladding Panels | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-6310 | 023 - Install Misc Metalworks | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Utilities and Drainage | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-7975 | 023 - Construct Permanent Drainage, Manholes & Draw Pits | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-23-7985 | 023 - Utilities and Common Telecom Ducting | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Testing & Commissioning | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-TC23-1000 | 023 - T&C (HVAC, FS, P&D, OTHERS) | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-TC23-1015 | 023 - PV Self-test with Engineer | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-TC23-1020 | 023 - PV On-Grid inspection with CLP | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| Statutory Submissions & Approvals (Day 610 Completion) | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| BEE0 | | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-BEE-150 | 023 - Registered Energy Assessor Inspection & Certification | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |
| RAB-BEE-160 | 023 - Submit REA Certification to EDMS | [Actual Work] | | [Actual Work] | | | [Critical Remaining] | | | | [Critical Remaining] | | | [Critical Remaining] | | | |

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| RAB-BEE-170 | 023 - EDMS Issue of Cert of Compliance Registration (COCR) | | | | | | | | | | | | | | | | | |
| EMSD - Building 023 Lift Inspection | | | | | | | | | | | | | | | | | | |
| RAB-FSD-190 | 023 - EMSD Lift Inspection | | | | | | | | | | | | | | | | | |
| RAB-FSD-106 | 023 - EMSD Lift Certificate Issued - Building 023 | | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | |
| RAB-WSD-774 | 023 - Submit WWO 46 Pt. IV for Building 023 | | | | | | | | | | | | | | | | | |
| RAB-WSD-107 | 023 - WSD Inspection/Meter Connection | | | | | | | | | | | | | | | | | |
| RAB-WSD-109 | 023 - Permanent Water ON/WSD Issue WWO 46 Part V - Water Certificate | | | | | | | | | | | | | | | | | |
| Fire Services Department (VAC) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-110 | 023 - FS Inspection Period For Building 023 | | | | | | | | | | | | | | | | | |
| RAB-FSD-290 | 023 - Issuance of FS 172, FS Certificate of Compliance | | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-23-2250 | 023 - Submit Building 023 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| RAB-23-2260 | 023 - Engineer Inspection Period | | | | | | | | | | | | | | | | | |
| RAB-23-2270 | 023 - Engineer Issue Occupation Permit | | | | | | | | | | | | | | | | | |
| RAB-KD134 | KD3 - Projected completion of Section III of the Works (610 days) | | | | | | | | | | | | | | | | | |
| Building 025 - Inbound Private Car Annexure | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft Foundations | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| Walls & Columns | | | | | | | | | | | | | | | | | | |
| Roof Slab | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| ABWF/E&M INTERNAL FINISHES | | | | | | | | | | | | | | | | | | |
| INTERNAL FINISHING WORKS | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-25-7620 | 025 - Ceiling Panel | | | | | | | | | | | | | | | | | |
| RAB-25-7580 | 025 - Floor Painting | | | | | | | | | | | | | | | | | |
| RAB-25-7590 | 025 - Floor Carpet | | | | | | | | | | | | | | | | | |
| RAB-25-7550 | 025 - MEP Balance of Works | | | | | | | | | | | | | | | | | |
| RAB-25-7370 | 025 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| RAB-25-7375 | KD6C - Projected achievement of Stage 6C of the Works | | | | | | | | | | | | | | | | | |
| RAB-KD6C10 | 025 - End Users and MoM handover inspection | | | | | | | | | | | | | | | | | |
| RAB-25-7630 | 025 - Early Handover Rooms Ready to End Users***, Target to Achieve KDI | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| Facade | | | | | | | | | | | | | | | | | | |
| RAB-25-0580 | 025 - Make good external surfaces | | | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | | |
| RAB-25-6400 | 025 - Prepare Sub Grade | | | | | | | | | | | | | | | | | |
| RAB-25-6390 | 025 - Laying Geo Textile | | | | | | | | | | | | | | | | | |
| RAB-25-6410 | 025 - Lay Granular Sub-Base | | | | | | | | | | | | | | | | | |
| RAB-25-6420 | 025 - Laying Course | | | | | | | | | | | | | | | | | |
| RAB-25-6380 | 025 - Concrete Block Paving | | | | | | | | | | | | | | | | | |
| RAB-25-0600 | 025 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | | |
| RAB-25-0550 | 025 - Install Railing (222m) | | | | | | | | | | | | | | | | | |
| Green Roof | | | | | | | | | | | | | | | | | | |
| Specialist Installations | | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining ...
■ Actual Level of Effort
 ■ Remaining Work
 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | | March 2018 | | |
|---|---|---------------|---|---------------|----|----|----|--------------|----|----|----|---------------|----|----|----|------------|----|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| | | RAB-25-620 | 025 - Construct Health Department Screening Station x 1 | | | | | | | | | | | | | | | |
| RAB-25-610 | 025 - Construct Immigration Counters x 3 | | | | | | | | | | | | | | | | | |
| Glazed Canopy | | | | | | | | | | | | | | | | | | |
| RAB-25-0520 | 025 - Install Glazed Panels | | | | | | | | | | | | | | | | | |
| IMMD Kiosk | | | | | | | | | | | | | | | | | | |
| RAB-25-0380 | 025 - Internal ABWF and MEP of IMMD Kiosk | | | | | | | | | | | | | | | | | |
| RAB-25-0350 | 025 - External Finishes to IMMD Kiosk | | | | | | | | | | | | | | | | | |
| RAB-25-0430 | 025 - Erect Kiosk Canopy @ +10.17mPD | | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| RAB-25-7250 | 025 - Construct Permanent Drainage, Manholes & Draw Pits | | | | | | | | | | | | | | | | | |
| RAB-25-7270 | 025 - Install Flushing Water Mains | | | | | | | | | | | | | | | | | |
| RAB-25-7280 | 025 - Install Fresh Water Mains | | | | | | | | | | | | | | | | | |
| RAB-25-7290 | 025 - Install FS Water Main | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| RAB-TC25-1000 | 025 - T&C (HVAC, FS, P&D, OTHERS) | | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | | |
| BEE0 | | | | | | | | | | | | | | | | | | |
| RAB-BEE-180 | 025 - Registered Energy Assessor Inspection & Certification | | | | | | | | | | | | | | | | | |
| RAB-BEE-190 | 025 - Submit REA Certification to EDMS | | | | | | | | | | | | | | | | | |
| RAB-BEE-200 | 025 - EDMS Issue of Cert of Compliance Registration (COCR) | | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | |
| RAB-WSD-744 | 025 - Submit WWO 46 Pt. IV | | | | | | | | | | | | | | | | | |
| RAB-WSD-374 | 025 - WSD Inspection/Meter Connection | | | | | | | | | | | | | | | | | |
| RAB-WSD-384 | 025 - WSD Issue Water Certificate WWO 46 Part V | | | | | | | | | | | | | | | | | |
| Fire Services Department (VAC) | | | | | | | | | | | | | | | | | | |
| Fire Service Water (FS) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-360 | 025 - FS Inspection Period, FS | | | | | | | | | | | | | | | | | |
| RAB-FSD-894 | 025 - Issuance of Fform 172, FS Certificate of Compliance | | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-25-7220 | 025 - Submit Building 025 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| RAB-25-7230 | 025 - Engineer Inspection Period | | | | | | | | | | | | | | | | | |
| Building 032 - Outbound Private Car Annexure | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft Foundations | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| Walls & Columns | | | | | | | | | | | | | | | | | | |
| Roof Slab | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-32-0660 | 032 - Power On | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-32-0830 | 032 - Wall Painting | | | | | | | | | | | | | | | | | |
| RAB-32-0745 | 032 - Raised Floor | | | | | | | | | | | | | | | | | |
| RAB-32-0870 | 032 - Ceiling Panel | | | | | | | | | | | | | | | | | |
| RAB-32-0860 | 032 - Floor Painting & Remaining Floor Tiling | | | | | | | | | | | | | | | | | |
| RAB-32-0590 | 032 - MEP Final Fix | | | | | | | | | | | | | | | | | |
| RAB-32-0800 | 032 - Door Panel & Ironmongery | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining ...
■ Actual Level of Effort
 ■ Remaining Work
 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | January 2018 | | | | | February 2018 | | | | March 2018 | |
|---|---|-----------------------------------|----|---------------|----|----|--------------|----|----|----|----|---------------|----|----|----|------------|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 |
| RAB-32-0790 | 032 - Glazing | [Blue bar from Nov 19 to Dec 24] | | | | | | | | | | | | | | | |
| RAB-32-0850 | 032 - Early Handover Rooms Ready to End Users*** | [Red bar from Dec 31 to Jan 14] | | | | | | | | | | | | | | | |
| RAB-32-0680 | 32 - Snagging and Remedials | [Red bar from Dec 31 to Jan 28] | | | | | | | | | | | | | | | |
| RAB-32-0740 | 032 - MEP Balance of Work | [Red bar from Dec 31 to Feb 11] | | | | | | | | | | | | | | | |
| RAB-32-0670 | 032 - End Users and MoM handover inspection | [Red bar from Dec 31 to Feb 11] | | | | | | | | | | | | | | | |
| RAB-KD7C10 | KD7C - Projected achievement of Stage 7C of the Works | [Red bar from Dec 31 to Feb 11] | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | |
| RAB-32-0540 | 032 - Install Cat Ladders and Roof Hatch | [Blue bar from Dec 10 to Dec 24] | | | | | | | | | | | | | | | |
| RAB-32-0550 | 032 - Install Railing | [Blue bar from Dec 17 to Dec 24] | | | | | | | | | | | | | | | |
| Green Roof | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | |
| Facade | | | | | | | | | | | | | | | | | |
| RAB-32-0580 | 032 - Make good external surfaces | [Red bar from Dec 31 to Jan 14] | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | |
| RAB-32-6460 | 032 - Prepare Sub Grade | [Blue bar from Nov 19 to Dec 24] | | | | | | | | | | | | | | | |
| RAB-32-6450 | 032 - Laying Geo Textile | [Red bar from Dec 31 to Jan 21] | | | | | | | | | | | | | | | |
| RAB-32-6470 | 032 - Lay Granular Sub-Base | [Red bar from Dec 31 to Jan 28] | | | | | | | | | | | | | | | |
| RAB-32-6480 | 032 - Laying Course | [Red bar from Dec 31 to Feb 04] | | | | | | | | | | | | | | | |
| RAB-32-6440 | 032 - Concrete Block Paving | [Red bar from Dec 31 to Feb 11] | | | | | | | | | | | | | | | |
| RAB-32-0600 | 032 - Snagging and Remedials (KD7) | [Red bar from Dec 31 to Feb 18] | | | | | | | | | | | | | | | |
| Specialist Installations | | | | | | | | | | | | | | | | | |
| RAB-32-630 | 032 - Construct Immigration Counters x 3 | [Blue bar from Dec 10 to Dec 24] | | | | | | | | | | | | | | | |
| RAB-32-640 | 032 - Construct Health Department Screening Station X 1 | [Blue bar from Dec 10 to Dec 24] | | | | | | | | | | | | | | | |
| IMMD Kiosk | | | | | | | | | | | | | | | | | |
| RAB-32-0380 | 032 - Internal ABWF and MEP of IMMD Kiosk | [Blue bar from Nov 19 to Dec 24] | | | | | | | | | | | | | | | |
| RAB-32-0350 | 032 - External Finishes to IMMD Kiosk | [Blue bar from Nov 19 to Dec 24] | | | | | | | | | | | | | | | |
| RAB-32-0430 | 032 - Erect Kiosk Canopy @ +10.17mPD | [Red bar from Dec 31 to Feb 04] | | | | | | | | | | | | | | | |
| Glazed Canopy | | | | | | | | | | | | | | | | | |
| RAB-32-0520 | 032 - Install Glazed Panels | [Red bar from Dec 31 to Feb 11] | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | |
| RAB-32-7310 | 032 - Install Flushing Water Mains | [Green bar from Dec 31 to Jan 14] | | | | | | | | | | | | | | | |
| RAB-32-7320 | 032 - Install Fresh Water Mains | [Green bar from Dec 31 to Jan 21] | | | | | | | | | | | | | | | |
| RAB-32-7330 | 032 - Install FS Water Main | [Green bar from Dec 31 to Jan 28] | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | |
| RAB-TC32-1000 | 032 - T&C (HVAC, FS, P&D, OTHERS) | [Red bar from Dec 31 to Feb 04] | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | |
| BEE0 | | | | | | | | | | | | | | | | | |
| RAB-BEE-210 | 032 - Registered Energy Assessor Inspection & Certification | [Red bar from Dec 31 to Feb 04] | | | | | | | | | | | | | | | |
| RAB-BEE-220 | 032 - Submit REA Certification to EDMS | [Red bar from Dec 31 to Feb 11] | | | | | | | | | | | | | | | |
| RAB-BEE-230 | 032 - EDMS Issue of Cert of Compliance Registration (COCR) | [Red bar from Dec 31 to Feb 18] | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | |
| RAB-WSD-714 | 032 - Submit WWO 46 Pt. IV | [Red bar from Dec 31 to Feb 04] | | | | | | | | | | | | | | | |
| RAB-WSD-354 | 032 - WSD Issue WWO 46 Part V - Completion Cert of Plumbing & Water (| [Red bar from Dec 31 to Feb 11] | | | | | | | | | | | | | | | |
| RAB-WSD-344 | 032 - WSD Inspection/Meter Connection | [Red bar from Dec 31 to Feb 18] | | | | | | | | | | | | | | | |
| Fire Services Department (HVAC) | | | | | | | | | | | | | | | | | |
| Fire Water Service (FS) | | | | | | | | | | | | | | | | | |
| RAB-FSD-390 | 032 - FS Inspection Period, FS | [Red bar from Dec 31 to Feb 11] | | | | | | | | | | | | | | | |
| RAB-FSD-400 | 032 - Issuance of Form 172, FS Cert. of Compliance. | [Red bar from Dec 31 to Feb 18] | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
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■ Actual Level of Effort
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 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | March 2018 | | | |
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| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| RAB-32-7250 | 032 - Submit Building 032 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| Building 044 - E&M Maintenance Building | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| Walls & Columns | | | | | | | | | | | | | | | | | | |
| Ground to First Floor | | | | | | | | | | | | | | | | | | |
| First Floor | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| First Floor to Second Floor | | | | | | | | | | | | | | | | | | |
| Second Floor | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| Second Floor to Roof | | | | | | | | | | | | | | | | | | |
| Roof Level | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Ground Floor | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-44-9175 | 044 - MEP 2nd Fix - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-0760 | 044 - Door & Window Frame + Louver - G/F | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-44-9285 | 044 - Wall Finish, Paint & Tile - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9255 | 044 - Ceiling Paint - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9185 | 044 - MEP Final Fix - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9265 | 044 - Floor Tile Finish - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9235 | 044 - Ceiling Panel Frame - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9275 | 044 - Glazing - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9345 | 044 - Ceiling Panel - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9245 | 044 - Ceiling Plaster Board Frame | | | | | | | | | | | | | | | | | |
| RAB-44-9295 | 044 - Door Panel & Ironmongery - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9355 | 044 - Floor Paint Finish - G/F | | | | | | | | | | | | | | | | | |
| RAB-44-9395 | 044 - Ceiling Plaster Board | | | | | | | | | | | | | | | | | |
| First Floor | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-44-9365 | 044 - MEP 2nd Fix - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9455 | 044 - Door & Window Frame + Louver - 1/F | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-44-9555 | 044 - Wall Finish, Paint & Tile - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9465 | 044 - Ceiling Paint Finish - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9565 | 044 - Floor Tile Finish - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9375 | 044 - MEP Final Fix - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9385 | 044 - Ceiling Panel Frame - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9485 | 044 - Glazing - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9505 | 044 - Door Panel & Ironmongery - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9695 | 044 - Ceiling Plaster Board Frame | | | | | | | | | | | | | | | | | |
| RAB-44-9495 | 044 - Ceiling Panel - 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9705 | 044 - Ceiling Plaster Board | | | | | | | | | | | | | | | | | |
| RAB-44-9475 | 044 - Floor Paint Finish - 1/F | | | | | | | | | | | | | | | | | |
| Second Floor | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |

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■ Actual Level of Effort
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 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

