



Lam Geotechnics Limited

Contract No. HK/2011/07
Wan Chai Development Phase II and Central Wanchai Bypass
- Sampling, Field Measurement and Testing Works (Stage 2)
Monthly EM&A Report (February 2015)

CONTRACT NO: HK/2011/07

**WANCHAI DEVELOPMENT PHASE II AND CENTRAL
WANCHAI BYPASS
SAMPLING, FIELD MEASUREMENT AND TESTING WORK
(STAGE 2)**

**ENVIRONMENTAL PERMIT NO. EP-364/2009/C,
FURTHER ENVIRONMENTAL PERMIT NOS. FEP-01/364/2009,
FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-
07/364/2009/A, FEP-09/364/2009/B, FEP-10/364/2009/B AND
FEP-11/364/2009/B**

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

- FEBRUARY 2015 -

CLIENTS:

**Civil Engineering and Development
Department**

and

Highways Department

PREPARED BY:

Lam Geotechnics Limited

**11/F Centre Point
181-185 Gloucester Road,
Wanchai, H.K.**

**Telephone: (852) 2882-3939
Facsimile: (852) 2882-3331
E-mail: info@lamenviro.com
Website: <http://www.lamenviro.com>**

CERTIFIED BY:

**Raymond Dai
Environmental Team Leader**

DATE:

12 March 2015

Ref.: AACWBIECEM00_0_6331L.15

12 March 2015

By Post and Fax (2691 2649)

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

Attention: Mr. Conrad Ng

Dear Sir,

Re: Wan Chai Development Phase II and Central-Wan Chai Bypass
Monthly Environmental Monitoring and Audit Report (February 2015) for EP-364/2009/C,
FEP-01/364/2009, FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A,
FEP-07/364/2009/A, FEP-08/364/2009/A, FEP-09/364/2009/B, FEP-10/364/2009/B & FEP-
11/364/2009/B

Reference is made to the Environmental Team's submission of the captioned Monthly Environmental Monitoring and Audit (EM&A) Report for February 2015 received by email on 12 March 2015.

Please be informed that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 in the captioned Environmental Permits.

Thank you very much for your kind attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,



David Yeung
Independent Environmental Checker

c.c.	HyD	Mr. Bond Chow	by fax: 2714 5289
	CEDD	Mr. Jason Cheung	by fax: 2577 5040
	AECOM	Mr. Francis Leong / Mr. Stephen Lai	by fax: 2691 2649
	Lam	Mr. Raymond Dai	by fax: 2882 3331

Q:\Projects\AACWBIECEM00\Corr\AACWBIECEM00_0_6331L.15.doc



TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
1 INTRODUCTION	11
1.1 Scope of the Report	12
1.2 Structure of the Report.....	12
2 PROJECT BACKGROUND	14
2.1 Background	14
2.2 Scope of the Project and Site Description	14
2.3 Division of the Project Responsibility	15
2.4 Project Organization and Contact Personnel.....	16
3 STATUS OF REGULATORY COMPLIANCE	23
3.1 Status of Environmental Licensing and Permitting under the Project.....	25
4 MONITORING REQUIREMENTS	39
4.1 Noise Monitoring	39
4.2 Air Monitoring.....	41
5.0 MONITORING RESULTS.....	43
5.1 Noise Monitoring Results	44
5.2 Real Time Noise Monitoring Results.....	47
5.3 Air Monitoring Results	50
5.4 Waste Monitoring Results.....	54
6.0 COMPLIANCE AUDIT	59
6.1 Noise Monitoring	59
6.2 Air Monitoring	60
6.3 Review of the Reasons for and the Implications of Non-compliance.....	61
6.4 Summary of action taken in the event of and follow-up on non-compliance	61
7.0 CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS.....	62
8.0 ENVIROMENTAL SITE AUDIT	63
9.0 COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION	67
10 CONCLUSION.....	68

LIST OF TABLES

Table 2.1	<i>Schedule 2 Designated Projects under this Project</i>
Table 2.2	<i>Details of Individual Contracts under the Project</i>
Table 2.3	<i>Contact Details of Key Personnel</i>
Table 3.1	<i>Summary of the current status on licences and/or permits on environmental protection pertinent to the Project</i>
Table 3.2	<i>Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01</i>
Table 3.3	<i>Summary of submission status under FEP-02/364/2009</i>
Table 3.4	<i>Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02</i>
Table 3.5	<i>Summary of submission status under FEP-01/364/2009</i>
Table 3.6	<i>Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/18</i>
Table 3.7	<i>Summary of submission status under FEP-05/364/2009/A</i>
Table 3.8	<i>Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15</i>
Table 3.9	<i>Summary of submission status under FEP-06/364/2009/A</i>
Table 3.10	<i>Cumulative Summary of Valid License and Permits under Contract no. HY/2009/19</i>
Table 3.11	<i>Summary of submission status under FEP-07/364/2009/A</i>
Table 3.12	<i>Cumulative Summary of Valid License and Permits under Contract no. HK/2012/08</i>
Table 3.13	<i>Summary of submission status under FEP-09/364/2009/B</i>
Table 3.14	<i>Cumulative Summary of Valid License and Permits under Contract no. HY/2010/08</i>
Table 3.15	<i>Summary of submission status under FEP-10/364/2009/B</i>
Table 3.16	<i>Cumulative Summary of Valid License and Permits under Contract no. HY/2011/08</i>
Table 3.17	<i>Summary of submission status under FEP-11/364/2009</i>
Table 4.1	<i>Noise Monitoring Stations</i>
Table 4.2	<i>Real Time Noise Monitoring Stations</i>
Table 4.3	<i>Air Monitoring Stations</i>
Table 5.1	<i>Noise Monitoring Stations for Contract no. HY/2009/18</i>
Table 5.2	<i>Noise Monitoring Station for Contract no HK/2009/01 and HK/2009/02</i>
Table 5.3	<i>Noise Monitoring Stations for Contract no. HY/2009/15</i>
Table 5.4	<i>Noise Monitoring Stations for Contract no. HY/2009/19</i>
Table 5.5	<i>Noise Monitoring Stations for Contract no. HY/2010/08</i>
Table 5.6	<i>Noise Monitoring Stations for Contract no. HY/2011/08</i>
Table 5.7	<i>Real Time Noise Monitoring Stations for Contract no. HY/2009/19</i>
Table 5.8	<i>Air Monitoring Stations for Contract no. HY/2009/18</i>
Table 5.9	<i>Air Monitoring Station for Contract no. HK/2009/01</i>
Table 5.10	<i>Air Monitoring Station for Contract no. HK/2009/02</i>
Table 5.11	<i>Air Monitoring Station for Contract no. HY/2009/15</i>
Table 5.12	<i>Air Monitoring Stations for Contract no. HY/2009/19</i>
Table 5.13	<i>Air Monitoring Station for Contract no. HK/2012/08</i>
Table 5.14	<i>Air Monitoring Station for Contract no. HY/2010/08</i>
Table 5.15	<i>Air Monitoring Stations for Contract no. HY/2011/08</i>
Table 5.16	<i>Details of Waste Disposal for Contract no. HK/2009/01</i>
Table 5.17	<i>Details of Waste Disposal for Contract no. HK/2009/02</i>
Table 5.18	<i>Details of Waste Disposal for Contract no. HY/2009/18</i>
Table 5.19	<i>Details of Waste Disposal for Contract no. HY/2009/15</i>
Table 5.20	<i>Details of Waste Disposal for Contract no. HY/2009/19</i>
Table 5.21	<i>Details of Waste Disposal for Contract no. HK/2012/08</i>
Table 5.22	<i>Details of Waste Disposal for Contract no. HY/2010/08</i>
Table 5.23	<i>Details of Waste Disposal for Contract no. HY/2011/08</i>
Table 8.1	<i>Summary of Environmental Inspections for Contract no. HY/2009/15</i>
Table 8.4	<i>Summary of Environmental Inspections for Contract no. HK/2009/01</i>
Table 8.5	<i>Summary of Environmental Inspections for Contract no. HK/2009/02</i>
Table 8.7	<i>Summary of Environmental Inspections for Contract no. HK/2012/08</i>
Table 8.8	<i>Summary of Environmental Inspections for Contract no. HY/2010/08</i>
Table 9.1	<i>Cumulative Statistics on Complaints</i>



Table 9.2 *Cumulative Statistics on Successful Prosecutions*

Table 10.1 *Summary of Key Construction Activities of Individual Contract(s) to be commenced in Coming Reporting Month*

LIST OF FIGURES

<u>Figure 2.1</u>	Project Layout
<u>Figure 2.2</u>	Project Organization Chart
<u>Figure 4.1</u>	Locations of Environmental Monitoring Stations

LIST OF APPENDICES

<u>Appendix 3.1</u>	Environmental Mitigation Implementation Schedule
<u>Appendix 4.1</u>	Action and Limit Level
<u>Appendix 4.2</u>	Copies of Calibration Certificates
<u>Appendix 5.1</u>	Monitoring Schedule for Reporting Month and Coming month
<u>Appendix 5.2</u>	Noise Monitoring Results and Graphical Presentations
<u>Appendix 5.3</u>	Air Quality Monitoring Results and Graphical Presentations
<u>Appendix 5.4</u>	Real-time Noise Monitoring Results and Graphical Presentations
<u>Appendix 6.1</u>	Event Action Plans
<u>Appendix 6.2</u>	Notification of Exceedance
<u>Appendix 9.1</u>	Complaint Log
<u>Appendix 10.1</u>	Construction Programme of Individual Contracts

EXECUTIVE SUMMARY

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – [February 2015](#) specific for Environmental Permit no. EP-364/2009/C, Further Environmental Permit nos. FEP-01/364/2009, FEP-02-364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A FEP-07/364/2009/A, FEP-09/364/2009/B, FEP-10/364/2009/B and FEP-11/364/2009/B. The EM&A report is prepared by the Environmental Team (ET) employed under Contract No. HK/2011/07 – Wan Chai Development Phase II and Central Wanchai Bypass – Sampling, Field Measurement and Testing Works (Stage 2). This report presents the environmental monitoring findings and information recorded during the period of [February 2015](#). The cut-off date of reporting is at 27th of each reporting month.
- ii. In the reporting month, the principal work activities of individual contracts are included as follows:

Contract no. HY/2009/18 - Central - Wan Chai Bypass (CWB) - Central Interchange under FEP-05/364/2009/A

- [Transplanting of trees](#)
- [Drainage works](#)
- [Tunnel Structure defect rectifications](#)
- [Trough structure construction including excavation, concreting and waterproofing and backfill](#)
- [Road works](#)
- [Bridges construction](#)

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre - Tunnel Works under FEP-02/364/2009

- [Stage 1 Construction of roadside barrier](#)
- [Stage 1 Backfilling on top of CWB tunnel](#)
- [Stage 1 Construction of retaining wall RW1 at slip road 2](#)
- [Stage 2 ELS soil excavation works](#)
- [Stage 2 Construction of base slab](#)
- [Stage 2 Removal of 2nd layer of strut/waling](#)
- [Stage 2 Formwork erection a](#)
- [Stage 2 Rebar fixing of exhaust duct](#)
- [Stage 3 ELS excavation and strut installing works](#)
- [Stage 3 Construction of RC structure \(Top Slab\)](#)
- [Box Culvert 1st layer of strut installation at Bay 7 and grouting works](#)
- [Grouting and excavation works at discharge cooling main for BI, BG & BF](#)
- [Foam concrete for abandoned cooling main CP](#)
- [Trench excavation works for sewage pipeline at Fenwick Pier Street](#)
- [Commencement of work zone X1-3](#)

Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Excavation to Formation Level
- Trimming of bored pile head
- Core hole for bulk head wall demolition and water pumping at Tunnel Portion 1
- Blinding layer application for base slab
- Waterproofing application for base slab
- Formwork and rebar fixing for base slab
- Concreting for base slab
- Shear pin installation and grouting for all D-wall panels at the west side
- Installation of observation well, pump well, piezometer and inclinometers
- Construction of capping beam
- D-Wall construction at east side
- Installation of dewatering wells and piezometers at the east side
- Grouting for all D-wall panels at the east side

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Mined Tunnel drill-and-break works at East and West Portal
- Permanent lining structure at Mined Tunnel
- Construction of diaphragm wall at TPCWAW

Contract no. HY/2009/19 - Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- Bored piling (Land)
- Demolition of ELS for Cut & Cover Tunnel and EVB
- Laying of 1350 ϕ pipe
- Pre-bored H-pile for Admin. Building continue
- Construction of Bridge E
- Installation of Noise Barrier/enclosure
- IECL Road modification and removal of Median Barrier
- Construction of TB Bridge
- Abutment D12 construction
- Saw cut of parapet at IEC East bound
- Footing construction for TA2 bridge
- Construction of temporary steel tower at F1-F8
- JBI cabinet and cable laying in Tong Shui Road

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009B

- Diaphragm wall construction
- Installation of dewatering wells
- Grouting
- Construction of ELS at MVB

Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009B

- Tree transplanting works within Victoria Park,
- Tree felling works
- Drainage improvement works,
- Sheet piling works,
- Excavation and Lateral Support for U-structure,
- Erection of noise absorption sheetings,
- Pipe piling & grouting works,
- Utility diversion works,
- Waterproofing works,
- Construction of Bowling Green Office,
- Construction of ramp for TTA stage II – westbound,
- Milling & paving works for TTA stage II – westbound &.
- Construction of ramp for TTA stage II – eastbound

Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- West Ventilation Building structure construction
- Install VE panels bracket and thermal barrier for Tunnel
- Site preparation for East Vent Shaft

Noise Monitoring

- iii. Noise monitoring during daytime was conducted at M1a - Harbour Road Sports Center; M2b - Noon-day gun area; M3a - Tung Lo Wan Fire Station; M4b - Victoria Center; M5b - City Garden, M6 - HK Baptist Church Henrietta Secondary School, M7e and M7w – International
- iv. 24-hour real time noise monitoring was conducted at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot for construction activities at IEC bridge deck. No project related exceedance was recorded in the reporting month.
- v. 24-hour real time noise monitoring was conducted at RTN2a – Hong Kong Electric Centre. No project related exceedance was recorded in the reporting month.
- vi. 24-hour real time noise monitoring was conducted at RTN3 – Yu Lee Mo Fan Memorial School. No limit level exceedance was recorded in the reporting month.
- vii. 24-hour real time noise monitoring was conducted at RTN4 – Causeway Bay Community Centre. No project related exceedance was recorded in the reporting month.
- viii. Liaison was conducted with HK Baptist Church Henrietta Secondary School and Po Leung Kuk Yu Lee Mo Fan Memorial School regarding the set up of RTN3 real time noise monitoring station. Po Leung Kuk Yu Lee Mo Fan Memorial School grant permission for set up on 4 Sep 2012 and station set up was performed on 14 Sep 2012.
- ix. Real time noise monitoring station at Oil Street Community Liaison Centre (RTN2- Oil Street Community Centre) was relocated from Oil Street Community Liaison Centre to Hong Kong Electric (RTN2a- Electric Centre) on 5 Oct 2012 which is a representative of the noise sensitive receiver City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.
- x. Real-time noise baseline capturing was conducted from 21 Sep 2012 to 04 Oct 2012 at RTN3-Po Leung Kuk Yu Lee Mo Fan Memorial School.
- xi. Real-time Noise Monitoring at RTN3- Po Leung Kuk Yu Lee Mo Fan Memorial School was commenced since 06 Oct 2012.
- xii. Causeway Bay Community Centre has granted permission for set up of real time noise monitoring station on 21 Dec 2012 and station set up was performed on 27 Dec 2012. The Baseline noise level of RTN4- Causeway Bay Community Centre will adopt the results from the baseline noise monitoring report for EP/364/2009 in 22 April 2010 in which approved by EPD.
- xiii. According to clause 3.1 stated in EP-364/2009/B, “the real-time monitoring system shall be in place no later than two weeks before the commencement date of demolition works of the existing Island Eastern Corridor”. IEC demolition associated construction works was commenced on 3 Feb 2013 and Real time noise monitoring at RTN4-Causeway Bay Community Centre was commenced on 13 Jan 2013.
- xiv. Real-time noise monitoring station RTN1-FEHD Whitfield Depot was finely adjusted from 2/F to roof-top at FEHD Whitfield Depot on 24 June 2013 with respect to the commencement of advance works for IEC parapet demolition.
- xv. With respect to the completion of Victoria Car Park refurbishment, the noise monitoring at M4b-Victoria Center was reverted from 3/F to 2/F since 24 June 2014.

Air Monitoring

- xvi. Due to electricity interruption, the following 24hr TSP monitoring events were rescheduled in the reporting month,
24hr TSP monitoring at CMA4a was rescheduled from 17 February 2015 and 18 February 2015.
24hr TSP monitoring at CMA3a was rescheduled from 2 and 7 February 2015 and 4 and 10 February 2015 respectively.
- xvii. With respect to the area handover, the air quality monitoring station CMA5a at Children Playgrounds opposite to the Pedestrian Plaza was relocated to the Pedestrian Plaza on 3 December 2014. The station reference and location ID of the air quality monitoring station CMA5a was updated as CMA5b and Pedestrian Plaza respectively.
- xviii. Due to extension of site boundary by contractor of HY/2009/19, location of air monitoring station CMA1b – Oil Street Community Liaison Centre has been finely adjusted on 21 April 2012.
- xix. The location ID of air monitoring station CMA1b was updated as Oil Street Site Office in April 2013.
- xx. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at CMA1b – Oil Street Site Office; CMA2a - Causeway Bay Community Center; CMA3a - CWB PRE Site Office Area; CMA4a – Society for the Prevention of Cruelty to Animals; CMA5b - Pedestrian Plaza; MA1e and MA1w – International Finance Centre eastern and western podium on every six days basis.
- xxi. No project related exceedance was recorded in the reporting month.

Complaints, Notifications of Summons and Successful Prosecutions

- xxii. No environmental complaint was received in the reporting month.

Site Inspections and Audit

- xxiii. The Environmental Team (ET) conducted weekly site inspections for Contract no. HY/2009/15, HY/2009/18, HY/2009/19, HY/2010/08, HK/2009/01, HK/2009/02, HK/2012/08 and HY/2011/08 in this reporting period.
- xxiv. Construction of bored pile E3B under HY/2009/17 was confirmed completed and the respective work area under FEP-03/364/2009 was handover and inspected under HY/2009/19 from 19 Dec 2012 onwards.
- xxv. Construction works under HK/2010/06 was confirmed completed and the respective work area under FEP-08/364/2009/A was handover and inspected under HK/2012/08 from 22 Sep 2014 onwards.
- xxvi. The Contractors rectified major observations and recommendations made during the audit sessions. No non-conformance was identified during the site inspections.

Future Key Issues

- i. In the coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- Planting trees and shrubs
- Transplanting of trees
- Drainage works
- Trough structure construction including excavation, concreting and waterproofing and backfill
- Road works
- Bridges construction

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- Stage 1 Construction of roadside barrier and backfilling on top of CWB tunnel
- Stage 2 ELS works at Bay 10 and tunnel structure works
- Stage 2 CWB tunnel and exhaust duct works
- Stage 3 ELS works
- Stage 3 Construction of box culvert Bay 2 to Bay 7
- Stage 3 Pumping test
- Pipe laying of S5A and S5B
- Cooling Main Installation (BI/BG/BF) at Expo Drive East Outfall
- Cooling Main Installation BF at Fleming Road
- Removal of abandoned cooling main (P7/P8) at Convention Avenue
- Final connection works for Salt water main (S9)
- Sewerage Pipeline at Fenwick Pier Street
- Installation works for Cooling Main (BF)/ Salt Watermain (S3)/ Fresh Watermain (F3)
- Temporary diversion of cooling main BI/BG/BF to Box Culvert at temporary water channel
- Reinstatement of Expo Drive East

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Blinding layers and waterproofing application for base slab.
- Formwork and rebar fixing and concreting works for base slab.
- Bulk head wall demolition between Tunnel Portion 1 and Tunnel Portion 2.
- D-walls construction
- Shear pin and grouting works for D-Wall at the east side.
- Capping beam construction between Tunnel Portion 1 and Tunnel Portion 3&4.
- Installation of dewatering wells, piezometer and inclinometers at the east side.
- Excavation to +1.5mPD.
- Pumping test

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Mined Tunnel drill-and-break works at East and West Portal
- Permanent lining structure at Mined Tunnel
- Construction of diaphragm wall at TPCWAW

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- Bored piling (Land)
- Demolition of ELS for Cut & Cover Tunnel and EVB
- Laying of 1350 ϕ pipe
- Pre-bored H-pile for Admin. Building
- Construction of Bridge E
- Installation of Noise Barrier/enclosure
- IECL Road modification and removal of Median Barrier
- Construction of TB Bridge
- Abutment D12 construction
- Saw cut of parapet at IEC East bound
- Construction of TA2 bridge
- JBI Gantry Installation

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- Diaphragm wall construction
- Installation of dewatering wells
- Grouting
- Construction of ELS at MVB

Contract no. HY/2010/08 – Central - Wan Chai Bypass (CWB) – Tunnel (Slip Road 8) under FEP-10/364/2009

- Tree transplanting works,
- Drainage improvement works,
- Sheet piling works,
- Excavation and Lateral Support for U-structure,
- Renovation works for Bowling Green Office,
- Pipe piling & grouting works,
- Utility diversion works,
- Waterproofing works &
- Milling & paving works for TTA stage II – eastbound



Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- West Ventilation Building structure construction
- Install VE panels bracket and thermal barrier for Tunnel
- Site preparation for East Vent Shaft

1 INTRODUCTION

1.1 Scope of the Report

- 1.1.1. Lam Geotechnics Limited (LGL) has been appointed to work as the Environmental Team (ET) under Environmental Permit no. EP-364/2009/C and Further Environmental permit nos. FEP-01/364/2009, FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-07/364/2009/A, FEP-09/364/2009/B, FEP-10/364/2009B and FEP-11/364/2009B to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) and in the EM&A Manual of the approved EIA Report for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001).
- 1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.3 of EM&A Manual and “*Environmental Monitoring and Audit Requirements*” under Particular Specification Section 27.
- 1.1.3. This report documents the finding of EM&A works for Environmental Permit (EP) no. EP-364/2009/B, Further Environmental Permit (FEP) nos. FEP-01-364/2009, FEP-02/364/2009, FEP-05/364/2009/A, FEP-06/364/2009/A, FEP-07/364/2009/A, FEP-08/364/2009/A, FEP-09/364/2009B, FEP-10/364/2009B and FEP-11/364/2009B during the period [January 2014 to February 2015](#). The cut-off date of reporting is at 27th of each reporting month

1.2 Structure of the Report

- Section 1** ***Introduction*** – details the scope and structure of the report.
- Section 2** ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.
- Section 3** ***Status of Regulatory Compliance*** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.
- Section 4** ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.
- Section 5** ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.
- Section 6** ***Compliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.

- Section 7** ***Cumulative Construction Impact due to the Concurrent Projects*** – summarizes the relevant cumulative construction impact due to the concurrent activities of the concurrent Projects.
- Section 8** ***Environmental Site Audit*** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.
- Section 9** ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution
- Section 10** ***Conclusion***

2 PROJECT BACKGROUND

2.1 Background

- 2.1.1. “Wan Chai Development phase II and Central-Wan Chai Bypass” and “Central-Wan Chai Bypass and Island Eastern Corridor Link” (hereafter called “the Project”) are Designated Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Reports for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-041/2001) and Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) have been approved on 31 August 2001 and 11 December 2008 respectively.
- 2.1.2. The key purpose of Wan Chai Development Phase II (WDII) is to provide land at Wan Chai North and North Point for construction of the Central-Wan Chai Bypass and Island Eastern Corridor Link (CWB). Land formed under the project will be developed as a world-class waterfront promenade joining that at the new Central waterfront for public enjoyment.
- 2.1.3. There is a compelling and present need for the CWB to provide relief to the very congested east-west Connaught Road Central/Harcourt Road / Gloucester Road Corridor (the Corridor) which is currently operating beyond its capacity. The CWB will provide relief to the existing congestion along the Corridor and cater for the anticipated growth of traffic on Hong Kong Island. Without the CWB and its access roads, there will not be sufficient capacity to serve the heavy traffic demands at both strategic and local levels.

2.2 Scope of the Project and Site Description

- 2.2.1. Design and Construction of Central – Wan Chai Bypass and Island Eastern Corridor Link under the Project involves the construction and operation of a trunk road and its road tunnel more than 800m in length between portals that is shown at Figure 2.1.
- 2.2.2. The study area encompasses existing developments from Central to North Point. The scope of the Central-Wanchai Bypass (CWB) and Island Eastern Corridor Link (IECL) includes:
- A dual three-lane trunk road, approximately 4.5 km in length, and tunnel approximately 3.7 km in length defined from the connection with the existing Rumsey Street Flyover in Central, through to a connection with the existing Island Eastern Corridor to the east of the Causeway Bay Typhoon Shelter (CBTS);
 - The Central Interchange near the Rumsey Street Flyover to provide road connections to the Central area;
 - Tunnel control buildings and ventilation buildings;
 - Slip roads to connect the CWB to the local road system in the Wan Chai North and Causeway Bay area;
 - Associated road lighting, road signing, traffic control and surveillance system; and
 - Other associated works.

2.2.3. The project also contains various Schedule 2 DPs that, under the EIAO, require Environmental Permits (EPs) to be granted by the DEP before they may be either constructed or operated. **Table 2.1** summarises the five individual DPs under this Project. **Figure 2.1** shows the locations of these Schedule 2 DPs.

Table 2.1 Schedule 2 Designated Projects under this Project

Item	Designated Project	EIAO Reference	Reason for inclusion
DP1	Central-Wanchai Bypass (CWB) including its road tunnel and slip roads	Schedule 2, Part I, A.1 and A.7	Trunk road and road tunnel more than 800 m in length
DP2	Road P2 and other roads which are classified as primary/district distributor roads	Schedule 2, Part I, A.1	Primary / district distributor roads
DP3	Reclamation works including associated dredging works	Schedule 2, Part I, C.1 and C.12	Reclamation more than 5 ha in size and a dredging operation less than 100 m from a seawater intake point
DP5	Wan Chai East Sewage Outfall	Schedule 2, Part I, F.5 and F.6	Submarine sewage pipelines with a total diameter more than 1,200 mm and include a submarine sewage outfall
DP6	Dredging for the Cross-harbour Water Mains from Wan Chai to Tsim Sha Tsui	Schedule 2, Part I, C.12	A dredging operation less than 100 m from a seawater intake point

2.3 Division of the Project Responsibility

2.3.1. Due to the multi-contract nature of the Project, there are a number of contracts sub-dividing the whole works area into different work areas to be commenced. Contractors of individual contracts will be required by the EP holder to apply Further Environmental Permits such that the impact monitoring stations are sub-divided accordingly to facilitate the implementation of EM&A programme and to streamline the EM&A reporting for individual FEP holders correspondingly.

2.3.2. The details of individual contracts are summarized in **Table 2.2**.

Table 2.2 Details of Individual Contracts under the Project

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HY/2009/17	Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works.	DP1	5 October 2010 (Completed)
HY/2009/18	Central – Wan Chai Bypass (CWB) – Central Interchange	DP1	21 April 2011
04/HY/2006	Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street	DP1	September 2010 (Completed)
HK/2009/01	Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works	DP1, DP2	25 August 2011

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/02	Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East(CWB Tunnel)	DP1	26 April 2011
HY/2009/15	Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)	DP1,DP3	13 July 2011
HY/2009/19	Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link	DP1	24 March 2011
HK/2010/06	Wan Chai Development Phase II- Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011 (Completed)
HK/2012/08	Wan Chai Development Phase II- Central-Wan Chai Bypass at Wan Chai West	DP1,DP2, DP3	10 March 2014
HY/2010/08	Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)	DP1, DP2, DP3	21 March 2013
HY/2011/08	Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning	DP1	8 October 2014

2.4 Project Organization and Contact Personnel

2.4.1. Civil Engineering and Development Department and Highways Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.

2.4.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in **Figure 2.2**. Key personnel and contact particulars are summarized in **Table 2.3**:

Table 2.3 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.	Contact Fax
AECOM	Engineer's Representative for WDII	Principal Resident Engineer	Mr. Frankie Fan	2587 1778	2587 1877
	Engineer's Representative for CWB	Principal Resident Engineer	Mr. Peter Poon	3922 3388	3912 3010
Lam Woo & CO., LTD.	Contractor under Contract no. HY/2009/17	General Manager	Mr. Thomas Tang	6111 5351	2566 7522
		Contractor's Representative	Mr. Chung Man Shek	2566 4866	
		Site Agent	Mr. Tong Au	9725 5874	

Party	Role	Post	Name	Contact No.	Contact Fax
		Environmental Officer	Dr. Priscilla Choy	9161 7287	
		Environmental Supervisor	Mr. Tam Chun Pong	6461 3062	
Chun Wo – Leader Joint Venture	Contractor under Contract no. HK/2009/01	Site Agent	Mr. Simon Liu	2162 9909	2634 1626
		Construction Manager	Mr. Terry Wong	9757 9846	
		Deputy Site Agent	Mr. Andy Yu	9648 4896	
		Construction Manager	Mr. Wyman Wong	9627 2467	
		Construction Manager	Mr. Jack Chu	9775 2467	
		Environmental Officer	Ms. Wendy Ng	9103 2370	
		Assistant Environmental Engineer	Ms. Connie Chan	9047 6148	
Chun Wo – CRGL Joint Venture	Contractor under Contract no. HK/2009/02	Site Agent	Mr. K.K. Yuen	3658-3002	2827 9996
		Project Manager	Mr. Alfred Leung	3658-3022	
		Quality & Environmental Manager (Environmental Officer)	Mr. C.P. Ho	3658-3000	
Chun Wo - CRGL - MBEC_Joint Venture	Contractor under Contract no. HY/2009/19	Project Manager	Mr. David Lau	3758 8879	2570 8013
		Site Agent	Mr. Paul Yu	9456 9819	
		Environmental Manager / Environmental Officer	Mr. M.H. Isa	9884 0810	
		Environmental Engineer	Mr. Calvin Leung	9286 9208	
		Construction Manager (Marine)	Mr. William Luk	9610 1101	
		Construction Manager (Land)	Mr. Patrick Cheung	9643 3012	
		Construction Manager (Land)	Mr. Eric Fong	6191 9337	
		Operation Manager (Land)	Mr. Yung Kwok Wah	9834 1010	
Leighton	Contractor	Site Agent	Mr. Jimmy Chu	2214 7700	2140 6799

Party	Role	Post	Name	Contact No.	Contact Fax
Contractors (Asia) Limited	under Contract no. HY/2009/18	Deputy Site Agent	Mr. Bob Yeung	2214 7703	
		Environmental Officer	Ms. Lighting Chan	2823 1161	
		Environmental Engineer	Mr. David Hung	2214 7721	
		Assistant Environmental Engineer	Mr. Penny Yiu	2214 7738	
		Environmental Supervisor	Mr. K. P. Lai	6461 4660	
		Environmental Supervisor	Mr. Ray Cheng	2214 7742	
		Environmental Supervisor	Mr. K. W. Lee	6461 4623	
		Environmental Supervisor	Mr. Dorothy Shing	2214 7705	
		Environmental Supervisor	Mr. C. Y. Au Yeung	6461 8631	
China State Construction Engineering (HK) Ltd.	Contractor under Contract no. HY/2009/15	Project Director	Mr. K C Cheung	2823 7813	2865 5229
		Site Manager	Mr. Y. Huo	3557 6368	2566 2192
		Contractor's Representative	Mr. Samuel Wu	3557 6395	
		Head of construction	Mr. Roger Cheung	3557 6371	
		Environmental Officer	Mr. Andy Mak	3557 6215	
		Environmental Supervisor	Ms. Esther Choi	35576348	
Gammon - Leader JV	Contractor under Contract no. HK/2010/06	Project Manager	Mr. Paul Lui	9095 7922	2529 2880
		Site Agent	Mr. Eric Yip	2529 2068	
		Environmental Officer	Mr. Clement Pang	9481 6024	
		Environmental Supervisor	Mr. Jacky Cheung	9735 9200	
China State-Leader JV	Contractor under Contract no. HK/2012/08	Project Director	Mr. C.N. Lai	9137 1811	2877 1522
		Project Manager	Mr. Eddie Chung	9193 8871	
		Site Agent	Mr. Keith Tse	9095 7922	
		Environmental Officer	Mr. James MA	9130 9549	
		Environmental Supervisor	Mr. Y.L. Ho	6050 4919	
China State	Contractor under Contract no. HY/2010/08	Project Director	Cheung Kit Cheung	3557 6399	2566 8061
		Project Manager	Chan Ying Lun	9812 0592	



Party	Role	Post	Name	Contact No.	Contact Fax
		Deputy Project Manager	Chris Leung	3467 4299	
		Site Agent	Dr. Dave Chan	3467 4277	
		Environmental Officer	Mr. C.M. Wong	3557 6464	
		Environmental Supervisor	Mr. Louis Lam Tsz Kwan	3557 6470	
Leighton Joint Venture	Contractor under Contract no. HY/2011/08	Project Manager	Paul Evans	2823 1111	21406799
		Site Agent	Colman Wong	9730 0806	
		Environmental Officer	Chris Chan	9765 6151	
		Environmental Supervisor	Penny Yiu	2214 7738	
ENVIRON Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

2.4.3. In this reporting month, the principal work activities of individual contracts are included as follows:

Contract no. HY/2009/18 - Central - Wan Chai Bypass (CWB) - Central Interchange under FEP-05/364/2009/A

- Transplanting of trees
- Drainage works
- Tunnel Structure defect rectifications
- Trough structure construction including excavation, concreting and waterproofing and backfill
- Road works
- Bridges construction

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre - Tunnel Works under FEP-02/364/2009

- Stage 1 Construction of roadside barrier
- Stage 1 Backfilling on top of CWB tunnel
- Stage 1 Construction of retaining wall RW1 at slip road 2
- Stage 2 ELS soil excavation works
- Stage 2 Construction of base slab
- Stage 2 Removal of 2nd layer of strut/waling
- Stage 2 Formwork erection a
- Stage 2 Rebar fixing of exhaust duct
- Stage 3 ELS excavation and strut installing works
- Stage 3 Construction of RC structure (Top Slab)
- Box Culvert 1st layer of strut installation at Bay 7 and grouting works
- Grouting and excavation works at discharge cooling main for BI, BG & BF
- Foam concrete for abandoned cooling main CP
- Trench excavation works for sewage pipeline at Fenwick Pier Street
- Commencement of work zone X1-3

Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Excavation to Formation Level
- Trimming of bored pile head
- Core hole for bulk head wall demolition and water pumping at Tunnel Portion 1
- Blinding layer application for base slab
- Waterproofing application for base slab
- Formwork and rebar fixing for base slab
- Concreting for base slab
- Shear pin installation and grouting for all D-wall panels at the west side
- Installation of observation well, pump well, piezometer and inclinometers
- Construction of capping beam
- D-Wall construction at east side
- Installation of dewatering wells and piezometers at the east side
- Grouting for all D-wall panels at the east side

Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Mined Tunnel drill-and-break works at East and West Portal
- Permanent lining structure at Mined Tunnel
- Construction of diaphragm wall at TPCWAW

Contract no. HY/2009/19 - Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- Bored piling (Land)
- Demolition of ELS for Cut & Cover Tunnel and EVB
- Laying of 1350 ϕ pipe
- Pre-bored H-pile for Admin. Building continue
- Construction of Bridge E
- Installation of Noise Barrier/enclosure
- IECL Road modification and removal of Median Barrier
- Construction of TB Bridge
- Abutment D12 construction
- Saw cut of parapet at IEC East bound
- Footing construction for TA2 bridge
- Construction of temporary steel tower at F1-F8
- JBI cabinet and cable laying in Tong Shui Road

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009B

- Diaphragm wall construction
- Installation of dewatering wells
- Grouting
- Construction of ELS at MVB



Contract no. HY/2010/08 –Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009B

Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- [West Ventilation Building structure construction](#)
- [Install VE panels bracket and thermal barrier for Tunnel](#)
- [Site preparation for East Vent Shaft](#)

In coming reporting month, the principal work activities of individual contracts are anticipated as follows:

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- Planting trees and shrubs
- Transplanting of trees
- Drainage works
- Trough structure construction including excavation, concreting and waterproofing and backfill
- Road works
- Bridges construction

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- Stage 1 Construction of roadside barrier and backfilling on top of CWB tunnel
- Stage 2 ELS works at Bay 10 and tunnel structure works
- Stage 2 CWB tunnel and exhaust duct works
- Stage 3 ELS works
- Stage 3 Construction of box culvert Bay 2 to Bay 7
- Stage 3 Pumping test
- Pipe laying of S5A and S5B
- Cooling Main Installation (BI/BG/BF) at Expo Drive East Outfall
- Cooling Main Installation BF at Fleming Road
- Removal of abandoned cooling main (P7/P8) at Convention Avenue
- Final connection works for Salt water main (S9)
- Sewerage Pipeline at Fenwick Pier Street
- Installation works for Cooling Main (BF)/ Salt Watermain (S3)/ Fresh Watermain (F3)
- Temporary diversion of cooling main BI/BG/BF to Box Culvert at temporary water channel
- Reinstatement of Expo Drive East

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Blinding layers and waterproofing application for base slab.
- Formwork and rebar fixing and concreting works for base slab.
- Bulk head wall demolition between Tunnel Portion 1 and Tunnel Portion 2.
- D-walls construction
- Shear pin and grouting works for D-Wall at the east side.
- Capping beam construction between Tunnel Portion 1 and Tunnel Portion 3&4.
- Installation of dewatering wells, piezometer and inclinometers at the east side.
- Excavation to +1.5mPD.
- Pumping test

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- Mined Tunnel drill-and-break works at East and West Portal
- Permanent lining structure at Mined Tunnel
- Construction of diaphragm wall at TPCWAW

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- Bored piling (Land)
- Demolition of ELS for Cut & Cover Tunnel and EVB
- Laying of 1350 ϕ pipe
- Pre-bored H-pile for Admin. Building
- Construction of Bridge E
- Installation of Noise Barrier/enclosure
- IECL Road modification and removal of Median Barrier
- Construction of TB Bridge
- Abutment D12 construction
- Saw cut of parapet at IEC East bound
- Construction of TA2 bridge
- JBI Gantry Installation

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- Diaphragm wall construction
- Installation of dewatering wells
- Grouting
- Construction of ELS at MVB

Contract no. HY/2010/08 – Central - Wan Chai Bypass (CWB) –Tunnel (Slip Road 8) under FEP-10/364/2009

- Tree transplanting works,
- Drainage improvement works,
- Sheet piling works,
- Excavation and Lateral Support for U-structure,
- Renovation works for Bowling Green Office,
- Pipe piling & grouting works,
- Utility diversion works,
- Waterproofing works &
- Milling & paving works for TTA stage II – eastbound

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- West Ventilation Building structure construction
- Install VE panels bracket and thermal barrier for Tunnel
- Site preparation for East Vent Shaft

3 STATUS OF REGULATORY COMPLIANCE

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in **Table 3.1**.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project

Permits and/or Licences	Reference No.	Issued Date	Status
Environmental Permit	EP-356/2009	30 Jul 2009	Valid
Environmental Permit	EP-364/2009	17 Aug 2009	Superseded
Environmental Permit	EP-364/2009/A	4 Aug 2010	Superseded
Environmental Permit	EP-364/2009/B	20 Sep 2012	Superseded
Environmental Permit	EP-364/2009/C	11 Jul 2014	Valid
Environmental Permit	EP-376/2009	13 Nov 2010	Valid
Further Environmental Permit	FEP-01/356/2009	18 Feb 2010	Surrendered
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-04/356/2009	15 Nov 2010	Valid
Further Environmental Permit	FEP-05/356/2009	24 Mar 2011	Surrendered
Further Environmental Permit	FEP-06/356/2009	5 March 2013	Valid
Further Environmental Permit	FEP-07/356/2009	26 July 2013	Valid
Further Environmental Permit	FEP-01/364/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-02/364/2009	21 Apr 2010	Valid
Further Environmental Permit	FEP-03/364/2009	12 July 2010	Surrendered
Further Environmental Permit	FEP-04/364/2009/A	14 Oct 2010	Surrendered
Further Environmental Permit	FEP-05/364/2009/A	15 Nov 2010	Valid
Further Environmental Permit	FEP-06/364/2009/A	22 Nov 2010	Valid
Further Environmental Permit	FEP-07/364/2009/A	25 Feb 2011	Valid
Further Environmental Permit	FEP-08/364/2009/A	15 June 2012	Surrendered
Further Environmental Permit	FEP-09/364/2009/B	5 March 2013	Valid
Further Environmental Permit	FEP-10/364/2009/B	26 July 2013	Valid



Further Environmental Permit	FEP-11/364/2009/B	2 May 2014	Valid
------------------------------	-------------------	------------	-------

- 3.1.2. Due to the multi-contract nature of the Project, the status of permits and/or licences under the individual contract(s) are presented as below:

Contract no. HY/2009/17 – Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works under FEP-03/364/2009

- 3.1.3. The construction works was completed and the FEP-03/364/2009 was surrendered by the Contractor on 28 March 2013.

Contract no. 04/HY/2006 – Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street under FEP-04/364/2009/A

- 3.1.4. The construction works was completed, and the FEP-04/HY/2006 was surrendered by the Contractor on 11 February 2011.

Contract no. HK/2010/06 - Wan Chai Development Phase II - Central - Wan Chai Bypass over MTR Tsuen Wan Line under FEP-08/364/2009/A

- 3.1.5. The construction works was completed, and the FEP-08/364/2009/A was surrendered by the Contractor on 3 October 2014.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- 3.1.6. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-02/364/2009 for contract no. HK/2009/01 are shown in **Table 3.2** and **Table 3.3**

Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	N/A	Valid
	FEP-02/364/2009	21 Apr 2010	N/A	Valid
Notification of Works Under APCO	313088	06 Jan 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0875-14	21 Aug 2014	23 Aug 2014 to 21 Feb 2015	Cancelled
	GW-RS0765-14	30 Jul 2014	15 Aug 2014 to 14 Feb 2015	Cancelled
	GW-RS1056-14	29 Sept 2014	08 Oct 2014 to 7 April 2015	Valid
	GW-RS1274-14	17 Nov 2014	17 Nov 2014 to 16 May 2015	Valid
	GW-RS1051-14	29 Sept 2014	9 Oct 2014 to 8 April 2015	Valid
	GW-RS1222-14	05 Nov 2014	08 Nov 2014 to 07 May 2015	Valid
	GW-RS1309-14	24 Nov 2014	26 Nov 2014 to 25 May 2015	Valid
	GW-RS1472-14	2 Jan 2015	22 Jan 2015 to 21 Jul 2015	Cancelled
	GW-RS0079-15	27 Jan 2015	16 Feb 2015 to 14 Aug 2015	Valid
	GW-RS0074-15	22 Jan 2015	10 Feb 2015 to 9 Aug 2015	Valid
	GW-RS0104-15	3 Feb 2015	22 Feb 2015 to 21 Aug 2015	Valid
	GW-RS0101-15	3 Feb 2015	22 Feb 2015 to 21 Aug 2015	Valid
Discharge Licence	WT00009641-2011	24 Jul 2011	31 Jul 2016	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	WT00006220-2010	18 Mar 2010	31 Mar 2015	Valid
	WT00018110-2014	6 Jan 2014	31 Mar 2015	Valid
Billing account under Waste Disposal Ordinance	7010069	21 Jan 2010	N/A	Valid
Registration as a Chemical Waste Producer	WPN5213-134-C3585-01	21 Jan 2010	N/A	Valid

Table 3.3 Summary of submission status under FEP-02/364/2009

EP Condition	Submission	Date of Submission
Condition 2.7 & 2.8	Works Schedule and Location Plan	18 May 2011
Condition 2.6	Environmental Management Organization Chart	18 May 2011
Condition 1.12	Commencement Date of Works	20 Jun 2011
Condition 2.9	Noise Management Plan	10 Jun 2011
Condition 2.11	Landscape Plan (Rev.2)	14 Oct 2014

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

3.1.7. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-01/364/2009 for contract no. HK/2009/02 are shown in **Table 3.4** and **Table 3.5**

Table 3.4 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	N/A	Valid
	FEP-01/364/2009	24 Mar 2010	N/A	Valid
Notification of Works Under APCO	313962	2 Feb 2010	N/A	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Construction Noise Permit (CNP) for non-pilling equipment	GW-RS0742-14	25 July 2014	15 Aug 2014 to 14 Feb 2015	Expired
	GW-RS0745-14	25 July 2014	14 Aug 2014 to 13 Feb 2015	Expired
	GW-RS0840-14	18 Aug 2014	02 Aug 2014 to 12 Feb 2015	Expired
	GW-RS0889-14	29 Aug 2014	29 Sep 2014 to 19 Mar 2015	Valid
	GW-RS0910-14	29 Aug 2014	20 Sep 2014 to 19 Mar 2015	Valid
	GW-RS0965-14	12 Aug 2014	14 Sep 2014 to 11 Mar 2015	Valid
	GW-RS0970-14	12 Aug 2014	12 Sep 2014 to 9 Mar 2015	Valid
	GW-RS0946-14	10 Aug 2014	25 Sep 2014 to 24 Mar 2015	Valid
	GW-RS1060-14	30 Sep 2014	3 Oct 2014 to 25 Mar 2015	Valid
	GW-RS1061-14	30 Sep 2014	2 Oct 2014 to 28 Mar 2015	Valid
	GW-RS1110-14	13/ Oct 2014	17 Oct 2014 to 16 Apr 2015	Valid
	GW-RS1109-14	13 Oct 2014	18 Oct 2014 to 17 Apr 2015	Valid
	GW-RS1148-14	21 Oct 2014	23 Oct 2014 to 9 Apr 2015	Valid
	GW-RS1189-14	31 Oct 2014	22 Nov 2014 to 21 May 2015	Valid
	GW-RS1190-14	31 Oct 2014	17 Nov 2014 to 16 May 2015	Valid
	GW-RS1192-14	31 Oct 2014	07 Nov 2014 to 6 May 2015	Valid
	GW-RS1199-14	31 Oct 2014	07 Nov 2014 to 6 May 2015	Valid
	GW-RS1208-14	31 Oct 2014	16 Nov 2014 to 3 May 2015	Valid
	GW-RS1218-14	5 Nov 2014	7 Nov 2014 to 02 May 2015	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1321-14	21 Nov 2014	24 Nov 2014 to 16 May 2015	Valid
	GW-RS1442-14	24 Dec 2014	27 Dec 2014 to 23 Jun 2015	Valid
	GW-RS1425-14	23 Dec 2014	25 Dec 2014 to 21 Jun 2015	Valid
	GW-RS0066-15	21 Jan 2015	23 Jan 2015 to 15 Jul 2015	Valid
	GW-RS0085-15	27 Jan 2015	14 Feb 2015 to 13 Aug 2015	Valid
	GW-RS0014-15	07 Jan 2015	08 Jan 2015 to 01 Jul 2015	Valid
	GW-RS0098-15	30 Jan 2015	1 Feb 2015 to 28 Jul /2015	Valid
	GW-RS0198-15	24/2/2015	26/2/2015 to 22/8/2015	Valid
	GW-RS0215-15	27/2/2015	8/3/2015 to 7/4/2015	Valid
Discharge Licenses	WT00006249- 2010	22 Mar 2010	31 Mar 2015	Valid
	WT00006436- 2010	15 Apr 2010	30 Apr 2015	Valid
	WT00006673- 2010	14 May 2010	31 Mar 2015	Cancelled
	WT00006757- 2010	28 May 2010	31 May 2015	Valid
	WT00007129- 2010	28 July 2010	31 Jul 2015	Valid
	WT00008982- 2011	26 April 2011	30 April 2016	Valid
	WT00009691- 2011	1 Aug 2011	31 July 2016	Valid
Billing Account under Waste Disposal Ordinance (Land)	7010255	10 Feb 2010	N/A	Valid
Registration as Chemical Waste Producer (Wan Chai)	WPN5213-135- C3593-01	10 Mar 2010	N/A	Valid
Registration as Chemical Waste Producer (TKO 137)	WPN5213-839- C3593-02	22 Sep 2010	N/A	Valid

Table 3.5 Summary of submission status under FEP-01/364/2009

EP Condition	Submission	Date of Submission
Condition 2.7 and 2.8	Works Schedule and Location Plan	14 Jun 2011
Condition 2.6	Environmental Management Organization Chart	14 Jun 2011
Condition 1.12	Commencement Date of Works	21 Jun 2011
Condition 2.11	Landscape Plan (Revision B)	20 Nov 2012
Condition 2.9	Noise Management Plan (Revision B)	13 Jan 2012

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- 3.1.8. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-05/364/2009A for contract no. HY/2009/18 are shown in Table 3.6 and Table 3.7.

Table 3.6 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/18

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-05/364/2009/A	15 Nov 2010	Permit issued	Valid
Notification of Works Under APCO	322293	07 Oct 2010	Notified	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS1151-14	22 Oct 2014	03 Nov 2014 to 30 Apr 2015	Cancelled
	GW-RS1154-14	28 Oct 2014	05 Nov 2014 to 02 Apr 2015	Valid
	GW-RS1248-14	06 Nov 2014	08 Nov 2014 to 07 Apr 2015	Cancelled
	GW-RS-0023-15	07 Jan 2015	04 Jan 2014 to 03 June 2015	Cancelled
	GW-RS-0063-15	23 Jan 2015	26 Jan 2015 to 25 Jul 2015	Valid
	GW-RS-0126-15	05 Feb 2015	07 Feb 2015 to 28 Jul 2015	Valid
Discharge Licenses	WT00012998-2012	25 May 2012	31 Jan 2016	Cancelled
	WT00013967-2012	17 Sep 2012	30 Sep 2017	Valid
	WT00014966-2013	08 Jan 2013	31 Jan 2018	Valid

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	WT00020398-2014	21 Nov 2014	31 Jan 2016	Valid
Registration as a Waste Producer	WPN: 8335-121-L1048-04	17 Dec 2010	N/A	Registration completed
Billing Account under Waste Disposal Ordinance (Land)	Account No.: 7011587	11 Oct 2010	Account approved	Valid

Table 3.7 Summary of submission status under FEP-05/364/2009/A

EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan	01 March 2011
Condition 2.10	Landscape Plan (Rev. 6)	19 May 2014

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

3.1.9. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-06/364/2009/A for contract no. HY/2009/15 are shown in **Table 3.8** and **Table 3.9**

Table 3.8 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	N/A	Valid
	FEP-06/364/2009/A	22 Nov 2010	N/A	Valid
Notification of Works Under APCO	321822	24 Sep 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0944-14	8 Sep 2014	8 Sep 2014 to 7 Mar 2015	Cancelled
	GW-RS0968-14	12 Sep 2014	12 Sep 2014 to 10 Mar 2015	Valid
	GW-RS1164-14	24 Oct 2014	24 Oct 2014 to 23 Apr 2015	Valid
	GW-RS1454-14	24 Dec 2014	26 Dec 2014 to 22 Jun 2015	Cancelled
	GW-RS0021-15	13 Jan 2015	16 Jan 2015 to 15 Jul 2015	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1465-14	31 Dec 2014	1 Jan 2015 to 30 Jun 2015	Valid
	GW-RS0099-14	30 Jan 2015	1 Feb 2015 to 28 Jul 2015	Valid
Registration as a Chemical Waste Producer	WPN: 5213-147-C1169-35	15 Nov 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance	7011553	30 Sep 2010	27 Sep 2010 to 27 Jan 2016	Valid
Water Discharge License (TS1)	WT00008780-2011	24 Nov 2011	24 Nov 2011 to 31 Mar 2016	Valid
Water Discharge License (Discharge at CHT area)	WT00019250-2014	6 Jun 2014	6 Jun 2014 to 31 May 2016	Valid
Water Discharge License (Discharge at TS2)	WT00014974-2013	10 Jan 2013	10 Jan 2013 to 31 Jan 2015	Expired
Water Discharge License (Discharge at TPCWAE)	WT00018167-2014	17 Jan 2014	17 Jan 2014 to 31 Dec 2015	Valid
Water Discharge License (Discharge at TS4)	WT00018542-2014	17 Mar 2014	17 Mar 2014 to 31 Jan 2016	Valid

Table 3.9 Summary of submission status under FEP-06/364/2009/A

EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	11 Mar 2011
	Amendment for Management Organization of Main Construction Companies	16 May 2011
Condition 2.7	Works Schedule	15 Mar 2011
Condition 2.8	Location Plan	15 Mar 2011
Condition 2.9	Noise Management Plan	6 May 2011
Condition 2.10	Landscape Plan (Rev.2)	30 Jan 2015

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

3.1.10. The current status on licences and/or permits on environmental protection pertinent and submission under FEP-07/364/2009/A for contract no. HY/2009/19 are shown in **Table 3.10** and **Table 3.11**

Table 3.10 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/19

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-07/364/2009/A	25 Feb 2011	N/A	Valid
Notification of Works Under APCO	326160	24 Jan 2011	N/A	Valid
Registration as a Waste Producer	7012306	10 Feb 2011	N/A	Valid
Registration as Chemical Waste Producer	5213-151-C3654-01	24 Mar 2011	N/A	Valid
Application for Vessel Disposal	7012306	21 July 2011	N/A	Valid
Construction Noise Permits (CNP) for non-piling equipment	GW-RS1000-14	17 Sep 2014	19 Sep 2014 to 15 Mar 2015	Cancelled
	GW-RS0814-14	08 Aug 2014	08 Aug 2014 to 05 Feb 2015	Cancelled
	GW-RS0826-14	12 Aug 2014	14 Aug 2014 to 11 Feb 2015	Cancelled
	GW-RS1086-14	09 Oct 2014	11-Oct-14 to 8 Apr 2015	Valid
	GW-RS1215-14	29 Oct 2014	31 Oct 2014 to 28 Apr 2015	Cancelled
	GW-RS1219-14	30 Oct 2014	1 Nov 21014 to 30 Apr 2015	Valid
	GW-RS1299-14	18 Nov 2014	20 Nov 2014 to 17 May 2015	Valid
	GW-RS1339-14	01 Dec 2014	02 Dec 2014 to 30 May 2015	Cancelled
	GW-RS1331-14	27 Nov 2014	28 Nov 2014 to 27 May 2015	Cancelled
	GW-RS0076-15	21 Jan 2015	23 Jan 2015 to 22Jul 2015	Valid
	GW-RS0199-15	27 Feb 2015	27 Feb 2015 to 26 Aug 2015	Valid
Water Discharge License	WT00010093-2011	17-Aug-12	30-Sep-16	Valid
	WT00010865-2011	3-Nov-11	30-Nov-16	Valid

Table 3.11 Summary of submission status under FEP-07/364/2009/A

EP Condition	Submission	Date of Submission
Condition 2.13	Landscape Plan (Rev.3)	19 May 2014
Condition 2.9	Noise Management Plan (Rev.4)	2 Feb 2015

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West

3.1.11 The current status on licences and/or permits on environmental protection pertinent and submission under FEP-09/364/2009/B for contract no. HK/2012/08 showed in **Table 3.12 and Table 3.13**

Table 3.12 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-09/364/2009/B	5 March 2013	N/A	Valid
Notification of Works Under APCO	355439	4 Feb 2013	N/A	Valid
Registration as a Chemical Waste Producer	5213-134-C3790-01	8 Mar 2013	N/A	Valid
Billing Account under Waste Disposal Ordinance	7016883	18 Feb 2013	18 Jul 2017	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0919-14	5 Sep 2014	7 Sep 2014 to 4 Mar 2015	Cancelled
	GW-RS1006-14	19 Sep 2014	1 Oct 2014 to 31 Mar 2015	Cancelled
	GW-RS1224-14	30 Oct 2014	3 Nov 2014 to 28 Feb 2015	Valid
	GW-RS0105-15	5 Feb 2015	7 Feb 2015 to 4 Aug 2015	Valid
	GW-RS0145-15	11 Feb 2015	13 Feb 2015 to 12 Aug 2015	Valid
Water Discharge Licence	WT00018223-2014	28 Jan 2014	31 Jan 2019	Valid

Table 3.13 Summary of submission status under FEP-09/364/2009

EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan (Rev.2)	9 July 2013
Condition 2.14	Landscape Plan (Rev.3)	1 August 2014

Contract no. HY/2010/08 –Central – Wanchai Bypass Tunnel – Tunnel (Slip Road 8)

3.1.12 The current status on licences and/or permits on environmental protection pertinent and submission under FEP-10/364/2009/B for contract no. HK/2012/08 showed in **Table 3.14 and Table 3.15**

Table 3.14 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2010/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-10/364/2009/B	2013-07-26	NA	Valid
Notification of Works Under APCO	357176	2013-04-02	NIL	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C1169-44	2013-03-27	NIL	Valid
Billing Account under Waste Disposal Ordinance	7017170	2013-03-27	NIL	Valid
Water Discharge License	WT0001651-2013	2013-07-09	2018-07-28	Cancelled
	WT00020468-2014	2014-12-03	2018-07-31	Valid
Construction Noise Permit (CNP) for non-pilling works	GW-RS0867-14	18 Aug 2014	23 Aug 2014 to 19 Feb 2015	Expired
	GW-RS1013-14	19 Sep 2014	19 Sept 2014 to 14 Mar 2015	Valid
	GW-RS1115-14	14 Oct 2014	14 Oct 2014 to 13 Apr 2015	Valid
	GW-RS1213-14	05 Nov 2014	07 Nov 2014 to 03 May 2015	Valid
	GW-RS1259-14	07 Nov 2014	09 Nov 2014 to 03 May 2015	Cancelled
	GW-RW0891-14	12 Nov 2014	12 Nov 2014 to 11 May 2015	Valid
	GW-RS1322-14	26 Nov 2014	28 Nov 2014 to 27 May 2015	Valid
	GW-RS1393-14	17 Dec 2014	17 Dec 2014 to 15 Jun 2015	Valid
	GW-RS1407-14	17 Dec 2014	19 Dec 2014 to 31 Mar 2015	Valid
	GW-RS1443-14	31 Dec 2014	2 Jan 2015 to 23 Jun 2015	Valid
	GW-RS1479-14	2 Jan 2015	04 Jan 2015 to 31 Mar 2015	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS0001-15	2 Jan 2015	09 Jan 2015 to 27 Apr 2015	Cancelled
	GW-RS0154-15	11 Feb 2015	12 Feb 2015 to 08 Aug 2015	Valid
Construction Noise Permit (CNP) for piling works	PP-RS0014-14	04 Jul 2014	05 Jul 2014 to 03 Jan 2015	Expired

Table 3.15 Summary of submission status under FEP-10/364/2009

EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan (Rev.3)	03 January 2014
Condition 2.14	Landscape Plan (Rev2)	19 May 2014

Contract no. HY/2011/08 –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- 3.1.13 The current status on licenses and/or permits on environmental protection pertinent and submission under FEP-11/364/2009/B for contract no. HK/2012/08 showed in **Table 3.16 and Table 3.17**

Table 3.16 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2011/08

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-11/364/2009/B	2 May 2014	N/A	Valid
Notification of Works Under APCO	355439	4 Feb 2013	N/A	Valid
Registration as a Chemical Waste Producer	5213-134-C3790-01	8 Mar 2013	N/A	Valid
Billing Account under Waste Disposal Ordinance	7016883	18 Feb 2013	18 Jul 2017	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS-1275-14	14 Nov 2014	10 May 2015	Valid
	GW-RS-0174-15	18 Feb 2015	26 Aug 2015	Valid
Water Discharge Licence	WT00019644-2014	29 Jul 2014	31 Jul 2019	Valid
	WT00020242-2014	04 Nov 2014	30 Nov 2019	Valid



Table 3.17 Summary of submission status under FEP-11/364/2009

EP Condition	Submission	Date of Submission
Condition 2.9	Noise Management Plan (Rev.2)	27 Jan 2015
Condition 2.14	Landscape Plan (Rev.2)	18 Feb 2015
Condition 2.13	Operational Air Quality Management Plan for West Ventilation Building (Rev.0)	25 Nov 2014
Condition 2.13	Operational Air Quality Management Plan for East Ventilation Building and East Vent Shaft (Rev.0)	18 Feb 2015

4 MONITORING REQUIREMENTS

4.1 Noise Monitoring

NOISE MONITORING STATIONS

- 4.1.1. The noise monitoring stations for the Project are listed and shown in **Table 4.1** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Stations

Station	Description
M1a	Harbour Road Sports Centre
M2b	Noon-day Gun Area
M3a	Tung Lo Wan Fire Station
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School
*M7e	International Finance Centre (Eastern End of Podium)
M7w	International Finance Centre (Western End of Podium)
*M8	City Hall

* Remark 1: Location ID has been updated from M7 to M8 for City Hall

* Remark 2: M7e has become a reference station starting from 7 Aug 2012

REAL TIME NOISE MONITORING STATIONS

- 4.1.2. Review of feasibility on the real time noise monitoring stations was conducted in July with IEC. Station, RTN1a, Tung Lo Wan fireboat Station was found not appropriate to be a monitoring station for monitoring the IECL Piling works and Demolition after visited.
- 4.1.3. The noise monitoring stations for the Project are listed and shown in **Table 4.2** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.2 Real Time Noise Monitoring Stations

District	Station	Description
Tin Hau	RTN1	FEHD Hong Kong Transport Section Whitfield Depot
North Point	RTN2a	Electric Centre
North Point	RTN3	Po Leung Kuk Yu Lee Mo Fan Memorial School
Tin Hau	RTN4	Causeway Bay Community Centre

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.4. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{eq} (30 minutes) shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods, L_{eq} (5 minutes) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.
- 4.1.5. Noise monitoring shall be carried out at all the designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:
- One set of measurements between 0700 and 1900 hours on normal weekdays.
- 4.1.6. Real time noise shall be carried out at the designated monitoring stations. The following is an initial guide on the regular monitoring frequency for each station on a 24 hours daily basis when noise generating activities are underway:
- One set of measurements between 0700 and 1900 hours on normal weekdays.
 - One set of measurements between 1900 and 2300 hours on normal weekdays and 0700 and 2300 hours on public holidays.
 - One set of measurements between 2300 and 0700 hours on next day on everyday.
- 4.1.7. If construction works are extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted hours periods. Applicable permits under NCO shall be obtained by the Contractor.

MONITORING EQUIPMENT

- 4.1.8. As referred to in the Technical Memorandum TM issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.
- 4.1.9. Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.
- 4.1.10. The sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency before deployment to the site and during each site visit. Measurements will be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

4.2 Air Monitoring

AIR QUALITY MONITORING STATIONS

- 4.2.1. The air monitoring stations for the Project are listed and shown in **Table 4.3** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

Table 4.3 Air Monitoring Stations

Station ID	Monitoring Location	Description
CMA1b	Oil Street Site Office**	North Point (Re-commenced on 14 November 2011)
CMA2a	Causeway Bay Community Centre	Causeway Bay
CMA3a	CWB PRE Site Office *	Causeway Bay
CMA4a	Society for the Prevention of Cruelty to Animals	Wan Chai
CMA5b	Pedestrian Plaza***	Wan Chai
MA1e	International Finance Centre (Eastern End of Podium)	Central
MA1w	International Finance Centre (western End of Podium)	Central

Remarks*: As per the ENPC meeting in March 2011, the monitoring stations CMA3a – Future CWB site office at Wanchai Waterfront Promenade was renamed as remark.

Remarks**: The location ID of monitoring station CMA1b was updated as “Oil Street Site Office” in April 2013.

Remarks***: The station ID and monitoring location was updated in December 2014 with respect to monitoring station relocation.

AIR MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.
- 4.2.3. All relevant data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and any other local atmospheric factors affecting or affected by site conditions, etc., shall be recorded down in detail.
- 4.2.4. For regular impact monitoring, the sampling frequency of at least once in every six-days, shall be strictly observed at all the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:

- 0.6 – 1.7 m³ per minute adjustable flow range;
- Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
- Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
- Capable of providing a minimum exposed area of 406 cm²;
- Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
- Equipped with a shelter to protect the filter and sampler;
- Incorporated with an electronic mass flow rate controller or other equivalent devices;
- Equipped with a flow recorder for continuous monitoring;
- Provided with a peaked roof inlet;
- Incorporated with a manometer;
- Able to hold and seal the filter paper to the sampler housing at horizontal position;
- Easily changeable filter; and
- Capable of operating continuously for a 24-hour period.

4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

LABORATORY MEASUREMENT / ANALYSIS

4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.

4.2.8. Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24-hours and be pre-weighed before use for the sampling.

4.2.9. After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.

4.2.10. All the collected samples shall be kept in a good condition for 6 months before disposal.

4.2.11. Current calibration certificates of equipments are presented in **Appendix 4.2.**

5.0 MONITORING RESULTS

5.0.1. The environmental monitoring will be implemented based on the division of works areas of each designated project managed under different contracts with separate FEP applied by individual contractors. Overall layout showing work areas of various contracts, latest status of work commencement and monitoring stations is shown in **Figure 2.1** and **Figure 4.1**. The monitoring results are presented in according to the Individual Contract(s).

5.0.2. In the reporting month, the concurrent contracts are as follows:

- Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)
- Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange
- Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link
- Contract no. HY/2010/08 – Central- Wanchai Bypass Tunnel (Slip Road 8 Section)
- Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre
- Contract no. HK/2009/02 - Wan Chai Development Phase II – Central - Wan Chai Bypass at Wan Chai East
- Contract no. HK/2012/08 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai West
- Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB)– Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

5.0.3. The environment monitoring schedules for reporting month and coming month are presented in **Appendix 5.1**.

5.1 Noise Monitoring Results

- 5.1.1 Monitoring for report of review baseline noise level was performed from 11 April 2011 to 8 June 2011. Then the report was submitted on the 20 June 2011, verified by IEC on 18 July 2011 and was approved by ER by January 2012. The new baseline is used for the noise calculation starting from January 2012.

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- 5.1.2 Noise monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 22 April 2011. The proposed division of noise monitoring stations for Contract no. HY/2009/18 are summarized in **Table 5.1** below:

Table 5.1 Noise Monitoring Stations for Contract no. HY/2009/18

Station	Description
*M7e	International Finance Centre (Eastern End of Podium)
M7w	International Finance Centre (Western End of Podium)
M8	City Hall

* Remark: M7e has become a reference station starting from 7 Aug 2012

- 5.1.3 No action or limit level exceedance was recorded in this reporting month.
- 5.1.4 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009 and Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- 5.1.5 The commencement of construction works for Contract no. HK/2009/01 under FEP-02/364/2009 is on 25 August 2011 and HK/2009/02 under FEP-01/364/2009 is on 26 April 2011. The proposed division of noise monitoring stations are summarized in **Table 5.2** below.

Table 5.2 Noise Monitoring Station for Contract no HK/2009/01 and HK/2009/02

Station	Description
M1a	Harbour Road Sports Centre

- 5.1.6 No action or limit level exceedance was recorded in this reporting month.

- 5.1.7 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- 5.1.8 The commencement of construction works for Contract no. HY/2009/15 under FEP-06/364/2009/A was on 13 July 2011. Noise monitoring was commenced on 13 July 2011. The proposed divisions of noise monitoring stations are summarized in **Table 5.3** below.

Table 5.3 Noise Monitoring Stations for Contract no. HY/2009/15

Station	Description
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station

- 5.1.9 No action or limit level exceedance was recorded in this reporting month.
- 5.1.10 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- 5.1.11 Noise monitoring for the tunnel works under contract no. HY/2009/19 was commenced on 24 April 2011. The proposed division of noise monitoring stations are summarized in **Table 5.4** below.

Table 5.4 Noise Monitoring Stations for Contract no. HY/2009/19

Station	Description
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

- 5.1.12 No action or limit level exceedance was recorded in this reporting month.
- 5.1.13 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**. Details of the Notification of Exceedance can be referred in **Appendix 6.2**.

Contract no. HY/2010/08 – Central-Wanchai Bypass –Wanchai Bypass Tunnel (Slip Road 8 Section) under FEP-09/364/2009/B

- 5.1.14 The commencement of construction works for Contract no. HY/2010/08 under FEP-10/364/2009/B was on 02 September 2013. Noise monitoring was commenced on 02 September 2013. The proposed divisions of noise monitoring stations are summarized in **Table 5.5** below.

Table 5.5 Noise Monitoring Stations for Contract no. HY/2010/08

Station	Description
M3a	Tung Lo Wan Fire Station

- 5.1.15 No action or limit level exceedance was recorded in this reporting month.
- 5.1.16 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

- 5.1.17 Noise monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 22 April 2011. The proposed division of noise monitoring stations for Contract no. HY/2011/08 are summarized in **Table 5.6** below:

Table 5.6 Noise Monitoring Stations for Contract no. HY/2011/08

Station	Description
*M7e	International Finance Centre (Eastern End of Podium)
M7w	International Finance Centre (Western End of Podium)
M8	City Hall

* Remark: M7e has become a reference station starting from 7 Aug 2012

- 5.1.18 No action or limit level exceedance was recorded in this reporting month.
- 5.1.19 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of noise monitoring results and graphical presentation can be referred in **Appendix 5.2**.

5.2 Real Time Noise Monitoring Results

- 5.2.1. As confirmed by CWB RSS, the IECL parapet removal operations and associated construction work will commence in June 2013. Liaison was conducted with HK Baptist Church Henrietta Secondary School, Po Leung Kuk Yu Lee Mo Fan Memorial School and Causeway Bay Community Centre regarding the set up of RTN3 real time noise monitoring station.
- 5.2.2. Causeway Bay Community Centre has granted permission for set up on 21 Dec 2012 and station set up was performed on 27 Dec 2012. The baseline noise level of RTN4- Causeway Bay Community Centre will adopt the results from the baseline noise monitoring report for EP/364/2009 in 22 April 2010 in which approved by EPD.
- 5.2.3. Real time noise monitoring at RTN4-Causeway Bay Community Centre was commenced on 13 Jan 2013.
- 5.2.4. Po Leung Kuk Yu Lee Mo Fan Memorial School grant permission for set up on 4 Sep 2012 and station set up was performed on 14 Sep 2012. Real time noise baseline capturing was conducted during time period without construction work from 21 Sep 2012 to 04 Oct 2012.
- 5.2.5. Real time noise monitoring at RTN3 – Po Leung Kuk Yu Lee Mo Fan Memorial School was commenced since 06 Oct 2012.
- 5.2.6. Oil Street Community Liaison Centre was confirmed to be demolished in mid-October by CWB RSS. This presented a need for relocation of RTN2 – Oil Street Community Liaison Centre. After liaison with Hong Kong Electric, permission was granted on 21 Sep 2012 for real time noise monitoring set up at City Garden Electric Centre (RTN2a – Electric Centre), which is a representative of the noise sensitive receiver City Garden.
- 5.2.7. RTN2 previously located at oil Street Community Liaison Centre was relocated to Hong Kong Electric Centre on 5 Oct 2012, which is a representative of the noise sensitive receiver City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted at Electric Centre from 4 December 2009 to 17 December 2009.
- 5.2.8. Real-time noise monitoring station RTN1-FEHD Whitfield Depot was finely adjusted from 2/F to roof-top at FEHD Whitfield Depot on 24 June 2013 with respect to the commencement of advance works for IEC parapet demolition.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- 5.2.9. The proposed division of noise monitoring stations are summarized in **Table 5.7** below. Real time noise monitoring for major construction works under contract no. HY/2009/19 was commenced on 24 April 2011.

Table 5.7 Real Time Noise Monitoring Stations for Contract no. HY/2009/19

Location ID	District	Description
RTN1	Tin Hau	FEHD Hong Kong Transport Section Whitfield Depot
RTN2a	North Point	Electric Centre
RTN3	North Point	Po Leung Kuk Yu Lee Mo Fan Memorial School
RTN4	Tin Hau	Causeway Bay Community Centre

** Real time noise monitoring results and graphical presentation during night time period are for information only.*

**Real-time noise monitoring results and graphical presentation for RTN3 during restricted hours are for information only as no night classes were conducted at the educational institute.*

- 5.2.10. Limit level exceedances were recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot on 20 February 2015 during restricted hours in the reporting month. After checking with Contractor of HY/2009/19, no construction works conducted at the concerned location during the recorded period. As such, the exceedances were considered to be non-Project related and contributed by pyrotechnic display.
- 5.2.11. Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 9, 10, 11, 12, 13 and 26 February 2015 during day time and on 20 February 2015 during restricted hours in the reporting month. After checking with Contractor of HY/2009/19, no major noise generating construction activities were undertaken by the Contractor on 9, 10, 11, 12, 13 and 26 February 2015 while breaking works and excavation works was observed across February 2015 at the construction site located next to the concerned monitoring station. In view of the above, the exceedances were considered to be non-Project related and contributed by nearby non-CWB construction site works. On 20 February 2015, no construction works conducted at the concerned location during the recorded period and the exceedance were considered to be non-Project related and contributed by pyrotechnic display.
- 5.2.12. No limit level exceedances were recorded at RTN3-Yue Lee Mo Fan Memorial School during daytime in the reporting month.
- 5.2.13. Limit level exceedance was recorded at RTN4-Causeway Bay Community Centre on 20 February 2015 during restricted hours in the reporting month. After checking with Contractor of HY/2009/19, no construction works conducted at the concerned location during the recorded period. As such, the exceedances were considered to be non-Project related and contributed by pyrotechnic display and nearby IEC traffic.



5.2.14. Real time noise monitoring results measured in this reporting period are reviewed and summarized. Details of real time noise monitoring results and graphical presentation can be referred to **Appendix 5.4.**

5.3 Air Monitoring Results

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- 5.3.1 Air monitoring for the Central Interchange works under contract no. HY/2009/18 was commenced on 21 April 2011. The proposed division of air monitoring stations are summarized in **Table 5.8** below.

Table 5.8 Air Monitoring Stations for Contract no. HY/2009/18

Station	Description
MA1e	International Finance Centre (Eastern End of Podium)
MA1w	International Finance Centre (Western End of Podium)

- 5.3.2 No exceedance was recorded in the reporting month.
- 5.3.3 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- 5.3.4 The commencement of construction works for Contract no. HK/2009/01 under FEP-02/364/2009 is on 25 August 2011. Air quality monitoring was commenced on 25 August 2011. The proposed division of air monitoring stations are summarized in **Table 5.9** below.

Table 5.9 Air Monitoring Station for Contract no. HK/2009/01

Station	Description
CMA5b	Pedestrian Plaza

- 5.3.5 One action level exceedance was recorded at CMA5b on 7 February 2015 during 24hr TSP monitoring in the reporting month.
- 5.3.6 After investigation, it was found that the relatively high ambient air pollutant concentration with nearby traffic exhaust was the major contribution to air quality impact and contractor dust mitigation measures were confirmed in place. As such, the exceedances were considered as non- project related.
- 5.3.7 Two action level and one limit exceedances were recorded at CMA5b on 9 February 2015 during 1hr TSP monitoring in the reporting month.
- 5.3.8 After investigation, it was found that the relatively high ambient air pollutant concentration with nearby traffic exhaust was the major contribution to air quality impact and contractor dust mitigation measures were confirmed in place. As such, the exceedances were considered as non- project related.

- 5.3.9 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- 5.3.10 The commencement of construction works for HK/2009/02 under FEP-01/364/2009 is on 26 April 2011. The proposed division of air monitoring stations are summarized in **Table 5.10** below.

Table 5.10 Air Monitoring Station for Contract no. HK/2009/02

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

- 5.3.11 No exceedance was recorded in the reporting month.
- 5.3.12 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- 5.3.13 The commencement of construction works for Contract no. HY/2009/15 under FEP-06/364/2009/A was on 13 July 2011. Air quality monitoring was commenced on 14 July 2011. The proposed division of air monitoring stations are summarized in **Table 5.11** below.

Table 5.11 Air Monitoring Station for Contract no. HY/2009/15

Station	Description
CMA3a	CWB PRE Site Office

- 5.3.14 No exceedance was recorded in the reporting month.
- 5.3.15 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- 5.3.16 The proposed division of air monitoring stations are summarized in **Table 5.12** below. Air monitoring for the tunnel works under contract no. HY/2009/19 was commenced on 26 April 2011.

Table 5.12 Air Monitoring Stations for Contract no. HY/2009/19

Station	Description
CMA1b	Oil Street Site Office
CMA2a	Causeway Bay Community Centre

- 5.3.17 No exceedance was recorded in the reporting month.
- 5.3.18 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HK/2012/08- Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai West

- 5.3.19 The commencement of construction works for Contract no. HK/2012/08 under FEP-09/364/2009/C was on May 2014. Air quality monitoring was commenced on 14 July 2011. The proposed division of air monitoring stations are summarized in **Table 5.13** below.

Table 5.13 Air Monitoring Station for Contract no. HK/2012/08

Station	Description
CMA5b	Pedestrian Plaza

- 5.3.20 One action level exceedance was recorded at CMA5b on 7 February 2015 during 24hr TSP monitoring in the reporting month.
- 5.3.21 After investigation, it was found that the relatively high ambient air pollutant concentration with nearby traffic exhaust was the major contribution to air quality impact and contractor dust mitigation measures were confirmed in place. As such, the exceedances were considered as non- project related.
- 5.3.22 Two action level and one limit exceedances were recorded at CMA5b on 9 February 2015 during 1hr TSP monitoring in the reporting month.
- 5.3.23 After investigation, it was found that the relatively high ambient air pollutant concentration with nearby traffic exhaust was the major contribution to air quality impact and contractor dust mitigation measures were confirmed in place. As such, the exceedances were considered as non- project related.
- 5.3.24 Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2010/08 – Central-Wanchai Bypass –Wanchai Bypass Tunnel (Slip Road 8 Section) under FEP-09/364/2009/B

- 5.3.25 The commencement of construction works for Contract no. HY/2010/08 under FEP-09/364/2009/B was on July 2014. Air quality monitoring was commenced on 14 July 2011. The proposed division of air monitoring stations are summarized in **Table 5.14** below.

Table 5.14 Air Monitoring Station for Contract no. HY/2010/08

Station	Description
CMA3a	CWB PRE Site Office

- 5.3.26 No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning

- 5.3.27 Air monitoring for the Central Interchange works under contract no. HY/2011/08 was commenced on 21 April 2011. The proposed division of air monitoring stations are summarized in **Table 5.15** below.

Table 5.15 Air Monitoring Stations for Contract no. HY/2011/08

Station	Description
MA1e	International Finance Centre (Eastern End of Podium)
MA1w	International Finance Centre (Western End of Podium)

- 5.3.28 No exceedance was recorded in the reporting month. Air quality monitoring results measured in this reporting period are reviewed and summarized. Details of air monitoring results and graphical presentation can be referred in **Appendix 5.3**.