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| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | | February 2018 | | | | March 2018 | |
|------------------------------------|--|---------------|----|---------------|----|----|----|--------------|----|----|----|----|---------------|----|----|----|------------|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-44-9575 | 044 - MEP 2nd Fix - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9665 | 044 - Door & Window Frame + Louver - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9605 | 044 - Power On - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-0610 | KD8B - Projected achievement of Stage 8B of the Works - 2/F | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-44-9635 | 044 - Ceiling Paint Finish - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9595 | 044 - Wall Finish, Paint & Tile - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9585 | 044 - MEP Final Fix - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9675 | 044 - Glazing - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9685 | 044 - Floor Tile Finish & Floor Finish to Early handover Rooms - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9715 | 044 - Door Panel & Ironmongery - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9725 | 044 - Ceiling Plaster Board Frame - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9645 | 044 - Ceiling Panel Frame - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9735 | 044 - Ceiling Plaster Board | | | | | | | | | | | | | | | | | |
| RAB-44-9795 | 044 - MEP Balance of Works | | | | | | | | | | | | | | | | | |
| RAB-44-9745 | 044 - Ceiling Panel - 2/F | | | | | | | | | | | | | | | | | |
| RAB-44-9625 | 044 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| RAB-44-9655 | 044 - Floor Finish Other Than Early Handover at 1/F | | | | | | | | | | | | | | | | | |
| RAB-44-9615 | 044 - End Users and MoM handover inspection | | | | | | | | | | | | | | | | | |
| RAB-KD8C20 | KD8C - Projected achievement of Stage 8C of the Works, 044 | | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | | |
| RAB-44-0550 | 044 - Install Cat Ladder and Roof Hatch | | | | | | | | | | | | | | | | | |
| RAB-44-0540 | 044 - Install Railing | | | | | | | | | | | | | | | | | |
| Green Roof | | | | | | | | | | | | | | | | | | |
| RAB-44-0400 | 044 - Install Green Roof Irrigation Systems | | | | | | | | | | | | | | | | | |
| RAB-44-0500 | 044 - Complete Green Roofing Works | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| Facade | | | | | | | | | | | | | | | | | | |
| RAB-44-0430 | 044 - Install External Louvers /Windows/Doors | | | | | | | | | | | | | | | | | |
| RAB-44-0590 | 044 - Make good external surfaces | | | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | | |
| RAB-44-6520 | 044 - Prepare Sub Grade | | | | | | | | | | | | | | | | | |
| RAB-44-6510 | 044 - Laying Geo Textile | | | | | | | | | | | | | | | | | |
| RAB-44-6530 | 044 - Lay Granular Sub-Base | | | | | | | | | | | | | | | | | |
| RAB-44-6540 | 044 - Laying Course | | | | | | | | | | | | | | | | | |
| RAB-44-6500 | 044 - Concrete Block Paving | | | | | | | | | | | | | | | | | |
| RAB-44-0630 | 044 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| Specialist Installations | | | | | | | | | | | | | | | | | | |
| Curtain Wall | | | | | | | | | | | | | | | | | | |
| East | | | | | | | | | | | | | | | | | | |
| RAB-44-6880 | 044 - Install Primary Steelwork for Window Wall - East | | | | | | | | | | | | | | | | | |
| RAB-44-6890 | 044 - Install Secondary Steelwork for Window Wall - East | | | | | | | | | | | | | | | | | |
| RAB-44-6900 | 044 - Glazing to Window Wall - East | | | | | | | | | | | | | | | | | |
| West | | | | | | | | | | | | | | | | | | |
| RAB-44-6920 | 044 - Install Primary Steelwork for Window Wall - West | | | | | | | | | | | | | | | | | |
| RAB-44-6930 | 044 - Install Secondary Steelwork for Window Wall - West | | | | | | | | | | | | | | | | | |
| RAB-44-6940 | 044 - Glazing to Window Wall - West | | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| RAB-TC44-1000 | 044 - T&C (HVAC, FS, P&D, OTHERS) | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining ...
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 ■ Remaining Work
 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
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| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | | March 2018 | |
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| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 |
| Statutory Submissions & Approvals | | | | | | | | | | | | | | | | | |
| BEE0 | | | | | | | | | | | | | | | | | |
| RAB-BEE-240 | 044 - Registered Energy Assessor Inspection & Certification | | | | | | | | | | | | | | | | |
| RAB-BEE-250 | 044 - Submit REA Certification to EDMS | | | | | | | | | | | | | | | | |
| RAB-BEE-260 | 044 - EDMS Issue of Cert of Compliance Registration (COCR) | | | | | | | | | | | | | | | | |
| EMSD - Building 044 Lift Inspection | | | | | | | | | | | | | | | | | |
| RAB-FSD-220 | 044 - EMSD Lift Inspection | | | | | | | | | | | | | | | | |
| RAB-FSD-114 | 044 - EMSD Lift Certificate Issued - Building 044 | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | |
| RAB-WSD-684 | 044 - Submit WWO 46 Pt. IV | | | | | | | | | | | | | | | | |
| RAB-WSD-314 | 044 WSD Inspection/Meter Connection | | | | | | | | | | | | | | | | |
| Fire Services Department (HVAC) | | | | | | | | | | | | | | | | | |
| RAB-FSD-1040 | 044 - Submit Form 501 to FSD, HVAC | | | | | | | | | | | | | | | | |
| Fire Water Services (FS) | | | | | | | | | | | | | | | | | |
| RAB-FSD-128 | 044 - Submit Form 501, FS | | | | | | | | | | | | | | | | |
| RAB-FSD-126 | 044 - Submit Form 314 to FSD, FS | | | | | | | | | | | | | | | | |
| RAB-FSD-118 | 044 FS Inspection Period , FS | | | | | | | | | | | | | | | | |
| RAB-FSD-148 | 044 - Issuance of Form 172 | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | |
| RAB-44-7280 | 044 - Submit Building 044 As Built Drawings to Engineer | | | | | | | | | | | | | | | | |
| Building 045 - Highways Depot & Administration Building | | | | | | | | | | | | | | | | | |
| Raft Foundation | | | | | | | | | | | | | | | | | |
| Diesel Fuel Chamber | | | | | | | | | | | | | | | | | |
| Structure G/F to R/F | | | | | | | | | | | | | | | | | |
| G/F to 1/F Walls & Columns | | | | | | | | | | | | | | | | | |
| 1/F Slab | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | |
| 1/F to 2/F Walls & Columns | | | | | | | | | | | | | | | | | |
| 2/F Slab | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | |
| 2/f to R/F Walls & Columns | | | | | | | | | | | | | | | | | |
| Roof Level Slab | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | |
| Ground Floor, South - G/F | | | | | | | | | | | | | | | | | |
| Degree 1, G/F | | | | | | | | | | | | | | | | | |
| Degree 2, G/F | | | | | | | | | | | | | | | | | |
| RAB-45-9895 | 045 - Door & Window Frame + Louver - G/F | | | | | | | | | | | | | | | | |
| RAB-45-9905 | 045 - Access for C3 to Install Equipment | | | | | | | | | | | | | | | | |
| Degree 3, G/F | | | | | | | | | | | | | | | | | |
| RAB-45-9935 | 045 - Wall Finish, Paint & Tile - G/F | | | | | | | | | | | | | | | | |
| RAB-45-9915 | 045 - Floor Finish (Paint & Tile) - G/F | | | | | | | | | | | | | | | | |
| RAB-45-10035 | 045 - Ceiling Plaster Board Frame & Ceiling Panel Frame - G/F | | | | | | | | | | | | | | | | |
| RAB-45-9815 | 045 - MEP Final Fix - G/F | | | | | | | | | | | | | | | | |
| RAB-45-9925 | 045 - Glazing - G/F | | | | | | | | | | | | | | | | |
| RAB-45-9945 | 045 - Door Panel & Ironmongery - G/F | | | | | | | | | | | | | | | | |
| RAB-45-10055 | 045 - Ceiling Plaster Board & Ceiling Panel- G/F | | | | | | | | | | | | | | | | |
| First Floor, 1/F | | | | | | | | | | | | | | | | | |
| Degree 1, 1/F | | | | | | | | | | | | | | | | | |
| Degree 2, 1/F | | | | | | | | | | | | | | | | | |

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3-Month Rolling Programme Update, 01 Jan. 2018

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| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | January 2018 | | | | February 2018 | | | March 2018 | | | | |
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| RAB-45-10015 | 045 - MEP 2nd Fix - 1/F | | | | | | | | | | | | | | | | | |
| RAB-45-10105 | 045 - Door & Window Frame + Louver - 1/F | | | | | | | | | | | | | | | | | |
| Degree 3, 1/F | | | | | | | | | | | | | | | | | | |
| RAB-45-10145 | 045 - Wall Finish, Paint & Tile - 1/F | | | | | | | | | | | | | | | | | |
| RAB-45-10125 | 045 - Floor Finish (Paint & Tile) - 1/F | | | | | | | | | | | | | | | | | |
| RAB-45-10205 | 045 - Ceiling Plaster Board Frame Ceiling Panel Frame- 1/F | | | | | | | | | | | | | | | | | |
| RAB-45-10025 | 045 - MEP Final Fix - 1/F | | | | | | | | | | | | | | | | | |
| RAB-45-10155 | 045 - Door Panel & Ironmongery - 1/F | | | | | | | | | | | | | | | | | |
| RAB-45-10285 | 045 - Glazing - 1/F | | | | | | | | | | | | | | | | | |
| RAB-45-10245 | 045 - Ceiling Plaster Board & Ceiling Panel - 1/F | | | | | | | | | | | | | | | | | |
| RAB-45-10275 | 045 - Handover to End users*** | | | | | | | | | | | | | | | | | |
| Second Floor, 2/F | | | | | | | | | | | | | | | | | | |
| Degree 1, 2/F | | | | | | | | | | | | | | | | | | |
| Degree 2, 2/F | | | | | | | | | | | | | | | | | | |
| RAB-45-10225 | 045 - MEP 2nd Fix - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10315 | 045 - Door & Window Frame + Louver - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10295 | 045 - Access for C3 Equip. Installation, 2/F*** | | | | | | | | | | | | | | | | | |
| RAB-45-0950 | KD8B - Projected achievement of Stage 8B of the Works - 2/F, 045 | | | | | | | | | | | | | | | | | |
| RAB-45-10255 | 045 - Power On - 2/F | | | | | | | | | | | | | | | | | |
| Degree 3, 2/F | | | | | | | | | | | | | | | | | | |
| RAB-45-10355 | 045 - Wall Finish, Paint & Tile - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10235 | 045 - MEP Final Fix - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10345 | 045 - Glazing - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10335 | 045 - Floor Finish (Paint & Tile) - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10365 | 045 - Door Panel & Ironmongery - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10375 | 045 - Ceiling Plaster Board Frame & Ceiling Panel Frame - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10385 | 045 - Ceiling Plaster Board & Ceiling Panel - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-0980 | 045 - Snagging and Remedials - 2/F | | | | | | | | | | | | | | | | | |
| RAB-45-10305 | 045 - MEP Balance of Works | | | | | | | | | | | | | | | | | |
| RAB-45-10265 | 045 - End Users and MoM handover inspection | | | | | | | | | | | | | | | | | |
| RAB-45-0970 | KD8C - Projected achievement of Stage 8C of the Works - 2/F, 045 | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| Bldg. External Finishes | | | | | | | | | | | | | | | | | | |
| Facade | | | | | | | | | | | | | | | | | | |
| RAB-45-0620 | 045 - Install External Louvers /Windows/Doors | | | | | | | | | | | | | | | | | |
| RAB-45-0760 | 045 - Make good external surfaces | | | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | | |
| RAB-45-6580 | 045 - Prepare Sub Grade | | | | | | | | | | | | | | | | | |
| RAB-45-6570 | 045 - Laying Geo Textile | | | | | | | | | | | | | | | | | |
| RAB-45-6590 | 045 - Lay Granular Sub-Base | | | | | | | | | | | | | | | | | |
| RAB-45-6600 | 045 - Laying Course | | | | | | | | | | | | | | | | | |
| RAB-45-6560 | 045 - Concrete Block Paving | | | | | | | | | | | | | | | | | |
| RAB-45-6620 | 045 - Snag Listing, External | | | | | | | | | | | | | | | | | |
| Roof Finishes - | | | | | | | | | | | | | | | | | | |
| RAB-45-0910 | 045 - Install Roof Tiles | | | | | | | | | | | | | | | | | |
| RAB-45-0930 | 045 - Install Cat Ladder and Roof Hatch | | | | | | | | | | | | | | | | | |
| RAB-45-0920 | 045 - Install Railing | | | | | | | | | | | | | | | | | |
| Green Roof - Noth Side, 2/F Level | | | | | | | | | | | | | | | | | | |
| RAB-45-0680 | 045 - Install green Roof Irrigation Systems | | | | | | | | | | | | | | | | | |
| RAB-45-0740 | 045 - Complete Green Roofing Works | | | | | | | | | | | | | | | | | |

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3-Month Rolling Programme Update, 01 Jan. 2018

| | | | |
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| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | March 2018 | | | |
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| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| Window Wall | | | | | | | | | | | | | | | | | | |
| East | | | | | | | | | | | | | | | | | | |
| RAB-45-6960 | 045 - Install Primary Steelwork for Window Wall | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | | |
| RAB-45-6970 | 045 - Install Secondary Steelwork for Window Wall | [Gantt bar: Dec 24 - Jan 7] | | | | | | | | | | | | | | | | |
| RAB-45-6980 | 045 - Glazing to Window Wall | [Gantt bar: Dec 24 - Jan 14] | | | | | | | | | | | | | | | | |
| West | | | | | | | | | | | | | | | | | | |
| RAB-45-6990 | 045 - Install Primary Steelwork for Window Wall | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | | |
| RAB-45-7000 | 045 - Install Secondary Steelwork for Window Wall | [Gantt bar: Dec 24 - Jan 7] | | | | | | | | | | | | | | | | |
| RAB-45-7010 | 045 - Glazing to Window Wall | [Gantt bar: Dec 24 - Jan 14] | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| RAB-45-7945 | 045 - Utilites and Common Telecom Ducting | [Gantt bar: Nov 19 - Dec 10] | | | | | | | | | | | | | | | | |
| RAB-45-7955 | 045 - Install Flushing Water Mains | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-45-7965 | 045 - Install Fresh Water Mains | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-45-7975 | 045 - Install FS Water Main | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| RAB-TC45-1020 | 045 - T&C (HVAC, FS, P&D, OTHERS) | [Gantt bar: Jan 21 - Jan 28] | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | | |
| BEE0 | | | | | | | | | | | | | | | | | | |
| RAB-BEE-270 | 045 - Registered Energy Assessor Inspection & Certification | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-BEE-280 | 045 - Submit REA Certification to EDMS | [Gantt bar: Jan 21 - Jan 28] | | | | | | | | | | | | | | | | |
| RAB-BEE-290 | 045 - EDMS Issue of Cert of Compliance Registration (COCR) | [Gantt bar: Jan 21 - Jan 28] | | | | | | | | | | | | | | | | |
| EMSD - Building 045 Lift Inspection | | | | | | | | | | | | | | | | | | |
| RAB-FSD-250 | 045 - EMSD Lift Inspection | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-FSD-130 | 045 - EMSD Lift Certificate Issued - Building 045 | [Gantt bar: Jan 21 - Jan 28] | | | | | | | | | | | | | | | | |
| Fuel Tank - DG License | | | | | | | | | | | | | | | | | | |
| RAB-FSD-680 | 045 - FSD Issue License | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| Generator Set - EPD Permit | | | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | |
| RAB-WSD-654 | 045 - Submit WWO 46 Pt. IV | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-WSD-284 | 045 - WSD's Processing/Inspection/Meter Connection | [Gantt bar: Jan 21 - Jan 28] | | | | | | | | | | | | | | | | |
| RAB-WSD-294 | 045 - WSD Issue WWO 046 Part V, Plumbing Inst'n Cert & Connect Water | [Gantt bar: Jan 21 - Jan 28] | | | | | | | | | | | | | | | | |
| HVAC | | | | | | | | | | | | | | | | | | |
| RAB-FSD-1000 | 045 - Submit Form 501 | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| FSD | | | | | | | | | | | | | | | | | | |
| RAB-FSD-630 | 045 - Submit Form 501 - FS | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-FSD-830 | 045 - Submit Form 314 - FS | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-FSD-450 | 045 - FS Inspection Period - FS | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-45-7310 | 045 - Submit Building 045 As Built Drawings to Engineer | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | | |
| Building 050 - Public Toilets Type 2 | | | | | | | | | | | | | | | | | | |
| Public Toilet (Portion H1) | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| RAB-50-1170 | 050 H1 - MEP 1st Fix | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | | |
| RAB-KD9A40 | 050 H1 - Access for C3 Cabling Works | [Gantt bar: Dec 24 - Jan 7] | | | | | | | | | | | | | | | | |
| RAB-KD9A10 | KD9A - Projected achievement of Stage 9A of the Works | [Gantt bar: Dec 24 - Jan 7] | | | | | | | | | | | | | | | | |

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3-Month Rolling Programme Update, 01 Jan. 2018

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| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-50-1270 | 050 H1 - MEP 2nd Fix | | | | | | | | | | | | | | | | | |
| RAB-50-1360 | 050 H1 - Louver / Door Frame | | | | | | | | | | | | | | | | | |
| RAB-50-1380 | 050 H1 - Access for C3 Equip. Installation | | | | | | | | | | | | | | | | | |
| RAB-KD9B10 | KD9B - Projected achievement of Stage 9B of the Works | | | | | | | | | | | | | | | | | |
| RAB-50-1300 | 050 H1 - Power On | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-50-1370 | 050 H1 - Floor Finish | | | | | | | | | | | | | | | | | |
| RAB-50-1390 | 050 H1 - Door panel & Ironmongery | | | | | | | | | | | | | | | | | |
| RAB-50-1350 | 050 H1 - Wall Finish | | | | | | | | | | | | | | | | | |
| RAB-50-1310 | 050 H1 - Ceiling Frame & Ceiling Board | | | | | | | | | | | | | | | | | |
| RAB-50-1280 | 050 H1 - MEP Final Fix | | | | | | | | | | | | | | | | | |
| RAB-50-1290 | 050 H1 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| RAB-KD9C10 | KD9C - Projected achievement of Stage 9C of the Works | | | | | | | | | | | | | | | | | |
| RAB-50-7460 | 050 H1 - End Users and MoM handover inspection | | | | | | | | | | | | | | | | | |
| Specialist installation | | | | | | | | | | | | | | | | | | |
| RAB-50-1240 | 050 H1 - Installation of Sanitaryware and Fixtures | | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | | |
| RAB-50-1210 | 050 H1 - Install Cat Ladder and Roof Access Hatch | | | | | | | | | | | | | | | | | |
| RAB-50-1200 | 050 H1 - Install Railing - 49m | | | | | | | | | | | | | | | | | |
| RAB-50-4470 | 050 H1 - Installation of Aluminium Canopy | | | | | | | | | | | | | | | | | |
| RAB-50-4320 | 050 H1 - Install Aluminium Cladding | | | | | | | | | | | | | | | | | |
| RAB-50-1100 | 050 H1 - Install Skylights (8No) | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| RAB-50-1120 | 050 H1 - Install External Louvers /Windows/Doors | | | | | | | | | | | | | | | | | |
| RAB-50-1260 | 050 H1 - Make good external surfaces | | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| RAB-50-8035 | 050 H1 - Install Flushing Water Mains | | | | | | | | | | | | | | | | | |
| RAB-50-8045 | 050 H1 - Install Fresh Water Mains | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| RAB-TC50-1000 | 050 H1 - T&C (HVAC, FS, P&D, OTHERS) | | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | |
| RAB-WSD-454 | 050 H1 - Submit WWO 46 Pt. IV | | | | | | | | | | | | | | | | | |
| RAB-WSD-464 | 050 H1 - WSD Inspection/Meter Connection for Building 050 | | | | | | | | | | | | | | | | | |
| RAB-WSD-474 | 050 H1 - WSD Issue WWO 046 Part V, Cert Plumbing Inst'n Compl & Conr | | | | | | | | | | | | | | | | | |
| Fire Services Department (VAC) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-1080 | 050 H1 - Submit Form 314 | | | | | | | | | | | | | | | | | |
| RAB-FSD-1090 | 050 H1 - Submit Form 501 | | | | | | | | | | | | | | | | | |
| RAB-FSD-1130 | 050 H1 - FS Inspection | | | | | | | | | | | | | | | | | |
| RAB-FSD-1100 | 050 H1 - Issuance of Form 172 | | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-50-7340 | 050 H1 - Submit Building 050 H1 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| Public Toilet (Portion H2) | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining ...
■ Actual Level of Effort
 ■ Remaining Work
 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | | February 2018 | | | | March 2018 | |
|---|---|---------------|----|---------------|----|----|----|--------------|----|----|----|----|---------------|----|----|----|------------|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| RAB-50-2170 | 050 H2 - MEP 1st Fix | | | | | | | | | | | | | | | | | |
| RAB-50-2390 | 050 H2 - Access for C3 Cabling Works | | | | | | | | | | | | | | | | | |
| RAB-KD10A10 | 050 H2 - Projected achievement of Stage 10A of the Works | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-50-2270 | 050 H2 - MEP 2nd Fix | | | | | | | | | | | | | | | | | |
| RAB-50-2360 | 050 H2 - Louver / Door Frame | | | | | | | | | | | | | | | | | |
| RAB-KD10B40 | 050 H2 - Access for C3 Equip. Installation | | | | | | | | | | | | | | | | | |
| RAB-KD10B10 | 050 H2 - Projected achievement of Stage 10B of the Works | | | | | | | | | | | | | | | | | |
| RAB-50-2300 | 050 H2 - Power On | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-50-2370 | 050 H2 - Floor Finish | | | | | | | | | | | | | | | | | |
| RAB-50-2380 | 050 H2 - Door panel & Ironmongery | | | | | | | | | | | | | | | | | |
| RAB-50-2350 | 050 H2 - Wall Finish | | | | | | | | | | | | | | | | | |
| RAB-50-2340 | 050 H2 - Ceiling Frame & Ceiling Board | | | | | | | | | | | | | | | | | |
| RAB-50-2280 | 050 H2 - MEP Final Fix | | | | | | | | | | | | | | | | | |
| RAB-50-2290 | 050 H2 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| RAB-KD10C10 | 050 H2 - Projected achievement of Stage 10C of the Works | | | | | | | | | | | | | | | | | |
| RAB-50-7470 | 050 H2 - End Users and MoM handover inspection | | | | | | | | | | | | | | | | | |
| Specialist installation | | | | | | | | | | | | | | | | | | |
| RAB-50-2240 | 050 H2 - Installation of Sanitaryware and Fixtures | | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | | |
| RAB-50-2210 | 050 H2 - Install Cat Ladder and Roof Access Hatch | | | | | | | | | | | | | | | | | |
| RAB-50-2100 | 050 H2 - Install Skylights (8No) | | | | | | | | | | | | | | | | | |
| RAB-50-2200 | 050 H2 - Install Railing - 49m | | | | | | | | | | | | | | | | | |
| RAB-50-2230 | 050 H2 - Installation of Aluminium Canopy | | | | | | | | | | | | | | | | | |
| RAB-50-4360 | 050 H2 - Install Aluminium Cladding | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| RAB-50-2120 | 050 H2 - Install External Louvers /Windows/Doors | | | | | | | | | | | | | | | | | |
| RAB-50-2260 | 050 H2 - Make good external surfaces | | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| RAB-50-7915 | 050 H2 - Install Flushing Water Mains | | | | | | | | | | | | | | | | | |
| RAB-50-7925 | 050 H2 - Install Fresh Water Mains | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| RAB-TC50-1010 | 050 H2 - T&C (HVAC, FS, P&D, OTHERS) | | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | |
| RAB-WSD-594 | 050 H2 - Submit WWO 46 Pt. IV | | | | | | | | | | | | | | | | | |
| RAB-WSD-434 | 050 H2 - WSD Inspection/Meter Connection for Building 050 | | | | | | | | | | | | | | | | | |
| RAB-WSD-444 | 050 H2 - SD Issue WWO 046 Part V, Cert Plumbing Inst'n Compl & Conner | | | | | | | | | | | | | | | | | |
| Fire Services Department (VAC) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-1110 | 050 H2 - Submit Form 314 | | | | | | | | | | | | | | | | | |
| RAB-FSD-1120 | 050 H2 - Submit Form 501 | | | | | | | | | | | | | | | | | |
| RAB-FSD-1160 | 050 H2 - FS Inspection | | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-50-7370 | 050 H2 - Submit Building 050 H1 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| Public Toilet (Portion A1) | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft | | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining ...
■ Actual Level of Effort
 ■ Remaining Work
 ◊ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | March 2018 | | | |
|---|--|------------------------------|----|---------------|----|----|----|--------------|----|----|----|---------------|----|----|------------|----|----|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| Structure | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| RAB-50-3310 | 050 A1 - Plastering/Rendering & Undercoat | [Gantt bar: Nov 19 - Dec 10] | | | | | | | | | | | | | | | | |
| RAB-50-3170 | 050 A1 - MEP 1st Fix | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | | |
| RAB-50-3320 | 050 A1 - Screeding | [Gantt bar: Dec 17 - Dec 24] | | | | | | | | | | | | | | | | |
| RAB-50-3330 | 050 A1 - Access for C3 for Cabling Works | [Finish constraint: Dec 17] | | | | | | | | | | | | | | | | |
| RAB-KD11A10 | KD11A - Projected achievement of Stage 11A of the Works | [Milestone: Jan 07] | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-50-3270 | 050 A1 - MEP 2nd Fix | [Gantt bar: Dec 26 - Jan 14] | | | | | | | | | | | | | | | | |
| RAB-50-3360 | 050 A1 - Louver / Door Frame | [Gantt bar: Dec 03 - Dec 24] | | | | | | | | | | | | | | | | |
| RAB-50-3390 | 050 A1 - Access for C3 for Equip. Installation | [Gantt bar: Dec 24 - Jan 07] | | | | | | | | | | | | | | | | |
| RAB-KD11B10 | KD11B - Projected achievement of Stage 11B of the Works | [Milestone: Jan 14] | | | | | | | | | | | | | | | | |
| RAB-50-3300 | 050 A1 - Power On | [Milestone: Jan 14] | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-50-3350 | 050 A1 - Wall Finish | [Gantt bar: Dec 17 - Jan 07] | | | | | | | | | | | | | | | | |
| RAB-50-3370 | 050 A1 - Floor Finish | [Gantt bar: Dec 24 - Jan 14] | | | | | | | | | | | | | | | | |
| RAB-50-3380 | 050 A1 - Door panel & Ironmongery | [Gantt bar: Dec 24 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-50-3340 | 050 A1 - Ceiling Frame | [Gantt bar: Jan 07 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-50-3280 | 050 A1 - MEP Final Fix | [Gantt bar: Jan 14 - Jan 28] | | | | | | | | | | | | | | | | |
| RAB-KD11C10 | KD11C - Projected achievement of Stage 11C of the Works | [Milestone: Feb 04] | | | | | | | | | | | | | | | | |
| RAB-50-3290 | 050 A1 - Snagging and Remedials | [Gantt bar: Feb 11 - Feb 25] | | | | | | | | | | | | | | | | |
| Specialist installation | | | | | | | | | | | | | | | | | | |
| RAB-50-3240 | 050 A1 - Installation of Sanitaryware and Fixtures | [Gantt bar: Jan 14 - Feb 18] | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | | |
| RAB-50-3210 | 050 A1 - Install Cat Ladder and Roof Access Hatch | [Gantt bar: Nov 19 - Dec 03] | | | | | | | | | | | | | | | | |
| RAB-50-3200 | 050 A1 - Install Railing - 49m | [Gantt bar: Nov 19 - Dec 03] | | | | | | | | | | | | | | | | |
| RAB-50-3230 | 050 A1 - Installation of Aluminium Canopy | [Gantt bar: Jan 07 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-50-4370 | 050 A1 - Install Aluminium Cladding | [Gantt bar: Jan 14 - Jan 28] | | | | | | | | | | | | | | | | |
| RAB-50-3100 | 050 A1 - Install Skylights (8No) | [Gantt bar: Jan 21 - Jan 28] | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| RAB-50-3120 | 050 A1 - Install External Louvers /Windows/Doors | [Gantt bar: Nov 19 - Dec 03] | | | | | | | | | | | | | | | | |
| RAB-50-3190 | 050 A1 - External Tiling | [Gantt bar: Nov 19 - Dec 03] | | | | | | | | | | | | | | | | |
| RAB-50-3260 | 050 A1 - Make good external surfaces | [Gantt bar: Feb 11 - Feb 25] | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| RAB-50-7955 | 050 A1 - Install Flushing Water Mains | [Gantt bar: Jan 07 - Jan 21] | | | | | | | | | | | | | | | | |
| RAB-50-7965 | 050 A1 - Install Fresh Water Mains | [Gantt bar: Jan 07 - Jan 21] | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| RAB-TC50-1020 | 050 A1 - T&C (HVAC, FS, P&D, OTHERS) | [Gantt bar: Jan 28 - Feb 11] | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | |
| RAB-WSD-394 | 050 A1 - Submit WWO 46 Pt. IV | [Milestone: Jan 14] | | | | | | | | | | | | | | | | |
| RAB-WSD-404 | 050 A1 - WSD Inspection/Meter Connection | [Gantt bar: Jan 14 - Feb 11] | | | | | | | | | | | | | | | | |
| RAB-WSD-414 | 050 A1 - WSD Issue WWO 046 Part V, Plumbing Inst'n Compl & Water Coi | [Milestone: Feb 11] | | | | | | | | | | | | | | | | |
| Fire Services Department (VAC) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-1050 | 050 A1 - Submit Form 314 | [Milestone: Jan 28] | | | | | | | | | | | | | | | | |
| RAB-FSD-1060 | 050 A1 - Submit Form 501 | [Milestone: Jan 28] | | | | | | | | | | | | | | | | |
| RAB-FSD-1180 | 050 A1 - FS Inspection | [Gantt bar: Feb 18 - Feb 25] | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
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■ Actual Level of Effort
 ■ Remaining Work
 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | March 2018 | | | |
|---|---|---------------|----|---------------|----|----|----|--------------|----|----|----|---------------|----|----|------------|----|----|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| Engineer (Aecom) | | | | | | | | | | | | | | | | | | |
| RAB-50-7400 | 050 A1 - Submit Building 050 A1 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| Public Toilet (Portion A2) | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| RAB-50-4170 | 050 A2 - MEP 1st Fix | | | | | | | | | | | | | | | | | |
| RAB-50-4410 | 050 A2 - Access for C3 Cabling Works | | | | | | | | | | | | | | | | | |
| RAB-KD12A10 | KD12A - Projected achievement of Stage 12A of the Works | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| RAB-50-4270 | 050 A2 - MEP 2nd Fix | | | | | | | | | | | | | | | | | |
| RAB-50-4440 | 050 A2 - Louver / Door Frame | | | | | | | | | | | | | | | | | |
| RAB-50-4480 | 050 A2 - Access for C3 Equip. Installation | | | | | | | | | | | | | | | | | |
| RAB-KD12B10 | KD12B - Projected achievement of Stage 12B of the Works | | | | | | | | | | | | | | | | | |
| RAB-50-4300 | 050 A2 - Power On | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-50-4430 | 050 A2 - Wall Finish | | | | | | | | | | | | | | | | | |
| RAB-50-4450 | 050 A2 - Floor Finish | | | | | | | | | | | | | | | | | |
| RAB-50-4460 | 050 A2 - Door panel & Ironmongery | | | | | | | | | | | | | | | | | |
| RAB-50-4390 | 050 A2 - Ceiling Frame | | | | | | | | | | | | | | | | | |
| RAB-50-4280 | 050 A2 - MEP Final Fix | | | | | | | | | | | | | | | | | |
| RAB-50-4290 | 050 A2 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| RAB-KD12C10 | KD12C - Projected achievement of Stage 12C of the Works | | | | | | | | | | | | | | | | | |
| RAB-50-7490 | 050 A2 - End Users and MoM handover inspection | | | | | | | | | | | | | | | | | |
| Specialist installation | | | | | | | | | | | | | | | | | | |
| RAB-50-4240 | 050 A2 - Installation of Sanitaryware and Fixtures | | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | | |
| RAB-50-4180 | 050 A2 - Install Roof Tiles - 140m² | | | | | | | | | | | | | | | | | |
| RAB-50-4210 | 050 A2 - Install Cat Ladder and Roof Access Hatch | | | | | | | | | | | | | | | | | |
| RAB-50-4200 | 050 A2 - Install Railing - 49m | | | | | | | | | | | | | | | | | |
| RAB-50-4230 | 050 A2 - Installation of Aluminium Canopy | | | | | | | | | | | | | | | | | |
| RAB-50-4380 | 050 A2 - Install Aluminium Cladding | | | | | | | | | | | | | | | | | |
| RAB-50-4100 | 050 A2 - Install Skylights (8No) | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| RAB-50-4190 | 050 A2 - External Tiling | | | | | | | | | | | | | | | | | |
| RAB-50-4120 | 050 A2 - Install External Louvers /Windows/Doors | | | | | | | | | | | | | | | | | |
| RAB-50-4260 | 050 A2 - Make good external surfaces | | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| RAB-50-7995 | 050 A2 - Install Flushing Water Mains | | | | | | | | | | | | | | | | | |
| RAB-50-8005 | 050 A2 - Install Fresh Water Mains | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| RAB-TC50-1030 | 050 A2 - T&C (HVAC, FS, P&D, OTHERS) | | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 670 Completion) | | | | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | |
| RAB-WSD-124 | 050 A2 - Submit WWO 46 Pt. IV | | | | | | | | | | | | | | | | | |
| RAB-WSD-134 | 050 A2 - WSD Inspection/Meter Connection for Building 050 | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining ...
■ Actual Level of Effort
 ■ Remaining Work
 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | March 2018 | | | |
|---|--|---------------|----|---------------|----|----|----|--------------|----|----|----|---------------|----|----|------------|----|----|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| RAB-WSD-144 | 050 A2 - WSD Issue WWO 046 Part V, Cert Plumbing Instl'n Compl & Contr | | | | | | | | | | | | | | | | | |
| Fire Servives Department (VAC) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-260 | 050 A2 - Submit Form 314 | | | | | | | | | | | | | | | | | |
| RAB-FSD-270 | 050 A2 - Submit Form 501 | | | | | | | | | | | | | | | | | |
| RAB-FSD-1200 | 050 A2 - FS Inspection | | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-50-7430 | 050 A2 - Submit Building 050 H1 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| Building 053 - Outbound X-Ray Building | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| External Walls | | | | | | | | | | | | | | | | | | |
| To First Floor Level | | | | | | | | | | | | | | | | | | |
| Internal Structures | | | | | | | | | | | | | | | | | | |
| First Floor | | | | | | | | | | | | | | | | | | |
| Slabs | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| 1/F - Roof Level | | | | | | | | | | | | | | | | | | |
| Staircases | | | | | | | | | | | | | | | | | | |
| Roof Floor | | | | | | | | | | | | | | | | | | |
| Slabs | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Ground Floor | | | | | | | | | | | | | | | | | | |
| Degree 1 - G/F | | | | | | | | | | | | | | | | | | |
| Degree 2 - G/F | | | | | | | | | | | | | | | | | | |
| Degree 3 - G/F | | | | | | | | | | | | | | | | | | |
| RAB-53-8205 | 053 - Floor Painting & Tiling, G/F | | | | | | | | | | | | | | | | | |
| RAB-53-7915 | 053 - Ceiling Plaster Board, G/F | | | | | | | | | | | | | | | | | |
| RAB-53-0710 | 053 - Door Panel & Ironmongery, G/F | | | | | | | | | | | | | | | | | |
| First Floor | | | | | | | | | | | | | | | | | | |
| Degree 1 - 1/F | | | | | | | | | | | | | | | | | | |
| Degree 2 - 1/F | | | | | | | | | | | | | | | | | | |
| Degree 3 - 1/F | | | | | | | | | | | | | | | | | | |
| RAB-53-8215 | 053 - Floor Painting & Tiling, 1/F | | | | | | | | | | | | | | | | | |
| RAB-53-8195 | 053 - MEP Balance of Works | | | | | | | | | | | | | | | | | |
| RAB-53-8125 | 053 - Snagging and Remedials, 1/F | | | | | | | | | | | | | | | | | |
| RAB-53-8095 | 053 - Projected Achievement of Stage 1C, 1/F | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| External Facade | | | | | | | | | | | | | | | | | | |
| RAB-53-0500 | 053 - External Painting | | | | | | | | | | | | | | | | | |
| RAB-53-0640 | 053 - Make good external surfaces | | | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | | |
| RAB-53-7615 | 053 - Prepare Sub Grade | | | | | | | | | | | | | | | | | |
| RAB-53-7885 | 053 - Laying Geo Textile | | | | | | | | | | | | | | | | | |
| RAB-53-7625 | 053 - Lay Granular Sub-Base | | | | | | | | | | | | | | | | | |
| RAB-53-7635 | 053 - Laying Course | | | | | | | | | | | | | | | | | |
| RAB-53-7695 | 053 - Concrete Block Paving | | | | | | | | | | | | | | | | | |
| RAB-53-7705 | 053 - Snag Listing | | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | | |
| RAB-53-0530 | 053 - Install Railing - 105m | | | | | | | | | | | | | | | | | |
| Spacialist Installations | | | | | | | | | | | | | | | | | | |
| Glazed Canopy | | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
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 ■ Remaining Work
 △ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | March 2018 | | |
|---|--|------------------------------|----|---------------|----|----|----|--------------|----|----|----|---------------|----|----|------------|----|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 |
| RAB-53-0620 | 053 - Construct high level Canopy at +9.95mPD | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | |
| RAB-TC53-1050 | 053 - T&C, Lift | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 470 Completion) | | | | | | | | | | | | | | | | | |
| BEE0 | | | | | | | | | | | | | | | | | |
| RAB-BEE-420 | 053 - Registered Energy Assessor Inspection & Certification | [Gantt bar: Jan 31 - Feb 07] | | | | | | | | | | | | | | | |
| RAB-BEE-430 | 053 - Submit REA Certification to EDMS | [Milestone: Jan 31] | | | | | | | | | | | | | | | |
| RAB-BEE-440 | 053 - EDMS Issue of Cert of Compliance Registration (COCR) | [Gantt bar: Jan 31 - Feb 07] | | | | | | | | | | | | | | | |
| EMSD - Building 053 Lift Inspection | | | | | | | | | | | | | | | | | |
| RAB-FSD-160 | 053 - EMSD Lift Inspection | [Gantt bar: Jan 31 - Feb 07] | | | | | | | | | | | | | | | |
| RAB-FSD-090 | 053 - EMSD Lift Certificate Issued (Fire Lift) | [Milestone: Jan 31] | | | | | | | | | | | | | | | |
| Water Supplies Department (WSD) | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | |
| RAB-WSD-100 | 053 - Submit WWO 46 Pt. IV | [Milestone: Dec 17] | | | | | | | | | | | | | | | |
| RAB-WSD-102 | 053 - WSD's Processing/Inspection/Meter Connection | [Gantt bar: Jan 31 - Feb 07] | | | | | | | | | | | | | | | |
| RAB-WSD-104 | 053 - WSD Issue WWO 046 Part V, Plumbing Compl. Cert & Water Conner | [Milestone: Feb 21] | | | | | | | | | | | | | | | |
| VAC | | | | | | | | | | | | | | | | | |
| FSD | | | | | | | | | | | | | | | | | |
| RAB-FSD-430 | 053 - Issue Form 172, FS Compliance Cert. | [Milestone: Jan 31] | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | |
| RAB-53-7460 | 053 - Submit Building 053 As Built Drawings to Engineer | [Milestone: Jan 31] | | | | | | | | | | | | | | | |
| RAB-53-7470 | 053 - Engineer Inspection Period | [Gantt bar: Jan 31 - Feb 07] | | | | | | | | | | | | | | | |
| RAB-53-7480 | 053 - Engineer Issue Occupation Permit | [Milestone: Feb 28] | | | | | | | | | | | | | | | |
| RAB-53-KD1 | KD1 - Projected Completion of Section I of the Works (470 days) Building 053 | [Milestone: Feb 28] | | | | | | | | | | | | | | | |
| Building 058 - Outbound X-Ray Scan Tunnel | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | |
| Raft | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | |
| Walls | | | | | | | | | | | | | | | | | |
| South | | | | | | | | | | | | | | | | | |
| North | | | | | | | | | | | | | | | | | |
| Roof Slabs | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | |
| RAB-58-0700 | 058 - Floor Finish (Epoxy Paint) | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | |
| RAB-58-0660 | 058 - Snagging and Remedials, Bldg. Internal | [Gantt bar: Jan 31 - Feb 07] | | | | | | | | | | | | | | | |
| RAB-58-7520 | 058 - End Users and MoM handover inspection | [Milestone: Jan 31] | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | |
| RAB-58-0540 | 058 - Install Railing - 152m | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | |
| Facade | | | | | | | | | | | | | | | | | |
| RAB-58-0470 | 058 - External Painting | [Gantt bar: Nov 19 - Dec 24] | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | |
| RAB-58-6760 | 058 - Prepare Sub Grade | [Gantt bar: Dec 24 - Jan 07] | | | | | | | | | | | | | | | |
| RAB-58-6750 | 058 - Laying Geo Textile | [Gantt bar: Jan 14 - Jan 21] | | | | | | | | | | | | | | | |
| RAB-58-6770 | 058 - Lay Granular Sub-Base | [Gantt bar: Jan 21 - Jan 28] | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
 ■ Actual Work
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■ Actual Level of Effort
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 ◻ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | March 2018 | | | |
|---|--|---------------|----|---------------|----|----|----|--------------|----|----|----|---------------|----|----|------------|----|----|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| RAB-58-6780 | 058 - Laying Course | | | | | | | | | | | | | | | | | |
| RAB-58-6740 | 058 - Concrete Block Paving | | | | | | | | | | | | | | | | | |
| RAB-58-6800 | 058 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| Glazed Canopy | | | | | | | | | | | | | | | | | | |
| RAB-58-0600 | 058 - Construct high level canopy at +13.231mPD | | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 470 Completion) | | | | | | | | | | | | | | | | | | |
| VAC (FSD) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-104 | 058 - Fire Certificate Obtained (Form 172) Handover For Building 058 | | | | | | | | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-58-7490 | 058 - Submit Building 058 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| RAB-58-7500 | 058 - Engineer Inspection Period | | | | | | | | | | | | | | | | | |
| RAB-58-7510 | 058 - Engineer Issue Occupation Permit | | | | | | | | | | | | | | | | | |
| RAB-KD34 | KD1 - Projected Completion of Section I of the Works (470 days) Building 058 | | | | | | | | | | | | | | | | | |
| Building 059 - Inbound X-Ray Scan Tunnel | | | | | | | | | | | | | | | | | | |
| Excavation | | | | | | | | | | | | | | | | | | |
| Raft Foundations | | | | | | | | | | | | | | | | | | |
| Structure | | | | | | | | | | | | | | | | | | |
| Walls | | | | | | | | | | | | | | | | | | |
| West | | | | | | | | | | | | | | | | | | |
| East | | | | | | | | | | | | | | | | | | |
| Roof Slabs | | | | | | | | | | | | | | | | | | |
| Cure and Strip | | | | | | | | | | | | | | | | | | |
| ABWF/E&M | | | | | | | | | | | | | | | | | | |
| Internal Finishes | | | | | | | | | | | | | | | | | | |
| Degree 1 | | | | | | | | | | | | | | | | | | |
| Degree 2 | | | | | | | | | | | | | | | | | | |
| Degree 3 | | | | | | | | | | | | | | | | | | |
| RAB-59-7550 | 059 - End Users and MoM handover inspection | | | | | | | | | | | | | | | | | |
| Roof Finishes | | | | | | | | | | | | | | | | | | |
| External Finishes | | | | | | | | | | | | | | | | | | |
| Facade | | | | | | | | | | | | | | | | | | |
| RAB-59-0480 | 059 - External Painting | | | | | | | | | | | | | | | | | |
| RAB-59-0650 | 059 - Make good external surfaces | | | | | | | | | | | | | | | | | |
| At Grade | | | | | | | | | | | | | | | | | | |
| RAB-59-6700 | 059 - Prepare Sub Grade | | | | | | | | | | | | | | | | | |
| RAB-59-6690 | 059 - Laying Geo Textile | | | | | | | | | | | | | | | | | |
| RAB-59-6710 | 059 - Lay Granular Sub-Base | | | | | | | | | | | | | | | | | |
| RAB-59-6720 | 059 - Laying Course | | | | | | | | | | | | | | | | | |
| RAB-59-6680 | 059 - Concrete Block Paving | | | | | | | | | | | | | | | | | |
| RAB-59-0670 | 059 - Snagging and Remedials | | | | | | | | | | | | | | | | | |
| Glazed Canopy | | | | | | | | | | | | | | | | | | |
| RAB-59-0610 | 059 - Construct high level glazed canopy at +13.406mPD North | | | | | | | | | | | | | | | | | |
| Utilities and Drainage | | | | | | | | | | | | | | | | | | |
| Testing & Commissioning | | | | | | | | | | | | | | | | | | |
| Statutory Submissions & Approvals (Day 470 Completion) | | | | | | | | | | | | | | | | | | |
| VAC | | | | | | | | | | | | | | | | | | |
| Fire Services Department (FSD) | | | | | | | | | | | | | | | | | | |
| Commencement | | | | | | | | | | | | | | | | | | |
| Completion | | | | | | | | | | | | | | | | | | |
| Bldg. 059 Ready for FS Inspection (C8 Requirement) | | | | | | | | | | | | | | | | | | |
| RAB-FSD-750 | 059 - Fire Certificate Obtained (Form 172) Handover For Building 059 | | | | | | | | | | | | | | | | | |