5.4 Waste Monitoring Results

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- 5.4.1. Inert C&D wastes and non-inert C&D wastes were disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.16**.

Table 5.16 Details of Waste Disposal for Contract no. HK/2009/01

Waste Type	Quantity this month, m ³	Cumulative-to-Date, m ³	Disposal / Dumping Grounds
Inert C&D materials disposed	800.405	123221.22	TKO137, TM38
Inert C&D materials recycled	6637.74	51281.62	N/A
Non-inert C&D materials disposed	76.26	2099.09	SENT Landfill
Non-inert C&D materials recycled	75760	472179	N/A
Chemical waste disposed	Nil	10350	N/A
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	Nil	2850	East of Cha Chau South Brothers

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- 5.4.2. Inert C&D & non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.17**.

Table 5.17 Details of Waste Disposal for Contract no. HK/2009/02

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	4606.58	290600.122	TKO137 / TM 38
Inert C&D materials recycled, m ³	Nil	18161	n/a
Non-inert C&D materials disposed, m ³	19.8	1880.427	SENT Landfill
Non-inert C&D materials recycled, m ³	Nil	N/A	N/A
Chemical waste disposed, kg	Nil	17029	SENT Landfill

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- 5.4.3. Inert C&D and non-inert C&D waste was disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.18**.

Table 5.18 Details of Waste Disposal for Contract no. HY/2009/18

Waste Type*	Quantity this month, (m3)	Cumulative-to-Date, (m3)	Disposal / Dumping Grounds
Inert C&D materials disposed	1333.72	120011.39	T.K.O. 137, TM 38
Inert C&D materials recycled	Nil	58734.05	N/A
Non-inert C&D materials disposed	50.033	2953.903	SENT Landfill
Non-inert C&D materials recycled (tonnes)	5.73	806.53	N/A
Chemical waste disposed (kg)	Nil	4440	N/A

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- 5.4.4. Inert & Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.19**.

Table 5.19 Details of Waste Disposal for Contract no. HY/2009/15

Waste Type	Quantity this month(m ³)	Cumulative Quantity-to-Date(m ³)	Disposal / Dumping Grounds
Inert C&D materials disposed, m ³	Nil Nil	535707.47 243456.3	Tuen Mun Area 38 TKO137 FB
Inert C&D materials recycled, m ³	Nil	304860.3	HY/2009/11 ex-PCWA TS4 /TS2 WDII Lun Ku Tan
Non-inert C&D materials disposed, m ³	11.37	2660.66	SENT Landfill
Non-inert C&D materials recycled, m ³	Nil	5496446.2	Xun Xiang Metalware Skylight Recycle (paper)
Chemical waste disposed, kg	Nil	22755	Dunwell Group

Waste Type	Quantity this month(m ³)	Cumulative Quantity-to-Date(m ³)	Disposal / Dumping Grounds
Marine Sediment (Type1-Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m ³	Nil	5684	South of the Brothers

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- 5.4.5. Inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.20**.

Table 5.20 Details of Waste Disposal for Contract no. HY/2009/19

Waste Type*	Quantity this month, m ³	Cumulative-to-Date, m ³	Disposal / Dumping Grounds
Inert C&D materials disposed	2057	600881.15	N/A
Inert C&D materials recycled	Nil	81822.39	N/A
Non-inert C&D materials disposed	106.23	2336.43	SENT Landfill
Non-inert C&D materials recycled	0.03	411.43	N/A
Chemical waste disposed	0.29	8.84	N/A
Marine Sediment (Tunnel) (Type-1 Open Sea Disposal), m ³	Nil	20556	South of Cheung Chau
Marine Sediment (Tunnel) (Type 1- Open Sea Disposal (Dedicated Sites) & Type 2 – Confined Marine Disposal), m ³	Nil	30751	East of Sha Chau

Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- 5.4.6. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.21**.

Table 5.21 Details of Waste Disposal for Contract no. HK/2012/08

Waste Type*	Quantity this month, m ³	Cumulative-to-Date, m ³	Disposal / Dumping Grounds
Inert C&D materials disposed	6951	33999	TKO 137
Inert C&D materials recycled	2359	2359	N/A
Non-inert C&D materials disposed	50	400	SENT
Non-inert C&D materials recycled	Nil	Nil	N/A
Chemical waste disposed	Nil	Nil	N/A

Contract no. HY/2010/08 Central – Wan Chai Bypass (CWB) – Tunnel (Slip Road 8) under FEP-10/364/2009/B

- 5.4.7. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.22**.

Table 5.22 Details of Waste Disposal for Contract no. HY/2010/08

Waste Type*	Quantity this month, m ³	Cumulative-to-Date, m ³	Disposal / Dumping Grounds
Inert C&D materials disposed	211 Nil	18081.4 363	TM 38 TKO 137
Inert C&D materials recycled	Nil	Nil	N/A
Non-inert C&D materials disposed	34	704	SENT
Non-inert C&D materials recycled	Nil	Nil	N/A
Chemical waste disposed	Nil	535	N/A

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- 5.4.8. No inert and Non-inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.23**.

Table 5.23 Details of Waste Disposal for Contract no. HY/2011/08

Waste Type*	Quantity this month, m ³	Cumulative-to-Date, m ³	Disposal / Dumping Grounds
Inert C&D materials disposed	Nil	14.4	CWPF
Inert C&D materials recycled	Nil	Nil	N/A
Non-inert C&D materials disposed	7.5	30.577	SENT
Non-inert C&D materials recycled	3.65	3.65	N/A
Chemical waste disposed	Nil	Nil	N/A

6.0 COMPLIANCE AUDIT

- 6.0.1. The Event Action Plan for construction noise, air qualities are presented in **Appendix 6.1**.

6.1 Noise Monitoring

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- 6.1.1. No exceedance was recorded in the reporting month.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention Exhibition Centre – Tunnel Works under FEP-02/364/2009

- 6.1.2. No exceedance was recorded in the reporting month.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- 6.1.3. No action or limit level exceedance was recorded in this reporting month.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A

- 6.1.4. No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- 6.1.5. No exceedance was recorded in the reporting month.

Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Road 8 Section) under FEP-10/364/2009/B

- 6.1.6. No exceedance was recorded in the reporting month.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- 6.1.7. No exceedance was recorded in the reporting month.

Real Time Noise Monitoring

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- 6.1.1 Limit level exceedances were recorded at RTN1-FEHD Hong Kong Transport Section Whitfield Depot on 20 February 2015 during restricted hours in the reporting month. After checking with Contractor of HY/2009/19, no construction works conducted at the concerned location during the recorded period. As such, the exceedances were considered to be non-Project related and contributed by pyrotechnic display.
- 6.1.2 Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 9, 10, 11, 12, 13 and 26 February 2015 during day time and on 20 February 2015 during restricted hours in the reporting month. After checking with Contractor of HY/2009/19, no major noise generating construction activities were undertaken by the Contractor on 9, 10, 11, 12, 13 and 26 February 2015 while breaking works and excavation works was observed across February 2015 at the construction site located next to the concerned monitoring station. In view of the above, the exceedances were considered to be non-Project related and contributed by nearby non-CWB construction site works. On 20 February 2015, no construction works conducted at the concerned location during the recorded period and the exceedance were considered to be non-Project related and contributed by pyrotechnic display.
- 6.1.3 No limit level exceedances were recorded at RTN3-Yue Lee Mo Fan Memorial School during daytime in the reporting month.
- 6.1.4 Limit level exceedance was recorded at RTN4-Causeway Bay Community Centre on 20 February 2015 during restricted hours in the reporting month. After checking with Contractor of HY/2009/19, no construction works conducted at the concerned location during the recorded period. As such, the exceedances were considered to be non-Project related and contributed by pyrotechnic display and nearby IEC traffic.

6.2 Air Monitoring

Contract no. HY/2009/18 – Central – Wan Chai Bypass (CWB) – Central Interchange under FEP-05/364/2009/A

- 6.2.1. No exceedance was recorded in the reporting month.

Contract no. HK/2009/01 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Hong Kong Convention and Exhibition Centre – Tunnel Works under FEP-02/364/2009

- 6.2.1 One action level exceedance was recorded at CMA5b- Pedestrian Plaza on 7 February 2015 during 24hr TSP monitoring and two action level and one limit level exceedances were recorded at CMA5b- Pedestrian Plaza on 9 February 2015 in the reporting month. Ambient air pollutant concentration and nearby traffic exhaust were considered as the contribution to air quality impact. As such, the exceedances were concluded as non-project related.

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- 6.2.2. No exceedance was recorded in the reporting month.

Contract no. HY/2009/15 – Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section) FEP-06/364/2009/A

- 6.2.3. No exceedance was recorded in the reporting month.

Contract no. HY/2009/19 – Central – Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- 6.2.4. No exceedance was recorded in the reporting month.

Contract no. HK/2012/08 Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai West under FEP-09/364/2009/B

- 6.2.2 One action level exceedance was recorded at CMA5b- Pedestrian Plaza on 7 February 2015 during 24hr TSP monitoring and two action level and one limit level exceedances were recorded at CMA5b- Pedestrian Plaza on 9 February 2015 in the reporting month. Ambient air pollutant concentration and nearby traffic exhaust were considered as the contribution to air quality impact. As such, the exceedances were concluded as non-project related.

Contract no. HY/2010/08 – Central-Wanchai Bypass – Tunnel (Slip Raod 8 Section) under FEP-10/364/2009/B

- 6.2.5. No exceedance was recorded in the reporting month.

Contract no. HY/2011/08 Central –Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B

- 6.2.6. No exceedance was recorded in the reporting month.

6.3 Review of the Reasons for and the Implications of Non-compliance

- 6.3.1. There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.
- 6.3.2. No non-compliances from monitoring was recorded in the reporting month.

6.4 Summary of action taken in the event of and follow-up on non-compliance

- 6.4.1 There was no particular action taken since no non-compliance was recorded from the site audits in the reporting period.

7.0 CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS

- 7.0.1. According to Condition 3.4 of the EP-364/2009/C, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) and Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East (CWB Tunnel).
- 7.0.2. According to the Final EM&A Report of Central Reclamation Phase III (CRIII) for Contract HK 12/02, the major construction activities were completed by end of January 2014 and no construction activities were undertaken thereafter and the water quality monitoring was completed in October 2011. As such, it is considered that there were no cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) undertaken by contractor HK12/02 in the reporting month.
- 7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area, Diaphragm wall construction, removal of rock armour, and socket H piling works were performed in February 2015 reporting month. As no project related exceedance were recorded during the reporting period, cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was considered as insignificant.
- 7.0.4. According to the construction programme of Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects, the major construction activities under Wan Chai Development Phase II were marine works at HKCEC areas, tunnel works and foundation works at Wan Chai East and dredging works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and road works at Central Interchange, land based bored pilling works and ELS works at Victoria Park, segment launching works and tunnel works at North Point area. Marine-based construction activities were seawall construction and filling works at EX-PCWA and seawall construction and filling works at TS3 at Causeway Bay Typhoon Shelter in the reporting month.
- 7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the air and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.

8.0 ENVIRONMENTAL SITE AUDIT

8.0.1. During this reporting month, weekly environmental site audits were conducted for Contracts no. HY/2009/15, HY/2009/18, HY/2009/19, HK/2012/08, HK/2009/01, HK/2009/02, HY/2010/08 and HY/2011/08. No non-conformance was identified during the site audits. The Contractors rectified major observations and recommendations made during the audit sessions. No non-conformance was identified during the site inspections.

8.0.2. Five site inspections for Contract no. HY/2009/15 was carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.1**.

Table 8.1 Summary of Environmental Inspections for Contract no. HY/2009/15

Item	Date	Observations	Action taken by Contractor	Outcome
150203_1	3-Feb-2015	Collect floating refuse more frequently (EX-PCWA)	Floating refuses was collected	Completed as observed on 10 February 2015
150210_1	10-Feb-2015	Provide mitigation measure to prevent earth falling into water and cause contamination to the nearby water (EX-PCWA)	No further transfer work at the concerned location was observed and no residue mud at seawall was observed	Completed as observed on 17 February 2015
150217_1	17-Feb-2015	Block the surface runoff point and provide proper collection for concrete washing runoff to prevent contaminating nearby water (Ex-PCWA)	Surface runoff point was plugged to avoid runoff.	Completed as observed on 9 March 2015
150224_1	24-Feb-2015	Provide drip tray for oil container and provide proper collection for chemical waste (TZ4)	Oil containers were removed.	Completed as observed on 9 March 2015

8.0.3. Five site inspections for Contract no. HY/2009/18 was carried out during this reporting period. No observation was found in the reporting month.

8.0.4. Five site inspections for Contract no. HY/2009/19 was carried out during this reporting period. No observation was found in the reporting month.

- 8.0.5. Five site inspections for Contract no. HK/2009/01 was carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.4**

Table 8.4 Summary of Environmental Inspections for Contract no. HK/2009/01

Item	Date	Observations	Action taken by Contractor	Outcome
150217_01	17-Feb-15	Drip tray shall be provided for oil container at Stage 2.	The oil containers was taken away at Stage 2.	Completion as observed on 25 Feb 2015.
150225_01	25-Feb-15	Hole of drip tray under air compressor shall be covered at Stage 3.	The hole of drip tray under air compressor is covered at Stage 3.	Completion as observed on 4 March 2015.

- 8.0.6. Five site inspections for Contract no. HK/2009/02 was carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.5**

Table 8.5 Summary of Environmental Inspections for Contract no. HK/2009/02

Item	Date	Observations	Action taken by Contractor	Outcome
150129_01	29-Jan-15	Drip tray of the air compressor at Portion 2 shall be reinstated and well maintained.	Drip tray was properly reinstated and well maintained.	Completion as observed on 5 Feb 2015
150205_01	5-Feb-15	Breaker shall be covered with acoustic material at Portion 3 & 4.	Breaker is covered with acoustic material at Portion 3 & 4.	Completion as observed on 12 Feb 2015
150216_01	16-Feb-15	Drip tray shall be provided for oil containers at Portion 2	Oil containers has been removed	Completion as observed on 26 Feb 2015
150216_02	16-Feb-15	Wheel washing shall be improve to avoid any muddy trail on traffic road at Portion 3 & 4	Muddy trail has been cleaned	Completion as observed on 26 Feb 2015
150226_01	26-Feb-15	Provide Noise Emission Label to the air compressor (Portion 2)	Noise emission label for the air compressor was provided at Portion 2.	Completion as observed on 5 Mar 2015

8.0.7. Four site inspection for Contract no. HK/2012/08 was carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.7**

Table 8.7 Summary of Environmental Inspections for Contract no. HK/2012/08

Item	Date	Observations	Action taken by Contractor	Outcome
150210_01	10-Feb-15	Breaker shall be covered with acoustic material while operating at Portion 2.	Breaker were covered with acoustic material at Portion 2.	Completion as observed on 17 Feb 2015
150217_01	17-Feb-15	Construction effluent generated from socket H pile construction works shall be properly collected and treated to avoid any water contamination at nearby waterbody.	Additional silt curtain was deployed around the works area and no effluent was observed at nearby waterbody.	Completion as observed on 26 Feb 2015
150217_02	17-Feb-15	Oil container shall be properly handle on site area with drip tray at Portion 2.	Oil containers were taken away at Portion 2.	Completion as observed on 26 Feb 2015
150226_01	26-Feb-15	Silt curtain shall be properly deployed and regularly maintain in good condition to enclose the socket H pile works activities and to safeguard the water quality.	Silt curtain was properly deployed.	Completion as observed on 3 March 2015

8.0.8. Five site inspection for Contract no. HY/2010/08 was carried out during this reporting period. The results of these inspections and outcomes are summarized in **Table 8.8**

Table 8.8 Summary of Environmental Inspections for Contract no. HY/2010/08

Item	Date	Observations	Action taken by Contractor	Outcome
150129_1	29-Jan-15	Surface runoff should be properly collected and transferred to treatment plant to avoid direct runoff (TS3)	Drainage was provided for collection of surface runoff for treatment	Completion as observed on 5 February 2015
150129_1	29-Jan-15	Surface runoff should be properly collected and transferred to treatment plant to avoid direct runoff (TS3)	Drainage was provided for collection of surface runoff for treatment	Completion as observed on 5 February 2015
150129_1	29-Jan-15	Surface runoff should be properly collected and transferred to treatment plant to avoid direct runoff (TS3)	Drainage was provided for collection of surface runoff for treatment	Completion as observed on 5 February 2015
150212_1	12-Feb-15	The condition and integrity of the inner layer silt curtain shall be properly maintained to avoid seepage and the outer layer shall be properly place to enclose the gap between seawall to avoid muddy seepage (TS3)	The condition of inner layer silt curtain was improved and the outer layer silt curtain properly placed to avoid muddy seepage	Completion as observed on 16 Feb 2015
150212_2	12-Feb-15	Floating refuses shall be collect around the seawater intake location and the silt curtain provided for the silt screen shall be properly maintained	Floating refuses was cleared at TS3	Completion as observed on 16 Feb 2015

8.0.9. Four site inspections for Contract no. HY/2011/08 were carried out during this reporting period. No observation was found in the reporting month.

9.0 COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

- 9.0.1. No environmental complaint was received in the reporting month.
- 9.0.2. The details of cumulative complaint log and updated summary of complaints are presented in **Appendix 9.1**
- 9.0.3. Cumulative statistic on complaints and successful prosecutions are summarized in **Table 9.1** and **Table 9.2** respectively.

Table 9.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
January 2015	0
Sep 2010 – Dec 2014	38
Total	38

Table 9.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this month (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	-	0	0

10 CONCLUSION

10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

10.0.2. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in **Table 10.1**. The construction programmes of individual contracts are provided in [Appendix 10.1](#).

Table 10.1 Summary of Key Construction Activities of Individual Contract(s) to be commenced in Coming Reporting Month

Contract No.	Key Construction Works	Recommended Mitigation Measures
HY/2009/15	- Mined Tunnel drill-and-break works at East and West Portal - Permanent lining structure at Mined Tunnel - Construction of diaphragm wall at TPCWAW	- Dust control during dust generating activities - Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the nearby water.
HY/2009/18	- Planting trees and shrubs - Transplanting of trees - Drainage works - Trough structure construction including excavation, concreting and waterproofing and backfill - Road works - Bridges construction	- Noise level shall be controlled by reducing the breaking operation rate. - Dust control during dust generating activities - Provide protection works to ensure no runoff out of site area or direct discharge into public drainage system. - Appropriate plants and measures should be taken to ensure adequate protections are provided for trees being transplanted.

HY2009/19	• Bored piling (Land) • Demolition of ELS for Cut & Cover Tunnel and EVB • Laying of 1350ϕ pipe • Pre-bored H-pile for Admin. Building • Construction of Bridge E • Installation of Noise Barrier/enclosure • IECL Road modification and removal of Median Barrier • Construction of TB Bridge • Abutment D12 construction • Saw cut of parapet at IEC East bound • Construction of TA2 bridge • JBI Gantry Installation	• Noise level shall be controlled by reducing the breaking operation rate. • Noise barrier shall be implemented • Dust control during dust generating works • Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the sea.
-----------	---	--

HK2009/01	• Stage 1 Construction of roadside barrier and backfilling on top of CWB tunnel • Stage 2 ELS works at Bay 10 and tunnel structure works • Stage 2 CWB tunnel and exhaust duct works • Stage 3 ELS works • Stage 3 Construction of box culvert Bay 2 to Bay 7 • Stage 3 Pumping test • Pipe laying of S5A and S5B • Cooling Main Installation (BI/BG/BF) at Expo Drive East Outfall • Cooling Main Installation BF at Fleming Road • Removal of abandoned cooling main (P7/P8) at Convention Avenue • Final connection works for Salt water main (S9) • Sewerage Pipeline at Fenwick Pier Street • Installation works for Cooling Main (BF)/ Salt Watermain (S3)/ Fresh Watermain (F3) • Temporary diversion of cooling main BI/BG/BF to Box Culvert at temporary water channel • Reinstatement of Expo Drive East	• Noise level shall be controlled by reducing no. of plants working in parallel. • Well maintained enclosures for grouting mixing plants. • Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system or the sea. • Dust control during dust generating works
-----------	--	--

HK/2009/02	• Blinding layers and waterproofing application for base slab. • Formwork and rebar fixing and concreting works for base slab. • Bulk head wall demolition between Tunnel Portion 1 and Tunnel Portion 2. • D-walls construction • Shear pin and grouting works for D-Wall at the east side. • Capping beam construction between Tunnel Portion 1 and Tunnel Portion 3&4. • Installation of dewatering wells, piezometer and inclinometers at the east side. • Excavation to +1.5mPD. • Pumping test	• Dust control during dust generating works • Provision of protection to ensure no runoff out of site area or direct discharge into public drainage system.
HK/2012/08	• Diaphragm wall construction • Installation of dewatering wells • Grouting • Construction of ELS at MVB	• Dust control during dust generating works • Provide protection works and adequate drainage system to ensure no direct discharge into public drainage system.
HY/2010/08	• Tree transplanting works, • Drainage improvement works, • Sheet piling works, • Excavation and Lateral Support for U-structure, • Renovation works for Bowling Green Office, • Pipe piling & grouting works, • Utility diversion works, • Waterproofing works & • Milling & paving works for TTA stage II – eastbound	• Dust control during dust generating works • Appropriate plants and measures should be taken to ensure adequate protections are provided for trees being transplanted and retained on site.

HY/2011/08	• West Ventilation Building structure construction • Install VE panels bracket and thermal barrier for Tunnel • Site preparation for East Vent Shaft	• Dust control during dust generating works
------------	--	---

10.0.3. The construction works of Contract no. 04/HY/2006 – Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street under FEP-04/364/2009/A was completed, and the FEP was surrendered by the Contractor on 11 February 2011.

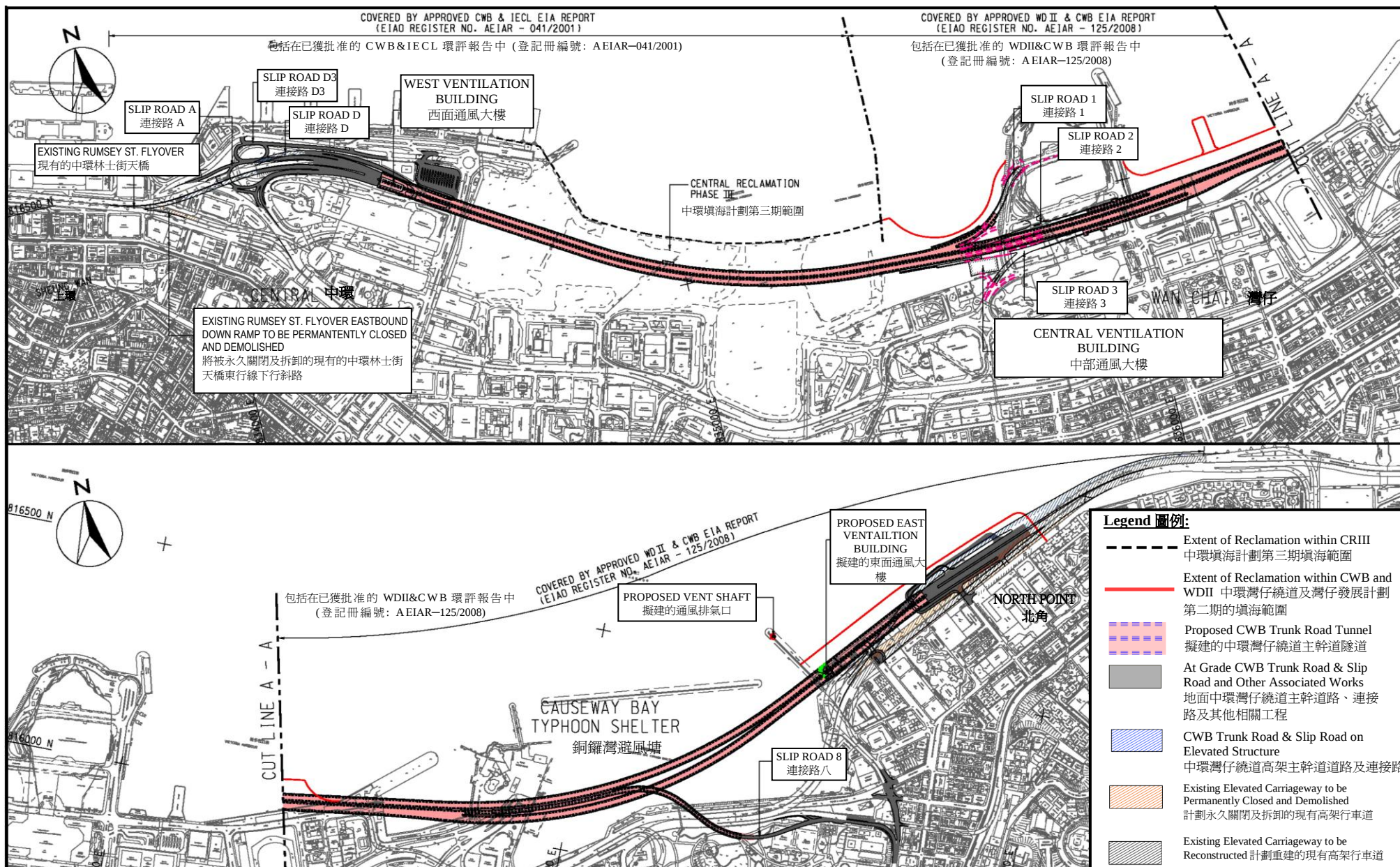
10.0.4. The construction works of Contract no. HY/2009/17 - Advance piling works at Whitfield Depot under FEP-03/264/2009 was completed, and the FEP was surrendered by the Contractor and found in order by EPD on 25 April 2013.

10.0.5. The construction works of Contract HK/2010/06 was completed, and the FEP-08/364/2009/A was surrendered by the Contractor on 3 October 2014.



Figure 2.1

Project Layout

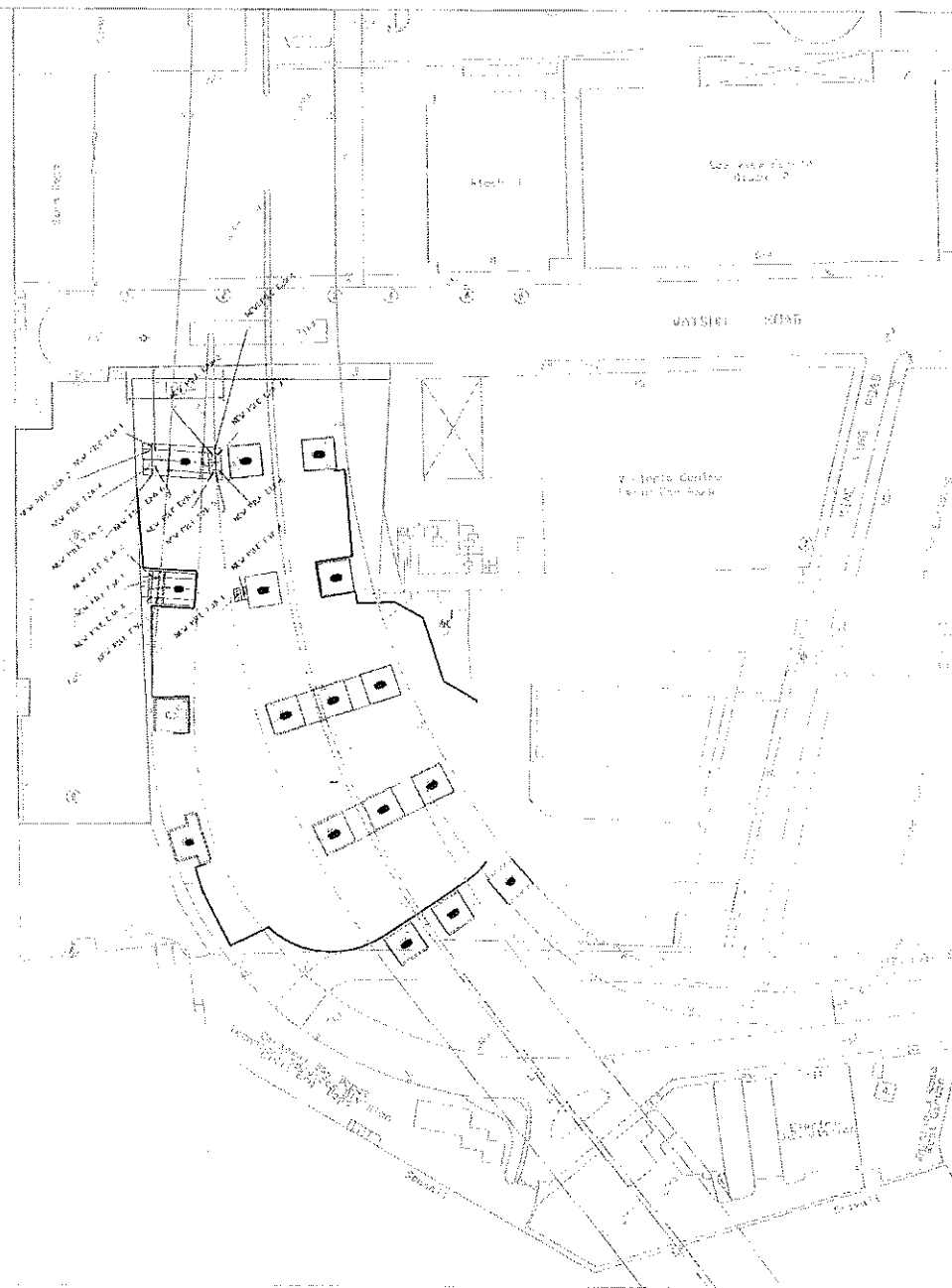


Project Title: Central-Wanchai Bypass (CWB) Including Its Road Tunnel and Slip Roads
工程項目名稱: 中環灣仔繞道包括其行車隧道及連接路

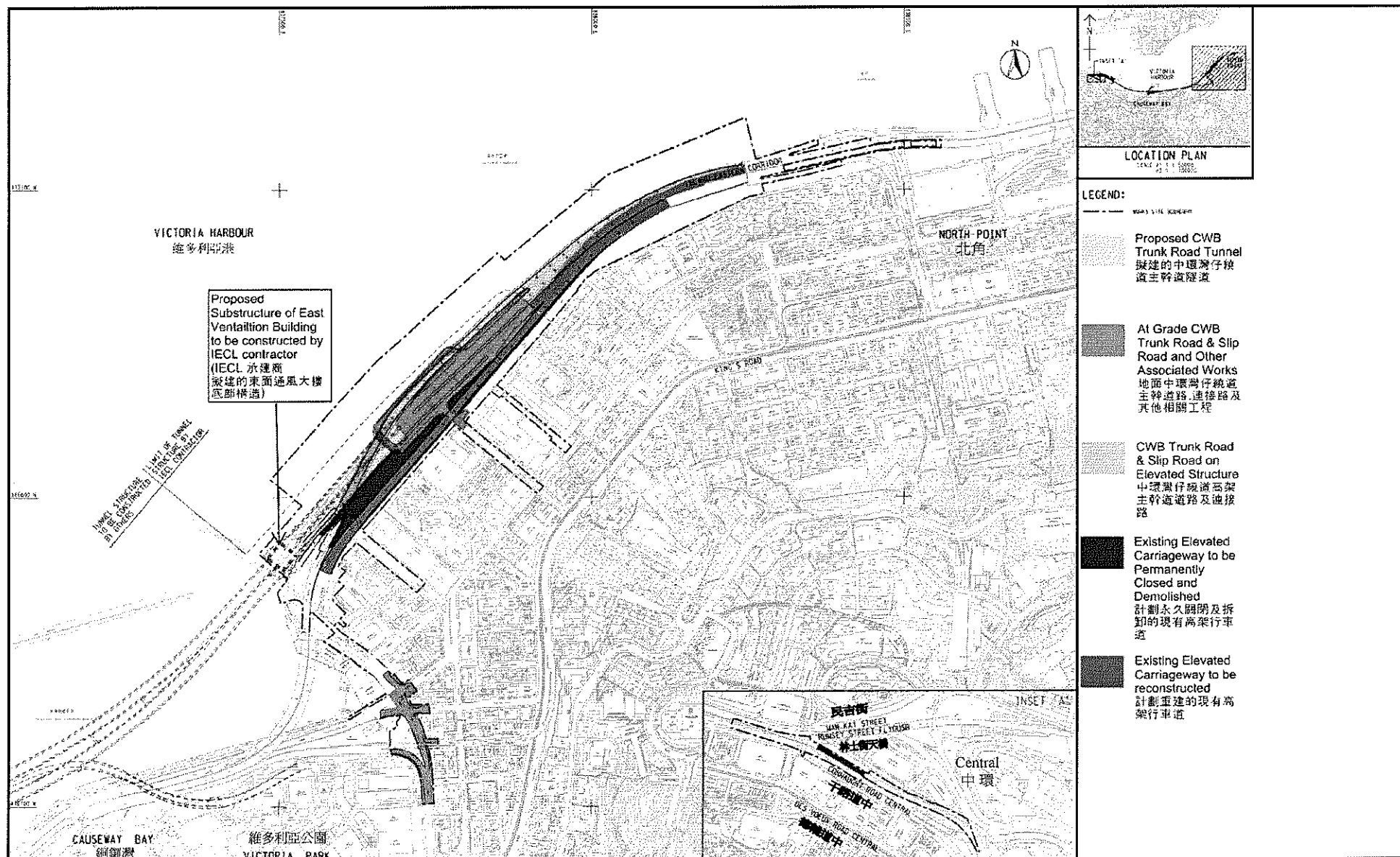
Environmental Permit No.: EP-364/2009/B
環境許可證編號: EP-364/2009/B

Figure 1: Location of the Project
圖 1: 工程項目位置

(This figure was prepared based on Figure 1.1 of the Application for Environmental Permit (Application No.: AEP-364/2009))
(本圖是根據環境許可證的申請(申請書編號 AEP-364/2009 圖 1.1 編製))



REV.	DATE	DESCRIPTION	CHK BY	AUTH BY
Highways Department 路政署 Major Works Project Management Office 大型工程项目管理处				
CENTRAL - WAN CHAI BYPASS AND IEC L/J				
PWP ITEM NO.		579 TH		
Project: CENTRAL - WAN CHAI BYPASS - ADD WATERLOO ROAD RE-PROPOSED WORKS				
AECOM				
Drawing Title: CENTRAL - WAN CHAI BYPASS AND IEC L/J				
Contractor: LAM WOO & COMPANY LIMITED				
DRAWING NO. 0000				
SURVEY DATE: 12/01/2000				
DRAWN BY: K.L.N.				
CHECKED BY:				
SCALE: 1:100	SHEET 1			



Project Title: Central-Wanchai Bypass (CWB) – Tunnel (North Point Section) and Island Eastern Corridor Link
 工程項目名稱：中環灣仔繞道—北角段隧道及東區走廊連接路
 Environmental Permit No. : FEP-07-364/2009/A
 環境許可證編號 : FEP-07-364/2009/A

Figure 1b: General Layout Plan
 圖 1b: 工程項目佈局圖

(This figure was prepared based on Sketch No. 60095653/IEC/DF0006 of Application for Further Environmental Permit (Application No.: FEP-120/2011))
 (本圖是根據申請新的環境許可證 (申請書編號 FEP-120/2011) 圖 60095653/IEC/DF0006 編製)



Figure 2.2

Project Organization Chart



Project Organization Chart

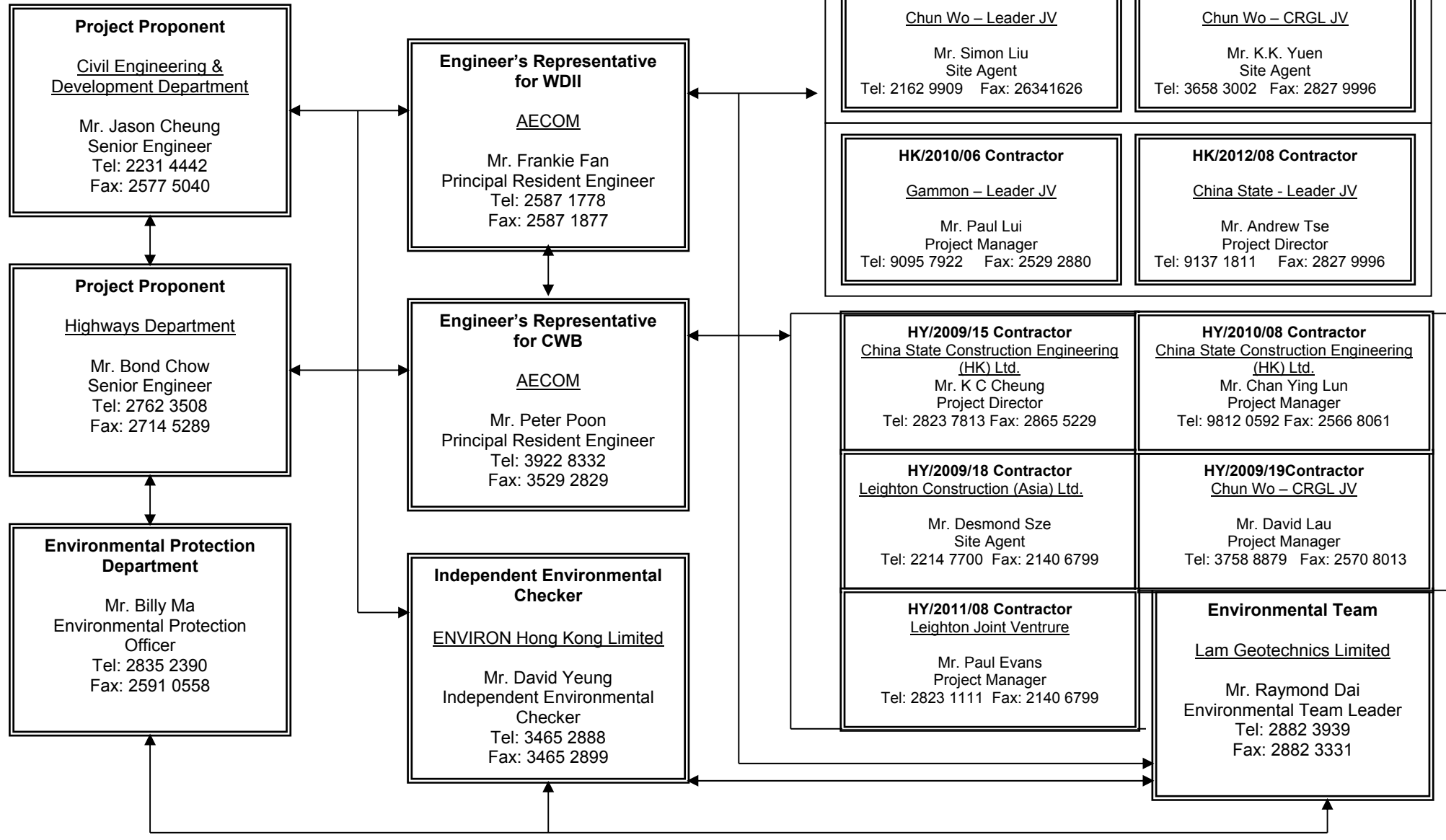
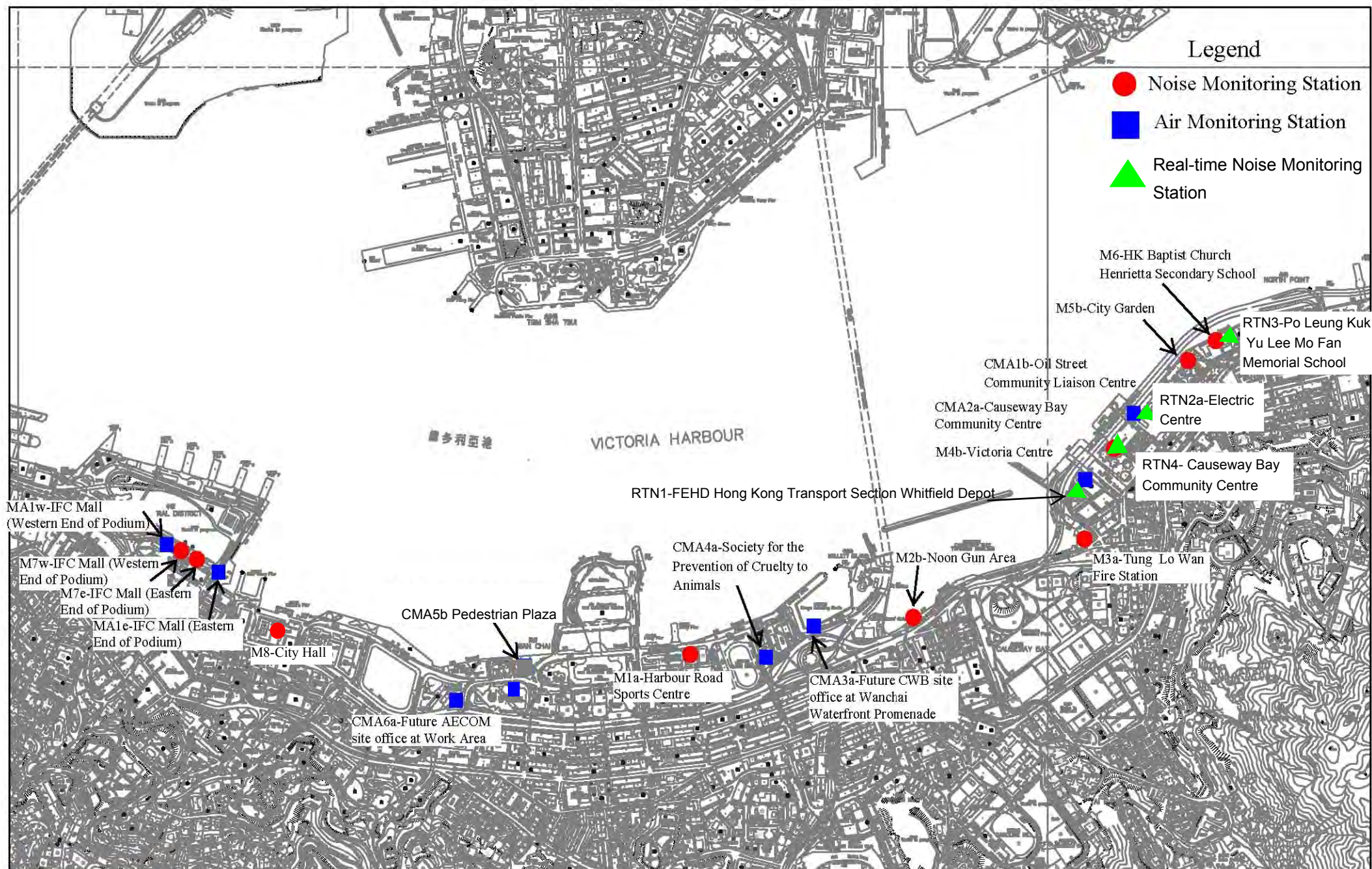




Figure 4.1

Locations of Monitoring Stations





Appendix 3.1

Environmental Mitigation Implementation Schedule

IMPLEMENTATION SCHEDULE OF THE PROPOSED MITIGATION MEASURES**Table A.1 Implementation Schedule for Air Quality Control**

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
S3.6.5	Four times a day watering of the work site with active operations.	Work site / during construction	Contractor		√			EIAO-TM
S3.8.1	Implementation of dust suppression measures stipulated in Air Pollution Control (Construction Dust) Regulation. The following mitigation measures, good site practices and a comprehensive dust monitoring and audit programme are recommended to minimise cumulative dust impacts. - Strictly limit the truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition; - Watering during excavation and material handling; - Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary; and - Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.	Work site / during construction	Contractor		√			
Operational Phase								
S3.6.53 – S3.6.54	The design parameters of the East and Central Ventilation Buildings as set in Tables 3.10 and 3.11 of Volume 1 of the WDII & CWB EIA Report.	East and Central Ventilation Buildings / During operation of the Trunk Road	HyD			√		
S3.10.2	Air quality monitoring for the operation performance of the East Ventilation Building and associated East Vent Shaft will be conducted.	East Vent Shaft / During operation of the East Ventilation Building and associated East Vent Shaft	HyD			√		EIAO-TM

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Table A.2 Implementation Schedule for Noise Control

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
S4.9.3	Good Site Practice: - Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program. - Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program. - Mobile plant, if any, shall be sited as far away from NSRs as possible. - Machines and plant (such as trucks) that may be in intermittent use shall be shut down between works periods or shall be throttled down to a minimum. - Plant known to emit noise strongly in one direction shall, wherever possible, be orientated so that the noise is directed away from the nearby NSRs. - Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
S4.8.1 – S4.8.11	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: - Slip road 8 tunnel - Construction of diaphragm wall and substructures of the tunnel approach ramp - Excavation - Construction of slabs - Backfill	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	- Demolition and construction of substructures for the IEC - Demolition works of existing piers and crossheads of the marine section of the existing IEC Use of PME grouping for the following tasks: - At-grade road construction - Substructure for IECL connection							
Operation Phase								
S4.8.12 – S4.8.23	For Existing NSRs - about 235m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC - about 230m length of noise semi-enclosure with transparent panel covering the main carriageways (eastbound and westbound) of the CWB and IEC - about 135m length of 5.5m high cantilevered noise barrier with 4.5m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC (amended under EP-364/2009/A) - about 95m length of 5.5m high cantilevered noise barrier with 1m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC - about 350m length of 3.5m high vertical noise barrier with transparent panel on the eastbound slip road to the IEC - low noise road surfacing for the trunk road (except tunnel section and beneath the landscaped deck at the eastern portal area)) with speed limit of 70 km/hour	Near North Point / Before commencement of operation of road project	HyD	√	√	√		EIAO-TM

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	For Future/Planned NSRs - about 265m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC - The openable windows of the temple, if any, should be orientated so as to avoid direct line of sight to the existing Victoria Park Road as far as practicable.	In between the Electric Centre (next to City Garden) and CDA(1) site / Before occupation of Planned NSRs in CDA and CDA(1) sites. Near Causeway Bay Fire Station / During detailed design of the re-provisioned Tin Hau Temple	HyD Project Proponent for the re-provisioned Tin Hau Temple	√ √	√ #			

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Only the steel frame for this section of noise semi-enclosure would be erected in advance during the construction of the westbound slip road.

Table A.4 Implementation Schedule for Waste Management

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
S6.5.14	Floating Refuse During the construction phase, the project proponent’s contractor will be responsible for the collection of any refuse within their works area. Floating booms will be provided on the water surface to confine the refuse from the working barges as well as to avoid the accumulation of pollutants within temporary embayment as mentioned in Table D9.3.	Work site / During the construction period	Contractor		√			
S6.6.1	Good Site Practices Recommendations for good site practices during the construction activities include: • nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site; • training of site personnel in proper waste management and chemical waste handling procedures; • provision of sufficient waste disposal points and regular collection for disposal; • appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; • regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and • a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).	Work site / During the construction period	Contractor		√			Waste Disposal Ordinance (Cap.354)

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.6.2	<i>Waste Reduction Measures</i> Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: • segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • to encourage collection of aluminium cans, PET bottles and paper, separate labelled bins shall be provided to segregate these wastes from other general refuse generated by the work force; • any unused chemicals or those with remaining functional capacity shall be recycled; • use of reusable non-timber formwork, such as in casting the tunnel box sections, to reduce the amount of C&D material. • prior to disposal of C&D waste, it is recommended that wood, steel and other metals shall be separated for re-use and / or recycling to minimise the quantity of waste to be disposed of to landfill; • proper storage and site practices to minimise the potential for damage or contamination of construction materials; and • plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	Work site / During planning and design stage, and construction stage	Contractor	√	√			

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.6.4	<i>General Refuse</i> General refuse shall be stored in enclosed bins or compaction units separate from C&D material. A licensed waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D material. A collection area shall be provided where wastes can be stored and loaded prior to removal from site. An enclosed and covered area is recommended to reduce the occurrence of 'wind blow' light material.	Work site / During the construction period	Contractor		√			Public Health and Municipal Services Ordinance (Cap. 132)
S6.6.5	<i>Chemical Wastes</i> After use, chemical wastes (for example, cleaning fluids, solvents, lubrication oil and fuel) shall be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Spent chemicals shall be collected by a licensed collector for disposal at the CWTF or other licensed facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	Work site / During the construction period	Contractor		√			Waste Disposal (Chemical Waste) (General) Regulation Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
S6.6.6	<i>Construction and Demolition Material</i> C&D material shall be sorted on-site into inert C&D material (that is, public fill) and C&D waste. All the suitable inert C&D material shall be broken down to 250 mm in size for reuse as public fill in the WDII reclamation. C&D waste, such as wood, glass, plastic, steel and other metals shall be reused or recycled and, as a last resort, disposed of to landfill. A suitable area shall be designated to facilitate the sorting process and a temporary stockpiling area will be required for the separated materials.	Work site / During the construction period	Contractor		√			ETWB TCW No. 33/2002, 31/2004, 19/2005

WDH & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.6.7	In order to monitor the disposal of public fill and C&D waste at public fill reception facilities and landfills, respectively, and to control fly tipping, a trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team undertaking the environmental monitoring and audit work. An Independent Environment Checker shall be responsible for auditing the results of the system.	Work site / During the construction period	Contractor and Independent Environmental Checker		√			ETWB TCW No. 31/2004
S6.6.8	<i>Bentonite Slurry</i> The disposal of residual used bentonite slurry shall follow the good practice guidelines stated in ProPECC PN 1/94 "Construction Site Drainage" and listed as follows: • If the disposal of a certain residual quantity cannot be avoided, the used slurry may be disposed of at the marine spoil grounds subject to obtaining a marine dumping licence from EPD on a case-by-case basis. • If the used bentonite slurry is intended to be disposed of through the public drainage system, it shall be treated to the respective effluent standards applicable to foul sewers, storm drains or the receiving waters as set out in the Technical Memorandum of Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters. • If the used bentonite slurry is intended to be disposed to public fill reception facilities, it will be mixed with dry soil on site before disposal.	Work site / During the construction period	Contractor		√			ProPECC PN 1/94

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Table A.5 Implementation Schedule for Land Contamination

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction and Operation Phase								
S.7.1.1	As no potential contaminative land uses were identified within the Study Area, adverse land contamination impacts associated with the construction and operation of the Project is not expected. As such, environmental protection and mitigation measures are considered not necessary and will not be covered in this EM&A Manual.	-	-					-

* Des - Design, C - Construction, O – Operation, and Dec - Decommissioning

Table A.7 Implementation Schedule for Landscape and Visual

WDII & CWB EIA Report Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
					Des	C	O	Dec	
Construction Phase									
Table 10.5	CM1	Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM2	Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM3	Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM4	Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	√	√			EIAO TM
Table 10.5	CM5	Control of night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Table 10.5	CM6	Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Operation Phase									
Table 10.6, Figure 10.5.1-10.5.5	OM1	Aesthetic design of buildings and road-related structures, including viaducts, vent buildings, subways, footbridges and noise barriers and enclosure.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM3	Buffer Tree and Shrub Planting to screen proposed roads and associated structures.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM5	Aesthetic streetscape design.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM6	Aesthetic design of roadside amenity areas.	Work site / During Design Stage and Operation Phases	HyD	√	√	√		ETWB TCW 2/2004

*Des - Design, C - Construction, O – Operation, and Dec - Decommissioning



Appendix 4.1

Action and Limit Level

Action and Limit Level

Action and Limit Level for Noise Monitoring

Time Period	Action Level	Limit Level
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received.	75 dB(A)/ 70 dB(A)/ 65 dB(A) ^{Note 1}

Note 1:

- 70dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.
- If works are to be carried out during the restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

Action and Limit Level for Air Monitoring

Monitoring Location	1-hour TSP Level in $\mu\text{g}/\text{m}^3$		24-hour TSP Level in $\mu\text{g}/\text{m}^3$	
	Action Level	Limit Level	Action Level	Limit Level
CMA1b	320.1	500	176.7	260
CMA2a	323.4	500	169.5	260
CMA3a	311.3	500	171.0	260
CMA4a	312.5	500	171.2	260
CMA5b	332.0	500	181.0	260
MA1e	325.1	500	173.4	260
MA1w	325.1	500	173.4	260



Appendix 4.2

Copies of Calibration Certificates



CERTIFICATE OF CALIBRATION

Certificate No.: 14CA1213 01

Page 1 of 2

Item tested

Description:	Sound Level Meter (Type 1)	Microphone
Manufacturer:	B & K	B & K
Type/Model No.:	2236	4188
Serial/Equipment No.:	2100736	2288941
Adaptors used:	-	-

Item submitted by

Customer Name: Lam Geotechnics Limited
Address of Customer: -
Request No.: -
Date of receipt: 13-Dec-2014

Date of test: 13-Dec-2014

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Multi function sound calibrator	B&K 4226	2288444	20-Jun-2015	CIGISMEC
Signal generator	DS 360	33873	09-Apr-2015	CEPREI
Signal generator	DS 360	61227	09-Apr-2015	CEPREI

Ambient conditions

Temperature: 21 ± 1 °C
Relative humidity: 60 ± 5 %
Air pressure: 1010 ± 5 hPa

Test specifications

- 1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580: Part 1: 1997 and the lab calibration procedure SMTP004-CA-152.
- 2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of $\pm 20\%$.
- 3, The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference between the free-field and pressure response of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate.

Actual Measurement data are documented on worksheets.

Approved Signatory:

Huang Jian Min/Feng Jun Qi

Date: 15-Dec-2014

Company Chop:

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 14CA1213 01

Page 2 of 2

1, Electrical Tests

The electrical tests were performed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertainty (dB)	Coverage Factor
Self-generated noise	A	Pass	0.3	2.1
	C	Pass	1.0	
	Lin	Pass	2.0	
Linearity range for Leq	At reference range, Step 5 dB at 4 kHz	Pass	0.3	2.2
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
Linearity range for SPL	A	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100µs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor 1/10 ³ at 4kHz	Pass	0.3	
	1 ms burst duty factor 1/10 ⁴ at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertainty (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

Date:

Fung Chi Yip
13-Dec-2014

Checked by:

Date:

Lam Tze Wai
15-Dec-2014

- End -

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.



CERTIFICATE OF CALIBRATION

Certificate No.: 14CA0529 01-02

Page: 1 of 2

Item tested

Description: Acoustical Calibrator (Class 1)
Manufacturer: Rion Co., Ltd.
Type/Model No.: NC-73
Serial/Equipment No.: 10465798
Adaptors used: -

Item submitted by

Customer: Lam Geotechnics Limited
Address of Customer: -
Request No.: -
Date of receipt: 29-May-2014

Date of test: 30-May-2014

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable to:
Lab standard microphone	B&K 4180	2412857	13-May-2015	SCL
Preamplifier	B&K 2673	2239857	10-Apr-2015	CEPREI
Measuring amplifier	B&K 2610	2346941	08-Apr-2015	CEPREI
Signal generator	DS 360	61227	09-Apr-2015	CEPREI
Digital multi-meter	34401A	US36087050	17-Dec-2014	CEPREI
Audio analyzer	8903B	GB41300350	07-Apr-2015	CEPREI
Universal counter	53132A	MY40003662	11-Apr-2015	CEPREI

Ambient conditions

Temperature: 22 ± 1 °C
Relative humidity: 60 ± 10 %
Air pressure: 1000 ± 10 hPa

Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

Details of the performed measurements are presented on **page 2** of this certificate.

Approved Signatory:

Huang Jian Min/Feng Jun Qi

Date: 30-May-2014

Company Chop:



Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.: 14CA0529 01-02

Page: 2 of 2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	(Output level in dB re 20 μ Pa)
			Estimated Expanded Uncertainty dB
1000	94.00	94.57	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz STF = 0.001 dB

Estimated expanded uncertainty 0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz Actual Frequency = 965.6 Hz

Estimated expanded uncertainty 0.1 Hz Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz TND = 0.9 %

Estimated expanded uncertainty 0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

Date:

Fung Chi Yip
30-May-2014

- End -

Checked by:

Date:

Lam Tze Wai
30-May-2014

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Jul 14, 2014 Rootsmeter S/N 0438320 Ta (K) - 298
Operator Tisch Orifice I.D. - 0005 Pa (mm) - 749.3

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.3870	3.2	2.00
2	NA	NA	1.00	0.9830	6.4	4.00
3	NA	NA	1.00	0.8760	7.9	5.00
4	NA	NA	1.00	0.8340	8.8	5.50
5	NA	NA	1.00	0.6860	12.7	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9817	0.7078	1.4042		0.9957	0.7179	0.8919
0.9775	0.9944	1.9859		0.9915	1.0086	1.2613
0.9754	1.1135	2.2203		0.9894	1.1294	1.4101
0.9743	1.1683	2.3286		0.9882	1.1849	1.4790
0.9692	1.4128	2.8084		0.9830	1.4330	1.7837
Qstd slope (m) = 1.99175				Qa slope (m) = 1.24720		
intercept (b) = -0.00041				intercept (b) = -0.00026		
coefficient (r) = 0.99991				coefficient (r) = 0.99991		
y axis = SQRT[H2O(Pa/760) (298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

Vstd = Diff. Vol [(Pa-Diff. Hg)/760] (298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{ [SQRT(H2O(Pa/760) (298/Ta))] - b}
Qa = 1/m{ [SQRT H2O(Ta/Pa)] - b}



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA1b

Equipment no. : EL452

Calibration Date : 18-Dec-14

Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, bc	-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.2	6.2	12.4	1.8130	65	66.6477
2	4.5	4.5	9.0	1.5446	55	56.3942
3	3.9	3.9	7.8	1.4380	50	51.2675
4	2.5	2.5	5.0	1.1513	42	43.0647
5	1.4	1.4	2.8	0.8616	31	31.7858

By Linear Regression of Y on X

Slope, m = 36.0094 Intercept, b = 0.7978

Correlation Coefficient* = 0.9981

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau

Date : 18-Dec-14

Checked by : Derek Lo

Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA1b

Equipment no. : EL452

Calibration Date : 12-Feb-15

Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	290	Kelvin	Pressure, P _a
			1018 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.6	6.6	13.2	1.8536	65	66.0431
2	5.3	5.3	10.6	1.6611	58	58.9308
3	4.0	4.0	8.0	1.4431	50	50.8024
4	2.6	2.6	5.2	1.1635	40	40.6419
5	1.5	1.5	3.0	0.8838	30	30.4814

By Linear Regression of Y on X

Slope, m = 36.6703 Intercept, b = -1.9950

Correlation Coefficient* = 1.0000

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar

Date : 12-Feb-15

Checked by : Derek Lo

Date : 12-Feb-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA2a

Equipment no. : EL449

Calibration Date : 18-Dec-14

Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information				
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c
				-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$		
Next Calibration Date	14-Jul-15			

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.1	6.1	12.2	1.7983	62	63.5717
2	4.9	4.9	9.8	1.6118	55	56.3942
3	3.7	3.7	7.4	1.4006	49	50.2421
4	2.3	2.3	4.6	1.1043	40	41.0140
5	1.2	1.2	2.4	0.7977	32	32.8112

By Linear Regression of Y on X

Slope, m = 30.4893 Intercept, b = 7.8731

Correlation Coefficient* = 0.9984

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau

Date : 18-Dec-14

Checked by : Derek Lo

Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA2a

Equipment no. : EL449

Calibration Date : 12-Feb-15

Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	291	Kelvin	Pressure, P _a
			1015 mmHg

Orifice Transfer Standard Information				
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c
				-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$		
Next Calibration Date	14-Jul-15			

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.)	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31)
	(up)	(down)	(difference)	X-axis		Y-axis
1	6.4	6.4	12.8	1.8195	60	60.7683
2	5.0	5.0	10.0	1.6082	55	55.7042
3	3.8	3.8	7.6	1.4020	46	46.5890
4	2.2	2.2	4.4	1.0668	36	36.4610
5	1.4	1.4	2.8	0.8511	30	30.3841

By Linear Regression of Y on X

Slope, m = 32.2546 Intercept, b = 2.4526

Correlation Coefficient* = 0.9972

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar

Date : 12-Feb-15

Checked by : Derek Lo

Date : 12-Feb-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA3a

Equipment no. : EL333

Calibration Date : 18-Dec-14

Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	5.5	5.5	11.0	1.7076	56	57.4196
2	4.3	4.3	8.6	1.5099	47	48.1914
3	3.2	3.2	6.4	1.3026	44	45.1154
4	2.5	2.5	5.0	1.1513	38	38.9633
5	1.2	1.2	2.4	0.7977	25	25.6337

By Linear Regression of Y on X

Slope, m = 33.6450 Intercept, b = -0.4658

Correlation Coefficient* = 0.9920

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau

Date : 18-Dec-14

Checked by : Derek Lo

Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA3a

Equipment no. : EL333

Calibration Date : 12-Feb-15

Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	290	Kelvin	Pressure, P _a
			1018 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.0	6.0	12.0	1.7673	52	52.8345
2	4.7	4.7	9.4	1.5642	47	47.7542
3	3.6	3.6	7.2	1.3690	41	41.6579
4	2.3	2.3	4.6	1.0943	35	35.5617
5	1.4	1.4	2.8	0.8538	28	28.4493

By Linear Regression of Y on X

Slope, m = 26.4964 Intercept, b = 6.0181

Correlation Coefficient* = 0.9989

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar

Date : 12-Feb-15

Checked by : Derek Lo

Date : 12-Feb-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA4a

Equipment no. : EL390

Calibration Date : 18-Dec-14

Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T_a	287	Kelvin	Pressure, P_a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m_c	1.99175	Intercept, b_c	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q_{std} ($m^3 / min.$)	Continuous Flow Recorder, W (CFM)	IC ($W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31$)
	(up)	(down)	(difference)			
1	6.0	6.0	12.0	1.7835	65	66.6477
2	4.7	4.7	9.4	1.5785	52	53.3182
3	3.5	3.5	7.0	1.3622	45	46.1407
4	2.2	2.2	4.4	1.0801	32	32.8112
5	1.4	1.4	2.8	0.8616	27	27.6844
By Linear Regression of Y on X Slope, m = 41.9297 Intercept, b = -10.5801 Correlation Coefficient* = 0.9901 Calibration Accepted = Yes/No**						

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau

Date : 18-Dec-14

Checked by : Derek Lo

Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA4a

Equipment no. : EL390

Calibration Date : 12-Feb-15

Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T_a	290	Kelvin	Pressure, P_a
			1018 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m_c	1.99175	Intercept, b_c	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q_{std} ($m^3 / min.$)	Continuous Flow Recorder, W (CFM)	IC ($W(P_a/1013.3 \times 298/T_a)^{1/2}/35.31$)
	(up)	(down)	(difference)	X-axis	Y-axis	
1	6.5	6.5	13.0	1.8395	58	58.9308
2	5.2	5.2	10.4	1.6453	51	51.8184
3	4.1	4.1	8.2	1.4610	43	43.6900
4	2.7	2.7	5.4	1.1856	30	30.4814
5	1.3	1.3	2.6	0.8228	22	22.3530
By Linear Regression of Y on X Slope, m = 37.3358 Intercept, b = -10.4734 Correlation Coefficient* = 0.9906 Calibration Accepted = Yes/No**						

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar

Date : 12-Feb-15

Checked by : Derek Lo

Date : 12-Feb-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA5b

Equipment no. : EL222

Calibration Date : 04-Dec-14

Calibration Due Date : 04-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	288	Kelvin	Pressure, P _a
			1021 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std}	Continuous Flow	IC
	H (inches of water)			(m ³ / min.)	Recorder, W	(W(P _a /1013.3x298/T _a) ^{1/2} /35.31)
	(up)	(down)	(difference)	X-axis	(CFM)	Y-axis
1	5.8	5.8	11.6	1.7462	60	61.2642
2	4.6	4.6	9.2	1.5552	54	55.1378
3	3.5	3.5	7.0	1.3566	48	49.0114
4	2.3	2.3	4.6	1.0997	41	41.8639
5	1.4	1.4	2.8	0.8580	34	34.7164

By Linear Regression of Y on X

Slope, m = 29.6907 Intercept, b = 9.1139

Correlation Coefficient* = 0.9997

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau

Date : 04-Dec-14

Checked by : Derek Lo

Date : 04-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA5b

Equipment no. : EL222

Calibration Date : 04-Feb-15

Calibration Due Date : 04-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition						
Temperature, T _a	289		Kelvin	Pressure, P _a	1024 mmHg	

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.)	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31)
	H (inches of water)					
		(up)	(down)	(difference)	X-axis	
1	5.4	5.4	10.8	1.6845	59	60.2271
2	4.4	4.4	8.8	1.5206	54	55.1231
3	3.4	3.4	6.8	1.3367	50	51.0399
4	2.2	2.2	4.4	1.0753	42	42.8736
5	1.4	1.4	2.8	0.8578	37	37.7696

By Linear Regression of Y on X

Slope, m = 27.2571 Intercept, b = 14.1098

Correlation Coefficient* = 0.9987

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar

Date : 04-Feb-15

Checked by : Derek Lo

Date : 04-Feb-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : MA1e

Equipment no. : EL455

Calibration Date : 18-Dec-14

Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, bc	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.5	6.5	13.0	1.8563	64	65.6224
2	5.0	5.0	10.0	1.6281	53	54.3435
3	4.3	4.3	8.6	1.5099	47	48.1914
4	2.7	2.7	5.4	1.1965	32	32.8112
5	1.2	1.2	2.4	0.7977	20	20.5070

By Linear Regression of Y on X

Slope, m = 43.0414 Intercept, b = -15.8646

Correlation Coefficient* = 0.9939

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau

Date : 18-Dec-14

Checked by : Derek Lo

Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : MA1e

Equipment no. : EL455

Calibration Date : 12-Feb-15

Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	290	Kelvin	Pressure, P _a
			1018 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.6	6.6	13.2	1.8536	65	66.0431
2	5.3	5.3	10.6	1.6611	55	55.8826
3	4.0	4.0	8.0	1.4431	47	47.7542
4	2.6	2.6	5.2	1.1635	34	34.5456
5	1.6	1.6	3.2	0.9128	29	29.4654

By Linear Regression of Y on X

Slope, m = 39.5296 Intercept, b = -8.8717

Correlation Coefficient* = 0.9914

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar

Date : 12-Feb-15

Checked by : Derek Lo

Date : 12-Feb-15



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : MA1w

Equipment no. : EL080

Calibration Date : 18-Dec-14

Calibration Due Date : 18-Feb-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	287	Kelvin	Pressure, P _a
			1026 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, bc	-0.00041
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	5.9	5.9	11.8	1.7686	56	57.4196
2	4.6	4.6	9.2	1.5617	45	46.1407
3	3.8	3.8	7.6	1.4194	38	38.9633
4	2.6	2.6	5.2	1.1741	27	27.6844
5	1.7	1.7	3.4	0.9494	19	19.4816

By Linear Regression of Y on X

Slope, m = 46.3683 Intercept, b = -25.8022

Correlation Coefficient* = 0.9970

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : Henry Lau

Date : 18-Dec-14

Checked by : Derek Lo

Date : 18-Dec-14



Lam Geotechnics Limited

Calibration Data for High Volume Sampler (TSP Sampler)

Location : MA1w

Equipment no. : EL080

Calibration Date : 12-Feb-15

Calibration Due Date : 12-Apr-15

CALIBRATION OF CONTINUOUS FLOW RECORDER

Ambient Condition			
Temperature, T _a	290	Kelvin	Pressure, P _a
			1018 mmHg

Orifice Transfer Standard Information					
Equipment No.	EL086	Slope, m _c	1.99175	Intercept, b _c	-0.00041
Last Calibration Date	14-Jul-14	$\left(H \times P_a / 1013.3 \times 298 / T_a \right)^{1/2}$ $= m_c \times Q_{std} + b_c$			
Next Calibration Date	14-Jul-15				

Calibration of TSP						
Calibration Point	Manometer Reading			Q _{std} (m ³ / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P _a /1013.3x298/T _a) ^{1/2} /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.2	6.2	12.4	1.7966	54	54.8666
2	4.9	4.9	9.8	1.5972	48	48.7703
3	3.9	3.9	7.8	1.4249	41	41.6579
4	2.5	2.5	5.0	1.1409	31	31.4975
5	1.4	1.4	2.8	0.8538	22	22.3530

By Linear Regression of Y on X

Slope, m = 35.0762 Intercept, b = -7.9680

Correlation Coefficient* = 0.9992

Calibration Accepted = Yes/No**

* if Correlation Coefficient < 0.990, check and recalibration again.

** Delete as appropriate.

Remarks : _____

Calibrated by : LuLu Mar

Date : 12-Feb-15

Checked by : Derek Lo

Date : 12-Feb-15



Appendix 5.1

Monitoring Schedules for Reporting Month and Coming Reporting Month

Contract No. HK/2011/07
Wan Chai Development Phase II and Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 2)

Environmental Monitoring Schedule
February 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			28-Jan	29-Jan	30-Jan	31-Jan
1-Feb	2-Feb	3-Feb	4-Feb	5-Feb	6-Feb	7-Feb
	24hr TSP Noise (daytime) (M1a, M2b, M3a, M4b, M5b, M6)	1hr TSP Noise (daytime) (M7e, M7w, M8)	24hr TSP (CMA3a)			24hr TSP
8-Feb	9-Feb	10-Feb	11-Feb	12-Feb	13-Feb	14-Feb
	1hr TSP Noise (daytime) (M8)	24hr TSP (CMA3a) Noise (daytime) (M1a, M2b, M3a, M4b, M5b M6, M7e, M7w)		24hr TSP		1hr TSP
15-Feb	16-Feb	17-Feb	18-Feb	19-Feb	20-Feb	21-Feb
	Noise (daytime) (M7e, M7w, M8)	24hr TSP Noise (daytime) (M1a, M2b, M3a, M4b, M5b, M6)	1hr TSP 24hr TSP (CMA4a)			
22-Feb	23-Feb	24-Feb	25-Feb	26-Feb	27-Feb	
	24hr TSP	1hr TSP	Noise (daytime)			

Contract No. HK/2011/07
Wan Chai Development Phase II and Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 2)

Tentative Environmental Monitoring Schedule
March 2015

						28-Feb
						24hr TSP
1-Mar	2-Mar	3-Mar	4-Mar	5-Mar	6-Mar	7-Mar
		Odour Patrol				
	1hr TSP Noise (daytime)	Noise (daytime)			24hr TSP	1hr TSP
8-Mar	9-Mar	10-Mar	11-Mar	12-Mar	13-Mar	14-Mar
	Noise (daytime)	Noise (daytime)		24hr TSP	1hr TSP	
15-Mar	16-Mar	17-Mar	18-Mar	19-Mar	20-Mar	21-Mar
	Noise (daytime)	Noise (daytime)	24hr TSP	1hr TSP		
22-Mar	23-Mar	24-Mar	25-Mar	26-Mar	27-Mar	28-Mar
	24hr TSP Noise (daytime)	1hr TSP Noise (daytime)			24hr TSP	1hr TSP



Appendix 5.2

Noise Monitoring Results and Graphical Presentations



Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

Location: M1a - Harbour Road Sports Centre

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
02/02/15	9:50	Fine	73.0	75.5	68.5	72	65	75
10/02/15	11:12	Fine	72.2	75.0	67.0	72	72	75
17/02/15	9:33	Cloudy	70.6	73.5	64.0	72	71	75
25/02/15	10:35	Cloudy	70.4	73.0	64.5	72	70	75

Location: M2b - Noon-day gun area

Date	Time	Measurement Noise Level				Baseline Level	Construction Noise Level	Limit Level
		Weather	Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
02/02/15	10:40	Fine	70.1	72.0	66.5	68	67	75
10/02/15	13:20	Fine	70.8	73.5	67.0	68	68	75
17/02/15	10:19	Cloudy	69.6	71.0	66.5	68	65	75
25/02/15	11:19	Cloudy	70.8	72.5	67.5	68	68	75

Location: M3a - Tung Lo Wan Fire Station

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
02/02/15	13:40	Fine	65.9	67.0	63.5	69	66	75
10/02/15	14:05	Fine	65.3	66.5	62.5	69	65	75
17/02/15	10:55	Cloudy	64.8	66.0	62.5	69	65	75
25/02/15	13:00	Cloudy	64.1	66.0	62.5	69	64	75

Location: M4b - Victoria Centre

Date	Time	Weather	Measurement Noise Level			Baseline Noise Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30min)					
02/02/15	14:20	Fine	67.4	69.0	64.5	67	51	75
10/02/15	14:45	Fine	66.3	67.5	63.0	67	66	75
17/02/15	11:30	Cloudy	64.8	66.0	63.0	67	65	75
25/02/15	13:43	Cloudy	66.2	68.5	62.5	67	66	75

Location: M5b - City Garden

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30min)					
02/02/15	15:00	Fine	67.3	69.0	64.5	68	67	75
10/02/15	15:25	Fine	67.3	68.5	64.5	68	67	75
17/02/15	13:10	Fine	67.0	67.5	63.5	68	67	75
25/02/15	14:25	Cloudy	67.8	68.5	64.0	68	68	75

Location: M6 - HK Baptist Church Henrietta Secondary School

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
02/02/15	15:40	Fine	73.1	74.0	71.0	71	69	70
10/02/15	16:05	Fine	72.5	73.5	70.5	71	68	70
17/02/15	14:14	Fine	72.5	73.0	70.5	71	68	70
25/02/15	15:05	Cloudy	72.0	73.0	70.0	71	66	70



Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

Location: M7e - International Finance Centre (Eastern End of Podium) (Reference Station)

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
03/02/15	9:08	Fine	68.6	69.5	64.5	67	64	N/A
10/02/15	9:55	Fine	72.2	74.5	67.0	67	71	N/A
16/02/15	10:00	Fine	66.4	67.5	63.0	67	66	N/A
25/02/15	9:10	Cloudv	66.6	67.5	62.5	67	67	N/A

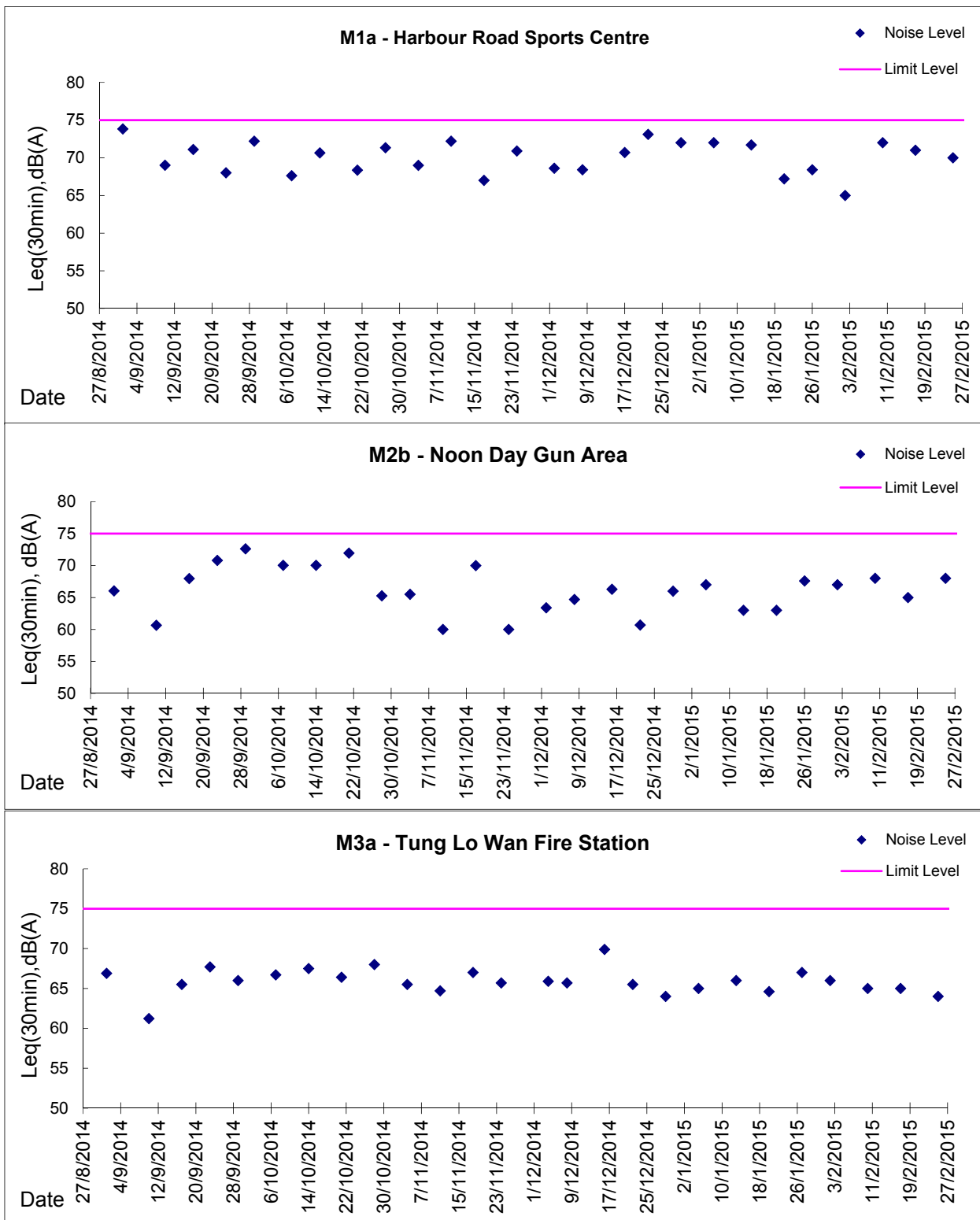
Location: M7w - International Finance Centre (Western End of Podium)

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
03/02/15	10:17	Fine	65.4	67.0	62.5	69	65	75
10/02/15	10:30	Fine	68.6	70.5	65.0	69	69	75
16/02/15	10:30	Fine	66.5	68.0	63.0	69	67	75
25/02/15	9:45	Cloudy	64.7	66.0	62.5	69	65	75