■ Remaining Level of Effort
 ■ Actual Work
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■ Actual Level of Effort
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 △ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |



| Activity ID | Activity Name | November 2017 | | December 2017 | | | | January 2018 | | | | February 2018 | | | | March 2018 | | |
|---|---|---------------|----|---------------|----|----|----|--------------|----|----|----|---------------|----|----|----|------------|----|----|
| | | 19 | 26 | 03 | 10 | 17 | 24 | 31 | 07 | 14 | 21 | 28 | 04 | 11 | 18 | 25 | 04 | 11 |
| Bldg. 059 for FS Inspection (Due to C3 Work Interface) | | | | | | | | ◆ | | | | | | | | | | |
| RAB-FSD-490 | 059 - Fire Certificate Obtained (Form 172) Handover For Building 059 | | | | | | | ◆ | | | | | | | | | | |
| Engineer (AECOM) | | | | | | | | | | | | | | | | | | |
| RAB-59-7520 | 059 - Submit Building 059 As Built Drawings to Engineer | | | | | | | | | | | | | | | | | |
| Bldg. 059 Ready for Engineer Inspection (C8 Requirement) | | | | | | | | | | | | | | | | | | |
| RAB-59-7570 | 059 - Engineer Inspection Period | | | | | | | | | | | | | | | | | |
| RAB-59-7580 | 059 - Engineer Issue Occupation Permit | | | | | | | | | | | | | | | | | |
| RAB-59-7590 | KD2 - Projected Completion of Section II of the Works (470 days) Building 0 | | | | | | | | | | | | | | | | | |
| Bldg. 059 Ready for Engineer Inspection (Due to C3 Work Interface) | | | | | | | | | | | | | | | | | | |
| RAB-59-7530 | 059 - Engineer Inspection Period | | | | | | | | | | | | | | | | | |
| RAB-59-7540 | 059 - Engineer Issue Occupation Permit | | | | | | | | | | | | | | | | | |
| RAB-KD24 | KD2 - Projected Completion of Section II of the Works (470 days) Building 0 | | | | | | | | | | | | | | | | | |

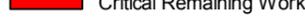
■ Remaining Level of Effort
 ■ Actual Work
 ■ Critical Remaining ...
■ Actual Level of Effort
 ■ Remaining Work
 △ Finish Constraint

3-Month Rolling Programme Update, 01 Jan. 2018

| Date | Revision | Checked | Approved |
|-----------|---|---------|----------|
| 01-Jan-18 | 3-Month Rolling Programme, 01 Jan-18 Update | | |
| | | | |

| Activity ID | Activity Name | 2015 | | | 2016 | | | | 2017 | | | | 2018 | | | | 2019 | | |
|--|--|--|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|
| | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Hong Kong-Zhuhai_Macao Bridge Hong Kong Boundary Crossing F | | <p>22-Oct-17, Hong Kong-Zhuhai_Macao Bridge</p> <p>23-Jun-17, Site and Facility Inspection:</p> <p>24-Aug-17, Access Dates</p> | | | | | | | | | | | | | | | | | |
| Key Dates | | | | | | | | | | | | | | | | | | | |
| Interface Activities | | | | | | | | | | | | | | | | | | | |
| Site and Facility Inspection | | | | | | | | | | | | | | | | | | | |
| JS1200 | Pre Site and Facility Inspection by Contractor at Location 4 - Deg2 | | | | | | | | | | | | | | | | | | |
| JS1210 | Joint Site and Facility Inspection with Interface Contractor at Location 4 - Deg2 | | | | | | | | | | | | | | | | | | |
| JS1620 | Pre Site and Facility Inspection by Contractor at Location 14 - Deg2 | | | | | | | | | | | | | | | | | | |
| JS1630 | Joint Site and Facility Inspection with Interface Contractor at Location 14 - Deg2 | | | | | | | | | | | | | | | | | | |
| JS1760 | Pre Site and Facility Inspection by Contractor at Location 18 - Deg1 | | | | | | | | | | | | | | | | | | |
| JS1770 | Joint Site and Facility Inspection with Interface Contractor at Location 18 - Deg1 | | | | | | | | | | | | | | | | | | |
| JS1780 | Pre Site and Facility Inspection by Contractor at Location 18 - Deg2 | | | | | | | | | | | | | | | | | | |
| JS1790 | Joint Site and Facility Inspection with Interface Contractor at Location 18 - Deg2 | | | | | | | | | | | | | | | | | | |
| Access Dates | | | | | | | | | | | | | | | | | | | |
| AD1000 | Location 1(PCB (001) Basement)-Deg1 (270d) | | | | | | | | | | | | | | | | | | |
| AD1010 | Location 1(PCB (001) Basement)-Deg2 (380d) | | | | | | | | | | | | | | | | | | |
| AD1020 | Location 1(PCB (001) ELV Room (Grid Line E3))-Deg1 (270d) | | | | | | | | | | | | | | | | | | |
| AD1030 | Location 1(PCB (001) ELV Room (Grid Line E3))-Deg2 (380d) | | | | | | | | | | | | | | | | | | |
| AD1040 | Location 2(PCB (001) First Floor Main Server Room)-Deg1 (330d) | | | | | | | | | | | | | | | | | | |
| AD1050 | Location 2(PCB (001) First Floor Main Server Room)-Deg2 (380d) | | | | | | | | | | | | | | | | | | |
| AD1060 | Location 2(PCB (001) First Floor Main Server Room) - For Server Installation - Deg2 (380d) | | | | | | | | | | | | | | | | | | |
| AD1070 | Location 2(PCB (001) Ground Floor ELV Room (Grid Line E3)) - Deg1 (330d) | | | | | | | | | | | | | | | | | | |
| AD1080 | Location 2(PCB (001) Ground Floor DOH Port Health Control Room (Grid Line BD5)) - Deg1 (330d) | | | | | | | | | | | | | | | | | | |
| AD1090 | Location 2(PCB (001) Ground Floor DOH Port Health Control Room (Grid Line BD5)) - Deg2 (380d) | | | | | | | | | | | | | | | | | | |
| AD1130 | Location 3(Inbd Cargo Exam Bldg (037) Platform Control Room)-Deg2 (500d) | | | | | | | | | | | | | | | | | | |
| AD1150 | Location 3(Inbd Cargo Exam Bldg (037) Inspector Offices 128,129,130,131,128,129,14) | | | | | | | | | | | | | | | | | | |
| AD1170 | Location 3a(Inbd Cargo Exam Bldg (037) ROCARS Room)-Deg2 (480d) | | | | | | | | | | | | | | | | | | |
| AD1190 | Location 3a(Inbd Cargo Exam Bldg (037) Main Server Room)-Deg2 (480d) | | | | | | | | | | | | | | | | | | |
| AD1200 | Location 3a(Inbd Cargo Exam Bldg (037) Main Server Room) - For Server installation - Deg2 (480d) | | | | | | | | | | | | | | | | | | |
| AD1220 | Location 4(Outbd Cargo Exam Bldg (023))-Deg2 (680d) | | | | | | | | | | | | | | | | | | |
| AD1240 | Location 4a(Outbd Cargo Exam Bldg (023))-Deg2 (630d) | | | | | | | | | | | | | | | | | | |
| AD1270 | Location 6(Common Utility Enclosure & Staff Subway)-Deg1 (400d) | | | | | | | | | | | | | | | | | | |
| AD1290 | Location 7(Common Utility Enclosure & Staff Subway)-Deg1 (270d) | | | | | | | | | | | | | | | | | | |
| AD1300 | Location 8(Inbd Private Car Annex (025))-Deg1 (430d) | | | | | | | | | | | | | | | | | | |
| AD1310 | Location 8(Inbd Private Car Annex (025))-Deg2 (580d) | | | | | | | | | | | | | | | | | | |
| AD1320 | Location 8(Inbd Private Car Annex (025) Canopy)-Deg1 (430d) | | | | | | | | | | | | | | | | | | |
| AD1330 | Location 8(Inbd Private Car Annex (025) Canopy)-Deg2 (580d) | | | | | | | | | | | | | | | | | | |
| AD1340 | Location 9(Outbd Private Car Annex (032))-Deg1 (520d) | | | | | | | | | | | | | | | | | | |
| AD1350 | Location 9(Outbd Private Car Annex (032))-Deg2 (660d) | | | | | | | | | | | | | | | | | | |
| AD1360 | Location 9(Outbd Private Car Annex (032) Canopy)-Deg1 (520d) | | | | | | | | | | | | | | | | | | |
| AD1370 | Location 9(Outbd Private Car Annex (032) Canopy)-Deg2 (660d) | | | | | | | | | | | | | | | | | | |
| AD1501 | Location 12(Inbd Private Car Kiosks(027))-Deg1 (400d) Phase 2 | | | | | | | | | | | | | | | | | | |
| AD1510 | Location 12(Inbd Private Car Kiosks(027))-Deg2 (480d) Phase 1 | | | | | | | | | | | | | | | | | | |
| AD1511 | Location 12(Inbd Private Car Kiosks(027))-Deg2 (480d) Phase 2 | | | | | | | | | | | | | | | | | | |
| AD1521 | Location 12(Inbd Private Car Kiosks(027) Canopy)-Deg1 (400d) Phase 2 | | | | | | | | | | | | | | | | | | |

Programme No.: HZMB-DWP
Data Date: 14-Aug-15

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

Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing
Facilities - Automatic Vehicle
Clearance Support System (AVCSS)

| Date | Revision | Checked | Approved |
|-----------|------------|---------|----------|
| 14-Nov-16 | Rev.: 0 | WC | LC |
| 10-Mar-17 | Rev.: 1.0a | WC | LC |
| 5-May-17 | Rev.: 1.0b | WC | LC |

| Activity ID | Activity Name | 2015 | | | | | | | | | | | | 2016 | | | | 2017 | | | | 2018 | | | | 2019 | | |
|-------------|---|------|----|----|----|----|----|----|----|----|----|----|----|------|----|----|----|------|----|----|----|------|--|--|--|------|--|--|
| | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q1 | Q2 | Q3 | | | | | | |
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| | Supply/Manufacture prototypes | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Coding | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Software System Inetgration | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Supply/Manufacture products for FAT | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Factory Acceptance Test (FAT) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Supply/Manufacture Equipment | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | Location 1(PCB (001) Basement) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1920 | L1(001)B/F - Cable Laying and termination at Location 1 and Location 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Location 1(PCB (001) ELV Room (Grid Line E3)) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1940 | L1(001)ELV Rm - Cable Laying and termination at Location 1 and Location 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Location 2(PCB (001) Ground Floor ELV Room (Grid Line E3)) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1960 | L2(001)ELV Rm - Cable Laying and termination at Location 1 and Location 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Location 2(PCB (001) Ground Floor DOH Port Health Control Room (Grid Line BD5)) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1080 | L2(001)Heath Ctrl Rm - Cable Laying and termination at Location 1 and Location 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1100 | L2(001)Heath Ctrl Rm - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1120 | L2(001)Health Ctrl Rm - Intercom and PA system Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1140 | L2(001)Heath Ctrl Rm - Intercom and PA system tuning | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Location 2(PCB (001) First Floor Main Server Room) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1000 | L2(001)Main Server Rm - Cable Laying and termination at Location 1 and Location 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1020 | L2(001)Main Server Rm - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1040 | L2(001)Main Server Rm - AVCSS Network and Server Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1060 | L2(001)Main Server Rm - AVCSS Network and Server Tuning | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Location 3(Inbd Cargo Exam Bldg (037) MDF Room) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Location 3(Inbd Cargo Exam Bldg (037) ELV Room) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Location 3(Inbd Cargo Exam Bldg (037) Inspector Offices 128,129,130,131,128,129,141) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM2020 | L3(037)Inspec Offices - Cable Laying and termination in Location 3 and Location 3a | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM2040 | L3(037)Inspec Offices - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM2060 | L3(037)Inspec Offices - AVCSS SURCON WS and 55" LCD Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM2080 | L3(037)Inspec Offices - VTS WS Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM2100 | L3(037)Inspec Offices - SURCON and WS Tuning | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Location 3(Inbd Cargo Exam Bldg (037) Platform Control Room) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1160 | L3(037)PLF Ctrl Rm - Cable Laying and termination in Location 3 and Location 3a | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1180 | L3(037)PLF Ctrl Rm - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1200 | L3(037)PLF Ctrl Rm - AVCSS SYSCON WS and 55" TV Wall Installation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EM1220 | L3(037)PLF Ctrl Rm - AVCSS SYSCON WS Tuning | | | | | | | | | | | | | | | | | | | | | | | | | | | |

01-Sep-17; Installation - Phase 1 / Section I
 22-Jun-17; Location:1(PCB (001);Basement)
 L1(001)B/F - Cable Laying and termination at Location
 22-Jun-17; Location:1(PCB (001);ELV Room (Grid Line
 L1(001)ELV Rm - Cable Laying and termination at Loca
 22-Jun-17; Location:2(PCB (001);Ground Floor ELV R
 L2(001)ELV Rm - Cable Laying and termination at Loca
 18-Aug-17; Location:2(PCB (001);Ground Floor DO
 L2(001)Heath Ctrl Rm - Cable Laying and termination
 L2(001)Heath Ctrl Rm - Cable Splicing and Testing and
 L2(001)Health Ctrl Rm - Intercom and PA system In
 L2(001)Health Ctrl Rm - Intercom and PA system tu
 21-Aug-17; Location:2(PCB (001); First Floor Main
 L2(001)Main Server Rm - Cable Laying and terminatio
 L2(001)Main Server Rm - Cable Splicing and Testing
 L2(001)Main Server Rm - AVCSS Network and Ser
 L2(001)Main Server Rm - AVCSS Network and Se
 07-Aug-17; Location:3(Inbd Cargo Exam Bldg (037)
 L3(037)Inspec Offices - Cable Laying and termination in
 L3(037)Inspec Offices - Cable Splicing and Testing and
 L3(037)Inspec Offices - AVCSS SURCON WS and 5
 L3(037)Inspec Offices - VTS WS Installation
 L3(037)Inspec Offices - SURCON and WS Tuning
 07-Aug-17; Location:3(Inbd Cargo Exam Bldg (037)
 L3(037)PLF Ctrl Rm - Cable Laying and termination in
 L3(037)PLF Ctrl Rm - Cable Splicing and Testing and
 L3(037)PLF Ctrl Rm - AVCSS SYSCON WS and 55
 L3(037)PLF Ctrl Rm - AVCSS SYSCON WS Tuning

| Programme No.: HZMB-DWP Data Date: 14-Aug-15 | <ul style="list-style-type: none"> █ Actual Level of Effort █ Primary Baseline █ Actual Work █ Remaining Work █ Critical Remaining Work ◆ Baseline Milestone ◆ Milestone | summary | Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS) | <table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>14-Nov-16</td> <td>Rev.: 0</td> <td>WC</td> <td>LC</td> </tr> <tr> <td>10-Mar-17</td> <td>Rev.: 1.0a</td> <td>WC</td> <td>LC</td> </tr> <tr> <td>5-May-17</td> <td>Rev.: 1.0b</td> <td>WC</td> <td>LC</td> </tr> </tbody> </table> | Date | Revision | Checked | Approved | 14-Nov-16 | Rev.: 0 | WC | LC | 10-Mar-17 | Rev.: 1.0a | WC | LC | 5-May-17 | Rev.: 1.0b | WC | LC |
|---|---|---------|--|---|------|----------|---------|----------|-----------|---------|----|----|-----------|------------|----|----|----------|------------|----|----|
| Date | Revision | Checked | Approved | | | | | | | | | | | | | | | | | |
| 14-Nov-16 | Rev.: 0 | WC | LC | | | | | | | | | | | | | | | | | |
| 10-Mar-17 | Rev.: 1.0a | WC | LC | | | | | | | | | | | | | | | | | |
| 5-May-17 | Rev.: 1.0b | WC | LC | | | | | | | | | | | | | | | | | |