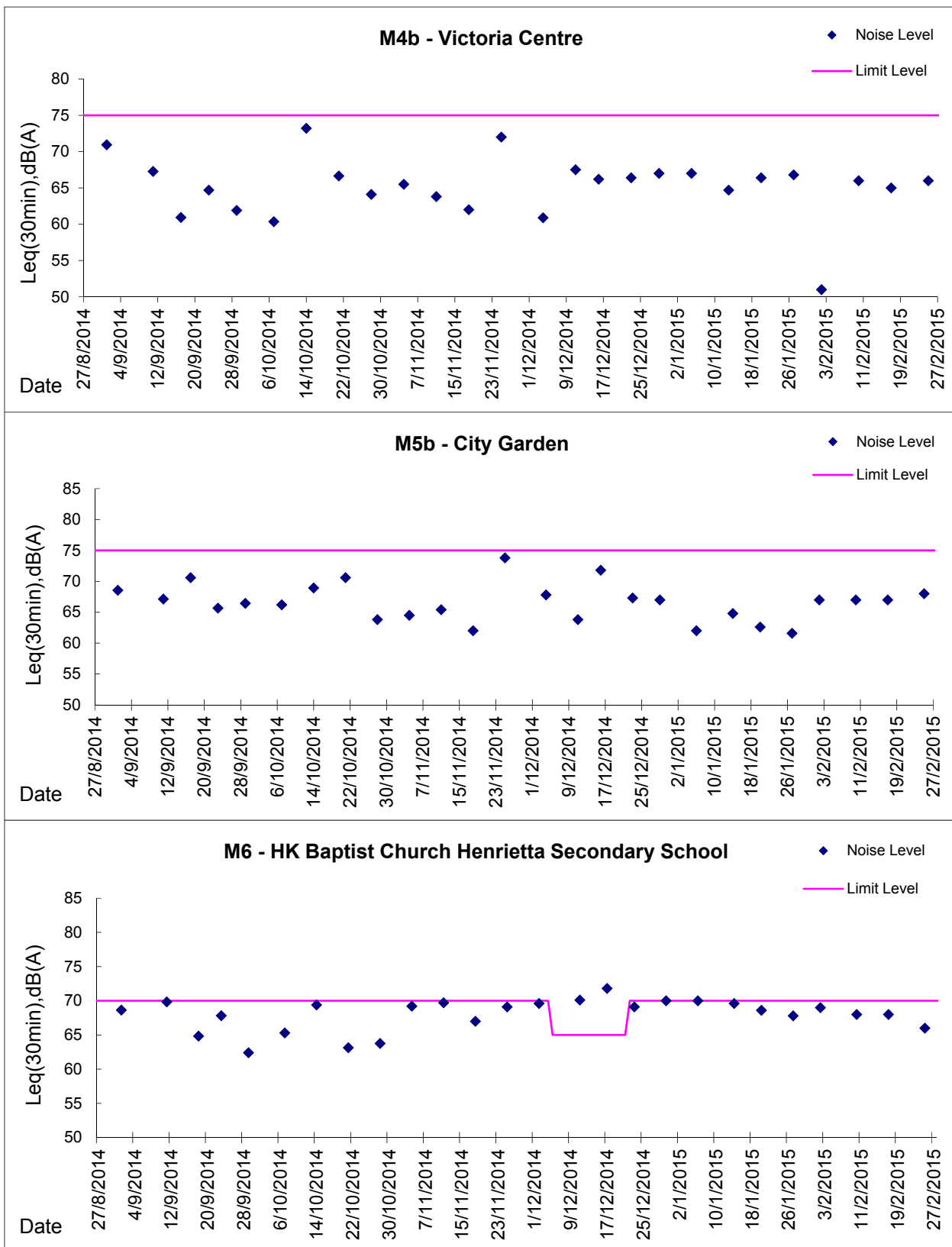
Location: M8 - City Hall

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
			Unit: dB(A), (30-min)					
03/02/15	11:08	Fine	61.2	62.5	56.5	64	61	70
09/02/15	13:14	Fine	60.4	62.5	57.0	64	60	70
16/02/15	9:10	Fine	62.2	64.0	57.0	64	62	70
25/02/15	8:30	Cloudv	60.8	62.5	57.0	64	61	70

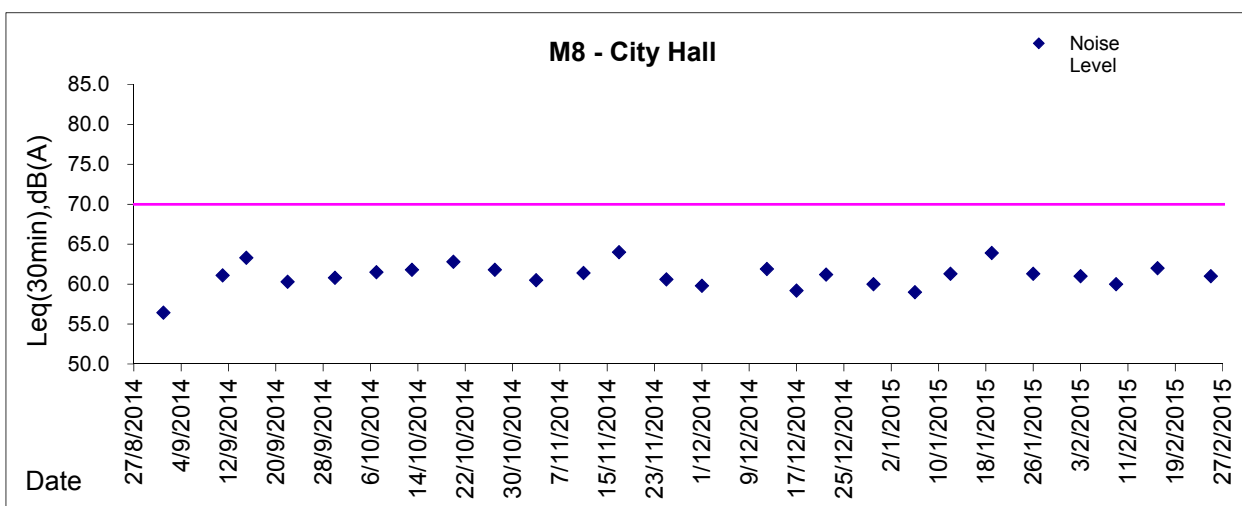
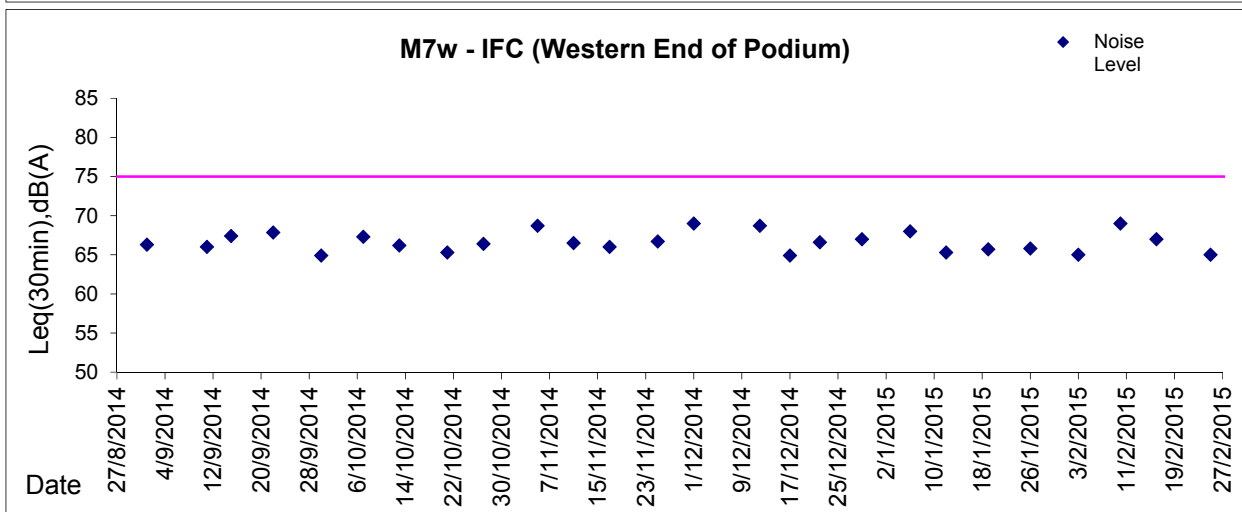
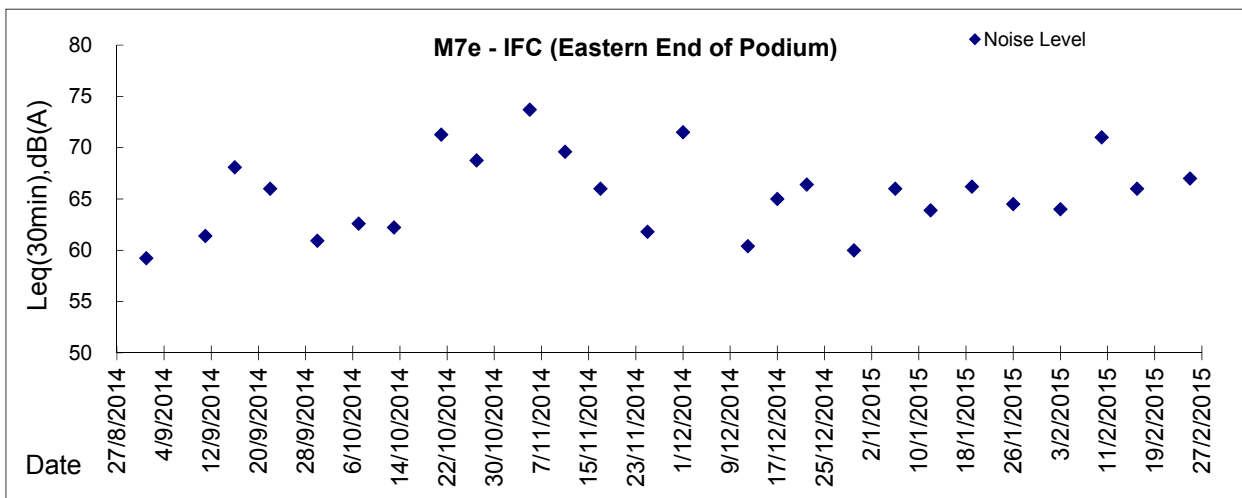
Graphic Presentation of Noise Monitoring Result
Day Time (0700 - 1900hrs on normal weekdays)



Graphic Presentation of Noise Monitoring Result
Day Time (0700 - 1900hrs on normal weekdays)



Graphic Presentation of Noise Monitoring Result
Day Time (0700 - 1900hrs on normal weekdays)



* Remark: M7e - IFC (Eastern End of Podium) is a reference monitoring station



Appendix 5.3

Air Quality Monitoring Results and Graphical Presentations



Location: CMA1b - Oil Street Site Office

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 176.7

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Feb-15	8:00	Fine	011004	2.7654	2.9325	5812.47	5836.47	24.00	1.12	1.12	1.12	1612	103.6
7-Feb-15	8:00	Fine	011060	2.7503	2.9667	5839.47	5863.47	24.00	1.06	1.07	1.06	1533	141.1
13-Feb-15	8:00	Fine	009635	2.8524	3.1385	5866.60	5890.60	24.00	1.20	1.19	1.19	1720	166.3
17-Feb-15	8:00	Cloudy	009660	2.8557	3.0802	5893.60	5917.60	24.00	1.17	1.17	1.17	1682	133.4
23-Feb-15	8:00	Cloudy	011200	2.7265	2.9043	5920.61	5944.61	24.00	1.11	1.11	1.11	1603	110.9

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 320.1

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Feb-15	9:45	Fine	009571	2.8195	2.8288	5836.47	5837.47	1.00	1.12	1.12	1.12	67	138.5
3-Feb-15	10:50	Fine	009574	2.8139	2.8241	5837.47	5838.47	1.00	1.12	1.12	1.12	67	151.9
3-Feb-15	13:00	Fine	009577	2.8321	2.8434	5838.47	5839.47	1.00	1.12	1.12	1.12	67	168.3
9-Feb-15	8:02	Fine	011042	2.7140	2.7318	5863.46	5864.46	1.00	1.18	1.18	1.18	71	252.1
9-Feb-15	9:06	Fine	009566	2.8155	2.8302	5864.46	5865.46	1.00	1.18	1.18	1.18	71	208.2
9-Feb-15	10:10	Fine	009626	2.8708	2.8893	5865.47	5866.47	1.00	1.18	1.18	1.18	71	262.0
14-Feb-15	8:30	Fine	009654	2.8438	2.8642	5890.60	5891.60	1.00	1.17	1.17	1.17	70	291.4
14-Feb-15	9:32	Fine	009656	2.8464	2.8643	5891.60	5892.60	1.00	1.17	1.17	1.17	70	255.7
14-Feb-15	10:34	Fine	009658	2.8475	2.8596	5892.60	5893.60	1.00	1.17	1.17	1.17	70	172.8
18-Feb-15	8:05	Cloudy	011194	2.7208	2.7295	5917.61	5918.61	1.00	1.17	1.17	1.17	70	124.0
18-Feb-15	9:12	Cloudy	011196	2.7233	2.7324	5918.61	5919.61	1.00	1.17	1.17	1.17	70	129.7
18-Feb-15	10:24	Cloudy	011198	2.7207	2.7325	5919.61	5920.61	1.00	1.17	1.17	1.17	70	168.1
24-Feb-15	8:20	Cloudy	011138	2.7251	2.7329	5944.61	5945.61	1.00	1.11	1.11	1.11	67	116.8
24-Feb-15	9:25	Cloudy	011141	2.7302	2.7354	5945.61	5946.61	1.00	1.06	1.06	1.06	64	81.8
24-Feb-15	10:30	Cloudy	011144	2.7234	2.7280	5946.61	5947.61	1.00	1.06	1.06	1.06	64	72.3



Location: CMA2a - Causeway Bay Community Centre

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 169.5

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Feb-15	8:00	Fine	011005	2.7671	2.9438	15521.71	15545.71	24.00	0.96	0.96	0.96	1385	127.6
7-Feb-15	8:00	Fine	011059	2.7583	3.0500	15548.71	15572.71	24.00	1.35	1.35	1.35	1939	150.4
13-Feb-15	8:00	Fine	009634	2.8601	3.1027	15575.71	15599.71	24.00	1.25	1.25	1.25	1800	134.8
17-Feb-15	8:00	Cloudy	009661	2.8539	2.9597	15602.71	15626.71	24.00	1.07	1.07	1.07	1540	68.7
23-Feb-15	8:00	Cloudy	011201	2.7264	2.8426	15629.73	15653.73	24.00	1.07	1.07	1.07	1537	75.6

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 323.4

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Feb-15	9:35	Fine	009570	2.8171	2.8304	15545.71	15546.71	1.00	1.09	1.09	1.09	65	203.5
3-Feb-15	10:38	Fine	009573	2.8142	2.8264	15546.71	15547.71	1.00	1.09	1.09	1.09	65	186.7
3-Feb-15	13:00	Fine	009576	2.8254	2.8407	15547.71	15548.71	1.00	1.09	1.09	1.09	65	234.1
9-Feb-15	8:05	Fine	009565	2.8181	2.8385	15572.71	15573.71	1.00	1.35	1.35	1.35	81	251.6
9-Feb-15	9:10	Fine	009567	2.8188	2.8398	15573.70	15574.70	1.00	1.35	1.35	1.35	81	259.0
9-Feb-15	10:15	Fine	009627	2.8526	2.8742	15574.70	15575.70	1.00	1.35	1.35	1.35	81	266.4
14-Feb-15	8:40	Fine	009655	2.8448	2.8592	15599.71	15600.71	1.00	1.25	1.25	1.25	75	192.2
14-Feb-15	9:42	Fine	009657	2.8591	2.8773	15600.71	15601.71	1.00	1.25	1.25	1.25	75	242.9
14-Feb-15	10:44	Fine	009659	2.8553	2.8695	15601.71	15602.71	1.00	1.25	1.25	1.25	75	189.5
18-Feb-15	8:10	Cloudy	011195	2.7260	2.7353	15626.71	15627.71	1.00	1.07	1.07	1.07	64	144.7
18-Feb-15	9:12	Cloudy	011197	2.7215	2.7280	15627.71	15628.71	1.00	1.07	1.07	1.07	64	101.2
18-Feb-15	10:14	Cloudy	011199	2.7271	2.7365	15628.71	15629.71	1.00	1.07	1.07	1.07	64	146.3
24-Feb-15	8:10	Cloudy	011139	2.7391	2.7454	15653.73	15654.73	1.00	1.07	1.07	1.07	64	98.4
24-Feb-15	9:15	Cloudy	011142	2.7208	2.7282	15654.73	15655.73	1.00	1.07	1.07	1.07	64	115.6
24-Feb-15	10:20	Cloudy	011145	2.7232	2.7306	15655.73	15656.73	1.00	1.07	1.07	1.07	64	115.6



Location: CMA3a - CWB PRE Site Office Area

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 171

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
4-Feb-15	11:54	Fine	009605	2.8150	2.9573	2966.26	2990.26	24.00	1.14	1.14	1.14	1644	86.6
10-Feb-15	13:30	Fine	011078	2.7458	2.9987	2993.23	3017.23	24.00	1.19	1.19	1.19	1708	148.1
13-Feb-15	8:00	Fine	009639	2.8495	3.1098	3017.40	3041.40	24.00	1.32	1.32	1.32	1904	136.7
17-Feb-15	8:00	Cloudy	011068	2.7336	2.9366	3044.41	3068.41	24.00	1.37	1.38	1.37	1979	102.6
23-Feb-15	8:00	Cloudy	011217	2.8041	2.9881	3071.41	3095.41	24.00	1.32	1.32	1.32	1901	96.8

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 2 and 7 February 2015 to 4 and 10 February 2015 respectively.

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 311.3

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Feb-15	13:08	Fine	009598	2.8328	2.8398	2963.26	2964.26	1.00	1.12	1.12	1.12	67	104.3
3-Feb-15	14:34	Fine	009601	2.8384	2.8493	2964.26	2965.26	1.00	1.18	1.18	1.18	71	154.4
3-Feb-15	15:40	Fine	009603	2.8269	2.8376	2965.26	2966.26	1.00	1.12	1.12	1.12	67	159.4
9-Feb-15	9:18	Fine	011061	2.7593	2.7718	2990.26	2991.26	1.00	1.24	1.24	1.24	74	168.2
9-Feb-15	10:24	Fine	011111	2.7544	2.7716	2991.26	2992.26	1.00	1.18	1.18	1.18	71	242.8
9-Feb-15	13:00	Fine	011109	2.7452	2.7539	2992.26	2993.26	1.00	1.18	1.18	1.18	71	122.8
14-Feb-15	9:03	Fine	011101	2.7424	2.7550	3041.40	3042.40	1.00	1.39	1.39	1.39	83	151.5
14-Feb-15	10:07	Fine	011099	2.7389	2.7527	3042.40	3043.40	1.00	1.39	1.39	1.39	83	166.0
14-Feb-15	13:00	Fine	011097	2.7317	2.7516	3043.40	3044.40	1.00	1.39	1.39	1.39	83	239.3
18-Feb-15	8:50	Cloudy	011183	2.7501	2.7607	3068.41	3069.41	1.00	1.24	1.24	1.24	75	142.1
18-Feb-15	10:25	Cloudy	011219	2.8155	2.8303	3069.41	3070.41	1.00	1.24	1.24	1.24	75	198.4
18-Feb-15	13:00	Cloudy	011063	2.7502	2.7623	3070.41	3071.41	1.00	1.24	1.24	1.24	75	162.2
24-Feb-15	8:21	Cloudy	011064	2.7656	2.7731	3095.41	3096.41	1.00	1.24	1.24	1.24	74	101.0
24-Feb-15	9:25	Cloudy	011049	2.7371	2.7403	3096.41	3097.41	1.00	1.24	1.24	1.24	74	43.1
24-Feb-15	10:35	Cloudy	011065	2.7609	2.7676	3097.41	3098.41	1.00	1.24	1.24	1.24	74	90.2



Location: CMA4a - SPCA

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 171.2

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Feb-15	8:00	Fine	011046	2.7322	2.9041	19778.24	19802.24	24.00	1.19	1.19	1.19	1708	100.6
7-Feb-15	8:00	Fine	009604	2.8257	3.0935	19805.24	19829.24	24.00	1.14	1.14	1.14	1640	163.2
13-Feb-15	8:00	Fine	011102	2.7514	2.9906	19832.25	19856.25	24.00	1.32	1.32	1.32	1904	125.6
18-Feb-15	14:03	Cloudy	011216	2.8006	3.0394	19873.82	19897.82	24.00	1.32	1.33	1.32	1908	125.2
23-Feb-15	8:00	Cloudy	011047	2.7350	2.8708	19897.82	19921.82	24.00	1.29	1.29	1.29	1864	72.9

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 17 February 2015 to 18 February 2015.

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 312.5

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Feb-15	13:20	Fine	009599	2.8244	2.8354	19802.24	19803.24	1.00	1.19	1.19	1.19	71	154.6
3-Feb-15	14:23	Fine	009600	2.8156	2.8264	19803.24	19804.24	1.00	1.14	1.14	1.14	68	158.0
3-Feb-15	15:37	Fine	009602	2.8252	2.8351	19804.24	19805.24	1.00	1.14	1.14	1.14	68	144.9
9-Feb-15	9:32	Fine	011062	2.7382	2.7581	19829.24	19830.24	1.00	1.19	1.19	1.19	71	279.1
9-Feb-15	10:34	Fine	011110	2.7554	2.7645	19830.24	19831.24	1.00	1.19	1.19	1.19	71	127.6
9-Feb-15	13:00	Fine	011108	2.7392	2.7578	19831.24	19832.24	1.00	1.19	1.19	1.19	71	260.8
14-Feb-15	9:14	Fine	011100	2.7397	2.7516	19856.25	19857.25	1.00	1.32	1.32	1.32	79	150.1
14-Feb-15	10:22	Fine	011098	2.7264	2.7395	19857.25	19858.25	1.00	1.32	1.32	1.32	79	165.3
14-Feb-15	13:00	Fine	011106	2.7640	2.7812	19858.25	19859.25	1.00	1.32	1.32	1.32	79	217.0
18-Feb-15	9:40	Cloudy	011182	2.7304	2.7434	19870.82	19871.82	1.00	1.27	1.27	1.27	76	170.4
18-Feb-15	10:45	Cloudy	011218	2.7931	2.8073	19871.82	19872.82	1.00	1.27	1.27	1.27	76	186.1
18-Feb-15	13:00	Cloudy	011184	2.7289	2.7412	19872.82	19873.82	1.00	1.27	1.27	1.27	76	161.2
24-Feb-15	8:07	Cloudy	011048	2.7376	2.7399	19921.82	19922.82	1.00	1.29	1.29	1.29	78	29.6
24-Feb-15	9:15	Cloudy	011053	2.7355	2.7442	19922.82	19923.82	1.00	1.29	1.29	1.29	78	112.0
24-Feb-15	10:20	Cloudy	011052	2.7473	2.7514	19923.82	19924.82	1.00	1.29	1.29	1.29	78	52.8



Location: CMA5b - Pedestrian Plaza

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 181

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Feb-15	8:00	Fine	009597	2.8229	2.9371	4250.55	4274.55	24.00	0.95	0.95	0.95	1362	83.8
7-Feb-15	18:19	Fine	011041	2.7244	3.0576	4277.55	4301.55	24.00	1.01	1.01	1.01	1456	228.8
13-Feb-15	8:00	Fine	011081	2.7372	3.0022	4304.66	4328.66	24.00	1.05	1.05	1.05	1515	174.9
17-Feb-15	8:00	Cloudy	009595	2.8218	2.9015	4331.66	4355.66	24.00	0.84	0.84	0.84	1207	66.0
23-Feb-15	8:00	Cloudy	011136	2.7196	2.8947	4358.66	4382.66	24.00	0.98	0.79	0.88	1272	137.6

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 332

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Feb-15	9:50	Fine	009615	2.8604	2.8709	4274.55	4275.55	1.00	0.95	0.95	0.95	57	185.2
3-Feb-15	11:00	Fine	009620	2.8508	2.8610	4275.55	4276.55	1.00	0.95	0.95	0.95	57	179.9
3-Feb-15	13:00	Fine	009623	2.8762	2.8841	4276.55	4277.55	1.00	0.95	0.95	0.95	57	139.3
9-Feb-15	10:40	Fine	009630	2.8512	2.8775	4301.55	4302.55	1.00	1.02	1.02	1.02	61	431.8
9-Feb-15	13:00	Fine	009633	2.8617	2.8834	4302.55	4303.55	1.00	1.02	1.02	1.02	61	356.3
9-Feb-15	14:05	Fine	011084	2.7296	2.7627	4303.55	4304.55	1.00	1.02	1.02	1.02	61	543.4
14-Feb-15	13:00	Fine	011071	2.7292	2.7497	4328.66	4329.66	1.00	1.05	1.05	1.05	63	325.3
14-Feb-15	14:15	Fine	011076	2.7314	2.7382	4329.66	4330.66	1.00	0.91	0.91	0.91	54	124.8
14-Feb-15	15:25	Fine	009592	2.8323	2.8406	4330.68	4331.68	1.00	0.91	0.91	0.91	54	152.4
18-Feb-15	9:13	Cloudy	009637	2.8544	2.8686	4355.66	4356.66	1.00	0.91	0.91	0.91	55	259.7
18-Feb-15	10:20	Cloudy	011129	2.7365	2.7428	4356.66	4357.66	1.00	0.91	0.91	0.91	55	115.2
18-Feb-15	13:00	Cloudy	011133	2.7412	2.7579	4357.66	4358.66	1.00	0.91	0.91	0.91	55	305.4
24-Feb-15	8:40	Cloudy	011185	2.7162	2.7268	4382.66	4383.66	1.00	0.98	0.79	0.88	53	200.1
24-Feb-15	9:43	Cloudy	011213	2.7310	2.7443	4383.66	4384.66	1.00	0.98	0.79	0.88	53	251.0
24-Feb-15	10:50	Cloudy	011193	2.7357	2.7461	4384.66	4385.66	1.00	0.98	0.79	0.88	53	196.3

Location: MA1e - International Finance Centre (Eastern Wing)

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 173.4

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Feb-15	8:00	Fine	009568	2.8084	2.8716	16457.50	16481.50	24.00	1.28	1.28	1.28	1841	34.3
7-Feb-15	8:00	Fine	009584	2.8294	2.9635	16484.50	16508.50	24.00	1.23	1.23	1.23	1775	75.6
13-Feb-15	8:00	Fine	011095	2.7336	2.8544	16511.50	16535.50	24.00	1.23	1.23	1.23	1767	68.4
17-Feb-15	8:00	Cloudy	009647	2.8739	3.1044	16538.50	16562.50	24.00	1.31	1.31	1.31	1882	122.5
23-Feb-15	8:00	Cloudy	011155	2.7328	2.8954	16566.46	16590.46	24.00	1.16	1.16	1.16	1667	97.6

Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 325.1

Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Feb-15	8:06	Fine	009611	2.8162	2.8206	16481.50	16482.50	1.00	1.23	1.23	1.23	74	59.5
3-Feb-15	9:12	Fine	009614	2.8582	2.8621	16482.50	16483.50	1.00	1.23	1.23	1.23	74	52.7
3-Feb-15	10:20	Fine	009608	2.8323	2.8374	16483.50	16484.50	1.00	1.23	1.23	1.23	74	69.0
9-Feb-15	8:09	Fine	011086	2.7230	2.7254	16508.50	16509.50	1.00	1.24	1.24	1.24	74	32.4
9-Feb-15	9:15	Fine	011089	2.7304	2.7352	16509.50	16510.50	1.00	1.24	1.24	1.24	74	64.8
9-Feb-15	15:00	Fine	011092	2.7229	2.7266	16510.50	16511.50	1.00	1.24	1.24	1.24	74	49.9
14-Feb-15	8:10	Fine	009640	2.8624	2.8653	16535.50	16536.50	1.00	1.23	1.23	1.23	74	39.4
14-Feb-15	9:16	Fine	009643	2.8707	2.8770	16536.50	16537.50	1.00	1.23	1.23	1.23	74	85.6
14-Feb-15	10:20	Fine	009646	2.8740	2.8806	16537.50	16538.50	1.00	1.23	1.23	1.23	74	89.7
18-Feb-15	8:02	Cloudy	011149	2.7245	2.7309	16563.46	16564.46	1.00	1.16	1.16	1.16	70	91.9
18-Feb-15	9:05	Cloudy	011151	2.7243	2.7303	16564.46	16565.46	1.00	1.16	1.16	1.16	70	86.2
18-Feb-15	10:20	Cloudy	011153	2.7261	2.7329	16565.46	16566.46	1.00	1.16	1.16	1.16	70	97.7
24-Feb-15	8:10	Cloudy	011244	2.7886	2.7916	16590.46	16591.46	1.00	1.16	1.16	1.16	69	43.2
24-Feb-15	9:15	Cloudy	011247	2.7816	2.7821	16591.46	16592.46	1.00	1.16	1.16	1.16	69	7.2
24-Feb-15	10:30	Cloudy	011250	2.7925	2.7950	16592.46	16593.46	1.00	1.16	1.16	1.16	69	36.0

Location: MA1w - International Finance Centre (Western Wing)

Report on 24-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 173.4

Limit Level ($\mu\text{g}/\text{m}^3$) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
2-Feb-15	8:00	Fine	011113	2.7512	2.8842	16506.63	16530.63	24.00	1.40	1.40	1.40	2017	65.9
7-Feb-15	8:00	Fine	009585	2.8157	3.0278	16533.62	16557.62	24.00	1.36	1.36	1.36	1956	108.4
13-Feb-15	8:00	Fine	011096	2.7388	2.8406	16560.62	16584.62	24.00	1.35	1.35	1.35	1949	52.2
17-Feb-15	8:00	Cloudy	009651	2.8430	3.0362	16587.63	16611.63	24.00	1.28	1.28	1.28	1844	104.8
23-Feb-15	8:00	Cloudy	011156	2.7269	2.8364	16614.63	16638.63	24.00	1.28	1.28	1.28	1841	59.5

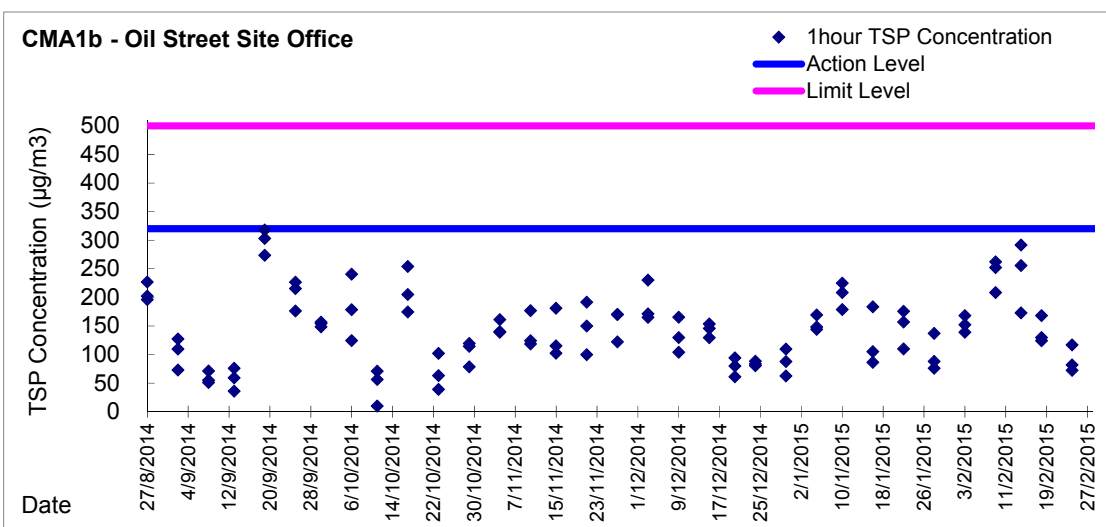
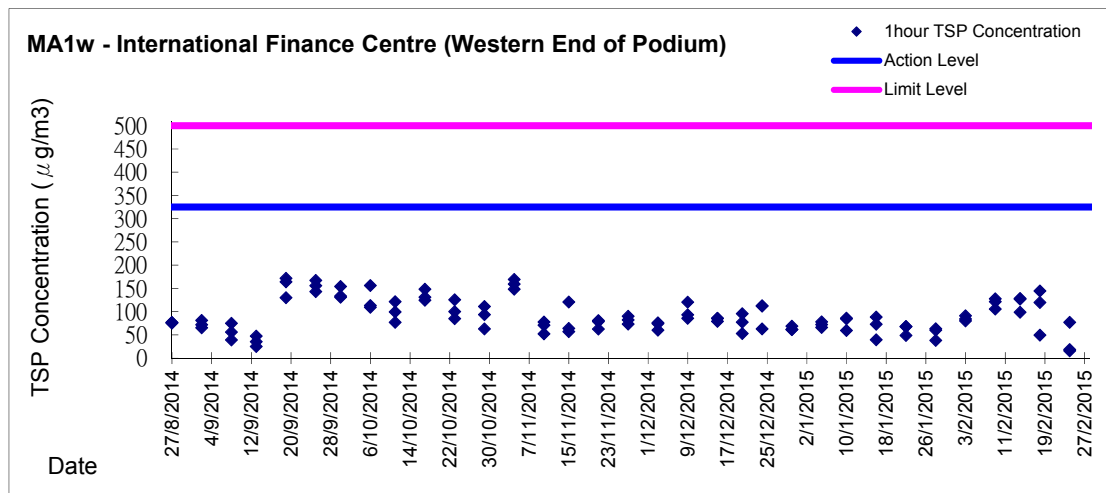
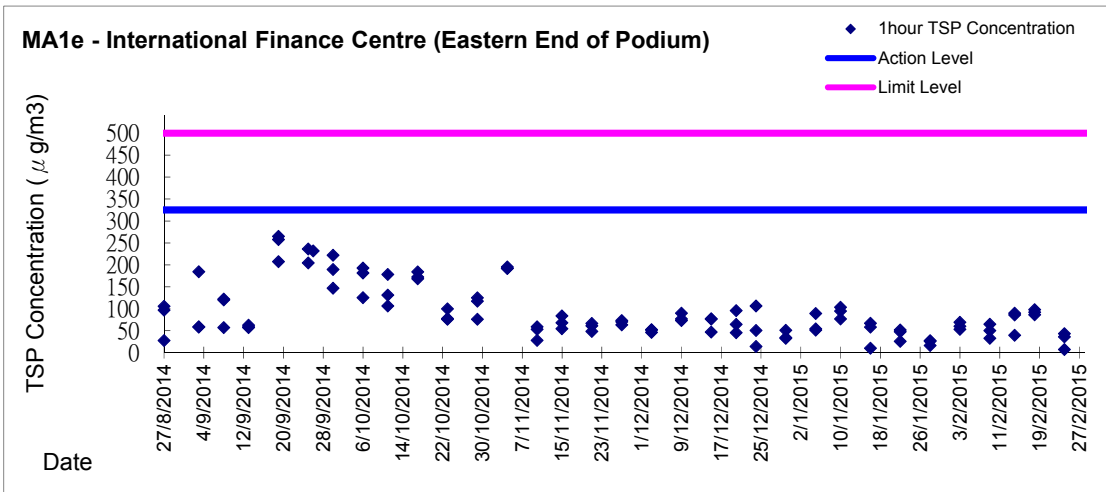
Report on 1-hour TSP monitoring

Action Level ($\mu\text{g}/\text{m}^3$) - 325.1

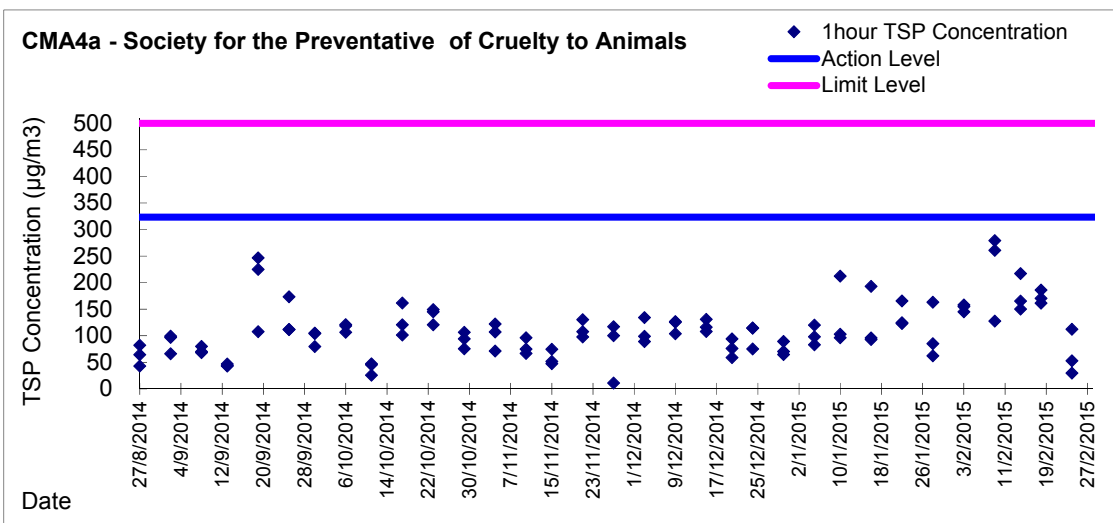
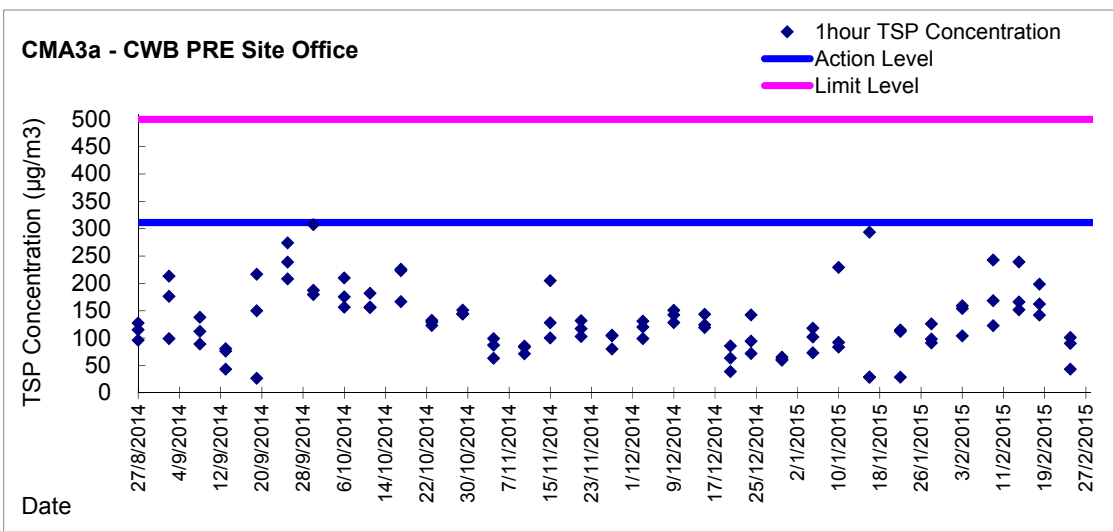
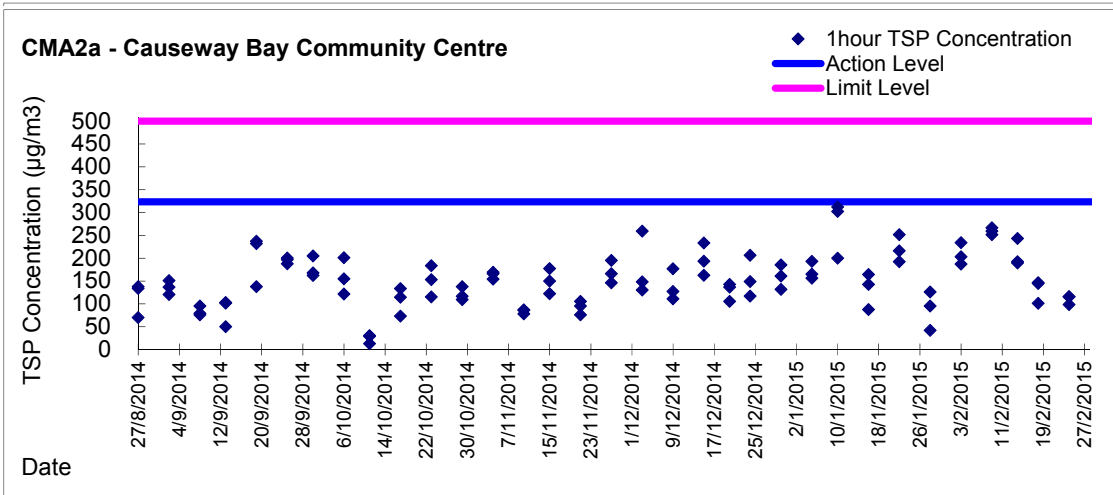
Limit Level ($\mu\text{g}/\text{m}^3$) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, m^3/min			Total Volume, m^3	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, Q_{si}	Final, Q_{sf}	Average		
3-Feb-15	8:03	Fine	009612	2.8101	2.8180	16530.63	16531.63	1.00	1.44	1.44	1.44	87	91.3
3-Feb-15	9:08	Fine	009609	2.8335	2.8408	16531.63	16532.63	1.00	1.44	1.44	1.44	87	84.3
3-Feb-15	10:15	Fine	009607	2.8225	2.8294	16532.63	16533.63	1.00	1.44	1.44	1.44	87	79.7
9-Feb-15	8:04	Fine	011087	2.7291	2.7395	16557.62	16558.62	1.00	1.36	1.36	1.36	82	127.4
9-Feb-15	9:12	Fine	011090	2.7293	2.7392	16558.62	16559.62	1.00	1.36	1.36	1.36	82	121.3
9-Feb-15	10:15	Fine	011093	2.7102	2.7188	16559.62	16560.62	1.00	1.36	1.36	1.36	82	105.3
14-Feb-15	8:02	Fine	009641	2.8560	2.8663	16584.62	16585.62	1.00	1.35	1.35	1.35	81	126.9
14-Feb-15	9:05	Fine	009644	2.8504	2.8584	16585.62	16586.62	1.00	1.35	1.35	1.35	81	98.6
14-Feb-15	14:31	Fine	009650	2.8640	2.8744	16586.62	16587.62	1.00	1.35	1.35	1.35	81	128.2
18-Feb-15	8:06	Cloudy	011148	2.7296	2.7407	16611.63	16612.63	1.00	1.28	1.28	1.28	77	144.3
18-Feb-15	9:10	Cloudy	011152	2.7277	2.7369	16612.63	16613.63	1.00	1.28	1.28	1.28	77	119.6
18-Feb-15	10:15	Cloudy	011154	2.7218	2.7256	16613.63	16614.63	1.00	1.28	1.28	1.28	77	49.4
24-Feb-15	8:02	Cloudy	011245	2.7743	2.7802	16638.63	16639.63	1.00	1.28	1.28	1.28	77	76.9
24-Feb-15	9:05	Cloudy	011248	2.7925	2.7937	16639.63	16640.63	1.00	1.28	1.28	1.28	77	15.6
24-Feb-15	10:10	Cloudy	011251	2.7920	2.7934	16640.63	16641.63	1.00	1.28	1.28	1.28	77	18.3

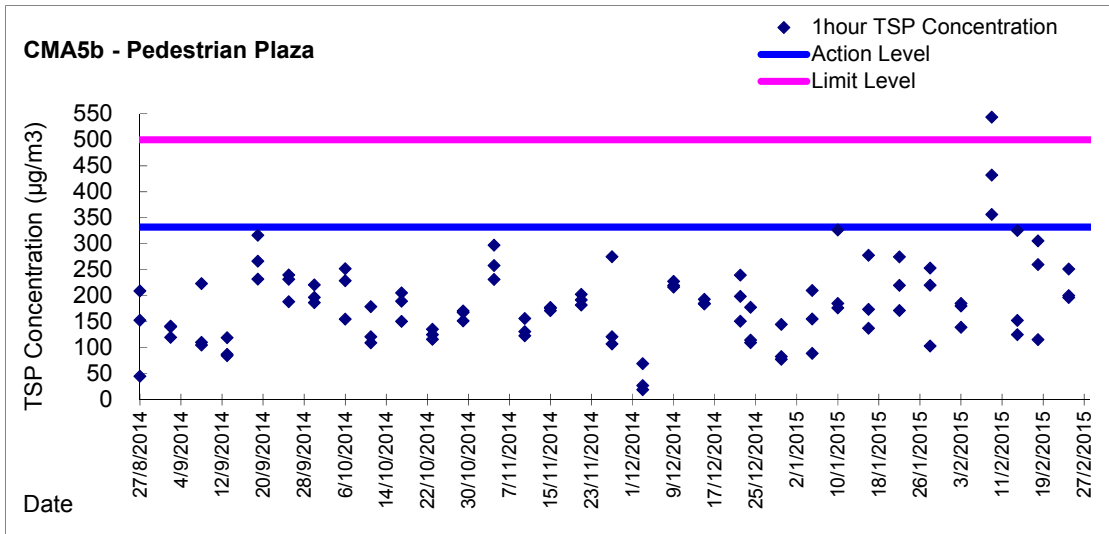
Graphic Presentation of 1 hour TSP Result



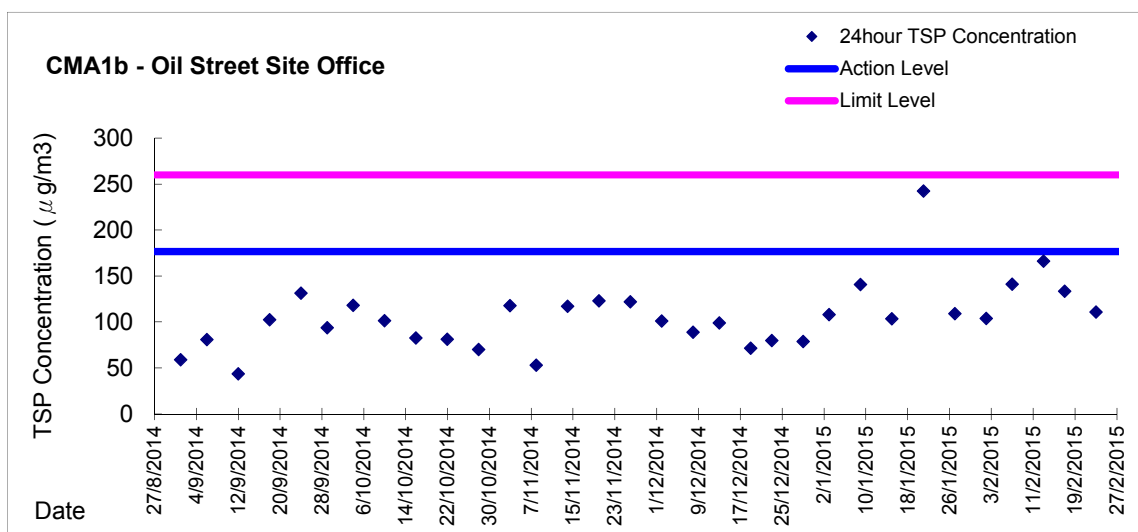
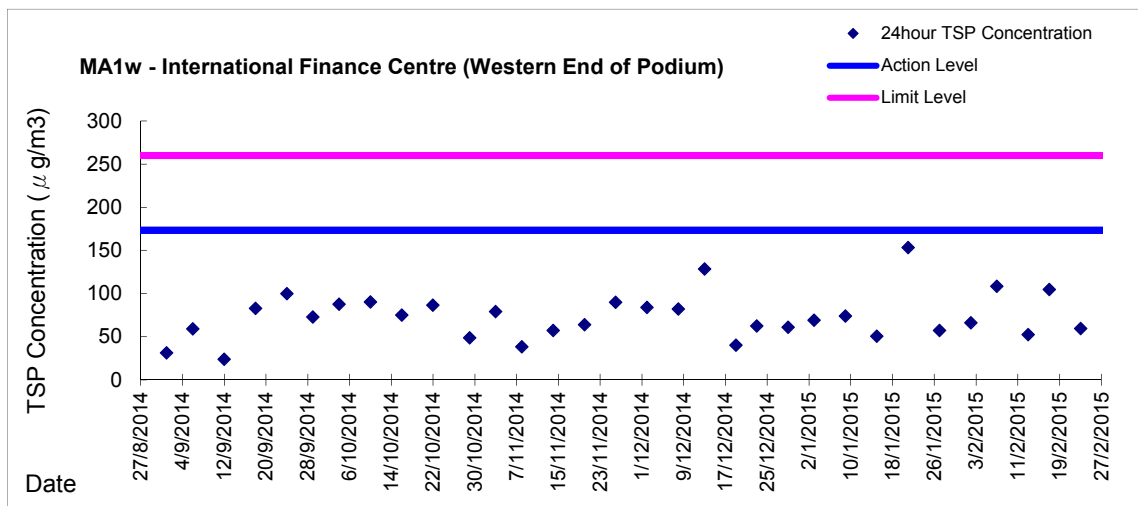
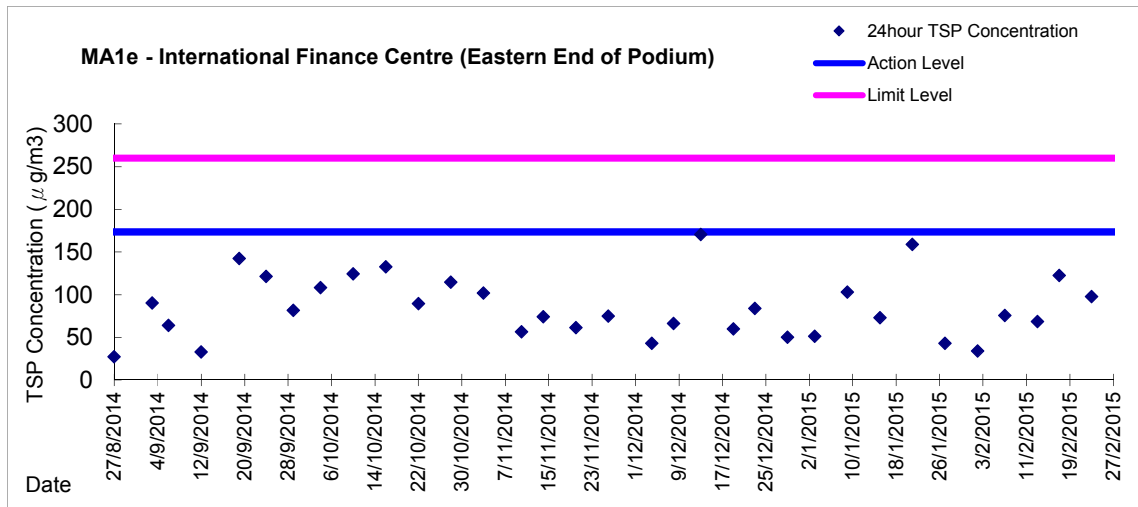
Graphic Presentation of 1 hour TSP Result



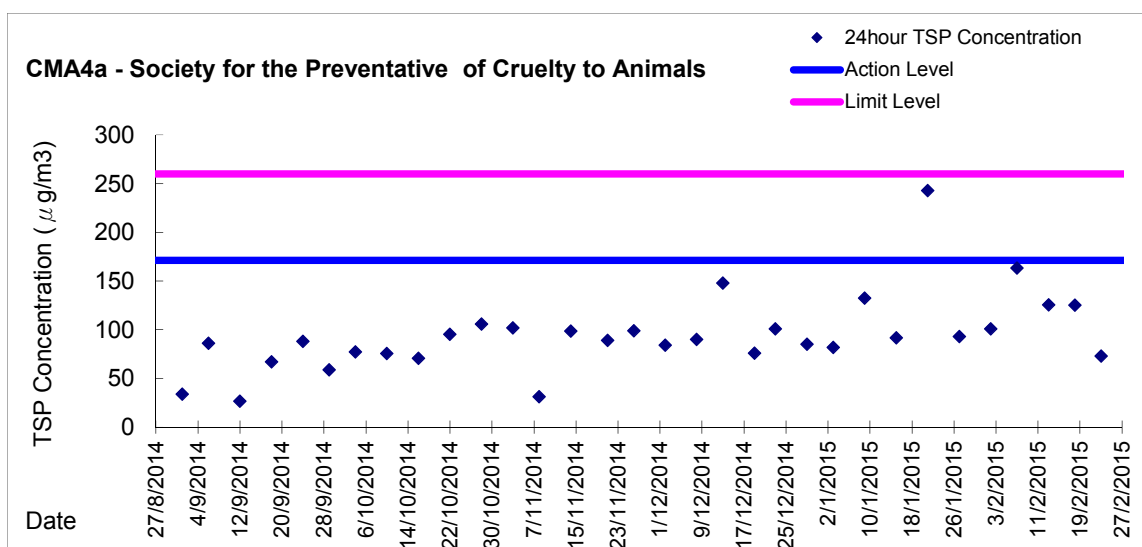
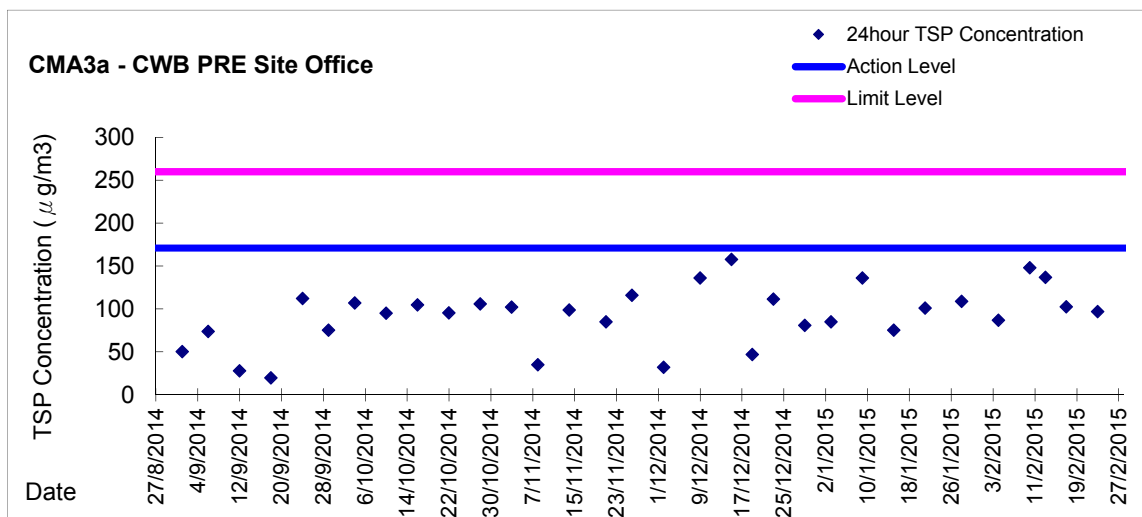
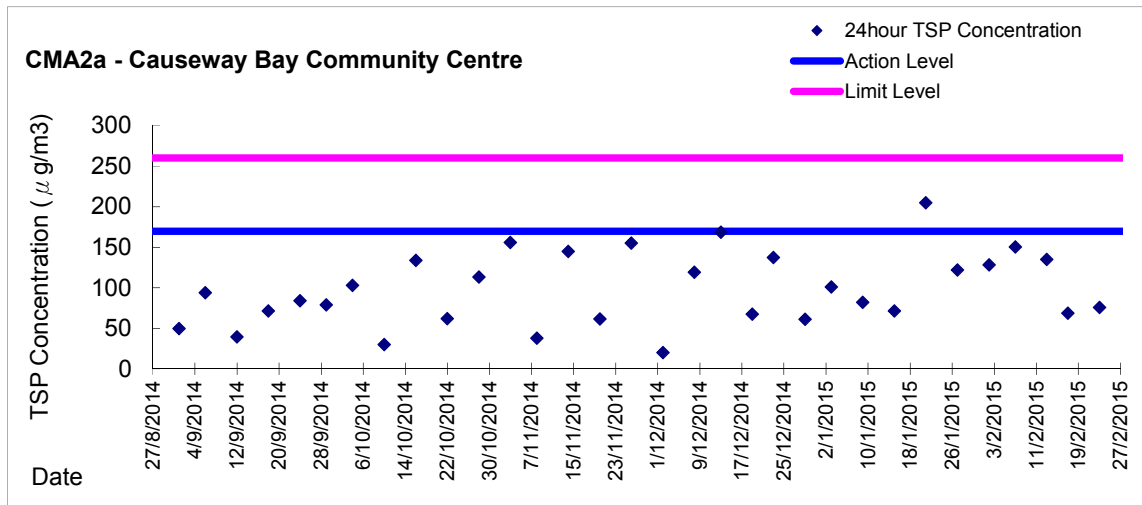
Graphic Presentation of 1 hour TSP Result



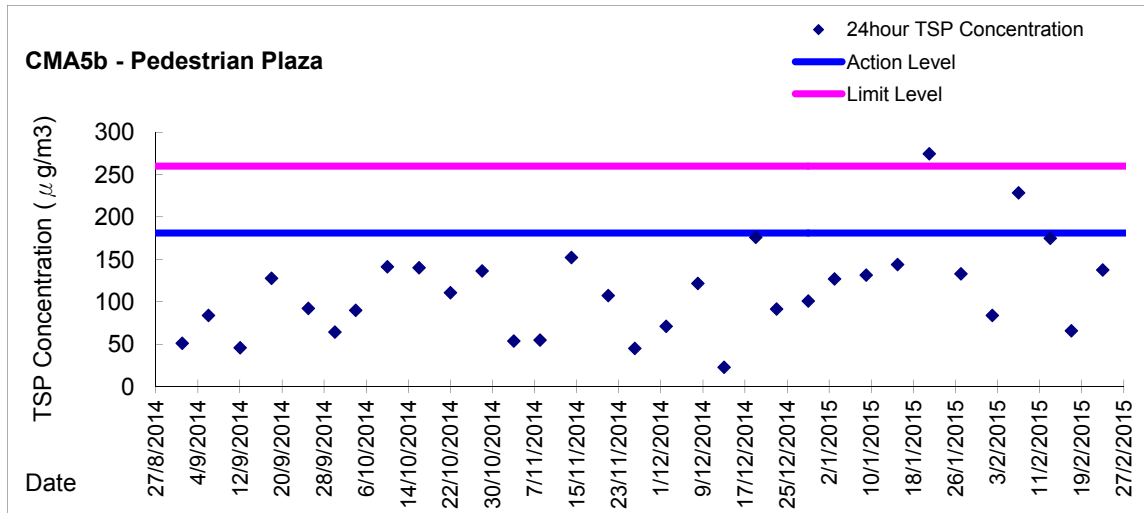
Graphic Presentation of 24 hour TSP Result



Graphic Presentation of 24 hour TSP Result



Graphic Presentation of 24 hour TSP Result





Appendix 5.4

Real Time Noise Monitoring Results and Graphical Presentations

Real-time Noise Data		RTN1 (Food and Environmental Hygiene Department Depot)									
29/1/2015 20:56	64.3	31/1/2015 22:01	64.1	1/2/2015 15:06	64.0	2/2/2015 20:11	64.3	4/2/2015 21:16	64.0	6/2/2015 22:21	64.5
29/1/2015 21:01	64.5	31/1/2015 22:06	63.8	1/2/2015 15:11	64.3	2/2/2015 20:16	65.7	4/2/2015 21:21	65.0	6/2/2015 22:26	64.8
29/1/2015 21:06	63.8	31/1/2015 22:11	64.2	1/2/2015 15:16	63.5	2/2/2015 20:21	64.5	4/2/2015 21:26	64.1	6/2/2015 22:31	64.9
29/1/2015 21:11	65.1	31/1/2015 22:16	64.6	1/2/2015 15:21	63.4	2/2/2015 20:26	64.4	4/2/2015 21:31	64.0	6/2/2015 22:36	65.1
29/1/2015 21:16	64.8	31/1/2015 22:21	63.9	1/2/2015 15:26	63.9	2/2/2015 20:31	64.5	4/2/2015 21:36	64.4	6/2/2015 22:41	64.6
29/1/2015 21:21	64.3	31/1/2015 22:26	64.1	1/2/2015 15:31	64.9	2/2/2015 20:36	65.3	4/2/2015 21:41	64.6	6/2/2015 22:46	64.9
29/1/2015 21:26	64.3	31/1/2015 22:31	63.7	1/2/2015 15:36	64.5	2/2/2015 20:41	64.2	4/2/2015 21:46	64.9	6/2/2015 22:51	66.7
29/1/2015 21:31	64.0	31/1/2015 22:36	64.4	1/2/2015 15:41	63.9	2/2/2015 20:46	64.9	4/2/2015 21:51	63.8	6/2/2015 22:56	64.3
29/1/2015 21:36	64.7	31/1/2015 22:41	64.1	1/2/2015 15:46	64.5	2/2/2015 20:51	64.4	4/2/2015 21:56	64.7	7/2/2015 19:01	63.7
29/1/2015 21:41	64.0	31/1/2015 22:46	63.8	1/2/2015 15:51	63.6	2/2/2015 20:56	63.8	4/2/2015 22:01	63.9	7/2/2015 19:06	64.1
29/1/2015 21:46	64.2	31/1/2015 22:51	63.9	1/2/2015 15:56	64.6	2/2/2015 21:01	64.8	4/2/2015 22:06	64.7	7/2/2015 19:11	63.8
29/1/2015 21:51	63.9	31/1/2015 22:56	63.6	1/2/2015 16:01	63.1	2/2/2015 21:06	63.6	4/2/2015 22:11	64.6	7/2/2015 19:16	63.7
29/1/2015 21:56	64.8	1/2/2015 7:01	61.6	1/2/2015 16:06	63.7	2/2/2015 21:11	64.2	4/2/2015 22:16	65.2	7/2/2015 19:21	63.7
29/1/2015 22:01	64.3	1/2/2015 7:06	62.1	1/2/2015 16:11	64.9	2/2/2015 21:16	64.2	4/2/2015 22:21	64.6	7/2/2015 19:26	63.8
29/1/2015 22:06	64.1	1/2/2015 7:11	61.8	1/2/2015 16:16	64.0	2/2/2015 21:21	63.9	4/2/2015 22:26	64.3	7/2/2015 19:31	64.1
29/1/2015 22:11	64.0	1/2/2015 7:16	62.3	1/2/2015 16:21	64.6	2/2/2015 21:26	63.8	4/2/2015 22:31	64.2	7/2/2015 19:36	64.6
29/1/2015 22:16	64.8	1/2/2015 7:21	62.0	1/2/2015 16:26	64.4	2/2/2015 21:31	64.8	4/2/2015 22:36	64.8	7/2/2015 19:41	64.6
29/1/2015 22:21	64.4	1/2/2015 7:26	65.4	1/2/2015 16:31	65.1	2/2/2015 21:36	63.9	4/2/2015 22:41	64.3	7/2/2015 19:46	64.7
29/1/2015 22:26	64.1	1/2/2015 7:31	62.5	1/2/2015 16:36	64.5	2/2/2015 21:41	64.7	4/2/2015 22:46	64.1	7/2/2015 19:51	64.6
29/1/2015 22:31	64.5	1/2/2015 7:36	62.3	1/2/2015 16:41	63.6	2/2/2015 21:46	64.0	4/2/2015 22:51	64.2	7/2/2015 19:56	64.4
29/1/2015 22:36	64.3	1/2/2015 7:41	62.1	1/2/2015 16:46	63.7	2/2/2015 21:51	64.5	4/2/2015 22:56	63.9	7/2/2015 20:01	64.6
29/1/2015 22:41	65.6	1/2/2015 7:46	62.7	1/2/2015 16:51	64.4	2/2/2015 21:56	64.2	5/2/2015 19:01	66.3	7/2/2015 20:06	63.9
29/1/2015 22:46	64.4	1/2/2015 7:51	62.8	1/2/2015 16:56	63.8	2/2/2015 22:01	63.9	5/2/2015 19:06	65.9	7/2/2015 20:11	64.4
29/1/2015 22:51	64.7	1/2/2015 7:56									

Real-time Noise Data		RTN1 (Food and Environmental Hygiene Department Depot)									
5/2/2015 6:11	61.2	6/2/2015 23:16	60.1	8/2/2015 0:21	57.3	9/2/2015 1:26	58.9	10/2/2015 2:31	59.0	11/2/2015 3:36	58.2
5/2/2015 6:16	61.7	6/2/2015 23:21	58.7	8/2/2015 0:26	59.1	9/2/2015 1:31	59.2	10/2/2015 2:36	58.5	11/2/2015 3:41	58.3
5/2/2015 6:21	50.1	6/2/2015 23:26	60.2	8/2/2015 0:31	55.9	9/2/2015 1:36	59.5	10/2/2015 2:41	58.3	11/2/2015 3:46	58.1
5/2/2015 6:26	54.8	6/2/2015 23:31	59.0	8/2/2015 0:36	56.2	9/2/2015 1:41	58.9	10/2/2015 2:46	58.4	11/2/2015 3:51	58.3
5/2/2015 6:31	54.7	6/2/2015 23:36	59.9	8/2/2015 0:41	63.0	9/2/2015 1:46	59.0	10/2/2015 2:51	58.8	11/2/2015 3:56	57.8
5/2/2015 6:36	56.5	6/2/2015 23:41	59.2	8/2/2015 0:46	55.5	9/2/2015 1:51	58.6	10/2/2015 2:56	57.9	11/2/2015 4:01	58.4
5/2/2015 6:41	57.4	6/2/2015 23:46	59.1	8/2/2015 0:51	54.7	9/2/2015 1:56	54.5	10/2/2015 3:01	58.3	11/2/2015 4:06	58.5
5/2/2015 6:46	58.1	6/2/2015 23:51	58.3	8/2/2015 0:56	61.8	9/2/2015 2:01	58.0	10/2/2015 3:06	58.5	11/2/2015 4:11	56.6
5/2/2015 6:51	60.3	6/2/2015 23:56	59.7	8/2/2015 1:01	61.8	9/2/2015 2:06	57.5	10/2/2015 3:11	59.0	11/2/2015 4:16	58.5
5/2/2015 6:56	60.9	7/2/2015 0:01	59.8	8/2/2015 1:06	61.8	9/2/2015 2:11	57.9	10/2/2015 3:16	59.1	11/2/2015 4:21	57.9
5/2/2015 23:01	59.7	7/2/2015 0:06	58.7	8/2/2015 1:11	61.4	9/2/2015 2:16	57.6	10/2/2015 3:21	59.0	11/2/2015 4:26	57.8
5/2/2015 23:06	60.7	7/2/2015 0:11	58.7	8/2/2015 1:16	48.2	9/2/2015 2:21	57.8	10/2/2015 3:26	58.2	11/2/2015 4:31	58.4
5/2/2015 23:11	63.4	7/2/2015 0:16	57.7	8/2/2015 1:21	38.5	9/2/2015 2:26	58.1	10/2/2015 3:31	58.2	11/2/2015 4:36	57.5
5/2/2015 23:16	60.0	7/2/2015 0:21	58.2	8/2/2015 1:26	61.7	9/2/2015 2:31	57.6	10/2/2015 3:36	59.1	11/2/2015 4:41	58.0
5/2/2015 23:21	61.1	7/2/2015 0:26	59.3	8/2/2015 1:31	61.5	9/2/2015 2:36	57.5	10/2/2015 3:41	58.7	11/2/2015 4:46	57.9
5/2/2015 23:26	58.9	7/2/2015 0:31	57.2	8/2/2015 1:36	61.1	9/2/2015 2:41	57.1	10/2/2015 3:46	57.6	11/2/2015 4:51	58.0
5/2/2015 23:31	59.2	7/2/2015 0:36	58.9	8/2/2015 1:41	60.9	9/2/2015 2:46	57.5	10/2/2015 3:51	58.9	11/2/2015 4:56	57.6
5/2/2015 23:36	58.9	7/2/2015 0:41	57.7	8/2/2015 1:46	60.2	9/2/2015 2:51	57.4	10/2/2015 3:56	57.7	11/2/2015 5:01	58.6
5/2/2015 23:41	56.8	7/2/2015 0:46	57.6	8/2/2015 1:51	60.5	9/2/2015 2:56	56.3	10/2/2015 4:01	57.3	11/2/2015 5:06	58.5
5/2/2015 23:46	57.2	7/2/2015 0:51	57.1	8/2/2015 1:56	60.1	9/2/2015 3:01	56.7	10/2/2015 4:06	57.6	11/2/2015 5:11	58.3
5/2/2015 23:51	56.2	7/2/2015 0:56	52.9	8/2/2015 2:01	59.8	9/2/2015 3:06	57.4	10/2/2015 4:11	58.6	11/2/2015 5:16	58.6
5/2/2015 23:56	53.8	7/2/2015 1:01	55.2	8/2/2015 2:06	60.7	9/2/2015 3:11	57.2	10/2/2015 4:16	58.7	11/2/2015 5:21	59.0
6/2/2015 0:01	56.1	7/2/2015 1:06	52.9	8/2/2015 2:11	60.2	9/2/2015 3:16	57.0	10/2/2015 4:21	57.4	11/2/2015 5:26	59.5
6/2/2015 0:06	45.1	7/2/2015 1:11	57.4	8/2/2015 2:16	59.6	9/2/2015 3:21	56.5	10/2/2015 4:26	56.9	11/2/2015 5:31	59.4
6											

Real-time Noise Data		RTN1 (Food and Environmental Hygiene Department Depot)	
26/2/2015 1:41	58.8	27/2/2015 2:46	58.7
26/2/2015 1:46	58.6	27/2/2015 2:51	57.3
26/2/2015 1:51	58.1	27/2/2015 2:56	57.4
26/2/2015 1:56	57.5	27/2/2015 3:01	56.8
26/2/2015 2:01	58.7	27/2/2015 3:06	57.5
26/2/2015 2:06	57.8	27/2/2015 3:11	58.9
26/2/2015 2:11	58.2	27/2/2015 3:16	56.8
26/2/2015 2:16	58.1	27/2/2015 3:21	56.7
26/2/2015 2:21	58.1	27/2/2015 3:26	57.0
26/2/2015 2:26	58.7	27/2/2015 3:31	56.8
26/2/2015 2:31	57.4	27/2/2015 3:36	57.6
26/2/2015 2:36	57.0	27/2/2015 3:41	56.7
26/2/2015 2:41	57.3	27/2/2015 3:46	56.5
26/2/2015 2:46	56.9	27/2/2015 3:51	57.3
26/2/2015 2:51	57.6	27/2/2015 3:56	55.5
26/2/2015 2:56	57.4	27/2/2015 4:01	55.2
26/2/2015 3:01	57.3	27/2/2015 4:06	56.7
26/2/2015 3:06	56.6	27/2/2015 4:11	57.2
26/2/2015 3:11	57.0	27/2/2015 4:16	56.6
26/2/2015 3:16	57.1	27/2/2015 4:21	57.6
26/2/2015 3:21	56.2	27/2/2015 4:26	56.1
26/2/2015 3:26	56.9	27/2/2015 4:31	56.3
26/2/2015 3:31	56.4	27/2/2015 4:36	56.7
26/2/2015 3:36	57.6	27/2/2015 4:41	56.9
26/2/2015 3:41	57.1	27/2/2015 4:46	56.2
26/2/2015 3:46	56.8	27/2/2015 4:51	56.8
26/2/2015 3:51	57.3	27/2/2015 4:56	56.8
26/2/2015 3:56	56.6	27/2/2015 5:01	58.7
26/2/2015 4:01	56.9	27/2/2015 5:06	56.4
26/2/2015 4:06	56.2	27/2/2015 5:11	56.3
26/2/2015 4:11	55.9	27/2/2015 5:16	56.3
26/2/2015 4:16	57.1	27/2/2015 5:21	57.0
26/2/2015 4:21	56.5	27/2/2015 5:26	57.2
26/2/2015 4:26	56.9	27/2/2015 5:31	56.5
26/2/2015 4:31	56.6	27/2/2015 5:36	56.8
26/2/2015 4:36	56.5	27/2/2015 5:41	58.5
26/2/2015 4:41	56.6	27/2/2015 5:46	57.3
26/2/2015 4:46	55.7	27/2/2015 5:51	58.0
26/2/2015 4:51	56.7	27/2/2015 5:56	58.0
26/2/2015 4:56	57.8	27/2/2015 6:01	59.0
26/2/2015 5:01	56.8	27/2/2015 6:06	57.9
26/2/2015 5:06	57.2	27/2/2015 6:11	59.5
26/2/2015 5:11	55.7	27/2/2015 6:16	59.9
26/2/2015 5:16	57.2	27/2/2015 6:21	59.6
26/2/2015 5:21	56.7	27/2/2015 6:26	60.0
26/2/2015 5:26	56.9	27/2/2015 6:31	60.2
26/2/2015 5:31	56.5	27/2/2015 6:36	60.7
26/2/2015 5:36	57.8	27/2/2015 6:41	61.1
26/2/2015 5:41	58.0	27/2/2015 6:46	60.5
26/2/2015 5:46	58.8	27/2/2015 6:51	61.5
26/2/2015 5:51	58.2	27/2/2015 6:56	61.6
26/2/2015 5:56	58.6	27/2/2015 23:01	61.6
26/2/2015 6:01	57.9	27/2/2015 23:06	61.2
26/2/2015 6:06	58.9	27/2/2015 23:11	61.5
26/2/2015 6:11	59.2	27/2/2015 23:16	61.3
26/2/2015 6:16	59.6	27/2/2015 23:21	61.3
26/2/2015 6:21	60.2	27/2/2015 23:26	61.2
26/2/2015 6:26	60.0	27/2/2015 23:31	61.3
26/2/2015 6:31	60.5	27/2/2015 23:36	61.2
26/2/2015 6:36	61.7	27/2/2015 23:41	60.6
26/2/2015 6:41	61.7	27/2/2015 23:46	61.1
26/2/2015 6:46	61.8	27/2/2015 23:51	61.2
26/2/2015 6:51	51.0	27/2/2015 23:56	61.6
26/2/2015 6:56	52.8		
26/2/2015 23:01	57.5		
26/2/2015 23:06	61.8		
26/2/2015 23:11	61.9		
26/2/2015 23:16	50.3		
26/2/2015 23:21	61.8		
26/2/2015 23:26	61.7		
26/2/2015 23:31	44.0		
26/2/2015 23:36	61.6		
26/2/2015 23:41	60.9		
26/2/2015 23:46	61.1		
26/2/2015 23:51	61.4		
26/2/2015 23:56	61.4		
27/2/2015 0:01	61.1		
27/2/2015 0:06	61.1		
27/2/2015 0:11	60.8		
27/2/2015 0:16	60.9		
27/2/2015 0:21	61.2		
27/2/2015 0:26	61.0		
27/2/2015 0:31	60.8		
27/2/2015 0:36	59.8		
27/2/2015 0:41	60.3		
27/2/2015 0:46	59.8		
27/2/2015 0:51	60.0		
27/2/2015 0:56	59.8		
27/2/2015 1:01	59.5		
27/2/2015 1:06	59.4		
27/2/2015 1:11	59.1		
27/2/2015 1:16	59.2		
27/2/2015 1:21	59.2		
27/2/2015 1:26	58.9		
27/2/2015 1:31	60.3		
27/2/2015 1:36	58.5		
27/2/2015 1:41	58.6		
27/2/2015 1:46	58.7		
27/2/2015 1:51	58.7		
27/2/2015 1:56	58.1		
27/2/2015 2:01	58.5		
27/2/2015 2:06	58.5		
27/2/2015 2:11	57.9		
27/2/2015 2:16	57.4		
27/2/2015 2:21	57.7		
27/2/2015 2:26	57.6		
27/2/2015 2:31	58.4		
27/2/2015 2:36	58.6		
27/2/2015 2:41	57.3		

Real-time Noise Data		RTN2a (Hong Kong Electric Centre)	
26/2/2015 1:41	57.1	27/2/2015 2:46	57.7
26/2/2015 1:46	57.1	27/2/2015 2:51	55.3
26/2/2015 1:51	55.2	27/2/2015 2:56	58.2
26/2/2015 1:56	55.6	27/2/2015 3:01	54.5
26/2/2015 2:01	56.1	27/2/2015 3:06	55.9
26/2/2015 2:06	56.7	27/2/2015 3:11	56.3
26/2/2015 2:11	55.9	27/2/2015 3:16	55.3
26/2/2015 2:16	56.6	27/2/2015 3:21	54.7
26/2/2015 2:21	56.4	27/2/2015 3:26	55.5
26/2/2015 2:26	57.2	27/2/2015 3:31	55.8
26/2/2015 2:31	56.7	27/2/2015 3:36	54.0
26/2/2015 2:36	56.4	27/2/2015 3:41	48.8
26/2/2015 2:41	54.7	27/2/2015 3:46	53.7
26/2/2015 2:46	55.5	27/2/2015 3:51	54.4
26/2/2015 2:51	53.2	27/2/2015 3:56	51.1
26/2/2015 2:56	56.0	27/2/2015 4:01	52.7
26/2/2015 3:01	54.4	27/2/2015 4:06	53.5
26/2/2015 3:06	54.5	27/2/2015 4:11	44.6
26/2/2015 3:11	54.1	27/2/2015 4:16	58.1
26/2/2015 3:16	54.9	27/2/2015 4:21	51.5
26/2/2015 3:21	54.3	27/2/2015 4:26	54.6
26/2/2015 3:26	53.2	27/2/2015 4:31	53.1
26/2/2015 3:31	52.9	27/2/2015 4:36	51.9
26/2/2015 3:36	53.4	27/2/2015 4:41	52.7
26/2/2015 3:41	54.6	27/2/2015 4:46	45.8
26/2/2015 3:46	54.0	27/2/2015 4:51	55.2
26/2/2015 3:51	52.3	27/2/2015 4:56	47.7
26/2/2015 3:56	55.5	27/2/2015 5:01	49.3
26/2/2015 4:01	53.2	27/2/2015 5:06	54.9
26/2/2015 4:06	49.7	27/2/2015 5:11	50.7
26/2/2015 4:11	47.9	27/2/2015 5:16	57.1
26/2/2015 4:16	52.6	27/2/2015 5:21	49.0
26/2/2015 4:21	50.8	27/2/2015 5:26	51.8
26/2/2015 4:26	51.3	27/2/2015 5:31	53.1
26/2/2015 4:31	54.3	27/2/2015 5:36	55.8
26/2/2015 4:36	50.9	27/2/2015 5:41	54.4
26/2/2015 4:41	31.9	27/2/2015 5:46	45.7
26/2/2015 4:46	51.4	27/2/2015 5:51	54.5
26/2/2015 4:51	53.2	27/2/2015 5:56	56.3
26/2/2015 4:56	46.8	27/2/2015 6:01	55.9
26/2/2015 5:01	50.9	27/2/2015 6:06	55.3
26/2/2015 5:06	50.6	27/2/2015 6:11	57.3
26/2/2015 5:11	53.9	27/2/2015 6:16	56.8
26/2/2015 5:16	54.8	27/2/2015 6:21	57.2
26/2/2015 5:21	52.4	27/2/2015 6:26	59.0
26/2/2015 5:26	53.6	27/2/2015 6:31	59.1
26/2/2015 5:31	53.6	27/2/2015 6:36	59.9
26/2/2015 5:36	54.5	27/2/2015 6:41	60.1
26/2/2015 5:41	54.9	27/2/2015 6:46	60.8
26/2/2015 5:46	57.5	27/2/2015 6:51	61.2
26/2/2015 5:51	56.2	27/2/2015 6:56	60.7
26/2/2015 5:56	57.1	27/2/2015 23:01	63.3
26/2/2015 6:01	56.3	27/2/2015 23:06	63.0
26/2/2015 6:06	56.1	27/2/2015 23:11	62.8
26/2/2015 6:11	56.9	27/2/2015 23:16	62.8
26/2/2015 6:16	58.2	27/2/2015 23:21	62.9
26/2/2015 6:21	59.7	27/2/2015 23:26	62.9
26/2/2015 6:26	59.7	27/2/2015 23:31	62.5
26/2/2015 6:31	58.9	27/2/2015 23:36	63.2
26/2/2015 6:36	61.1	27/2/2015 23:41	62.7
26/2/2015 6:41	61.4	27/2/2015 23:46	62.4
26/2/2015 6:46	61.7	27/2/2015 23:51	63.1
26/2/2015 6:51	63.0	27/2/2015 23:56	63.6
26/2/2015 6:56	62.7		
26/2/2015 23:01	62.8		
26/2/2015 23:06	63.2		
26/2/2015 23:11	63.7		
26/2/2015 23:16	63.3		
26/2/2015 23:21	62.9		
26/2/2015 23:26	63.0		
26/2/2015 23:31	64.2		
26/2/2015 23:36	62.7		
26/2/2015 23:41	62.0		
26/2/2015 23:46	62.8		
26/2/2015 23:51	62.1		
26/2/2015 23:56	61.4		
27/2/2015 0:01	61.5		
27/2/2015 0:06	61.9		
27/2/2015 0:11	61.5		
27/2/2015 0:16	62.1		
27/2/2015 0:21	61.5		
27/2/2015 0:26	61.5		
27/2/2015 0:31	61.8		
27/2/2015 0:36	61.7		
27/2/2015 0:41	61.4		
27/2/2015 0:46	60.1		
27/2/2015 0:51	60.4		
27/2/2015 0:56	60.7		
27/2/2015 1:01	60.3		
27/2/2015 1:06	59.5		
27/2/2015 1:11	59.7		
27/2/2015 1:16	59.9		
27/2/2015 1:21	58.3		
27/2/2015 1:26	59.6		
27/2/2015 1:31	59.4		
27/2/2015 1:36	59.1		
27/2/2015 1:41	59.2		
27/2/2015 1:46	58.1		
27/2/2015 1:51	58.6		
27/2/2015 1:56	58.6		
27/2/2015 2:01	58.7		
27/2/2015 2:06	56.8		
27/2/2015 2:11	56.9		
27/2/2015 2:16	58.6		
27/2/2015 2:21	55.6		
27/2/2015 2:26	56.5		
27/2/2015 2:31	54.4		
27/2/2015 2:36	57.3		
27/2/2015 2:41	57.9		