| Activity ID | Activity Name | 2015 | | | 2016 | | | | 2017 | | | | 2018 | | | | 2019 | | |
|---|---------------|---|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|
| | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Location 3a(Inbd Cargo Exam Bldg (037) ROCARS Room) | | <ul style="list-style-type: none"> EM1240 L3a(037) ROCARS Rm - Cable Laying and termination in Location 3 and Location 3a EM1260 L3a(037) ROCARS Rm - Cable Splicing and Testing and Labeling EM1280 L3a(037) ROCARS Rm - AVCSS SYSCON and SURCON and Intercom Installation EM1300 L3a(037) ROCARS Rm - VTS WS Installation EM1320 L3a(037) ROCARS Rm - VID WS Installation EM1340 L3a(037) ROCARS Rm - SURCON and SYSCON and WS Tuning | | | | | | | | | | | | | | | | | |
| Location 3a(Inbd Cargo Exam Bldg (037) Main Server Room) | | <ul style="list-style-type: none"> EM2120 L3a(037)Main Server Rm - Cable Laying and termination in Location 3 and Location 3a EM2140 L3a(037)Main Server Rm - Cable Splicing and Testing and Labeling EM2160 L3a(037)Main Server Rm - AVCSS Server Installation EM2180 L3a(037)Main Server Rm - VTS Server Installation EM2200 L3a(037)Main Server Rm - Servers Tuning | | | | | | | | | | | | | | | | | |
| Location 4(Outbd Cargo Exam Bldg (023) MDF Room) | | <ul style="list-style-type: none"> EM2240 L4a(023)ROCARS Rm - Cable Splicing and Testing and Labeling EM2260 L4a(023)ROCARS Rm - AVCSS SYSCON and SURCON and Intercom Installation EM2280 L4a(023)ROCARS Rm - VTS WS Installation EM2300 L4a(023)ROCARS Rm - SYSCON and SURCON and WS Tuning | | | | | | | | | | | | | | | | | |
| Location 4a(Outbd Cargo Exam Bldg (023) ROCARS Room) | | <ul style="list-style-type: none"> EM2240 L4a(023)ROCARS Rm - Cable Splicing and Testing and Labeling EM2260 L4a(023)ROCARS Rm - AVCSS SYSCON and SURCON and Intercom Installation EM2280 L4a(023)ROCARS Rm - VTS WS Installation EM2300 L4a(023)ROCARS Rm - SYSCON and SURCON and WS Tuning | | | | | | | | | | | | | | | | | |
| Location 5(Common Utility Enclosure & Staff Subway) | | <ul style="list-style-type: none"> EM2341 L5(CUE) - Cable Laying between Location 5 and Location 6 EM2361 L5(CUE) - Cable Laying between Location 5 and Location 7 EM2380 L5(CUE) - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | |
| Location 6(Common Utility Enclosure & Staff Subway) | | <ul style="list-style-type: none"> EM2400 L6(CUE) - Cable Laying between Location 5 and Location 6 EM2420 L6(CUE) - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | |
| Location 7(Common Utility Enclosure & Staff Subway) | | <ul style="list-style-type: none"> EM2440 L7(CUE) - Cable Laying between Location 5 and Location 7 EM2460 L7(CUE) - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | |
| Location 12(Inbd Private Car Kiosks,GV Kiosks (027,028,029)) | | <ul style="list-style-type: none"> Inbd Private Car Kiosks(027) - 9 nos (Phase 1) <ul style="list-style-type: none"> EM1500 L12(027)(9nos P1) - Cable Splicing and Testing and Labeling EM1520 L12(027)(9nos P1) - AVCSS/MOM Kiosk Equipment Installation (9 nos) EM1541 L12(027)(9nos P1) - XDB installation (18 nos) EM1542 L12(027)(9nos P1) - ODB installation (5 nos) EM1543 L12(027)(9nos P1) - ODB installation (2 nos) EM1544 L12(027)(9nos P1) - ODB installation (2 nos) EM1560 L12(027)(9nos P1) - Loop installation (45 nos) Inbd Goods Vehicle Kiosks(028) - 5 nos (Phase 1) <ul style="list-style-type: none"> EM1620 L12(028)(5nos P1) - Cable Laying and termination EM1640 L12(028)(5nos P1) - Cable Splicing and Testing and Labeling EM1660 L12(028)(5nos P1) - AVCSS/MOM Kiosk Equipment Installation (5 nos) EM1681 L12(028)(5nos P1) - XDB installation (10 nos) EM1682 L12(028)(5nos P1) - ODB installation (3 nos) EM1683 L12(028)(5nos P1) - ODB installation (2 nos) | | | | | | | | | | | | | | | | | |

Programme No.: HZMB-DWP
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- Actual Level of Effort
- Primary Baseline
- Actual Work
- Remaining Work
- Critical Remaining Work
- Baseline Milestone
- Milestone

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|---|---------------|---|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|
| | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Outbd Vehicle Clearance Plaza - 8 nos VID, 6 nos VTS, 4 nos TLS | | <ul style="list-style-type: none"> EM3160 Outbound VID cabling from pillar box to VID field equipment EM3180 Outbound VTS cabling from pillar box to VTS field equipment EM3200 Outbound TLS cabling from pillar box to TLS field equipment EM3220 Outbound VID field equipment installation (8 VID) EM3240 Outbound VTS field equipment installation (3 RFID + 3 Cameras) EM3260 Outbound TLS field equipment installation (4 TLS) EM3280 Outbound VID and VTS and TLS field equipment tuning | | | | | | | | | | | | | | | | | |
| Underground Ducting (UUD1.1) between CUE and Inbd Cargo Exam Bldg (037) | | <ul style="list-style-type: none"> UD1000 (UUD1.1 [CUE-037]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| (UUD1.2) between Inbd Cargo Exam Bldg South (037[S]) and DOH Cargo Clearance Bldg (037[S]) | | <ul style="list-style-type: none"> UD1060 (UUD1.2 [037[S]-043]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| Underground Ducting (UUD6) between CUE and Shuttle Bus Kiosk (006) and Inbd Private Car Exam Bldg (033) | | <ul style="list-style-type: none"> (UUD9.1) btw IB Cargo Exam Bldg South(037[S]) & IB PC Exam Bldg(033) & IB Traffic Control Bldg (033) | | | | | | | | | | | | | | | | | |
| (UUD9.1) btw IB Cargo Exam Bldg South(037[S]) & IB PC Exam Bldg(033) & IB Traffic Control Bldg (033) | | <ul style="list-style-type: none"> UD1040 (UUD9.1 [037[S]-033-100]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| (UUD2) between Inbd Cargo Exam Bldg North (037[N]) to Inbd VCP | | <ul style="list-style-type: none"> UD1010 (UUD2 [037[N]-IB VCP]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| (UUD9.3) between Inbd Private Car Exam Bldg (033) and Inbd Vehicle Clearance Plaza | | <ul style="list-style-type: none"> UD1070 (UUD9.3 [033-IB VCP[W]]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| (UUD9.2) between Inbd Private Car Exam Bldg (033) and Inbd Vehicle Clearance Plaza | | <ul style="list-style-type: none"> UD1020 (UUD9.2 [033-IB VCP[E]]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| Underground Ducting (UUD7) between PCB(001) and Inbd Coach Kiosks(010) | | <ul style="list-style-type: none"> UD1030 (UUD3.1 [CUE-023]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| Underground Ducting (UUD3.1) between CUE and Outbd Cargo Exam Bldg (023) | | <ul style="list-style-type: none"> (UUD3.2) btw OB Car Exam Bldg(023) & OB PC Exam Bldg(024) & OB Traffic Control Bldg (023) | | | | | | | | | | | | | | | | | |
| (UUD3.2) btw OB Car Exam Bldg(023) & OB PC Exam Bldg(024) & OB Traffic Control Bldg (023) | | <ul style="list-style-type: none"> UD1050 (UUD3.2 [023-024-101]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| Underground Ducting (UUD8) between CUE and Outbd PCA (032) | | <ul style="list-style-type: none"> UD1100 (UUD8 [CUE-032]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| (UUD4.1) between Outbd PC Exam Bldg (024) and Outbd Vehicle Clearance Plaza | | <ul style="list-style-type: none"> UD1080 (UUD4.1 [024-OB VCP]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| (UUD5) between Outbd Car Exam Bldg (023[S]) and Outbd Vehicle Clearance Plaza | | <ul style="list-style-type: none"> UD1090 (UUD5 [023[S]-OB VCP]) - Cable laying and termination | | | | | | | | | | | | | | | | | |
| Initial On-Site Test and Commissioning / Pre-SAT (Phase 1 / Section I) | | | | | | | | | | | | | | | | | | | |
| Site Acceptance Test (Phase 1 / Section I) | | | | | | | | | | | | | | | | | | | |
| Security Risk Assessment and Audit | | | | | | | | | | | | | | | | | | | |
| Operability Period Test (Phase 1 / Section I) | | | | | | | | | | | | | | | | | | | |
| Completion (Phase 1 /Section I) | | | | | | | | | | | | | | | | | | | |
| Training and Document (Phase 1 /Section I) | | | | | | | | | | | | | | | | | | | |
| Operation (Phase 1 /Section I) | | | | | | | | | | | | | | | | | | | |
| Engineering Support for Phase 1 / Section I | | | | | | | | | | | | | | | | | | | |
| Procurement - Phase 2 / Section II | | | | | | | | | | | | | | | | | | | |
| Delivery and Bench Acceptance Test for Phase 2/Section II | | | | | | | | | | | | | | | | | | | |
| Installation - Phase 2 / Section II | | | | | | | | | | | | | | | | | | | |

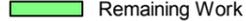
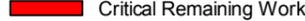
| | | | | | | |
|---|--|---|-----------|------------|---------|----------|
| Programme No.: HZMB-DWP Data Date: 14-Aug-15 | | Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS) | Date | Revision | Checked | Approved |
| | | | 14-Nov-16 | Rev.: 0 | WC | LC |
| | | | 10-Mar-17 | Rev.: 1.0a | WC | LC |
| | | | 5-May-17 | Rev.: 1.0b | WC | LC |

| Activity ID | Activity Name | 2015 | | | 2016 | | | | 2017 | | | | 2018 | | | | 2019 | | |
|---|--|--|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|
| | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Location 8(Inbd Private Car Annex (025)) (Phase 2) | | ▼ 30-Aug-17; Location 8(Inbd Private Car Annex (025)) (Phase 2) | | | | | | | | | | | | | | | | | |
| EM3370 | L8(025) - Cable Containment in Kiosks | ■ L8(025) - Cable Containment in Kiosks | | | | | | | | | | | | | | | | | |
| EM3380 | L8(025) - Cable Laying and termination | ■ L8(025) - Cable Laying and termination | | | | | | | | | | | | | | | | | |
| EM3400 | L8(025) - Cable Splicing and Testing and Labeling | ■ L8(025) - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | |
| Location 9(Outbd Private Car Annex (032)) (Phase 2) | | ▼ 30-Aug-17; Location 9(Outbd Private Car Annex (032)) (Phase 2) | | | | | | | | | | | | | | | | | |
| EM3500 | L9(032) - Cable Containment in Kiosks | ■ L9(032) - Cable Containment in Kiosks | | | | | | | | | | | | | | | | | |
| EM3520 | L9(032) - Cable Laying and termination | ■ L9(032) - Cable Laying and termination | | | | | | | | | | | | | | | | | |
| Initial On-Site Test and Commissioning / Pre-SAT (Phase 2 / Section II) | | | | | | | | | | | | | | | | | | | |
| Site Acceptance Test (Phase 2 / Section II) | | | | | | | | | | | | | | | | | | | |
| Operability Period Test (Phase 2 / Section II) | | | | | | | | | | | | | | | | | | | |
| Completion (Phase 2 / Section II) | | | | | | | | | | | | | | | | | | | |
| Engineering Support for Phase 2 / Section II | | | | | | | | | | | | | | | | | | | |
| Procurement for Phase2 / Section III | | | | | | | | | | | | | | | | | | | |
| Delivery and Bench Acceptance Test for Phase2 / Section III | | | | | | | | | | | | | | | | | | | |
| Installation - Phase 2 / Section III | | ▼ 09-Oct-17; Installation - Phase 2/ Section III | | | | | | | | | | | | | | | | | |
| Location 10,11,12,13 (Vehicle Clearance Kiosks) | | ▼ 09-Oct-17; Location 10,11,12,13 (Vehicle Clearance Kiosks) | | | | | | | | | | | | | | | | | |
| Location 12 Inbd Private Car Kiosks (027) - 12 nos (Phase 2) | | ▼ 09-Oct-17; Location 12 Inbd Private Car Kiosks | | | | | | | | | | | | | | | | | |
| EM4440 | L12(027)(12nos P2) - Cable Laying and termination | ■ L12(027)(12nos P2) - Cable Laying and termination | | | | | | | | | | | | | | | | | |
| EM4460 | L12(027)(12nos P2) - Cable Splicing and Testing and Labeling | ■ L12(027)(12nos P2) - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | |
| EM4480 | L12(027)(12nos P2) - AVCSS/DOH/MOM Kiosk Equipment Installation (12 nos) | ■ L12(027)(12nos P2) - AVCSS/DOH/MOM Kiosk Equipment Installation (12 nos) | | | | | | | | | | | | | | | | | |
| Location 13 Outbd Private Car Kiosks (030) - 12 nos (Phase 2) | | ▼ 01-Sep-17; Location 13 Outbd Private Car Kiosks | | | | | | | | | | | | | | | | | |
| EM4560 | L13(030)(12nos P2) - Cable Containment in Kiosks | ■ L13(030)(12nos P2) - Cable Containment in Kiosks | | | | | | | | | | | | | | | | | |
| Location 12 Outbd Goods Vehicle Kiosks (029) - 3 nos (Phase 2) | | ▼ 31-Aug-17; Location 12 Outbd Goods Vehicle Kiosks | | | | | | | | | | | | | | | | | |
| EM4880 | L12(029)(3nos P2) - Cable Laying and termination | ■ L12(029)(3nos P2) - Cable Laying and termination | | | | | | | | | | | | | | | | | |
| EM4900 | L12(029)(3nos P2) - Cable Splicing and Testing and Labeling | ■ L12(029)(3nos P2) - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | |
| EM4920 | L12(029)(3nos P2) - AVCSS/DOH/MOM Kiosk Equipment Installation (3 nos) | ■ L12(029)(3nos P2) - AVCSS/DOH/MOM Kiosk Equipment Installation (3 nos) | | | | | | | | | | | | | | | | | |
| EM4940 | L12(029)(3nos P2) - ODB & XDB Installation (3 nos) | ■ L12(029)(3nos P2) - ODB & XDB Installation (3 nos) | | | | | | | | | | | | | | | | | |
| EM4960 | L12(029)(3nos P2) - AIOP Installation (3 nos) | ■ L12(029)(3nos P2) - AIOP Installation (3 nos) | | | | | | | | | | | | | | | | | |
| EM4980 | L12(029)(3nos P2) - Loop Installation (15 nos) | ■ L12(029)(3nos P2) - Loop Installation (15 nos) | | | | | | | | | | | | | | | | | |
| Location 11 Outbd Coach Kiosks (009) - 4 nos (Phase 2) | | | | | | | | | | | | | | | | | | | |
| Location 12 Inbd Goods Vehicle Kiosks (028) - 3 nos (Phase 2) | | ▼ 24-Aug-17; Location 12 Inbd Goods Vehicle Kiosks | | | | | | | | | | | | | | | | | |
| EM4720 | L12(028)(3nos P2) - Cable Laying and termination | ■ L12(028)(3nos P2) - Cable Laying and termination | | | | | | | | | | | | | | | | | |
| EM4740 | L12(028)(3nos P2) - Cable Splicing and Testing and Labeling | ■ L12(028)(3nos P2) - Cable Splicing and Testing and Labeling | | | | | | | | | | | | | | | | | |
| EM4760 | L12(028)(3nos P2) - AVCSS/DOH/MOM Kiosk Equipment Installation (3 nos) | ■ L12(028)(3nos P2) - AVCSS/DOH/MOM Kiosk Equipment Installation (3 nos) | | | | | | | | | | | | | | | | | |
| EM4780 | L12(028)(3nos P2) - ODB & XDB Installation (3 nos) | ■ L12(028)(3nos P2) - ODB & XDB Installation (3 nos) | | | | | | | | | | | | | | | | | |
| EM4800 | L12(028)(3nos P2) - AIOP Installation (3 nos) | ■ L12(028)(3nos P2) - AIOP Installation (3 nos) | | | | | | | | | | | | | | | | | |
| EM4820 | L12(028)(3nos P2) - Loop Installation (15 nos) | ■ L12(028)(3nos P2) - Loop Installation (15 nos) | | | | | | | | | | | | | | | | | |
| EM4840 | L12(028)(3nos P2) - Kiosk Equipment Configuration (3 nos) | ■ L12(028)(3nos P2) - Kiosk Equipment Configuration (3 nos) | | | | | | | | | | | | | | | | | |
| EM5120 | L12(028)(3nos P2) - Inbd Goods Vehicle Kiosks Installation Complete | ◆ L12(028)(3nos P2) - Inbd Goods Vehicle Kiosks Installation Complete | | | | | | | | | | | | | | | | | |
| Location 10 Shuttle Bus Kiosks (006) - 4 nos (Phase 2) | | ▼ 30-Aug-17; Location 10 Shuttle Bus Kiosks (006) - | | | | | | | | | | | | | | | | | |
| EM4000 | L10(006)(4nos P2) - Cable Containment in Kiosks | ■ L10(006)(4nos P2) - Cable Containment in Kiosks | | | | | | | | | | | | | | | | | |
| Location 11 Inbd Coach Kiosks (010) - 2 nos (Phase 2)-1 | | | | | | | | | | | | | | | | | | | |
| Location 11 Inbd Coach Kiosks (010) - 2 nos (Phase 2)-2 | | | | | | | | | | | | | | | | | | | |
| Initial On-Site Test and Commissioning / Pre-SAT (Phase 2 / Section III) | | | | | | | | | | | | | | | | | | | |

| | | | | | | |
|---|--|--|-----------|------------|---------|----------|
| Programme No.: HZMB-DWP Data Date: 14-Aug-15 | | Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS) | Date | Revision | Checked | Approved |
| | | | 14-Nov-16 | Rev.: 0 | WC | LC |
| | | | 10-Mar-17 | Rev.: 1.0a | WC | LC |
| | | | 5-May-17 | Rev.: 1.0b | WC | LC |

| Activity ID | Activity Name | 2015 | | | 2016 | | | | 2017 | | | | 2018 | | | | 2019 | | | |
|-------------|---|------|----|----|------|----|----|----|------|----|----|----|------|----|----|----|------|----|----|--|
| | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | |
| | Site Acceptance Test (Phase 2 / Section III) | | | | | | | | | | | | | | | | | | | |
| | Operability Period Test (Phase 2 / Section III) | | | | | | | | | | | | | | | | | | | |
| | Completion (Phase 2 / Section III) | | | | | | | | | | | | | | | | | | | |
| | Operation (Phase 2 / Section III) | | | | | | | | | | | | | | | | | | | |
| | Defect Liability Period (DLP) | | | | | | | | | | | | | | | | | | | |
| | Document Submission (Phase 2 / Section III) | | | | | | | | | | | | | | | | | | | |