Real-time Noise Data		RTN3 (Po Leung Kuk Yu Lee Mo Fan Memorial School)	
26/2/2015 1:41	54.6	27/2/2015 2:46	58.2
26/2/2015 1:46	55.7	27/2/2015 2:51	63.0
26/2/2015 1:51	50.0	27/2/2015 2:56	54.8
26/2/2015 1:56	39.7	27/2/2015 3:01	62.3
26/2/2015 2:01	55.2	27/2/2015 3:06	62.9
26/2/2015 2:06	53.9	27/2/2015 3:11	62.1
26/2/2015 2:11	50.3	27/2/2015 3:16	63.1
26/2/2015 2:16	55.5	27/2/2015 3:21	56.2
26/2/2015 2:21	53.7	27/2/2015 3:26	47.6
26/2/2015 2:26	57.6	27/2/2015 3:31	62.7
26/2/2015 2:31	62.7	27/2/2015 3:36	61.3
26/2/2015 2:36	62.7	27/2/2015 3:41	62.1
26/2/2015 2:41	62.0	27/2/2015 3:46	52.2
26/2/2015 2:46	62.4	27/2/2015 3:51	62.1
26/2/2015 2:51	62.9	27/2/2015 3:56	61.9
26/2/2015 2:56	63.0	27/2/2015 4:01	61.7
26/2/2015 3:01	62.7	27/2/2015 4:06	61.2
26/2/2015 3:06	62.5	27/2/2015 4:11	61.0
26/2/2015 3:11	61.9	27/2/2015 4:16	61.9
26/2/2015 3:16	53.2	27/2/2015 4:21	61.7
26/2/2015 3:21	62.5	27/2/2015 4:26	62.7
26/2/2015 3:26	62.4	27/2/2015 4:31	62.8
26/2/2015 3:31	61.8	27/2/2015 4:36	61.3
26/2/2015 3:36	62.9	27/2/2015 4:41	61.9
26/2/2015 3:41	62.1	27/2/2015 4:46	61.3
26/2/2015 3:46	62.2	27/2/2015 4:51	62.6
26/2/2015 3:51	61.7	27/2/2015 4:56	60.9
26/2/2015 3:56	61.9	27/2/2015 5:01	61.9
26/2/2015 4:01	62.5	27/2/2015 5:06	63.0
26/2/2015 4:06	60.8	27/2/2015 5:11	61.8
26/2/2015 4:11	60.9	27/2/2015 5:16	54.2
26/2/2015 4:16	61.9	27/2/2015 5:21	61.4
26/2/2015 4:21	62.1	27/2/2015 5:26	61.2
26/2/2015 4:26	61.8	27/2/2015 5:31	62.8
26/2/2015 4:31	61.6	27/2/2015 5:36	63.1
26/2/2015 4:36	61.8	27/2/2015 5:41	62.0
26/2/2015 4:41	61.3	27/2/2015 5:46	61.8
26/2/2015 4:46	60.4	27/2/2015 5:51	55.2
26/2/2015 4:51	62.0	27/2/2015 5:56	63.0
26/2/2015 4:56	62.0	27/2/2015 6:01	63.0
26/2/2015 5:01	61.9	27/2/2015 6:06	62.9
26/2/2015 5:06	62.8	27/2/2015 6:11	59.3
26/2/2015 5:11	61.1	27/2/2015 6:16	49.1
26/2/2015 5:16	62.5	27/2/2015 6:21	61.0
26/2/2015 5:21	61.9	27/2/2015 6:26	60.6
26/2/2015 5:26	62.8	27/2/2015 6:31	60.5
26/2/2015 5:31	61.8	27/2/2015 6:36	61.1
26/2/2015 5:36	62.9	27/2/2015 6:41	61.3
26/2/2015 5:41	55.0	27/2/2015 6:46	63.3
26/2/2015 5:46	57.2	27/2/2015 6:51	63.8
26/2/2015 5:51	43.7	27/2/2015 6:56	63.3
26/2/2015 5:56	55.0	27/2/2015 23:01	65.9
26/2/2015 6:01	50.5	27/2/2015 23:06	65.3
26/2/2015 6:06	57.8	27/2/2015 23:11	65.9
26/2/2015 6:11	59.3	27/2/2015 23:16	66.5
26/2/2015 6:16	61.5	27/2/2015 23:21	66.1
26/2/2015 6:21	62.8	27/2/2015 23:26	66.4
26/2/2015 6:26	63.0	27/2/2015 23:31	65.9
26/2/2015 6:31	62.6	27/2/2015 23:36	66.1
26/2/2015 6:36	65.2	27/2/2015 23:41	65.5
26/2/2015 6:41	65.3	27/2/2015 23:46	65.6
26/2/2015 6:46	65.2	27/2/2015 23:51	66.1
26/2/2015 6:51	66.2	27/2/2015 23:56	66.8
26/2/2015 6:56	66.2		
26/2/2015 23:01	65.5		
26/2/2015 23:06	68.5		
26/2/2015 23:11	66.4		
26/2/2015 23:16	65.4		
26/2/2015 23:21	65.5		
26/2/2015 23:26	66.0		
26/2/2015 23:31	66.0		
26/2/2015 23:36	65.2		
26/2/2015 23:41	65.7		
26/2/2015 23:46	65.5		
26/2/2015 23:51	64.5		
26/2/2015 23:56	63.1		
27/2/2015 0:01	65.2		
27/2/2015 0:06	64.6		
27/2/2015 0:11	64.0		
27/2/2015 0:16	64.4		
27/2/2015 0:21	64.0		
27/2/2015 0:26	62.9		
27/2/2015 0:31	64.2		
27/2/2015 0:36	64.8		
27/2/2015 0:41	63.7		
27/2/2015 0:46	62.4		
27/2/2015 0:51	61.9		
27/2/2015 0:56	62.6		
27/2/2015 1:01	62.3		
27/2/2015 1:06	60.0		
27/2/2015 1:11	61.2		
27/2/2015 1:16	60.9		
27/2/2015 1:21	58.9		
27/2/2015 1:26	58.4		
27/2/2015 1:31	58.3		
27/2/2015 1:36	59.7		
27/2/2015 1:41	61.8		
27/2/2015 1:46	56.4		
27/2/2015 1:51	58.7		
27/2/2015 1:56	58.2		
27/2/2015 2:01	58.1		
27/2/2015 2:06	53.2		
27/2/2015 2:11	56.2		
27/2/2015 2:16	57.1		
27/2/2015 2:21	63.1		
27/2/2015 2:26	51.6		
27/2/2015 2:31	46.8		
27/2/2015 2:36	50.6		
27/2/2015 2:41	54.0		

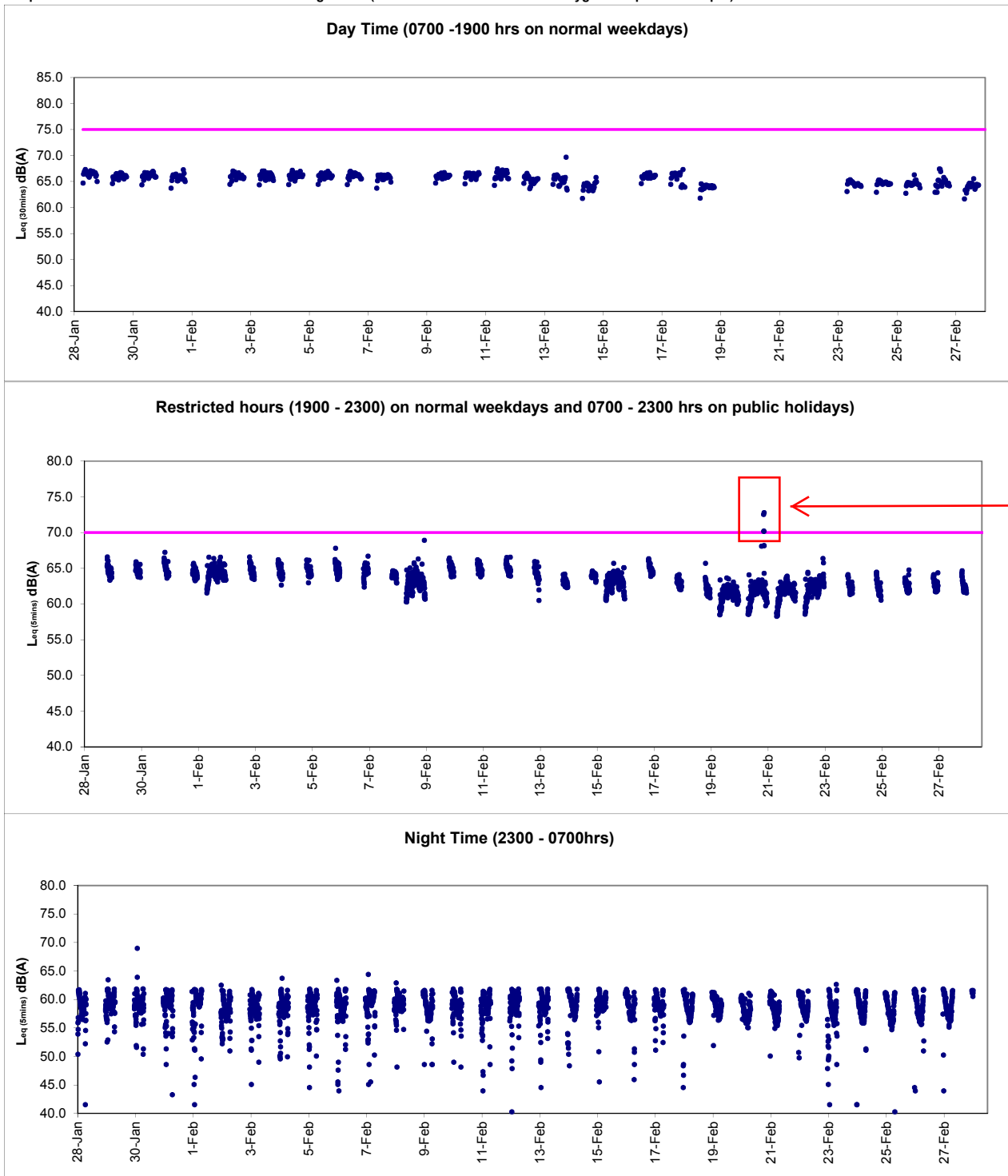
Real-time Noise Data		RTN4 (Causeway Bay Community Centre)									
16/2/2015 21:51	58.1	18/2/2015 22:56	63.6	19/2/2015 16:01	62.9	20/2/2015 9:06	53.9	20/2/2015 18:11	60.0	21/2/2015 11:16	54.5
16/2/2015 21:56	58.3	19/2/2015 7:01	62.7	19/2/2015 16:06	63.2	20/2/2015 9:11	63.3	20/2/2015 18:16	56.0	21/2/2015 11:21	55.9
16/2/2015 22:01	60.7	19/2/2015 7:06	60.9	19/2/2015 16:11	62.9	20/2/2015 9:16	62.6	20/2/2015 18:21	60.3	21/2/2015 11:26	56.3
16/2/2015 22:06	58.4	19/2/2015 7:11	61.9	19/2/2015 16:16	63.2	20/2/2015 9:21	63.3	20/2/2015 18:26	58.8	21/2/2015 11:31	58.4
16/2/2015 22:11	60.7	19/2/2015 7:16	61.4	19/2/2015 16:21	62.6	20/2/2015 9:26	63.6	20/2/2015 18:31	57.8	21/2/2015 11:36	58.4
16/2/2015 22:16	59.0	19/2/2015 7:21	61.6	19/2/2015 16:26	62.9	20/2/2015 9:31	54.9	20/2/2015 18:36	57.8	21/2/2015 11:41	57.0
16/2/2015 22:21	53.9	19/2/2015 7:26	66.0	19/2/2015 16:31	62.9	20/2/2015 9:36	51.9	20/2/2015 18:41	59.1	21/2/2015 11:46	57.9
16/2/2015 22:26	60.0	19/2/2015 7:31	61.6	19/2/2015 16:36	62.6	20/2/2015 9:41	62.8	20/2/2015 18:46	59.8	21/2/2015 11:51	60.9
16/2/2015 22:31	59.1	19/2/2015 7:36	61.4	19/2/2015 16:41	63.2	20/2/2015 9:46	63.1	20/2/2015 18:51	59.6	21/2/2015 11:56	59.7
16/2/2015 22:36	57.0	19/2/2015 7:41	61.9	19/2/2015 16:46	63.4	20/2/2015 9:51	56.0	20/2/2015 18:56	59.1	21/2/2015 12:01	59.6
16/2/2015 22:41	60.9	19/2/2015 7:46	61.2	19/2/2015 16:51	63.3	20/2/2015 9:56	63.5	20/2/2015 19:01	57.5	21/2/2015 12:06	58.8
16/2/2015 22:46	60.5	19/2/2015 7:51	61.6	19/2/2015 16:56	63.6	20/2/2015 10:01	63.3	20/2/2015 19:06	56.8	21/2/2015 12:11	58.3
16/2/2015 22:51	59.2	19/2/2015 7:56	62.2	19/2/2015 17:01	63.6	20/2/2015 10:06	52.5	20/2/2015 19:11	51.9	21/2/2015 12:16	58.7
16/2/2015 22:56	61.4	19/2/2015 8:01	63.5	19/2/2015 17:06	63.5	20/2/2015 10:11	60.7	20/2/2015 19:16	57.8	21/2/2015 12:21	55.2
17/2/2015 19:01	63.5	19/2/2015 8:06	61.9	19/2/2015 17:11	63.2	20/2/2015 10:16	43.4	20/2/2015 19:21	54.0	21/2/2015 12:26	58.4
17/2/2015 19:06	63.6	19/2/2015 8:11	62.4	19/2/2015 17:16	63.2	20/2/2015 10:21	58.2	20/2/2015 19:26	54.8	21/2/2015 12:31	56.6
17/2/2015 19:11	58.6	19/2/2015 8:16	42.1	19/2/2015 17:21	63.4	20/2/2015 10:26	53.3	20/2/2015 19:31	45.1	21/2/2015 12:36	59.6
17/2/2015 19:16	60.2	19/2/2015 8:21	62.1	19/2/2015 17:26	62.6	20/2/2015 10:31	56.1	20/2/2015 19:36	45.8	21/2/2015 12:41	56.7
17/2/2015 19:21	60.3	19/2/2015 8:26	61.5	19/2/2015 17:31	62.5	20/2/2015 10:36	55.3	20/2/2015 19:41	56.5	21/2/2015 12:46	56.6
17/2/2015 19:26	54.2	19/2/2015 8:31	63.5	19/2/2015 17:36	63.6	20/2/2015 10:41	53.1	20/2/2015 19:46	63.5	21/2/2015 12:51	57.7
17/2/2015 19:31	60.1	19/2/2015 8:36	61.8	19/2/2015 17:41	63.0	20/2/2015 10:46	58.9	20/2/2015 19:51	63.4	21/2/2015 12:56	58.0
17/2/2015 19:36	61.6	19/2/2015 8:41	62.9	19/2/2015 17:46	62.1	20/2/2015 10:51	55.5	20/2/2015 19:56	62.7	21/2/2015 13:01	55.1
17/2/2015 19:41	62.3	19/2/2015 8:46	62.1	19/2/2015 17:51	62.5	20/2/2015 10:56	60.8	20/2/2015 20:01	73.0	2	

Real-time Noise Data	RTN4 (Causeway Bay Community Centre)				
21/2/2015 20:21 56.5	22/2/2015 13:26 56.4	22/2/2015 22:31 60.5	25/2/2015 19:36 60.2	27/2/2015 20:41 51.9	28/1/2015 6:31 65.2
21/2/2015 20:26 54.1	22/2/2015 13:31 59.0	22/2/2015 22:32 58.3	25/2/2015 19:41 61.4	27/2/2015 20:46 54.2	28/1/2015 6:36 64.8
21/2/2015 20:31 54.2	22/2/2015 13:36 56.2	22/2/2015 22:41 60.1	25/2/2015 19:46 60.5	27/2/2015 20:51 59.8	28/1/2015 6:41 65.9
21/2/2015 20:36 56.4	22/2/2015 13:41 58.8	22/2/2015 22:46 60.0	25/2/2015 19:51 58.9	27/2/2015 20:56 57.3	28/1/2015 6:46 66.2
21/2/2015 20:41 57.7	22/2/2015 13:46 56.6	22/2/2015 22:51 57.3	25/2/2015 19:56 58.1	27/2/2015 21:01 55.6	28/1/2015 6:51 66.4
21/2/2015 20:46 55.9	22/2/2015 13:51 58.9	22/2/2015 22:56 59.6	25/2/2015 20:01 60.6	27/2/2015 21:06 57.5	28/1/2015 6:56 66.4
21/2/2015 20:51 54.2	22/2/2015 13:56 56.7	23/2/2015 19:01 61.8	25/2/2015 20:06 59.3	27/2/2015 21:11 56.5	28/1/2015 23:01 66.8
21/2/2015 20:56 57.6	22/2/2015 14:01 58.6	23/2/2015 19:06 61.0	25/2/2015 20:11 58.1	27/2/2015 21:16 58.3	28/1/2015 23:06 65.2
21/2/2015 21:01 58.6	22/2/2015 14:06 53.1	23/2/2015 19:11 60.9	25/2/2015 20:16 59.9	27/2/2015 21:21 53.5	28/1/2015 23:11 64.9
21/2/2015 21:06 63.3	22/2/2015 14:11 58.5	23/2/2015 19:16 62.2	25/2/2015 20:21 58.8	27/2/2015 21:26 55.8	28/1/2015 23:16 66.2
21/2/2015 21:11 55.1	22/2/2015 14:16 59.9	23/2/2015 19:21 60.8	25/2/2015 20:26 61.3	27/2/2015 21:31 57.3	28/1/2015 23:21 65.5
21/2/2015 21:16 55.2	22/2/2015 14:21 55.1	23/2/2015 19:26 61.3	25/2/2015 20:31 59.4	27/2/2015 21:36 56.4	28/1/2015 23:26 65.3
21/2/2015 21:21 55.0	22/2/2015 14:26 56.6	23/2/2015 19:31 60.9	25/2/2015 20:36 56.8	27/2/2015 21:41 58.5	28/1/2015 23:31 65.2
21/2/2015 21:26 55.9	22/2/2015 14:31 57.7	23/2/2015 19:36 60.1	25/2/2015 20:41 59.4	27/2/2015 21:46 55.4	28/1/2015 23:36 65.4
21/2/2015 21:31 56.9	22/2/2015 14:36 55.2	23/2/2015 19:41 60.4	25/2/2015 20:46 57.4	27/2/2015 21:51 57.2	28/1/2015 23:41 65.4
21/2/2015 21:36 54.7	22/2/2015 14:41 57.2	23/2/2015 19:46 60.7	25/2/2015 20:51 55.6	27/2/2015 21:56 57.5	28/1/2015 23:46 65.2
21/2/2015 21:41 59.1	22/2/2015 14:46 52.8	23/2/2015 19:51 60.5	25/2/2015 20:56 53.3	27/2/2015 22:01 56.2	28/1/2015 23:51 65.3
21/2/2015 21:46 57.6	22/2/2015 14:51 55.1	23/2/2015 19:56 59.5	25/2/2015 21:01 56.2	27/2/2015 22:06 58.8	28/1/2015 23:56 65.3
21/2/2015 21:51 55.1	22/2/2015 14:56 57.5	23/2/2015 20:01 59.7	25/2/2015 21:06 56.1	27/2/2015 22:11 57.2	29/1/2015 0:01 65.8
21/2/2015 21:56 57.1	22/2/2015 15:01 57.9	23/2/2015 20:06 58.5	25/2/2015 21:11 58.2	27/2/2015 22:16 59.6	29/1/2015 0:06 65.6
21/2/2015 22:01 56.3	22/2/2015 15:06 60.7	23/2/2015 20:11 59.3	25/2/2015 21:16 58.2	27/2/2015 22:21 57.5	29/1/2015 0:11 64.8
21/2/2015 22:06 58.4	22/2/2015 15:11 57.9	23/2/2015 20:16 60.0	25/2/2015 21:21 59.2	27/2/2015 22:26 58.6	29/1/2015 0:16 64.3
21/2/2015 22:11 54.6	22/2/2015 15:16 59.2	23/2/2015 20:21 58.6	25/2/2015 21:26 59.8	27/2/2015 22:31 57.4	29/1/2015 0:21 64.4
21/2/2015 22:16 54.1	22/2/2015 15:21 58.8	23/2/2015 20:26 58.8	25/2/2015 21:31 56.5	27/2/2015 22:36 57.6	29/1/2015 0:26 64.9
21/2/2015 22:21 56.3	22/2/2015 15:26 57.8	23/2/2015 20:31 55.2	25/2/2015 21:36 59.9	27/2/2015 22:41 55.9	29/1/2015 0:31 64.3
21/2/2015 22:26 58.1	22/2/2015 15:31 52.8	23/2/2015 20:36 59.0	25/2/2015 21:41 57.4	27/2/2015 22:46 55.1	29/1/2015 0:36 64.5
21/2/2015 22:31 51.1	22/2/2015 15:36 58.2	23/2/20			

Real-time Noise Data		RTN4 (Causeway Bay Community Centre)									
12/2/2015 4:36	58.6	13/2/2015 5:41	51.9	14/2/2015 6:46	61.8	15/2/2015 23:51	58.9	17/2/2015 0:56	60.3	18/2/2015 2:01	58.5
12/2/2015 4:41	59.2	13/2/2015 5:46	50.5	14/2/2015 6:51	64.2	15/2/2015 23:56	61.2	17/2/2015 1:01	56.0	18/2/2015 2:06	53.7
12/2/2015 4:46	60.2	13/2/2015 5:51	47.6	14/2/2015 6:56	61.0	16/2/2015 0:01	60.6	17/2/2015 1:06	56.8	18/2/2015 2:11	61.3
12/2/2015 4:51	60.5	13/2/2015 5:56	55.1	14/2/2015 6:51	62.3	16/2/2015 0:06	59.2	17/2/2015 1:11	56.2	18/2/2015 2:16	60.8
12/2/2015 4:56	59.9	13/2/2015 6:01	49.7	14/2/2015 23:06	61.5	16/2/2015 0:11	59.4	17/2/2015 1:16	54.7	18/2/2015 2:21	59.9
12/2/2015 5:01	58.1	13/2/2015 6:06	56.4	14/2/2015 23:11	60.5	16/2/2015 0:16	58.4	17/2/2015 1:21	57.5	18/2/2015 2:26	52.3
12/2/2015 5:06	60.4	13/2/2015 6:11	58.3	14/2/2015 23:16	61.4	16/2/2015 0:21	58.9	17/2/2015 1:26	58.9	18/2/2015 2:31	48.3
12/2/2015 5:11	59.7	13/2/2015 6:16	60.2	14/2/2015 23:21	61.9	16/2/2015 0:26	60.4	17/2/2015 1:31	56.3	18/2/2015 2:36	40.6
12/2/2015 5:16	60.3	13/2/2015 6:21	61.0	14/2/2015 23:26	59.7	16/2/2015 0:31	54.3	17/2/2015 1:36	56.7	18/2/2015 2:41	50.9
12/2/2015 5:21	60.2	13/2/2015 6:26	59.6	14/2/2015 23:31	61.5	16/2/2015 0:36	53.1	17/2/2015 1:41	56.7	18/2/2015 2:46	43.0
12/2/2015 5:26	60.0	13/2/2015 6:31	61.9	14/2/2015 23:36	61.7	16/2/2015 0:41	55.7	17/2/2015 1:46	70.0	18/2/2015 2:51	50.0
12/2/2015 5:31	60.9	13/2/2015 6:36	62.2	14/2/2015 23:41	62.5	16/2/2015 0:46	55.3	17/2/2015 1:51	57.6	18/2/2015 2:56	60.7
12/2/2015 5:36	58.5	13/2/2015 6:41	62.3	14/2/2015 23:46	61.6	16/2/2015 0:51	54.0	17/2/2015 1:56	54.6	18/2/2015 3:01	60.3
12/2/2015 5:41	53.8	13/2/2015 6:46	63.5	14/2/2015 23:51	61.4	16/2/2015 0:56	54.4	17/2/2015 2:01	52.4	18/2/2015 3:06	60.8
12/2/2015 5:46	55.6	13/2/2015 6:51	64.0	14/2/2015 23:56	61.3	16/2/2015 1:01	51.3	17/2/2015 2:06	54.1	18/2/2015 3:11	60.4
12/2/2015 5:51	55.9	13/2/2015 6:56	63.7	15/2/2015 0:01	61.6	16/2/2015 1:06	51.9	17/2/2015 2:11	65.9	18/2/2015 3:16	60.7
12/2/2015 5:56	57.1	13/2/2015 23:01	62.9	15/2/2015 0:06	61.0	16/2/2015 1:11	54.7	17/2/2015 2:16	60.3	18/2/2015 3:21	60.6
12/2/2015 6:01	51.6	13/2/2015 23:06	64.0	15/2/2015 0:11	61.9	16/2/2015 1:16	43.0	17/2/2015 2:21	60.2	18/2/2015 3:26	60.0
12/2/2015 6:06	58.6	13/2/2015 23:11	62.5	15/2/2015 0:16	60.7	16/2/2015 1:21	60.2	17/2/2015 2:26	60.5	18/2/2015 3:31	59.7
12/2/2015 6:11	58.1	13/2/2015 23:16	63.0	15/2/2015 0:21	60.4	16/2/2015 1:26	50.4	17/2/2015 2:31	69.8	18/2/2015 3:36	60.0
12/2/2015 6:16	60.3	13/2/2015 23:21	62.0	15/2/2015 0:26	61.6	16/2/2015 1:31	60.4	17/2/2015 2:36	60.7	18/2/2015 3:41	58.9
12/2/2015 6:21	60.7	13/2/2015 23:26	62.6	15/2/2015 0:31	60.7	16/2/2015 1:36	50.9	17/2/2015 2:41	59.4	18/2/2015 3:46	59.9
12/2/2015 6:26	61.1	13/2/2015 23:31	63.4	15/2/2015 0:36	58.7	16/2/2015 1:41	59.6	17/2/2015 2:46	60.7	18/2/2015 3:51	59.6
12/2/2015 6:31	61.8	13/2/2015 23:36	62.3	15/							

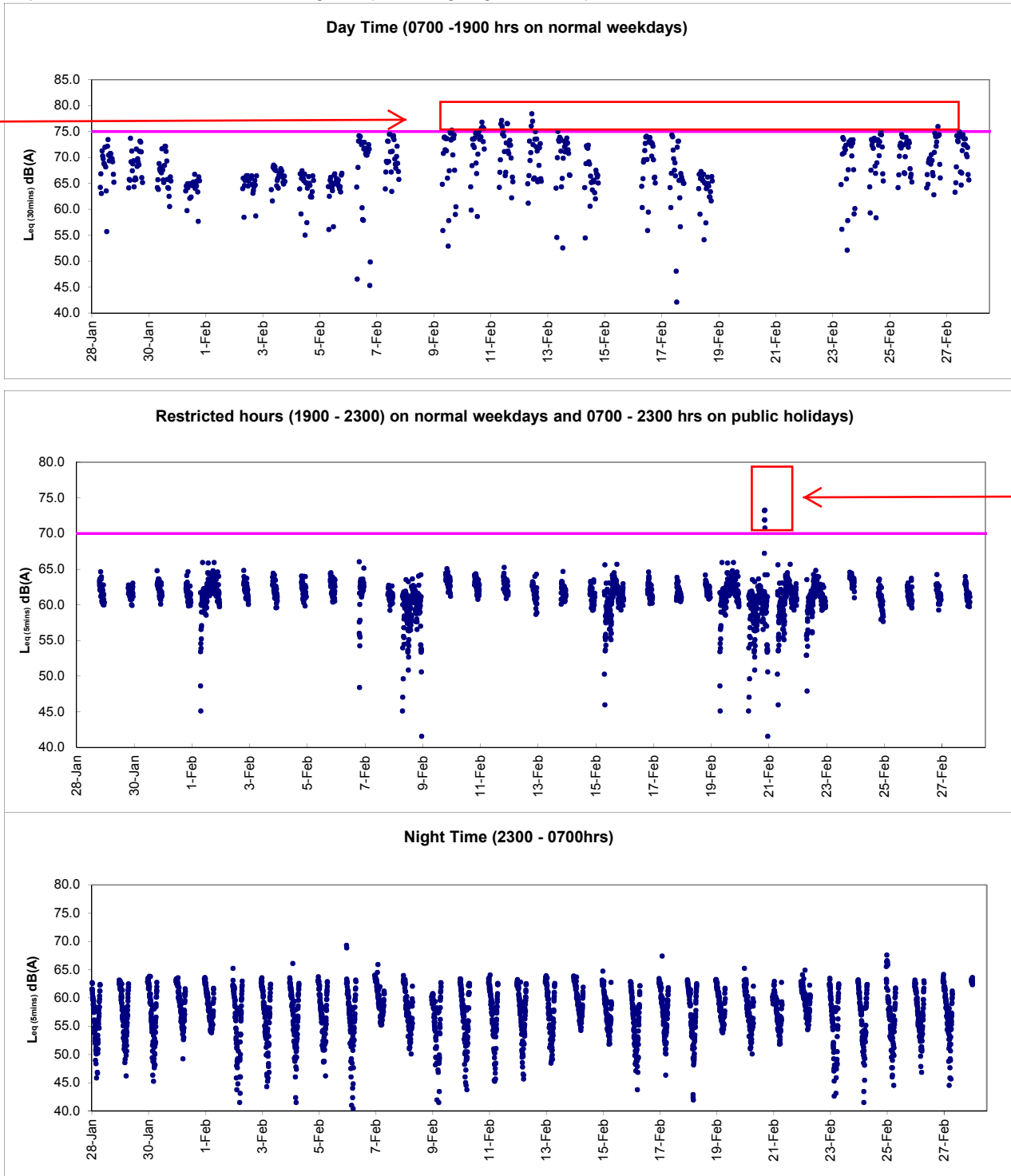
Real-time Noise Data	RTN4 (Causeway Bay Community Centre)
26/2/2015 1:36	53.5
26/2/2015 1:41	52.4
26/2/2015 1:46	46.4
26/2/2015 1:51	60.5
26/2/2015 1:56	60.1
26/2/2015 2:01	51.2
26/2/2015 2:06	60.6
26/2/2015 2:11	60.7
26/2/2015 2:16	60.5
26/2/2015 2:21	60.2
26/2/2015 2:26	49.4
26/2/2015 2:31	59.9
26/2/2015 2:36	59.5
26/2/2015 2:41	59.4
26/2/2015 2:46	59.0
26/2/2015 2:51	60.2
26/2/2015 2:56	60.1
26/2/2015 3:01	60.0
26/2/2015 3:06	59.0
26/2/2015 3:11	59.1
26/2/2015 3:16	59.3
26/2/2015 3:21	59.2
26/2/2015 3:26	59.5
26/2/2015 3:31	59.2
26/2/2015 3:36	60.4
26/2/2015 3:41	59.2
26/2/2015 3:46	59.2
26/2/2015 3:51	59.6
26/2/2015 3:56	59.3
26/2/2015 4:01	59.7
26/2/2015 4:06	58.2
26/2/2015 4:11	58.4
26/2/2015 4:16	59.4
26/2/2015 4:21	59.3
26/2/2015 4:26	59.7
26/2/2015 4:31	59.0
26/2/2015 4:36	58.9
26/2/2015 4:41	59.0
26/2/2015 4:46	58.0
26/2/2015 4:51	59.2
26/2/2015 4:56	59.1
26/2/2015 5:01	59.1
26/2/2015 5:06	59.5
26/2/2015 5:11	58.5
26/2/2015 5:16	59.9
26/2/2015 5:21	59.5
26/2/2015 5:26	59.3
26/2/2015 5:31	59.4
26/2/2015 5:36	39.3
26/2/2015 5:41	48.4
26/2/2015 5:46	53.6
26/2/2015 5:51	60.8
26/2/2015 5:56	47.4
26/2/2015 6:01	60.2
26/2/2015 6:06	53.1
26/2/2015 6:11	55.0
26/2/2015 6:16	56.8
26/2/2015 6:21	59.1
26/2/2015 6:26	58.4
26/2/2015 6:31	58.5
26/2/2015 6:36	62.0
26/2/2015 6:41	61.5
26/2/2015 6:46	62.7
26/2/2015 6:51	63.5
26/2/2015 6:56	63.5
26/2/2015 23:01	64.5
26/2/2015 23:06	63.2
26/2/2015 23:11	62.3
26/2/2015 23:16	62.3
26/2/2015 23:21	62.4
26/2/2015 23:26	61.8
26/2/2015 23:31	61.3
26/2/2015 23:36	62.5
26/2/2015 23:41	60.3
26/2/2015 23:46	60.6
26/2/2015 23:51	61.2
26/2/2015 23:56	62.0
27/2/2015 0:01	60.8
27/2/2015 0:06	61.0
27/2/2015 0:11	60.3
27/2/2015 0:16	60.2
27/2/2015 0:21	60.6
27/2/2015 0:26	60.7
27/2/2015 0:31	59.8
27/2/2015 0:36	58.2
27/2/2015 0:41	59.7
27/2/2015 0:46	59.2
27/2/2015 0:51	58.7
27/2/2015 0:56	56.8
27/2/2015 1:01	58.5
27/2/2015 1:06	56.0
27/2/2015 1:11	54.2
27/2/2015 1:16	52.2
27/2/2015 1:21	55.3
27/2/2015 1:26	55.0
27/2/2015 1:31	59.6
27/2/2015 1:36	50.4
27/2/2015 1:41	53.2
27/2/2015 1:46	46.1
27/2/2015 1:51	52.5
27/2/2015 1:56	60.7
27/2/2015 2:01	44.6
27/2/2015 2:06	50.6
27/2/2015 2:11	60.4
27/2/2015 2:16	59.9
27/2/2015 2:21	60.0
27/2/2015 2:26	60.1
27/2/2015 2:31	43.6
27/2/2015 2:36	45.0

Graphic Presentation of Real Time Noise Monitoring Result (RTN1-Food and Environmental Hygiene Department Depot)



After checking with contractor HY/2009/19, no construction activity was undertaken at the concerned location during the recorded period. The exceedances were considered to be contributed by pyrotechnic display during Chinese New Year.

Graphic Presentation of Real Time Noise Monitoring Result (RTN2a- Hong Kong Electric Centre)



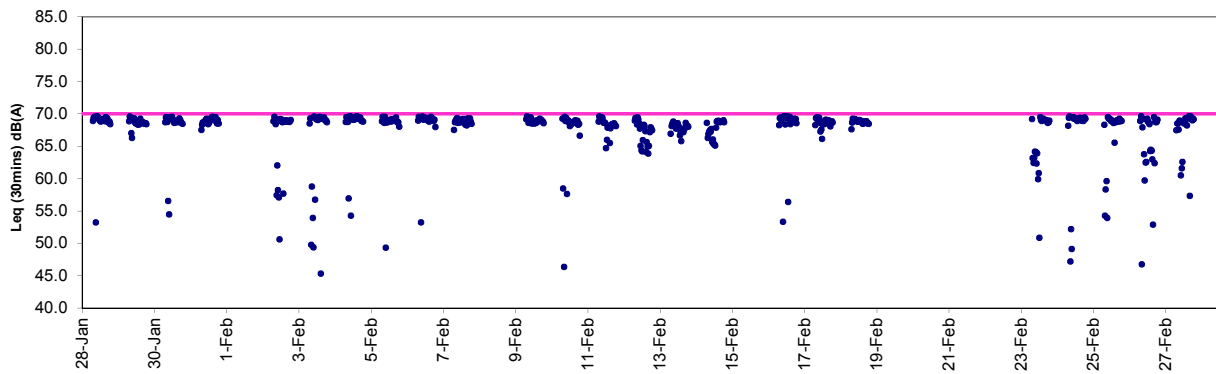
After checking with Contractor HY/2009/19, no major noise generating construction activities were undertaken at the concerned location during the recorded period while breaking works and excavation works was observed at the construction site next to the monitoring station across February 2015.
As such, the exceedances were considered to be non Project related and contributed by nearby non-CWB Project construction works.

After checking with contractor HY/2009/19, no construction activity was undertaken at the concerned location during the recorded period. The exceedances were considered to be contributed by pyrotechnic display during Chinese New Year.