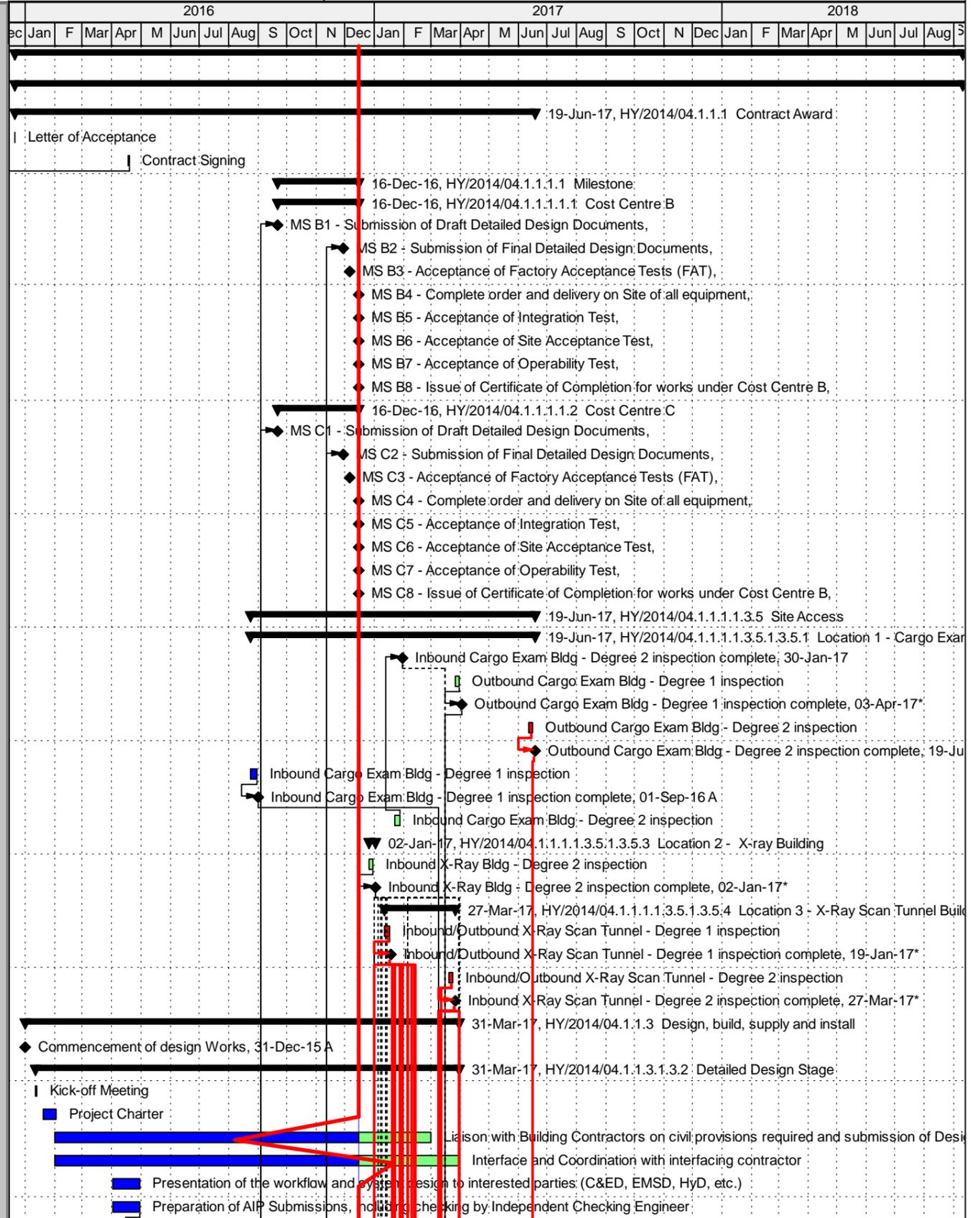
Programme No.: HZMB-DWP
Data Date: 14-Aug-15

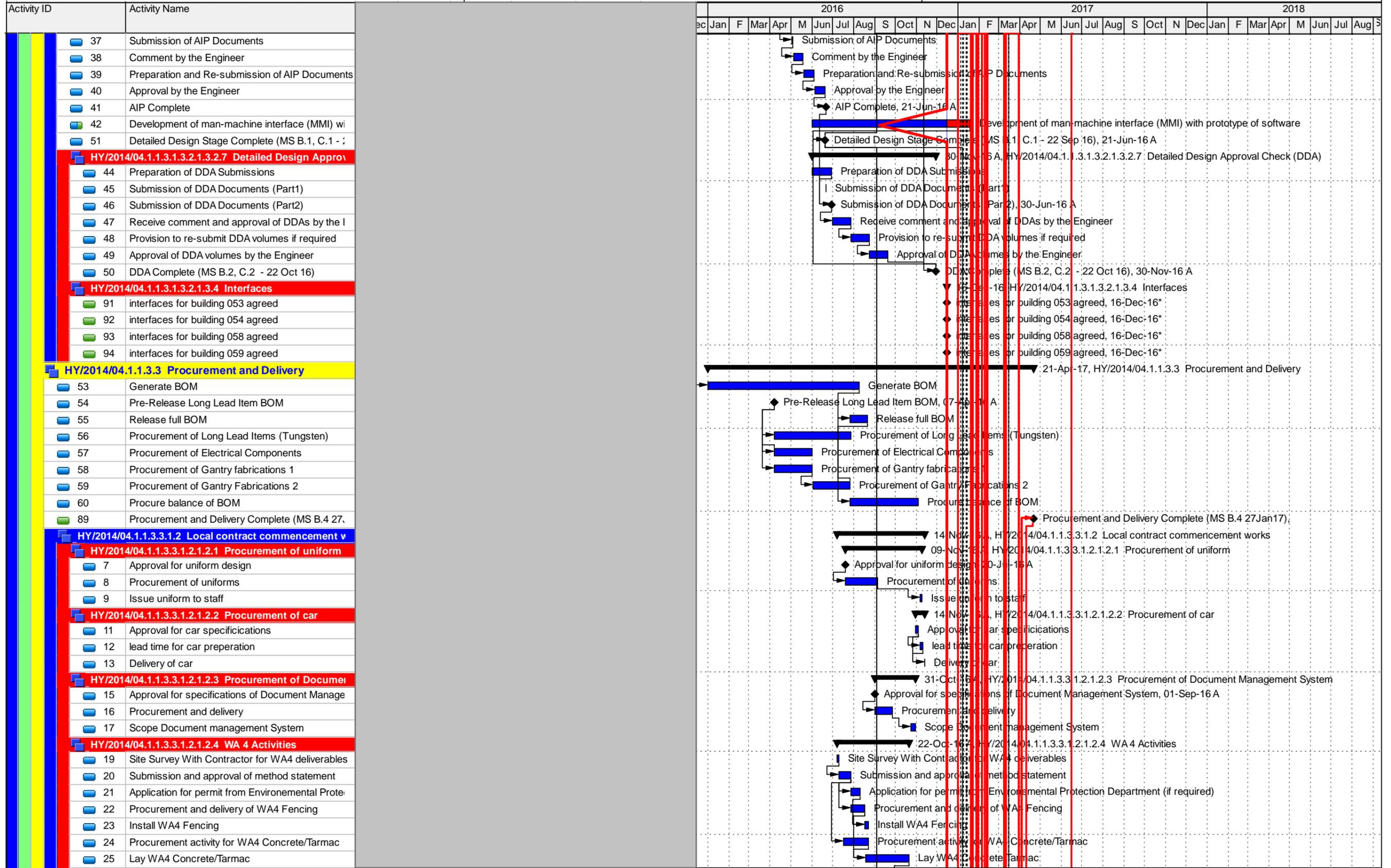
-  Actual Level of Effort
-  Primary Baseline
-  Actual Work
-  Remaining Work
-  Critical Remaining Work
-  Baseline Milestone
-  Milestone

Hong Kong-Zhuhai-Macao Bridge
Hong Kong Boundary Crossing
Facilities - Automatic Vehicle
Clearance Support System (AVCSS)

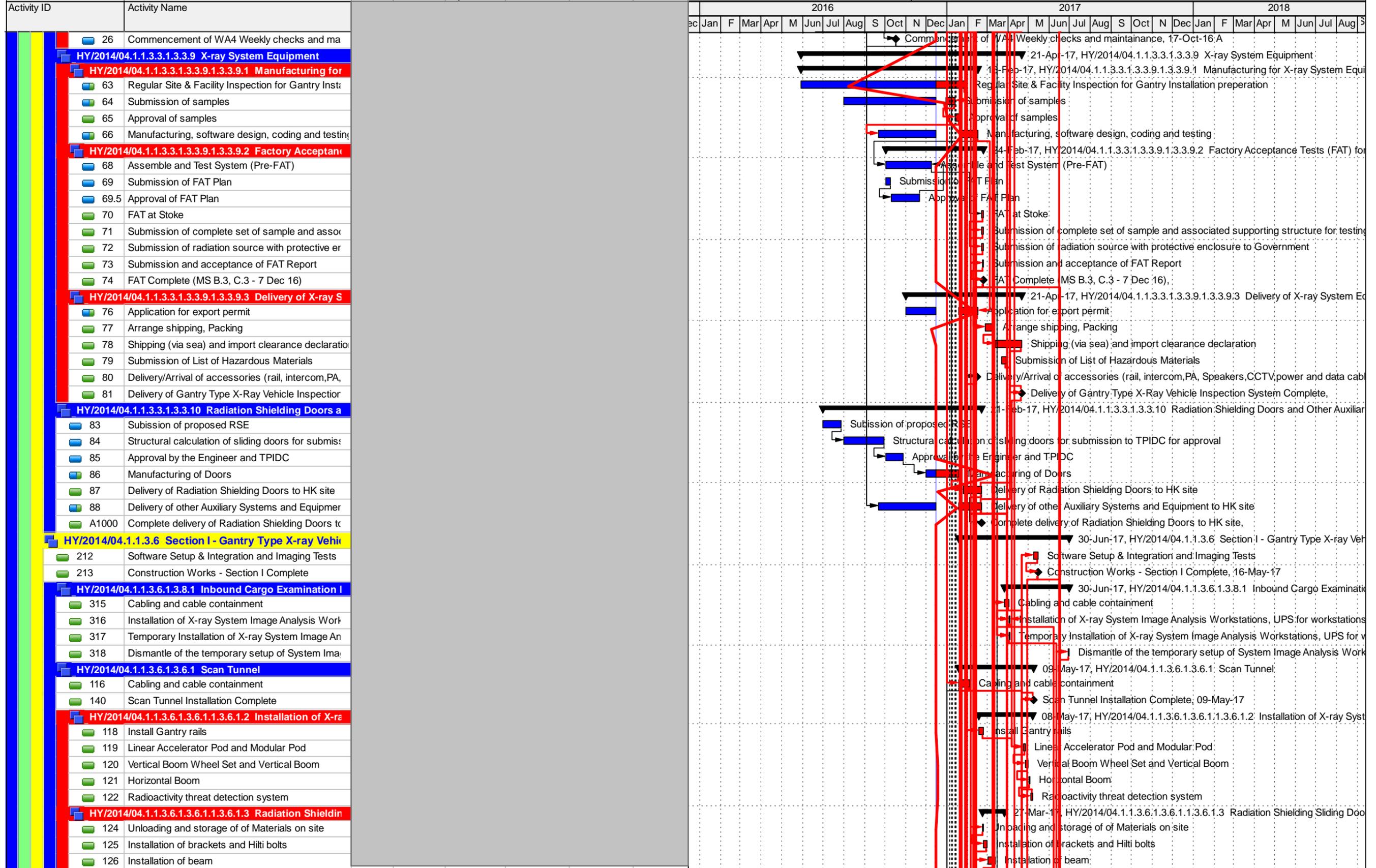
| Date | Revision | Checked | Approved |
|-----------|------------|---------|----------|
| 14-Nov-16 | Rev.: 0 | WC | LC |
| 10-Mar-17 | Rev.: 1.0a | WC | LC |
| 5-May-17 | Rev.: 1.0b | WC | LC |

| Activity ID | Activity Name |
|---|--|
| HY/2014/04 Hong Kong-Zhuhai-Macao Bridge | |
| HY/2014/04.1 Contract No. HY/2014/04 Hong Kong-Zhuhai-Macao Bridge | |
| HY/2014/04.1.1.1 Contract Award | |
| 3 | Letter of Acceptance |
| 4 | Contract Signing |
| HY/2014/04.1.1.1.1 Milestone | |
| HY/2014/04.1.1.1.1.1 Cost Centre B | |
| A1C | MS B1 - Submission of Draft Detailed Design Documents |
| A1C | MS B2 - Submission of Final Detailed Design Documents |
| A1C | MS B3 - Acceptance of Factory Acceptance Tests (FAT) |
| A1C | MS B4 - Complete order and delivery on Site of all equipment |
| A1C | MS B5 - Acceptance of Integration Test |
| A1C | MS B6 - Acceptance of Site Acceptance Test |
| A1C | MS B7 - Acceptance of Operability Test |
| A1C | MS B8 - Issue of Certificate of Completion for works under Cost Centre B |
| HY/2014/04.1.1.1.1.2 Cost Centre C | |
| A1C | MS C1 - Submission of Draft Detailed Design Documents |
| A11 | MS C2 - Submission of Final Detailed Design Documents |
| A11 | MS C3 - Acceptance of Factory Acceptance Tests (FAT) |
| A11 | MS C4 - Complete order and delivery on Site of all equipment |
| A11 | MS C5 - Acceptance of Integration Test |
| A11 | MS C6 - Acceptance of Site Acceptance Test |
| A11 | MS C7 - Acceptance of Operability Test |
| A11 | MS C8 - Issue of Certificate of Completion for works under Cost Centre C |
| HY/2014/04.1.1.1.3.5 Site Access | |
| HY/2014/04.1.1.1.3.5.1.3.5.1 Location 1 - Cargo Exam Bldg | |
| 100 | Inbound Cargo Exam Bldg - Degree 2 inspection |
| 102 | Outbound Cargo Exam Bldg - Degree 1 inspection |
| 103 | Outbound Cargo Exam Bldg - Degree 1 inspection |
| 104 | Outbound Cargo Exam Bldg - Degree 2 inspection |
| 105 | Outbound Cargo Exam Bldg - Degree 2 inspection |
| 97 | Inbound Cargo Exam Bldg - Degree 1 inspection |
| 98 | Inbound Cargo Exam Bldg - Degree 1 inspection |
| 99 | Inbound Cargo Exam Bldg - Degree 2 inspection |
| HY/2014/04.1.1.1.3.5.1.3.5.3 Location 2 - X-ray Building | |
| 107 | Inbound X-Ray Bldg - Degree 2 inspection |
| 108 | Inbound X-Ray Bldg - Degree 2 inspection complete |
| HY/2014/04.1.1.1.3.5.1.3.5.4 Location 3 - X-Ray Scan Tunnel | |
| 110 | Inbound/Outbound X-Ray Scan Tunnel - Degree 1 inspection |
| 111 | Inbound/Outbound X-Ray Scan Tunnel - Degree 1 inspection |
| 112 | Inbound/Outbound X-Ray Scan Tunnel - Degree 2 inspection |
| 113 | Inbound X-Ray Scan Tunnel - Degree 2 inspection |
| HY/2014/04.1.1.3 Design, build, supply and install | |
| 28 | Commencement of design Works |
| HY/2014/04.1.1.3.1.3.2 Detailed Design Stage | |
| 30 | Kick-off Meeting |
| 31 | Project Charter |
| 32 | Liaison with Building Contractors on civil provisions required and submission of Design |
| 33 | Interface and Coordination with interfacing contractor |
| 35 | Presentation of the workflow and system design to interested parties (C&ED, EMSD, HyD, etc.) |
| 36 | Preparation of AIP Submissions, including checking by Independent Checking Engineer |





█ Actual Level of Effort █ Remaining Work ◆◆ Milestone
█ Actual Work █ Critical Remaining Work ▼ summary



■ Actual Level of Effort ■ Remaining Work ◆◆ Milestone
■ Actual Work ■ Critical Remaining Work ▼ summary



APPENDIX D

Event and Action Plan

Event/Action Plan for Air Quality

| EVENT | ACTION | | | |
|---|---|---|---|--|
| | ET | IEC | ER | CONTRACTOR |
| ACTION LEVEL | | | | |
| 1. Exceedance for one sample | <ol style="list-style-type: none"> 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. | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method. | <ol style="list-style-type: none"> 1. Notify Contractor. | <ol style="list-style-type: none"> 1. Rectify any unacceptable practice; 2. Amend working methods if appropriate. |
| 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 | <ol style="list-style-type: none"> 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. | <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. 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. |
| 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 exceedance is 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. |
| 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. |



APPENDIX E

Waste Flow Table

Monthly Summary Waste Flow Table for 2017



Leighton - Chun Wo Joint Venture

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | | Actual Quantities of C&D Wastes Generated Monthly | | | | |
|-----------|--|--|---------------------------|-----------------------------|---|--------------------------|---|--|---|-------------------|--------------------------------|
| | a.Total Quantity Generated (see Note 8) | b. Hard Rock and Large Broken Concrete (see Note 9) | c. Reused in the Contract | d. Reused in Other Projects | e. Disposed as Public Fill (see Note 10) | f. Imported Fill | g. Metals (see Note 5) | h. Paper / Cardboard Packaging (see Note 5) | i. Plastics (see Note 3) (see Note 5) | j. Chemical Waste | k. Others, e.g. general refuse |
| | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000m ³) |
| January | 1.390 | 0.010 | 1.380 | 0.000 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.197 |
| February | 1.070 | 0.003 | 1.067 | 0.000 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.143 |
| March | 0.266 | 0.202 | 0.064 | 0.000 | 0.202 | 0.000 | 5.840 | 0.000 | 0.000 | 0.000 | 0.269 |
| April | 0.249 | 0.013 | 0.236 | 0.000 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.220 |
| May | 0.132 | 0.132 | 0.000 | 0.000 | 0.132 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.421 |
| June | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.392 |
| Sub-total | 3.107 | 0.360 | 2.747 | 0.000 | 0.360 | 0.000 | 5.840 | 0.000 | 0.000 | 0.000 | 1.642 |
| July | 0.076 | 0.007 | 0.069 | 0.000 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.403 |
| August | 0.010 | 0.010 | 0.000 | 0.000 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.405 |
| September | 0.071 | 0.071 | 0.000 | 0.000 | 0.071 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.465 |
| October | 0.166 | 0.141 | 0.025 | 0.000 | 0.141 | 0.416 | 0.000 | 0.000 | 0.000 | 0.000 | 0.448 |
| November | 0.425 | 0.165 | 0.260 | 0.000 | 0.165 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.427 |
| December | 0.543 | 0.543 | 0.000 | 0.000 | 0.543 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.319 |
| Total | 4.398 | 1.297 | 3.101 | 0.000 | 1.297 | 0.416 | 5.840 | 0.000 | 0.000 | 0.000 | 4.109 |

Total C&D waste generated = a+b+f+g+h+i+j+k

Total C&D waste generated (excluded excavated material) = g+h+i+j+k

Total C&D waste recycled = c+d+g+h+i

% of recycled C&D waste = (Total C&D waste generated - Total C&D waste recycled) / Total C&D waste generated

- Notes:
- (1) The performance target are given in PS Clause 6(14)
 - (2) The waste flow table shall also include C&D materials that are not specified in the Contract to be imported for use at the Site
 - (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material
 - (4) The Contractor shall also submit the latest forecast of the amount of C&D materials expected to be generated from the Works, together with a break down of the nature where the total amount of C&D materials expected to be generated from the Works is equal to or exceeding 50,000m³.
 - (5) All recyclable materials, including metals, paper / cardboard packaging, plastics, etc. will be collected by registered collector for recycling.
 - (6) Conversion factors for reporting purpose:
 - in-situ: rock = 2.5 tonnes/m³; soil = 2.0 tonnes/m³
 - excavated: rock = 2.0 tonnes/m³; soil = 1.8 tonnes/m³; broken concrete and bitumen = 2.4 tonnes/m³
 - C&D Waste = 0.9 tonnes/m³; bentonite slurry = 2.8 tonnes/m³
 - (7) Numbers are rounded off to the nearest three decimal places
 - (8) The "Total Quantity Generated" equals to the sum of "Reuse in the Contract", "Reuse in Other Projects" and "Disposed as Public Fill"
 - (9) The "Hard Rock and Large Broken Concrete" were disposed as public fill
 - (10) The amount in "Disposed as Public Fill" included the "Hard Rock and Large Broken Concrete" disposed as public fill



ATAL Technologies Ltd.

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

Location: Artificial Island of HKBCF (C8 Area)

Ver: 1st
Date: Jan 2017

Monthly Summary Waste Flow Table for 2017

| Month | Inert C&D Waste disposal / 墮性廢物 (in tonnes) (see Note 1) | | | | | | Non-inert C&D Waste disposal 非墮性廢物 (in tonnes) | | Waste to be recycled and returned / 可再循環利用或回收的廢物 | | | | | | | | Total Quantity Generated 總生產量 | | |
|--------------|--|-------------------|-------------------------------------|-------------------|---|-------------------|--|-------------------|--|-------------------|-------------------|-------------------|--------------------------------------|-------------------|------------------------|-------------------|----------------------------------|-------------------|--------------|
| | Reused in the Work Package (e.g. backfilling) 再用於工程 (如回填) | | Reused in other Projects 再用於其他工程 | | Inert Waste (e.g. soil, broken concrete, rubble, fill material etc.) 墮性廢物 (如泥, 石, 磚, 瓦, 填土等) | | Others (e.g. general refuse, broken formwork etc.) 其他 (如垃圾, 廢板枋等) | | Metals 金屬 | | Plastic 塑膠 | | Paper/cardboard packaging 廢紙/包裝紙類 | | Chemical Waste 化學廢物 | | | | |
| | (b) | | (c) | | (d) | | (e) | | (in tonnes) | | (in tonnes) | | (in tonnes) | | (in litre) | | (a)= (b+c+d+e) | | |
| | Est. Qty. 估計數量 | Act. Qty. 實際數量 | Est. Qty. 估計數量 | Act. Qty. 實際數量 | Est. Qty. 估計數量 | Act. Qty. 實際數量 | Est. Qty. 估計數量 | Act. Qty. 實際數量 | Est. Qty. 估計數量 | Act. Qty. 實際數量 | Est. Qty. 估計數量 | Act. Qty. 實際數量 | Est. Qty. 估計數量 | Act. Qty. 實際數量 | Est. Qty. 估計數量 | Act. Qty. 實際數量 | Est. Qty. 估計數量 | Act. Qty. 實際數量 | |
| January | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 |
| February | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 |
| March | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 |
| April | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 |
| May | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 | 0.005 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.005 | 0.005 |
| June | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 |
| July | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 |
| August | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.002 | 0.002 |
| September | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| October | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.020 | 0.020 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.020 | 0.020 |
| November | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.020 | 0.020 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.020 | 0.020 |
| December | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.055 | 0.055 | 0.025 | 0.025 | 0.000 | 0.000 | 0.004 | 0.004 | 0.000 | 0.000 | 0.000 | 0.055 | 0.055 |

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



APPENDIX F

Environmental Licenses and Permits

Environmental License/ Permits /Notification Register

LCAL H2642

Contract No. HY/2014/05 – Hong Kong Zhuhai and Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities

| Item No. | Permit/License or Registration Application | | | Permit/License/ Notification/ Registration Description | Permit/License/ Registration Number | Issue/Start Date | Expiry Date | Issuing Office | Remark |
|----------|--|-------------|-----------|---|-------------------------------------|------------------|-------------|----------------|-----------------------------|
| | Work Area | Date | Reference | | | | | | |
| 1 | All Areas | 30 Jun 2015 | N/A | Environmental Permit to construct the Remaining Ancillary Buildings and Facilities and associated works of the Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities | EP-353/2009/I | 17 Jul 15 | N/A | EPD | Superseded by EP-353/2009/J |
| 2 | All Areas | 18 Feb 2016 | N/A | Environmental Permit to construct the Remaining Ancillary Buildings and Facilities and associated works of the Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities | EP-353/2009/J | 25 Feb 2016 | N/A | EPD | Superseded by EP-353/2009/K |
| 3 | All Areas | 24 Mar 2016 | N/A | Environmental Permit to construct the Remaining Ancillary Buildings and Facilities and associated works of the Hong Kong Zhuhai and Macao Bridge Boundary Crossing Facilities | EP-353/2009/K | 11 Apr 2016 | N/A | EPD | - |
| 4 | All Areas | 30 Dec 15 | N/A | Billing Account for disposal of construction waste | 7024342 | 16 Feb 16 | N/A | EPD | - |

Environmental License/ Permits /Notification Register

LCAL H2642

Contract No. HY/2014/05 – Hong Kong Zhuhai and Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities

| | | | | | | | | Date: December 2017 | | |
|----------|--|-----------|----------------------|---|-------------------------------------|------------------|-------------|---------------------|----------------------------|--|
| Item No. | Permit/License or Registration Application | | | Permit/License/ Notification/ Registration Description | Permit/License/ Registration Number | Issue/Start Date | Expiry Date | Issuing Office | Remark | |
| | Work Area | Date | Reference | | | | | | | |
| 5 | All Areas | 30 Dec 15 | RABF-LTR- EPD-000001 | Notification that notifiable works are anticipated to commence (Form NA). | Acknowledge Receipt Ref. No. 397571 | 06 Jan 16 | N/A | EPD | - | |
| 6 | All Areas | 04 Jan 16 | RABF-LTR- EPD-000002 | Registration as Chemical Waste Producer for disposal of spent batteries, used lubrication oil and surplus paint at RABF area | WPN 5213-951-L2846-02 | 19 Feb 16 | N/A | EPD | - | |
| 7 | All Areas | 25 Jan 16 | RABF-LTR- EPD-000003 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS0106-16 | 11 Feb 16 | 10 Aug 16 | EPD | Superseded by GW-RS0476-16 | |
| 8 | All Areas | 08 May 16 | RABF-LTR- EPD-000012 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS0476-16 | 19 May 16 | 18 Nov 16 | EPD | Superseded by GW-RS0666-16 | |

Environmental License/ Permits /Notification Register

LCAL H2642

Contract No. HY/2014/05 – Hong Kong Zhuhai and Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities

| Item No. | Permit/License or Registration Application | | | Permit/License/ Notification/ Registration Description | Permit/License/ Registration Number | Issue/Start Date | Expiry Date | Issuing Office | Remark |
|----------|--|-----------|----------------------|---|-------------------------------------|------------------|-------------|----------------|----------------------------|
| | Work Area | Date | Reference | | | | | | |
| 9 | All Areas | 16 Jun 16 | RABF-LTR- EPD-000015 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS0666-16 | 04 Jul 16 | 03 Jan 17 | EPD | Superseded by GW-RS0907-16 |
| 10 | All Areas | 18 Aug 16 | RABF-LTR- EPD-000018 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS0907-16 | 01 Sep 16 | 28 Feb 17 | EPD | Superseded by GW-RS1195-16 |
| 11 | All Areas | 16 Nov 16 | RABF-LTR-EPD-000020 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS1195-16 | 30 Nov 16 | 29 May 17 | EPD | Superseded by GW-RS1315-16 |
| 12 | All Areas | 08 Dec 16 | RABF-LTR-EPD-000023 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS1315-16 | 22 Dec 16 | 21 Jun 17 | EPD | Superseded by GW-RS0131-17 |

Environmental License/ Permits /Notification Register

LCAL H2642

Contract No. HY/2014/05 – Hong Kong Zhuhai and Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities

| Item No. | Permit/License or Registration Application | | | Permit/License/ Notification/ Registration Description | Permit/License/ Registration Number | Issue/Start Date | Expiry Date | Issuing Office | Remark |
|----------|--|-----------|---------------------|---|-------------------------------------|------------------|-------------|----------------|----------------------------|
| | Work Area | Date | Reference | | | | | | |
| 13 | WA3 | 13 Jan 17 | RABF-LTR-EPD-000026 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00. (Non-designated area) | GW-RS0070-17 | 27 Jan 17 | 26 Jul 17 | EPD | Superseded by GW-RS0626-17 |
| 14 | All areas | 03 Feb 17 | RABF-LTR-EPD-000028 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS0131-17 | 17 Feb 17 | 16 Aug 17 | EPD | Superseded by GW-RS0306-17 |
| 15 | All areas | 20 Mar 17 | RABF-LTR-EPD-000035 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS0306-17 | 05 Apr 17 | 02 Oct 17 | EPD | Superseded by GW-RS0435-17 |
| 16 | All areas | 05 May 17 | RABF-LTR-EPD-000036 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS0435-17 | 20 May 17 | 16 Nov 17 | EPD | Superseded by GW-RS0710-17 |

Environmental License/ Permits /Notification Register

LCAL H2642

Contract No. HY/2014/05 – Hong Kong Zhuhai and Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities

| | | | | | | | | Date: December 2017 | | |
|----------|--|-----------|---------------------|---|-------------------------------------|------------------|-------------|---------------------|--------|--|
| Item No. | Permit/License or Registration Application | | | Permit/License/ Notification/ Registration Description | Permit/License/ Registration Number | Issue/Start Date | Expiry Date | Issuing Office | Remark | |
| | Work Area | Date | Reference | | | | | | | |
| 17 | WA3 | 28 Jun 17 | RABF-LTR-EPD-000041 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00. (Non-designated area) | GW-RS0626-17 | 27 Jul 17 | 26 Jan 18 | EPD | - | |
| 18 | All areas | 03 Aug 17 | RABF-LTR-EPD-000042 | CNP for the use of powered mechanical equipment for the purpose of carry out works from 19:00 to 23:00 and 23:00 to 07:00. (Non-designated area) | GW-RS0710-17 | 21 Aug 17 | 16 Feb 18 | EPD | - | |

Environmental License/ Permits /Notification Register

LCAL H2642

Contract No. HY/2013/06 – Hong Kong Zhuhai and Macao Bridge - HKBCF – Automatic Vehicle Clearance Support System

| Date: 29 December 2017 | | | | | | | | | |
|------------------------|--|--------------|----------------------|--|-------------------------------------|------------------|-------------|----------------|--------|
| Item No. | Permit/License or Registration Application | | | Permit/License/ Notification/ Registration Description | Permit/License/ Registration Number | Issue/Start Date | Expiry Date | Issuing Office | Remark |
| | Work Area | Date | Reference | | | | | | |
| 1 | HZMB-HK Boundary Crossing Facilities | 31 July 2015 | WFG14980 | Disposal of Construction Waste Billing Account | 7023015 | 20 August 2015 | -- | EPD | |
| 2 | HZMB-HK Boundary Crossing Facilities | 14 Nov 2017 | EP831/N09/R S1037-17 | Construction Noise Permit | GW-RS1037-17 | 1 Dec 2017 | 30 May 2018 | EPD | |

Environmental License/ Permits /Notification Register

Contract No. HY/2014/04 – Hong Kong Zhuhai and Macao Bridge Hong Kong Boundary Crossing Facilities – Gantry Type X-ray Vehicle Inspection System

| Date: December 2017 | | | | | | | | | Remark |
|---------------------|--|-------------|-----------|---|-------------------------------------|------------------|-------------|----------------|--------|
| Item No. | Permit/License or Registration Application | | | Permit/License/ Notification/ Registration Description | Permit/License/ Registration Number | Issue/Start Date | Expiry Date | Issuing Office | |
| | Work Area | Date | Reference | | | | | | |
| 1 | All Areas | 23 Aug 2016 | N/A | <u>Billing Account</u> for disposal of construction waste | 7025930 | 20 Sep 2016 | N/A | EPD | |
| 2 | Building 058,059 | 27 Jul 2017 | N/A | Construction Noise Permit(CNP) | GW-RS0640-17 | 6 Aug 2017 | 4 Feb 2018 | EPD | |

APPENDIX G

Implementation Schedule for Environmental Mitigation Measures (EMIS)

**Contract No. HY/2014/05 – Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities
Implementation Schedule for Environmental Mitigation Measures**

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | 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 | Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria. | Contractor | All construction sites | Construction stage | To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 µgm ⁻³ and 260 µgm ⁻³ , respectively) | √ |
| 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 trafficcones. • 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; | Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria. | Contractor | All construction sites | Construction stage | To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 µgm ⁻³ and 260 µgm ⁻³ , respectively) | √ |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|----------|--------------|--|--|--------------------------------|--------------------------|---------------------------------|--|-----------------------|
| 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 and the 3 sides; | Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria. | Contractor | All construction sites | Construction stage | To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 $\mu\text{g}\text{m}^{-3}$ and 260 $\mu\text{g}\text{m}^{-3}$, respectively) | √ |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|----------|--------------|---|---|--------------------------------|---|---------------------------------|---|---|
| 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 enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; and 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. | Good construction site practices to control the dust impact at the nearby sensitive receivers to within the relevant criteria. | Contractor | All construction sites | Construction stage | To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 $\mu\text{g}\text{m}^{-3}$ and 260 $\mu\text{g}\text{m}^{-3}$, respectively) | √ |
| S5.5.6.4 | A3 | The Contractor should undertake proper watering on all exposed spoil (with at least 8 times per day) throughout the construction phase. | Control construction dust | Contractor | All construction sites | Construction stage | To control the dust impact | √ |
| S5.5.6.5 | A4 | 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. | Control construction dust | Engineer | All construction sites | Design Stage | Air Pollution Control (Construction Dust) Regulation | √ |
| S5.5.6.5 | A5 | Implement regular dust monitoring under EM&A programme during the construction stage. | Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period. | Contractor | Selected representative dust monitoring station | Construction stage | <ul style="list-style-type: none"> Air Pollution Control (Construction Dust) Regulation To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1- hr and 24hr TSP levels are 500 $\mu\text{g}\text{m}^{-3}$ and 260 $\mu\text{g}\text{m}^{-3}$, respectively) | √ (The dust monitoring at AMS6 under EM&A Programme for the Contract is covered by Contract No. HY/2011/03 while the dust monitoring at AMS7 under EM&A Programme for the Contract is covered by Contract No. HY/2013/01.) |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|----------|--------------|--|---|--------------------------------|---|---------------------------------|---|-----------------------|
| S5.5.7.1 | A6 | <p>The following mitigation measures should be adopted to prevent fugitive dust emissions for concrete batching plant:</p> <ul style="list-style-type: none"> • Loading, unloading, handling, transfer or storage of any dusty materials should be carried out in totally enclosed system; • All dust-laden air or waste gas generated by the process operations should be properly extracted and vented to fabric filtering system to meet the emission limits for TSP; • Vents for all silos and cement/pulverised fuel ash (PFA) weighing scale should be fitted with fabric filtering system; • The materials which may generate airborne dusty emissions should be wetted by water spray system; • All receiving hoppers should be enclosed on three sides up to 3m above unloading point; • All conveyor transfer points should be totally enclosed; • All access and route roads within the premises should be paved and wetted; and • Vehicle cleaning facilities should be provided and used by all concrete trucks before leaving the premises to wash off any dust on the wheels and/or body. | Monitor the 24 hr and 1hr TSP levels at the representative dust monitoring stations to ensure compliance with relevant criteria throughout the construction period. | Contractor | Selected representative dust monitoring station | Construction stage | <ul style="list-style-type: none"> • Air Pollution Control (Construction Dust) Regulation • To control the dust impact to within the HKAQO and TM-EIA criteria (Ref. 1- hr and 24hr TSP levels are $500 \mu\text{g}\text{m}^{-3}$ and $260 \mu\text{g}\text{m}^{-3}$, respectively) | N/A |
| S5.5.2.7 | A7 | <p>The following mitigation measures should be adopted to prevent fugitive dust emissions at barging point:</p> <ul style="list-style-type: none"> • All road surface within the barging facilities will be paved; • Dust enclosures will be provided for the loading ramp; • Vehicles will be required to pass through designated wheels wash facilities; and • Continuous water spray at the loading points. | Control construction dust | Contractor | All construction sites | Construction stage | Air Pollution Control (Construction Dust) Regulation | N/A |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|---------------------------------------|--------------|---|---|--------------------------------|---|---------------------------------|---|-----------------------|
| Construction Noise (Air borne) | | | | | | | | |
| S6.4.10 | N1 | <p>1) Use of good site practices to limit noise emissions by considering the following:</p> <ul style="list-style-type: none"> only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs; silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works; 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. | Control construction airborne noise by means of good site practices | Contractor | All construction sites | Construction stage | Noise Control Ordinance | √ |
| 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. | Reduce the construction noise levels at low-level zone of NSRs through partial screening. | Contractor | All construction sites | Construction stage | <ul style="list-style-type: none"> Noise Control Ordinance Annex 5, TM-EIA | N/A |
| S6.4.12 | N3 | 3) Install movable noise barriers (typically density @14kg/m ²), acoustic mat or full enclosure close to noisy plants including air compressor, generators, saw. | Screen the noisy plant items to be used at all construction sites | Contractor | For plant items listed in Appendix 6D of the EIA report at all construction sites | Construction stage | <ul style="list-style-type: none"> Noise Control Ordinance Annex 5, TM-EIA 75dB(A) for residential premises The movable barrier should achieve at least 5dB(A) and the full enclosure should be | N/A |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|-----------------|--------------|--|--|--------------------------------|---|---------------------------------|--|---|
| S6.4.13 | N4 | 4) Select "Quiet plants" which comply with the BS 5228 Part 1 or TM standards. | Reduce the noise levels of plant items | Contractor | For plant items listed in Appendix 6D of the EIA report at all construction sites | Construction stage | <ul style="list-style-type: none"> Noise Control Ordinance & its TM Annex 5, TM-EIA | √ |
| S6.4.14 | N5 | 5) Sequencing operation of construction plants where practicable. | Operate sequentially within the same work site to reduce the construction airborne noise | Contractor | All construction sites where practicable | Construction stage | <ul style="list-style-type: none"> Noise Control Ordinance Annex 5, TM-EIA | √ |
| / | N6 | 6) Implement a noise monitoring under EM&A programme. | Monitor the construction noise levels at the selected representative locations | Contractor | Selected representative noise monitoring station | Construction stage | <ul style="list-style-type: none"> Noise Control Ordinance Annex 5, TM-EIA 75dB(A) for residential premises | √ (The noise monitoring at NMS2 and NMS3B under EM&A programme for the Contract are covered by Contract No. HY/2013/01.) |
| 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. | Develop sediment disposal arrangement | Engineer | All construction sites | Design stage | <ul style="list-style-type: none"> Waste Disposal Ordinance ETW B TC 34/2002 | N/A |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|--|--------------|---|---|--------------------------------|--------------------------|---------------------------------|--|-----------------------|
| Waste Management (Construction Waste) | | | | | | | | |
| S8.3.8 | WM1 | <p><u>Construction and Demolition Material</u></p> <p>The following mitigation measures should be implemented in handling the waste:</p> <ul style="list-style-type: none"> • Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement; • Carry out on-site sorting; • Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; • Adopt 'Selective Demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; • 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 ETW BTC (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 disposal sites to the Project Proponent and get its approval before implementation. | Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal | Contractor | All construction sites | Construction stage | <ul style="list-style-type: none"> • Land (Miscellaneous Provisions) Ordinance • Waste Disposal Ordinance • ETW BTC 19/2005 | √ |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|---------------------|--------------|---|---|--------------------------------|--------------------------|---------------------------------|---|-----------------------|
| 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. | Good site practice to minimize the waste generation and recycle the C&D materials as far as practicable so as to reduce the amount for final disposal | Contractor | All construction sites | Construction stage | <ul style="list-style-type: none"> Land (Miscellaneous Provisions) Ordinance Waste Disposal Ordinance ETWB TC 19/2005 | √ |
| 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 labelled 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. | Control the chemical waste and ensure proper storage, handling and disposal. | Contractor | All construction sites | Construction stage | <ul style="list-style-type: none"> Waste Disposal (Chemical Waste) General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Waste | √ |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|----------|--------------|---|--|--------------------------------|--------------------------|---------------------------------|--|-----------------------|
| | | <ul style="list-style-type: none"> 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 a chemical waste collection service and can supply the necessary storage containers; or be to a reuser of the waste, under approval from the EPD. | | | | | | √ |
| S8.3.16 | WM4 | <u>Sewage</u> <ul style="list-style-type: none"> Adequate numbers of portable toilets should be provided for the workers. The portable toilets should be maintained in a state, which will not deter the workers from utilizing these portable toilets. Night soil should be collected by licensed collectors regularly. | Proper handling of sewage from worker to avoid odour, pest and litter impacts | Contractor | All construction sites | Construction stage | <ul style="list-style-type: none"> Waste Disposal Ordinance | √ |
| S8.3.17 | WM5 | <u>General Refuse</u> <ul style="list-style-type: none"> General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law. 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. In addition, waste separation facilities for paper, aluminum cans, plastic bottles etc., should be provided. Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including reduction, reuse and recycling of wastes. | Minimize production of the general refuse and avoid odour, pest and litter impacts | Contractor | All construction sites | Construction stage | <ul style="list-style-type: none"> Waste Disposal Ordinance | √ |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|---|--------------|--|---|--------------------------------|--------------------------|---------------------------------|---|-----------------------|
| Water Quality (Construction Phase) | | | | | | | | |
| S.9.11.1.7 | W2 | <p><u>Land Works</u> 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 W PCO 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; | To control construction water quality | Contractor | Land-based works areas | Construction stage | TM-EIAO | √ |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|-----------|--------------|--|---|--------------------------------|--------------------------|---------------------------------|---|-----------------------|
| 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 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. | To control construction water quality | Contractor | Land-based works areas | Construction stage | TM-EIAO | √ |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|-------------------------------------|--------------|---|---|--------------------------------|--------------------------|---------------------------------|---|-----------------------|
| 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 | Prevent Sedimentation from Land-based works areas | Contractor | Land-based works areas | During construction | TM-Water | √ |
| 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 | Prevent disturbance to terrestrial fauna and habitats | Contractor | Land-based works areas | During construction | | √ |
| S10.7 | E8 | <ul style="list-style-type: none"> Control vessel speed Skipper training Predefined and regular routes for working vessels; avoid Brother Islands. | Minimise marine traffic disturbance on dolphins | Contractor | Marine Traffic | During construction | | N/A |
| Fisheries | | | | | | | | |
| S11.7 | F4 | <ul style="list-style-type: none"> Maritime Oil Spill Response Plan (MOSRP); Contingency plan. | Minimise impacts on marine water quality impacts | Marine Department | HKBCF | During operation | | N/A |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|---|--------------|---|---|--------------------------------|--------------------------|---------------------------------|---|-----------------------|
| 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; • Maximizing new tree, shrub and other vegetation planting to compensate tree felled and vegetation removed; • 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 transparent cover for elevated footbridges) to provide harmonious atmosphere of the HKBCF; and • 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. | Minimise visual & landscape impact | Detailed designer | HKBCF | Design Stage | | N/A |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|--|--------------|---|---|--------------------------------|----------------------------|---------------------------------|---|--------------------------|
| <i>Landscape & Visual (Construction Phase)</i> | | | | | | | | |
| S14.3.3.3 | LV2 | <p>Mitigate both Landscape and Visual Impacts</p> <p>G1. Grass-hydroseed bare soil surface and stock pile areas.</p> <p>G2. Add planting strip and automatic irrigation system if appropriate at some portions of bridge footbridge to screen bridge and traffic. (This mitigation measure is not applicable to the Contract.)</p> <p>G3. Not applicable as this is for HKLR.</p> <p>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.</p> <p>G5. Vegetation reinstatement and upgrading to disturbed areas.</p> <p>G6. Maximizing new tree shrub and other vegetation planting to compensate tree felled and vegetation removed.</p> <p>G7. Providing planting area around peripheral of HKBCF for tree planting screening effect. (This mitigation measure is not applicable to the Contract.)</p> <p>G8. Plant salt-tolerant native and shrubs etc along the planter strip at affected seawall. (This mitigation measure is not applicable to the Contract.)</p> <p>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. (This mitigation measure is not applicable to the Contract.)</p> | Minimise visual & landscape impact | Contractor | Buildings 025, 044 and 032 | Construction stage | | √ Under construction |
| S14.3.3.3 | LV3 | <p><u>Mitigate Visual Impacts</u></p> <p>V1. Minimize time for construction activities during construction period.</p> <p>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.</p> | | | | | | √ for V1. N/A for V2. |

| EIA Ref. | EM&A Log Ref | Recommended Mitigation Measures | Objectives of the Recommended Measures & Main Concerns to address | Who to implement the measures? | Location of the measures | When to implement the measures? | What requirements or standards for the measures to achieve? | Implementation Status |
|-----------------|--------------|--|---|--------------------------------|--------------------------|---------------------------------|---|-----------------------|
| EM&A | | | | | | | | |
| S15.2.2 | EM1 | An Independent Environmental Checker needs to be employed as per the EM&A Manual. | Control EM&A Performance | Project Proponent | All construction sites | | <ul style="list-style-type: none"> EIAO Guidance Note No.4/2002 TM-EIAO | √ |
| S15.5 - S15.6 | EM2 | <ol style="list-style-type: none"> 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. | Perform environmental monitoring & auditing | Contractor | All construction sites | | <ul style="list-style-type: none"> EIAO Guidance Note No.4/2002 TM-EIAO | √ |

Legends: √ = Implemented; X = Not implemented; N/A = Not applicable

APPENDIX H

Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions

Statistics on Environmental Complaints, Notifications of Summons and Successful Prosecutions

For Contract No. HY/2014/05

| Reporting Period | Cumulative Statistics | | |
|--|-----------------------|--------------------------|-------------------------|
| | Complaints | Notifications of Summons | Successful Prosecutions |
| This reporting period | 0 | 0 | 0 |
| From commencement date of contract to end of reporting month | 6 | 0 | 0 |

For Contract No. HY/2013/06 within Contract No. HY/2014/05 works area

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

For Contract No. HY/2014/04 within Contract No. HY/2014/05 works area

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



APPENDIX I

Environmental Site Inspection Schedule

Contract No. HY/2014/05 Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities

Environmental Site Inspection Schedule for January 2018

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|-------------|-----------------|---------|-----------------|-----------------|--------|----------|--------|
| Time | 1-Jan | 2-Jan | 3-Jan | 4-Jan | 5-Jan | 6-Jan | 7-Jan |
| | | | Site Inspection | | | | |
| Time | 8-Jan | 9-Jan | 10-Jan | 11-Jan | 12-Jan | 13-Jan | 14-Jan |
| | | | | Site Inspection | | | |
| Time | 15-Jan | 16-Jan | 17-Jan | 18-Jan | 19-Jan | 20-Jan | 21-Jan |
| | Site Inspection | | | | | | |
| Time | 22-Jan | 23-Jan | 24-Jan | 25-Jan | 26-Jan | 27-Jan | 28-Jan |
| | Site Inspection | | | | | | |
| Time | 29-Jan | 30-Jan | 31-Jan | | | | |
| | Site Inspection | | | | | | |

Contract No. HY/2013/06 (within Contract No. HY/2014/05 works area) Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Automatic Vehicle Clearance Support System

Environmental Site Inspection Schedule for January 2018

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|-------------|-----------------|---------|-----------------|-----------------|--------|----------|--------|
| Time | 1-Jan | 2-Jan | 3-Jan | 4-Jan | 5-Jan | 6-Jan | 7-Jan |
| | | | Site Inspection | | | | |
| Time | 8-Jan | 9-Jan | 10-Jan | 11-Jan | 12-Jan | 13-Jan | 14-Jan |
| | | | | Site Inspection | | | |
| Time | 15-Jan | 16-Jan | 17-Jan | 18-Jan | 19-Jan | 20-Jan | 21-Jan |
| | Site Inspection | | | | | | |
| Time | 22-Jan | 23-Jan | 24-Jan | 25-Jan | 26-Jan | 27-Jan | 28-Jan |
| | Site Inspection | | | | | | |
| Time | 29-Jan | 30-Jan | 31-Jan | | | | |
| | Site Inspection | | | | | | |

Contract No. HY/2014/04 (within Contract No. HY/2014/05 works area) Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities – Gantry Type X-ray Vehicle Inspection System

Environmental Site Inspection Schedule for January 2018

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|-------------|-----------------|---------|-----------------|-----------------|--------|----------|--------|
| Time | 1-Jan | 2-Jan | 3-Jan | 4-Jan | 5-Jan | 6-Jan | 7-Jan |
| | | | Site Inspection | | | | |
| Time | 8-Jan | 9-Jan | 10-Jan | 11-Jan | 12-Jan | 13-Jan | 14-Jan |
| | | | | Site Inspection | | | |
| Time | 15-Jan | 16-Jan | 17-Jan | 18-Jan | 19-Jan | 20-Jan | 21-Jan |
| | Site Inspection | | | | | | |
| Time | 22-Jan | 23-Jan | 24-Jan | 25-Jan | 26-Jan | 27-Jan | 28-Jan |
| | Site Inspection | | | | | | |
| Time | 29-Jan | 30-Jan | 31-Jan | | | | |
| | Site Inspection | | | | | | |



APPENDIX J

Investigation Report

Contract No. HY/2014/05 -
 Hong Kong- Zhuhai- Macao Bridge
 Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities
 Notifications of Environmental Quality Limits Exceedances Notification No.: 20171223_Air_24hr

Date of Investigation Report: 10 January 2018

Date of Environmental Quality Limit Exceedance: 23 December 2017 and the results were issued on 5 January 2018

Monitoring Location: AMS3B – Site Boundary of Site Office Area at Work Area WA2 (The air quality monitoring station for the Contract is covered by Contract No. HY/2013/01 HZMB HKBCF – Passenger Clearance Building)

Monitoring Date: 23 December 2017 **Start Time:** 08:00

Action & Limit Level (AL & LL) / Measured Level:

| PARAMETER | STATION | AL (µg/m ³) | LL (µg/m ³) | MEASURED LEVEL, µg/m ³ |
|-----------|---|-------------------------|-------------------------|-----------------------------------|
| 24-hr TSP | AMS3B – Site Boundary of Site Office Area at Works Area WA2 | 167 | 260 | <i>182</i> |

Notes: ***Bold Italic*** means AL exceedance
Bold Italic with underline means LL exceedance

Possible reason for Action / Limit Level Non-compliance:

On 23 December 2017, one AL exceedance of 24-hr TSP at AMS3B was recorded.

Based on the information from the Contractor, the construction works undertaken on 23 and 24 December 2017 are shown as below:

- ABWF & MEP works (Internal) of Buildings 022, 023, 032, 044, 045, 050H1, 050H2, 050A1, 050A2, 053
- ABWF works (external) of Buildings 022, 023, 025, 032, 044, 045, 050H1, 050H2, 050A1, 050A2
- ABWF works (roof) of Buildings 021, 022, 023, 032, 044, 050H1, 050H2, 050A1, 050A2, 053
- Utilities and Drainage installation of Buildings 050H1, 050A1, 050A2

The Contractor confirmed that the mitigation measures according to Water Spraying Plan in December 2017 (Appendix A) are implemented to avoid dust emission. Photos of haul road condition and dust suppression are included in Appendix A. The Contractor has provided the guideline to remind the site vehicles travel within speed limit of 8km/hr. According to site inspection which conducted on 4, 13, 18 and 27 December 2017, no dusty activities and dry condition in haul road were observed.

The Air Quality Health Index (AQHI) of Tung Chung station with the wind data from the on-site wind station are shown in Appendix B. The hourly AQHI of Tung Chung station ranged 3 to 8 (Low to Very High) on 23 and 24 December 2017 during monitoring period. According to the wind data at on-site wind station, no prevailing wind direction was found in the monitoring period. The RABF site of HKBCF is far away from AMS3B (more than 1km). No potential dust source was observed near the monitoring station at AMS3B during the monitoring period.

Therefore, it is concluded that the exceedances were not related to the Contract.

Actions taken/ to be taken:

The Water Spraying Plan including the information of watering schedule, routing of trucks of for watering and the location of water filling, was prepared and submitted to RE and ENPO. The Contractor was also reminded to implement all necessary mitigation as specified in EIA (Section 5.5.6.3), EM&A Manual (EM&A Log Ref: A3), EMP, Method Statements, General and Particular Specifications of this Project to minimize the potential dust impact during construction activities.

Prepared by: Ruby Law Title: Environmental Team Representative

Signature:  Date: 10 January 2018

Checked by: Keith Chau Title: Environmental Team Leader

Signature:  Date: 10 January 2018

Copied to : Contractor, Engineer Representative and IEC/ENPO

Appendix A



**Contract No. HY/2014/05
Hong Kong – Zhuhai – Macao – Bridge
Boundary Crossing Facility – Remaining Ancillary Buildings and Facilities**

Watering Plan for December 2017

Water Truck License Plate Number: PJ9039, SE4312

Capacity of a Water Truck: 15000L

Volume of water/ distance needed to water spraying: = 7.3 L/m

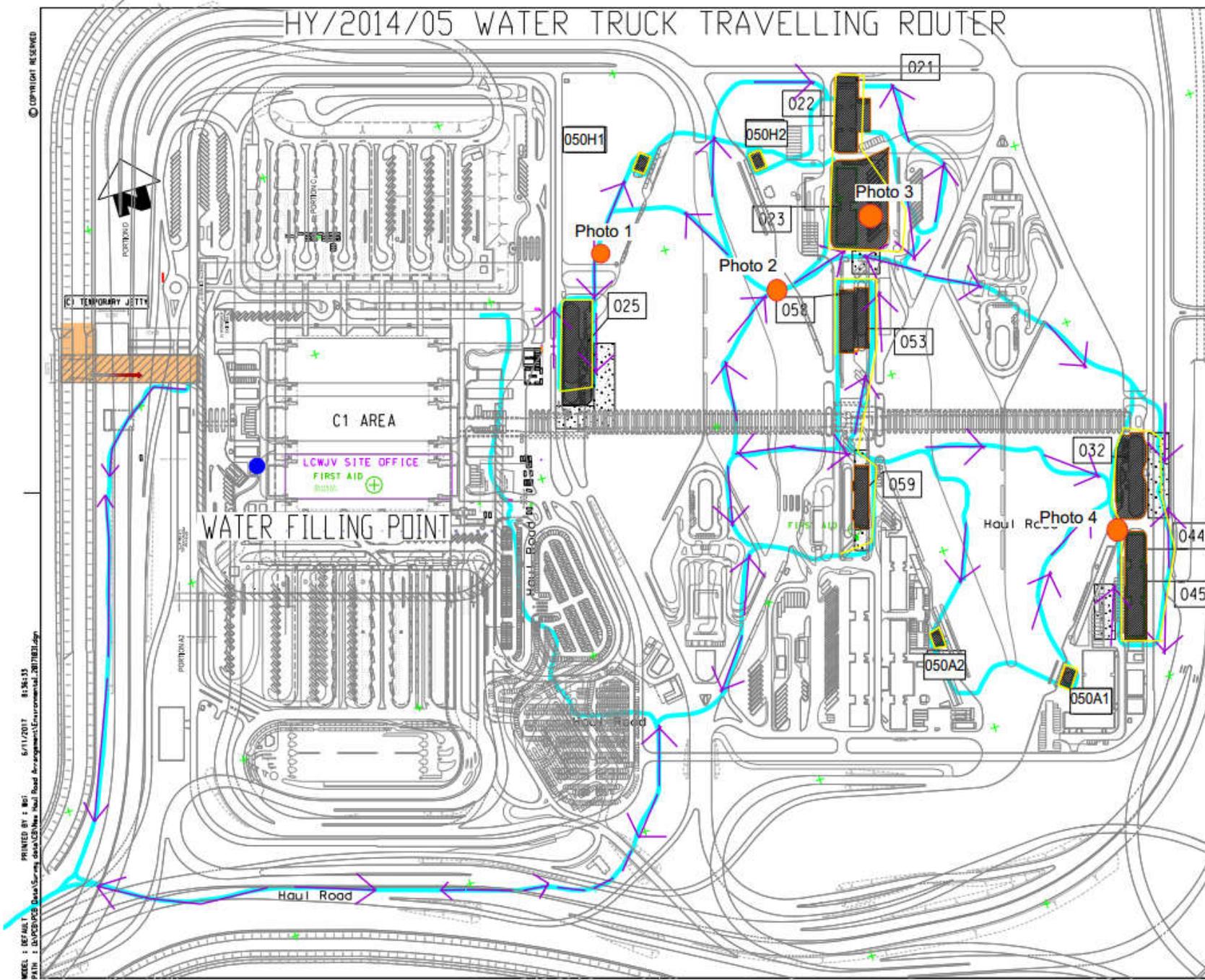
Water Truck could spray 15000L in one 59 minutes trip.

Planned Schedule of Watering Spraying by Water Truck

| Cycle | Truck No. | Time of water spraying |
|-------|-----------|------------------------|
| 1 | PJ9039 | 08:00 – 09:15 |
| 2 | SE4312 | 09:15 – 10:30 |
| 3 | PJ9039 | 10:30 – 11:45 |
| 4 | SE4312 | 13:00 – 14:15 |
| 5 | PJ9039 | 14:15 – 15:30 |
| 6 | SE4312 | 15:30 – 16:45 |
| 7 | PJ9039 | 16:45 – 18:00 |
| 8 | SE4312 | 18:00 – 19:00 |

HY/2014/05 WATER TRUCK TRAVELLING ROUTER

- LEGEND**
- WATER FILLING POINT
 - WORKING SPACE
 - TRAVEL ROUTE
 - ROAD WITH WATER SPRAYING BY HY/2014/05
 - HAUL ROAD OF HKBCF



| Rev. | Date | Desc. | Drawn By | Check By |
|------|------|-------|----------|----------|
| | | | | |



CONTRACT NO. HY/2014/05
 HONG KONG - ZHUNJI - MACAO BRIDGE
 HONG KONG BOUNDARY CROSSING FACILITIES - REMAINING ANCILLARY BUILDINGS AND FACILITIES

| Design By | Approved By |
|-----------|-------------|
| | |
| Check By | Drawn By |
| | |
| Scale | Date |
| | |
| Drawn By | Scale |
| | |

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Water spraying record during TSP 24-hr monitoring on 23 and 24 December 2017

Photo 1



Photo 2



Photo 3



Photo 4



Appendix B

| Date | Hour | AQHI at Tung Chung Station | Average Wind Speed (m/s) # | Average Wind Direction # |
|------------|-------|----------------------------|----------------------------|--------------------------|
| 23/12/2017 | 08:00 | 3 | 0 | ENE |
| 23/12/2017 | 09:00 | 3 | 0 | NNE |
| 23/12/2017 | 10:00 | 4 | 0 | ENE |
| 23/12/2017 | 11:00 | 4 | 0 | ENE |
| 23/12/2017 | 12:00 | 4 | 0 | NNE |
| 23/12/2017 | 13:00 | 4 | 0 | N |
| 23/12/2017 | 14:00 | 4 | 0 | NE |
| 23/12/2017 | 15:00 | 5 | 0 | NE |
| 23/12/2017 | 16:00 | 6 | 0 | NNE |
| 23/12/2017 | 17:00 | 6 | 0 | N |
| 23/12/2017 | 18:00 | 6 | 0 | --- |
| 23/12/2017 | 19:00 | 6 | 0 | NE |
| 23/12/2017 | 20:00 | 6 | 0 | WNW |
| 23/12/2017 | 21:00 | 5 | 0 | N |
| 23/12/2017 | 22:00 | 5 | 0 | N |
| 23/12/2017 | 23:00 | 5 | 0 | NNW |
| 24/12/2017 | 00:00 | 5 | 0 | ENE |
| 24/12/2017 | 01:00 | 6 | 0 | ESE |
| 24/12/2017 | 02:00 | 5 | 0 | --- |
| 24/12/2017 | 03:00 | 6 | 0 | --- |
| 24/12/2017 | 04:00 | 7 | 0 | W |
| 24/12/2017 | 05:00 | 8 | 0 | SSE |
| 24/12/2017 | 06:00 | 8 | 0 | NNW |
| 24/12/2017 | 07:00 | 7 | 0 | --- |
| 24/12/2017 | 08:00 | 7 | 0 | --- |

^ The data collection for calculation of AQHI was affected due to station or equipment maintenance, the data of a most similar station was adopted.

#- The related wind data is obtained from the on-site wind station.

N.A. - Not available.