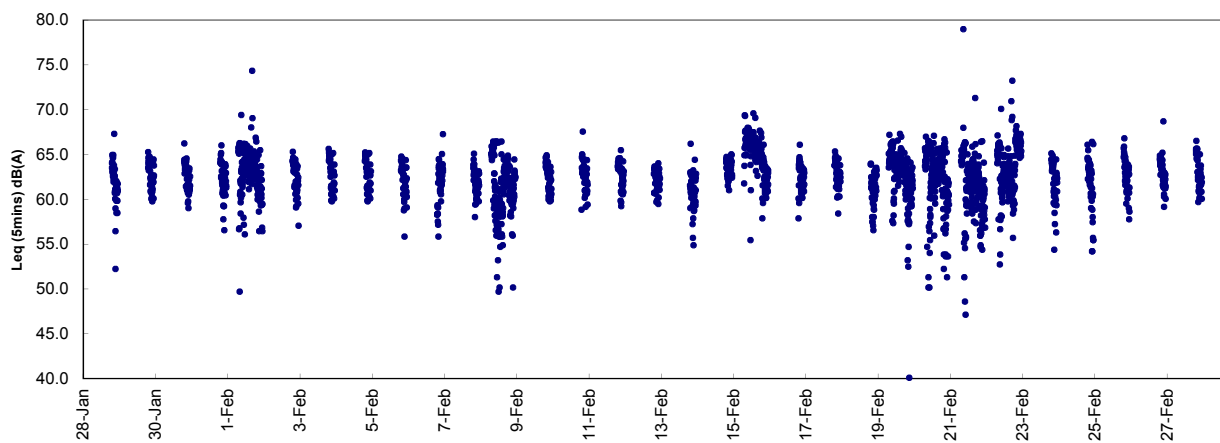


Graphic Presentation of Real Time Noise Monitoring Result (RTN3-Yu Lee Mo Fan Memorial School)

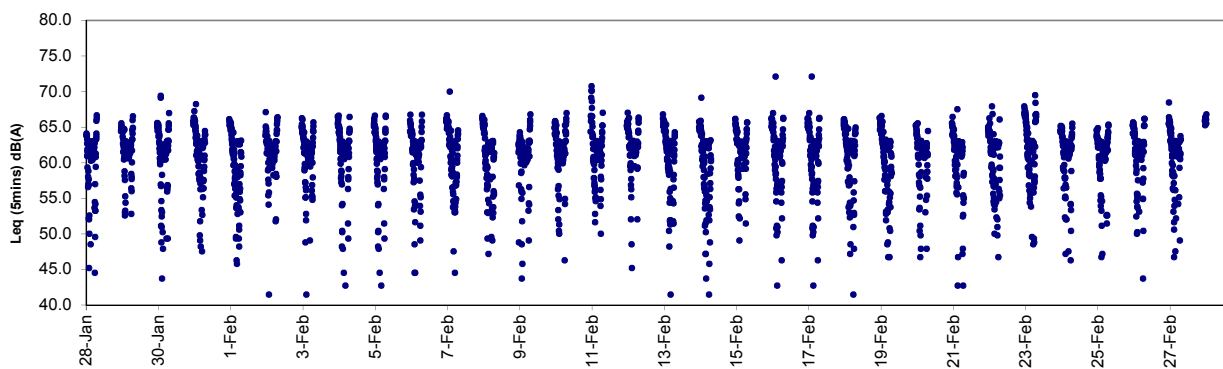
Day Time (0700 -1900 hrs on normal weekdays)



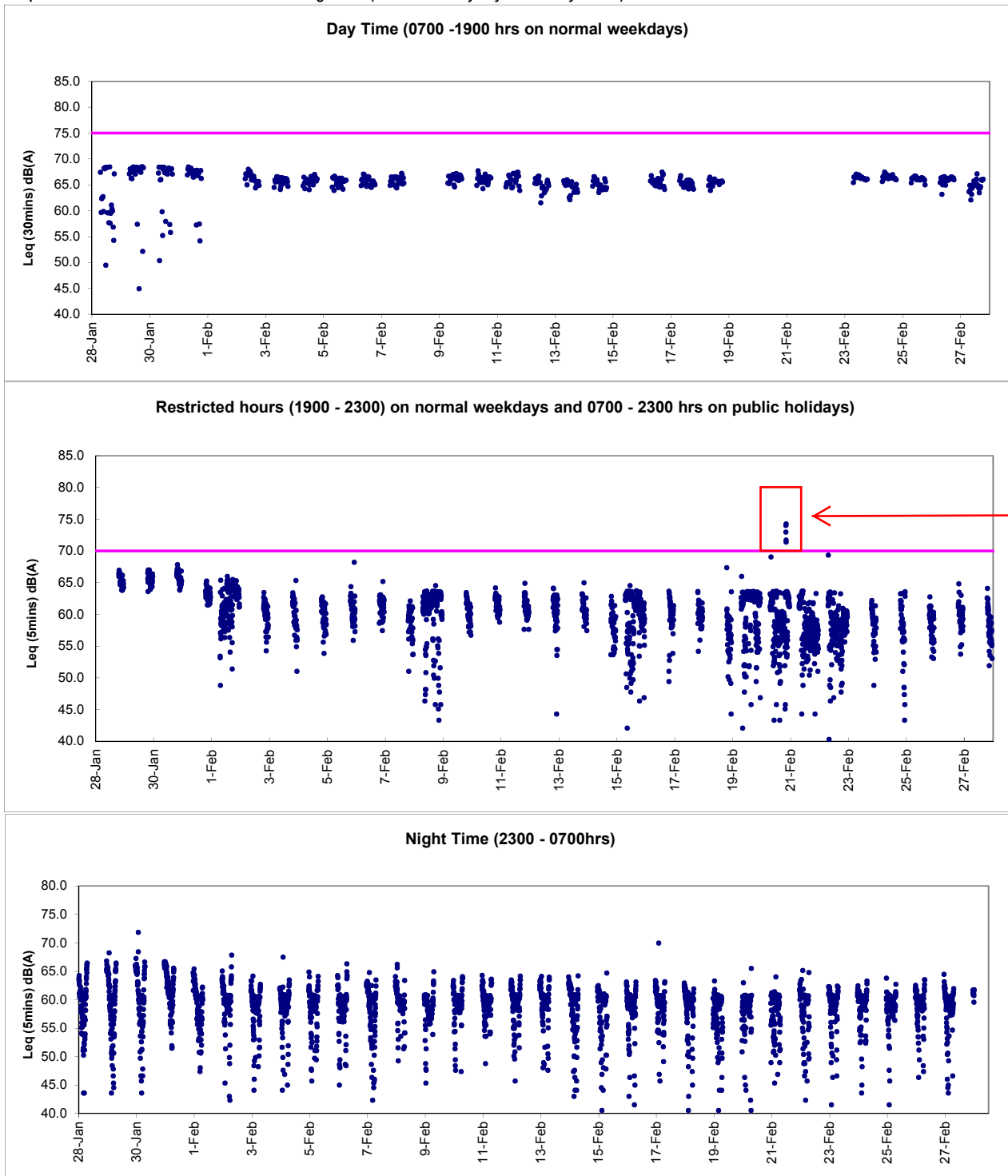
Restricted hours (1900 - 2300) on normal weekdays and 0700 - 2300 hrs on public holidays)



Night Time (2300 - 0700hrs)



Graphic Presentation of Real Time Noise Monitoring Result (RTN4-Causeway Bay Community Centre)



After checking with contractor HY/2009/19, no construction activity was undertaken at the concerned location during the recorded period. The exceedances were considered to be contributed by pyrotechnic display during Chinese New Year.



Appendix 6.1

Event Action Plans



Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals. (The above actions should be taken within 2 working days after the exceedance is identified)



EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures required; 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. (The above actions should be taken within 2 working days after the exceedance is identified)	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. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)

**Event / Action Plan for Construction Air Quality**

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER; 2. Repeat measurement to confirm finding; 3. Increase monitoring frequency to daily. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Check monitoring data submitted by ET; 2. Check Contractor's working method. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Notify Contractor. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	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. (The above actions should be taken within 2 working days after the exceedance is identified)	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. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified)
LIMIT LEVEL				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD; 2. Repeat measurement to confirm finding; 3. Increase monitoring frequency to daily; 4. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. (The above actions should be taken within 2 working days after the exceedance is identified)	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. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after the exceedance is identified)	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. (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	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. (The above actions should be taken within 2 working days after the exceedance is identified)	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.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation 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. (The above actions should be taken within 2 working days after the exceedance is identified)	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. (The above actions should be taken within 2 working days after the exceedance is identified)



Appendix 6.2

Summary for Notification of Exceedance



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A008	7-Feb-15	18:19	CMA5b- Pedestrian Plaza	228.8	24 hr TSP (ug/m ³)	181.0	260	Possible reason: Elevated ambient air pollution level and nearby road traffic was observed during monitoring and was considered as the major contribution for air quality impact. Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road was implemented by Contractor of HK/2009/01. Remarks / Other Obs: Although tunnel construction, road barrier construction and retaining wall construction were conducted under HK/2009/01 during monitoring, the air pollution level of ambient air quality was considered as the major contribution to air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 7 and from 5 to 10+ respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area. In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous and subsequent monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 11 Feb 2015, the implemented measures were considered effective and the exceedance was considered as non-project related.
X_15A009	7-Feb-15	18:19	CMA5b- Pedestrian Plaza	228.8	24 hr TSP (ug/m ³)	181.0	260	Possible reason: Elevated ambient air pollution level and nearby road traffic was observed during monitoring and was considered as the major contribution for air quality impact. Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and was implemented by contractor of HK/2012/08. Remarks / Other Obs: Although concreting, diaphragm wall excavation and cage installation were conducted under HK/2012/08 during monitoring, the air pollution level of ambient air quality was considered as the major contribution to air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 7 and from 5 to 10+ respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area. In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous and subsequent monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 10 Feb 2015, the implemented measures were considered effective and the exceedance was considered as non-project related.
X_15A010	9-Feb-15	10:40	CMA5b- Pedestrian Plaza	431.8	1hr TSP (ug/m ³)	332.0	500	Possible reason: Elevated ambient air pollution level and nearby road traffic was observed during monitoring and was considered as the major contribution for air quality impact. Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road was implemented by Contractor of HK/2009/01 Remarks / Other Obs: Although tunnel construction, road barrier construction and retaining wall construction were conducted under HK/2009/01 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area. In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 11 Feb 2015, the implemented measures were considered effective and exceedance was considered as non-project related.



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A011	9-Feb-15	13:00	CMA5b- Pedestrian Plaza	356.3	1hr TSP (ug/m ³)	332.0	500	Possible reason: Elevated ambient air pollution level and nearby road traffic was observed during monitoring and was considered as the major contribution for air quality impact. Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and was implemented by Contractor of HK/2009/01 Remarks / Other Obs: Although tunnel construction, road barrier construction and retaining wall construction were conducted under HK/2009/01 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area. In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 11 Feb 2015, the implemented measures were considered effective and exceedance was considered as non-project related.
X_15A012	9-Feb-15	14:05	CMA5b- Pedestrian Plaza	543.4	1hr TSP (ug/m ³)	332.0	500	Possible reason: Elevated ambient air pollution level and nearby road traffic was observed during monitoring and was considered as the major contribution for air quality impact. Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and was implemented by Contractor of HK/2009/01 Remarks / Other Obs: Although tunnel construction, road barrier construction and retaining wall construction were conducted under HK/2009/01 during monitoring, the air pollution level of ambient air quality was considered as the major contribution to air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among construction dust monitoring stations located at WanChai to North Point area. In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 11 Feb 2015, the implemented measures were considered effective and exceedance was considered as non-project related.



Ref. No.	Date	Time	Location	Measured TSP Level	Unit	Action Level	Limit Level	Follow-up action
X_15A013	9-Feb-15	10:40	CMA5b- Pedestrian Plaza	431.8	1hr TSP (ug/m ³)	332.0	500	Possible reason: Elevated ambient air pollution level and nearby road traffic was observed during monitoring and was considered as the major contribution for air quality impact. Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for concrete breaking was implemented by contractor of HK/2012/08. Remarks / Other Obs: Although concrete breaking was conducted under HK/2012/08 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area. In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded, the implemented measures were considered effective and exceedance was considered as non-project related while no air related deficiency was observed during subsequent weekly environmental inspection on 10 Feb 2015. Nevertheless, the Contractor of HK/2012/08 was reminded to further enhance the dust mitigation implemented to minimize for potential cumulative impact in the area.
X_15A014	9-Feb-15	13:00	CMA5b- Pedestrian Plaza	356.3	1hr TSP (ug/m ³)	332.0	500	Possible reason: Elevated ambient air pollution level and nearby road traffic was observed during monitoring and was considered as the major contribution for air quality impact. Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and was implemented by contractor of HK/2012/08. Remarks / Other Obs: Although concrete breaking was conducted under HK/2012/08 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area. In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded, the implemented measures were considered effective and exceedance was considered as non-project related while no air related deficiency was observed during subsequent weekly environmental inspection on 10 Feb 2015. Nevertheless, the Contractor of HK/2012/08 was reminded to further enhance the dust mitigation implemented to minimize for potential cumulative impact in the area.
X_15A015	9-Feb-15	14:05	CMA5b- Pedestrian Plaza	543.4	1hr TSP (ug/m ³)	332.0	500	Possible reason: Elevated ambient air pollution level and nearby road traffic was observed during monitoring and was considered as the major contribution for air quality impact. Action taken / to be taken: Reviewed the trend of air quality measurement across monitoring stations. Analysis of contractor's working procedures. Mitigation measures including water spraying for haul road and was implemented by contractor of HK/2012/08. Remarks / Other Obs: Although concrete breaking was conducted under HK/2012/08 during monitoring, the air pollution level of ambient air quality was considered to have contributed to the air quality impact. The Air Quality Health Index (AQHI) recorded by EPD at Central/ Western District and Causeway Bay road-side station during the monitoring period was ranged from 5 to 6 and from 6 to 8 respectively during the monitoring period indicating a relatively high concentration of air pollutants. Elevated TSP levels were also recorded among other construction dust monitoring stations located across WanChai to North Point area. In addition, the frequent road traffic exhaust at Convention avenue adjacent to the concerned monitoring station CMA5b was also considered to have contributed to the air quality impact. In view of similar construction activities and mitigation measures were undertaken in previous monitoring and no exceedance was recorded while no air related deficiency was observed during subsequent weekly environmental inspection on 10 Feb 2015, the implemented measures were considered effective and exceedance was considered as non-project related. Nevertheless, the Contractor of HK/2012/08 was reminded to further enhance the dust mitigation implemented to minimize for potential cumulative impact in the area.



Appendix 9.1

Complaint Log



Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
110723a	23/07/2011	Ms. Law at Victoria Centre by ICC no. 1-303887687	North Point	She concerned that Highways Department published a notice in their Management Office about construction works will be conducted from 0700 hours to 2300 hours during July to December 2011 including Saturday, Sunday and public holiday.	1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed that the notice was prepared by Victoria Centre 'a Management office to their resident and the advice was only given on the extension construction works (for Contract HY/2009/15) to 7am-9pm Monday to Saturday except Public Holidays and Sundays. 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am and is expected to be completed by mid-August 2011. 4) No noise exceedance was recorded at construction noise monitoring station at Victoria Centre on 19 and 25 July 2011 during daytime and evening time period while breaking and excavation works were observed during monitoring. 5) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.	Closed
110723b	23/07/2011	Ms. Yau at Block 2, Victoria Centre by ICC no. 1-304013959	North Point	Reclamation work was conducted at Causeway Bay Typhoon Shelter at 7am on 23 July 2011. She complained that the works shall be started later to minimize the noise nuisance to the vicinity of the residents in early morning	1) It was referred by AECOM to ET on 8 August 2011 2) RSS confirmed to start the rock breaking activities for Contract HY/2009/15 at 8am as a mitigation measure to minimize the noise nuisance in the vicinity of the residents. 3) With reference to the construction noise monitoring at Victoria Centre, no exceedance was recorded on 19 and 25 July 2011 during daytime while breaking and excavation works were undertaken during monitoring 4) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.	Closed
110727a	27/07/2011	Mr. Law from Victoria Centre Management Office by ICC no. 1-304616162	North Point	It was complained by Mr. Law from Victoria Centre Management Office on 27 July 2011 regarding construction noise generated by the construction operations of	1) It was referred by AECOM to ET on 28 July 2011 2) RSS confirmed to start the rock breaking activities for Contract HY/2009/15 at 8am as a mitigation measure to minimize the noise nuisance in the vicinity of the residents. 3) No noise exceedance was recorded at construction noise monitoring station at Victoria Centre on 25 July and	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
				Central-Wanchai Bypass at noon rather than in morning at 7am.	4 August 2011 during daytime and evening time period while breaking and excavation works were observed during monitoring. 5) In conclusion, it was related to the construction works under Contract HY/2009/15 and mitigation measure was provided. No further complaint from complainant was received after proposed the mitigation measure.	
110727b	27/07/2011	Ms. Chiu by ICC no.1-304615409	North Point	Noise nuisance from the excavation works for the Highways Department adjacent to the Victoria Centre was conducted from 7am	1) It was referred by AECOM to ET on 28 July 2011 2) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 25 July and 4 and 10 August 2011 during daytime while breaking and excavation works were undertaken during monitoring. 3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am.	Closed
	07/08/2011				4) However, complainant did not satisfy with the response on the noise nuisance from the rock-breaking during morning in front of Victoria Centre and then further complaint via 1823 on 7 August 2011. 5) Highways contacted the complainant on 15 August 2011 that the noisy rock breaking operation had been completed. <i>Remarks: There will be counted as two complaints in this complaint log.</i>	
110730	30/07/2011	Mr. Tsui by ICC no. 1-305074350	Central	Construction noise generated by operations of Central-Interchange which is near the spa room at Four-Season Hotel. Also, the complaint enquired the commencement time of the construction on Saturday.	1) It was referred by AECOM to ET on 1 August 2011. 2) RSS confirmed that noisy plants from 2 vibratory hammers have been conducted in alternating manner for piling and drilling works for diaphragm wall construction. 3) With reference to the construction noise monitoring at IFC Western End of Podium, no exceedance was recorded on 4 August 2011 during monitoring while sheet piling works were undertaken during monitoring. 4) In order to reduce the noise impact to nearby noise sensitive receivers, Contractor has been implemented the following noise mitigation measures: - Erection of acoustic lining at the hoarding next to Four Seasons Hotel; - Temporary noise barrier with extended acoustic lining; - Reduced in plant such that only have one vibration hammer operating at the west side near Four	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Seasons Hotel instead of 2 5) In conclusion, it was related to the construction works under Contract HY/2009/18 and mitigation measure was provided. The complainant was satisfied with the arrangement and no further complaint was received after proposed measures.	
110810	10/08/2011	Mr. Yip by ICC no. 1 – 306740207	North Point	Muddy water was discharged from work site to the seafront near Oil Street during heavy rain. The environmental protection measures were not good enough and are needed to rectify.	1) It was referred by AECOM to ET on 17 August 2011. 2) Confirmed with RE, Muddy water was caused by a heap of earth being washed to the sea by heavy rain. The heap of earth was referred as a small stockpile placed close to the seafront in front of Oil Street within the site area under handover transition period from contract HY/2009/11 to contract HY/2009/19. The necessary mitigation measures to protect the small stockpile against rainfall were missing at the time of complaint. 3) Due to the missing of mitigation measures to protect the small stockpile during handover transition period, loose material was washed into the harbour when heavy rain came. Muddy water was formed and dispersed in the sea that caused the water quality and visual concern to the public. The complaint was considered as valid. 4) Contractors were advised to relocate the loose materials away from the coastline as far as practicable. Any loose material placed which needed to be placed near the coastline shall be properly compacted or covered as appropriate. To avoid any further environmental deficiency, Contractors shall ensure all necessary environmental mitigation measures will not be missing during site area handover.	Closed
110817	17/08/2011	ICC no. 1-307657681	North Point	Visual impact generated by light from a large amount of spot-lights on the barge during mid-night nearby City Garden.	1) It was referred by AECOM to ET on 23 August 2011 2) RSS confirmed that some non-essential lights were turned on during night-time period which caused the nuisance to the nearby residents. In addition, absence of lighting shields at flood lights results in visual glare to the complaint at night-time. 3) Follow-up action had been taken by contractor that switches off all non-essential lights to minimized nuisance to the nearby residents. The complainant satisfied to the practice and no further complaint was received after that.	Closed
110826	26/08/2011	Grand Hyatt and a complainant by ICC	Wan Chai	Construction noise and vibration nuisance generated from the works at Convention Avenue and inside the HKCEC1	1) Confirmed with the Resident Site Staff that the construction works were referred to the Contractor HK/2009/01. 2) The Excavator mounted breaker at Convention Avenue	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
				reclamation area.	and Drilling rig at HKCEC1 reclamation area were the dominant construction noise source during this period. 3) The drilling rig at HKCEC1 reclamation area and excavator mounted breaker at Convention Avenue were then temporary suspended after received the complaint. 4) Investigation revealed that the erected noise barrier (4m cantilevered movable noise barrier for the drilling rig and 1m movable noise barrier for the excavator mounted breaker) were not located close to the plants to provide adequate noise screening. 5) Contractor was advised to avoid concurrent operation of construction plants at site. Further enhancement of movable noise barriers at HKCEC1 and providing noise enclosure for the excavator mounted breaker at Convention Avenue are needed. 6) Further site investigation and checking on 31 August and 7 September 2011 revealed that the implemented noise mitigation measures were in proper and minimize the noise impact.	
110826A	26/08/2011	A complaint letter from Mr. Au of Cayley Property of City Garden	North Point	Harbor front adjacent to their water intake suction which caused 3 times of system breakdown of the sea water pump on 9, 22 and 25 August 2011.	1) It was referred by AECOM to ET on 29 August 2011 2) Confirmed with the Resident Site Staff that the construction works were referred to the Contractors HY/2009/11 and HY/2009/19. 3) The pump is located on the site area of HY/2009/19 4) A temporary garbage defender was installed on 23 July 2011 by HY/2009/11 and the shape of the defender was adjusted on 8 August 2011 in order to exclude the outfall. 5) An ad hoc inspection of the effectiveness of garbage defender was conducted with RSS (CWB project team), contractor of HY/2009/11 and HY/2009/19 and IECon 29 August 2011. Inspection report of it was submitted to RSS on 19 September 2011. 5) Daily cleaning near the water intake was conducted twice a day by contractor HY/2009/19. 6) In response to City Garden request, the contractors have set up the temporary garbage defender in function and collect the floating refuses, but cannot eliminate all refuses, in particular the refuse come from sea bed from entering the intake. 6) According to the complaint letter from Cayley Property, the outcomes of the preventive measures were not complying with their expectation. 7) During on-site inspection, floating refuses observed	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					occasionally outside the garbage defender. No conclusion could be made for the source of these floating refuses. On the other hand, some of the floating refuses were observed immigrating in the protective zone during investigation 8) All daily cleaning actions had been taken by contractor to minimize floating refuse inside the construction site. It was noted that the intake (land side) is open access to public, so that many activities such as fishing, feeding fish were conducted there even though a notice has already hoisted. Also, tripping of rubbish by the passers-by could result in a lot of rubbish accumulated around the intake point. 9) Referring to the record provided by CPML, there were a lot of nylon/ plastic bags and nylon wire mesh that matched those rubbishes generated from the public activities. 10) Contractors have fulfilled the requirement of site cleanness and no exceedance was recorded during Water Quality Monitoring. It is consider the cause of this complaint is not related to project and environmental issue in this project as well. No more complaint received after ad-hoc inspection	
111014	14/10/2011	The complainant, Ms. Tam complained via hotline 1823	Wan Chai	The polluted fumes and exhaust from the excavation by sub-contractor of CEDD on pedestrian way outside no.25 Harbour Road (in front of the Harbour Centre)	1) RSS notified ET to carry out investigation on 17 October 2011. 2) ET confirmed with the Resident Site Staff that the location of the excavator was within site area of Contract no. HK/2009/02 undertaking the water cooling main reprovision works along the Harbour Road. The plants including the excavator have been checked before using at the site. However, the polluted fumes and exhausted from the excavator was caused due to insufficient maintenance of the plant after using at site. 3) After receiving the complaint, the excavator was then removal off-site for checking and maintenance works on 17 October 2011. 4) Contractor was reminded to enhance regular checking and maintenance to all plants at site. 5) RSS has replied to the complainant on the arrangement of the measures taken on 17 October 2011. Complainant was satisfied with the response and follow-up action taken by the Contractor.	Closed
111104	04/11/2011	Mr. Liu from	Wan Chai	Complain about a tree near the	1) ET confirmed with the Resident Site Staff that	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		LCSD complained via Contractor Complaint Hotline		site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road, the status is not healthy and roof ball of two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue were half cut.	- A tree near the site of pipe installation works outside Wan Chai Swimming Pool at Harbour Road is the Tree no. TA1122 under Contract no. HK/2009/02. Leaves of a branch of this tree were shrivelled. - Two trees inside the site near Renaissance Hong Kong Harbour View Hotel at Convention Avenue are the tree nos. A160 and A161 under Contract no. HK/2009/01. Part of roof ball of these two trees was covered by the metal plate. 2) Independent Tree Specialists for these two inspected the trees. Contractor HK/2009/01 has taken the measure as recommend downgrading the soil level around the trunk base. Reinstating of the ground works will be conducted in mid-December 2011. For the tree no. TA1122 under Contract no. HK/2009/02, the brown leaves were removed and fenced the tree with orange net is provided to prevent damage of tree trunk by construction works. The distance between the tree and the edge of the trench is kept approximate 2m. Two Contractors were reminded to carry out regular watering to the trees within their site area.	
111106	06/11/2011	Police officer	Wan Chai	Construction noise generated from the site at about 6:30 a.m on 6 November 2011 and require to stop the machine operation	1) According to the information reported by Contractor, one BC cutter and hoist were operated for Diaphragm Wall construction of Shatin-Central Link to inspect bentonite pipes and ensure no damages and all the joints are tightened in good position. Then, the subcontractor for Diaphragm wall, SAMBO Korean foreman stopped the engine of the BC cutter immediately. The police officer recorded the details and HKID number of the foreman and then left. Due to the different language communication between the police officer and the Korean foreman, no CNP was checked by the police officer. 2) ET confirmed with the Resident Site Staff that same issue was also raised out by RSS at about 7:00a.m on the same day. Besides, it was confirmed that there is no valid Construction Noise Permit for the conducted construction works in the period between 2300 and 0700. 3) Due to insufficient communication between Contractor HK/2009/01 and their Korean Sub-contractor, Korean Sub-contractor had not notified to Contractor before carrying out the inspection of the BC cutter, hoists and	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					bentonite pipes at about 6:00a.m to ensure no damages and all the pipe joints should be tightened and in good position. 4) Contractor was advised to enhance the communication between Contractor and sub-contractor and provide sufficient environmental training to all foreman and operators on restricted hour operation. Furthermore, Construction Noise Permit should be checked and in place for the construction works during restricted hour 5) This complaint was considered in relation to the conducted construction works during restricted hours without valid Construction Noise Permit. No more construction works were conducted during night time period. The construction works will be conducted in accordance with the time period stated in valid CNP. This complaint will be kept in view of any follow-up action from the relevant government activities.	
111212	12/12/2011	The complainant, Mr Tsui from IFCII's management office complained via hotline 1823	Central	A visual impact complaint from hotline 1823 was received by ET on 9 January 2011 (ICC Ref. No.: ICC#1-333037096 dated on 12 December 2011). The complaint, Mr Tsui was reported that visual nuisance caused by lighting in the construction site during night time.	1) RSS notified ET on 9 Jan 2012. 2) ET confirmed with the Resident Site Staff that A joint inspection was conducted by Mr Tsui and contractor on that night to see whether there is any improvement. 3) Due to safety reason, igniting enough lights should not be avoided in construction site. However, the light sources were not directed away from pointing to the sensitive receiver and results in visual glare to the complaint. 4) Confirmed with the Resident Site Staff the complainant was satisfied the new arrangement of the lights with contractor after the joint inspection. No further complaint received after that.	Closed
111220	20/12/2011	The complainant, Ms. Poon complained via hotline 1823 (ICC Ref. No.: ICC#1-334683841)	North Point	Construction air and noise nuisance generated that many trucks carrying construction materials driving along Watson Road and Oil Street and possibly entering/leaving the construction site near the IEC during 0800 to 1900 hours.	1) RSS notified ET on 22 Dec 2011. 2) ET confirmed with the Resident Site Staff that the complainant cannot identify whether the trucks were working under the CWB project or not. 3) The dominant construction air and noise nuisances were emitted by the trucks along Oil Street and Waston Road, however, this is the public road for all vehicles. Reviewing the air quality monitoring and noise monitoring results. No exceedance was recorded during this period. 4) Confirmed with the Resident Site Staff that they provided a contact no. for any future enquiries regarding	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					CWB project to the complainant and she was satisfied on the arrangement and no further complaint was received after that.	
111230	30/12/2011	Residents of Harbour Heights	North Point	Construction air and noise nuisance generated by construction vehicles were found parked illegally at King Wah Road and lining up at Oil Street without the engine turning off.	1) RSS notified ET on 6 January 2011. 2) ET confirmed with the Resident Site Staff that a number of construction activities are concurrently proceeding in the vicinity of Oil Street, King Wah Street and a private development project in King Wah Street 3) The dominant construction air and noise nuisances were emitted by the trucks along Oil Street and King Wah Road, however, this is the public road for all vehicles. Reviewing the results of air quality monitoring station (CMA1b) and noise monitoring (M4b). No exceedance was recorded during this period. Site inspections for HY/2009/19 were conducted on 4 January 2012. The condition of the site access at Oil Street and the public road nearby were found satisfactory. It is noted that HyD also allow and encourage their contractors to maximize the use of marine access, where available, to work sites, so as to minimize burdening nearby public roads. When land trips are unavoidable, they require contractors to tidy up their construction vehicles before leaving works sites. No contractor under CWB project parked their vehicles illegally at King Wah Street, and HyD still reminded them not to commit such offence. 4) According to HyD's staff replied the complaint letter on 10 January 2012, there is a private development project under construction at King Wah Road. To access these works sites, construction vehicles have to use public roads nearby. No further complaint received after HyD's reply.	Closed
120118	18/01/2012	N/A	North Point	A complaint regarding a tree located in front of Victoria Centre under IECL was covered by one meter mud without any protection. The complainant concerns the health of the tree in such condition.	1) RSS notified ET on 20 January 2012. 2) ET confirmed with the Resident Site Staff that The tree is inside the site area of HY/2009/19 and The Botanical name of the tree is Ficus superba var. japonica and the I.D. of the tree is UT48 3) According to the information provided by RSS on 20 Jan 2012, the tree shall be felled that has been approved by DLO on 29 August 2011. Moreover, the tree was felled	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					by contractor on 19 January 2012. 4) No further complaint received after HyD's reply.	
120305	03/03/2012	Resident of Harbour Heights complained via hotline 1823 (ICC Ref. No.: ICC#1-344632511)	North Point	A complaint regarding excessive noise from construction sites of CWB was observed outside Harbour Heights from Monday to Saturday before 8am. The plants were frequently turned on before 7:30am creating nuisance. The complainant requested a speedy follow-up and reply from relevant department.	1) RSS notified ET on 5 March 2012. 2) ET confirmed with the Resident Site Staff that PME for diaphragm wall construction started to operate at about 7:30am whilst the other PME, including those for land bored piling work, started to operate after 8am. 3) After reviewing the results of noise monitoring (M4b), no exceedance was recorded during daytime period and the noise level were below 75dB(A). Site inspection for HY/2009/19 was conducted on 7 March 2012. The condition of noise mitigation measures near Harbour Heights was found satisfactory. RSS confirmed that no operation was active before 7:00am everyday. The suspected nuisance was to be considered caused by the PME for diaphragm wall construction. A surprise check was performed on 13 March 2012 by RSS. It was found that no noisy PME was in operation by Contractor of HY/2009/19 before 8am, and the construction noise level was minimal and not disturbing. The noise level and operation time both complied with statutory requirements set up in NCO. 4) Complainant called ICC on 8 March 2012 to confirm HyD has provided a response. No further complaint was received after the response.	Closed
120405	05/04/2012	N/A	North Point	A complaint regarding excessive noise from construction sites of CBTS was observed daily before 7:30am except on public holidays, and the noise source was mainly from piling works. The complainant requested that construction works should start after 8:30am to avoid nuisance to nearby residents and a speedy follow-up and reply.	1) RSS notified ET on 5 April 2012. 2) ET confirmed with the Resident Site Staff that no piling works were performed during the concerned period. 3) After reviewing the results of noise monitoring (M2b and M3a), no exceedance was recorded during daytime period and the noise level was below 75dB(A). Site inspection for HY/2009/15 was conducted on 10 April 2012. The condition of noise mitigation measures around CBTS was found satisfactory. RSS confirmed that no pilings were performed during the concerned period. The major works included drilling, diaphragm wall construction and excavations. 4) HyD made a reply to the complainant on 16 April	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					2012 via 1823. HyD replied that the current works at CBTS were drilling, diaphragm wall construction and deep excavations. In order to minimize the noise generated from the above works, the Contractor had erected temporary noise barriers and provided noise blankets on plants. RSS would continue to work with the Contractor on the effectiveness of the environmental mitigation measures implemented on site. No further complaint was received after the response.	
120415	15/04/2012	The complainant Ms. Law, resident of Fu Lee Loy Mansion, complained via hotline 1823 (ICC Ref. No.: 1-351021108)	North Point	A complaint regarding excessive noise generated from a HyD project that is located at the connection point of CWB and IEC affecting nearby residents. Lately during the middle of the night (around 00:00 to 05:00), low frequency noise, which possibly came from the operating power generator and the barges which were parked along the Oil Street work site, were making a nuisance to the complainant and residents nearby. The complainant requested that relevant department should follow-up.	1) RSS notified ET on 17 April 2012. 2) ET confirmed with the Resident Site Staff that there was no operation of power generators for HY/2009/19 and HY/2009/17 (HY/2009/11 had no physical work on site) during the concerned period. Although there were a few barges mooring at the seafront of HY/2009/19, they were not in operation and hence no operational noise would be emitted. 3) After reviewing the results of noise monitoring (M4b and M5b), no exceedance was recorded during day time period and the noise level was below 75dB(A). Site inspection for HY/2009/19 was conducted on 18 April 2012. The condition of noise mitigation measures near Harbour Heights were found satisfactory. RSS confirmed that no operation of power generators for HY/2009/19 and HY/2009/17 (HY/2009/11 had no physical work on site) during the concerned period. Although there were a few barges mooring at the seafront of HY/2009/19, they were not in operation and hence no operational noise would be emitted. 4) HyD made a reply to the complainant on 30 April 2012 via email. HyD replied that the current works near Oil Street, North Point, included CWB tunnel works, IEC connections and associated foundation works. According to RSS records, no operations were performed during the early hours of March and April at Oil Street and the waterbody nearby, and so it was believed that the noise nuisance was not generated from the CWB project. Despite that, RSS would continue to monitor the Contractor on the operations and effectiveness of the environmental mitigation measures implemented on site, as not to affect daily life of local residents nearby. No further complaint was received after the response.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
130308	06/03/2013	ICC Case#1-407181502	Tin Hau	A complaint regarding the dropping of fine rock material into surrounding waterbody was observed during rock breaking operation with two excavators in active operation at the Eastern Breakwater of Causeway Bay Typhoon Shelter near the North Point lighthouse.	1) RSS notified ET on 8 Marc 2013 2) ET confirmed with RSS that excavation works, installation of buoy, flashing light and silt curtain and dredging works were undertaken at Eastern Breakwater during the concerned period on 6 March 2013. One backhoe equipped with breaker and one derrick barge were confirmed in operation while another backhoe was at idle during the concerned period on 6 March 2013. 3) Reviewing the photo record provided by RSS, the condition of the silt curtain deployed around the Eastern Breakwater on 6 March 2013 was found to be in good condition. It is considered that the silt curtain was properly in place during the concerned period and the concerned act of dropping of fine rock material was confined within the silt curtain boundary without adverse impact to the nearby water quality. Further follow up was conducted on 12 March 2013 during weekly environmental audit inspection, the silt curtain deployed around the concerned area was found to be maintained in good condition and the water quality at the concerned work area was generally satisfactory. No violation of the Environmental Permit condition was found. The contracotr was advised and committed to implement preventive meaures to mimize the potential impact of work including conducting regular diver check to ensure the integrity and the extend of silt curtain deployment and to provide adequtae back up stock of silt curtain for emergency use.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
130606	30/5/2013	ICC Ref. No.: #1-430164728	Central – Man Kat Street	1. A number of trees (approximately more than ten) along Man Kat Street were found to be in poor health condition with withered and yellow leaves. The complainant has requested a follow-up by relevant department.	1) RSS notify ET on 6 June 2013 2) ET confirmed with the Resident Site Staff that According to the information provided by RSS, 13 no. of the trees - Roystonea regia (T1674, T1675, T1676, T1677, T1678, T1679, T1680, T1681, T1683, T1644, T1643, T1641, T1639) at the concerned location raised by the complainant was found to be with withered and yellow leaves and 1 no. of tree- Khaya senegalensis (T1712) raised by the complainant was found to be in poor health condition. No construction works was undertaken by Contract HY/2009/18 at the concerned planter area where the affected trees are located. It was also observed that an active CEDD construction works area under a separate contractor not related to Central Wan Chai Bypass Project was found to be located within the concerned planter area. 3) A follow-up joint inspection with RSS and Landscape specialist was conducted on 10 June 2013, it was considered that the withered and yellow leaves of the affected trees (T1674, T1675, T1676, T1677, T1678, T1679, T1680, T1681, T1683, T1644, T1643, T1641, T1639) at the concerned planter area were contributed by natural life cycle of the affected trees and the health condition of the affected trees were considered to be fair. It was also noted that an active CEDD works area was located within the concerned planter area in close proximity to few of the concerned trees (T1644, T1643, T1641, T1639) According to tree inspection records from Jan 2013 to May 2013 confirmed by RSS (Document Ref: CI-F1-043b, CI-F1-044b, CI-F1-045b, CI-F1-046b, CI-F1-047b), the affected tree (T1712) at the concerned planter area was considered to show sign of withering and considered to be in poor health condition in latest tree survey report confirmed by RSS.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					During the follow-up inspection on 10 June 2013, It was observed that construction material and oil drum were placed near the the roots area of other trees within the CEDD works. Despite the above observation, no direct evidence was found on site which indicates the work front have contributed to the poor health condition of the affected tree (T1712) at the time of investigation. 4) The relevant contractor have removed the construction material near the root area of the trees retained on site and conduct pruning to remove the withered and yellow leaves retained on tree trunk to minimize impact on the trees appearance.In addition, safety supporting wire was provided for concerned tree (T1712) 5) ET recommended the contractor to keep in view the health condition of the concerned tree (T1712) and apply permission for tree felling together with tree compensation plan if considered necessary. Furthermore, the contractor was reminded to implement regular checking of tree health condition and regular removal of withered leaves to maintain the overall tree appearance.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
130611	30 May 2013 and 1 June 2013	EPD Ref.:H04/RS/0001 1587-13	Area near Central Pier	1. Noise was emanated from the construction site near the Central Piers at around 0900 hrs on 30 May 2013 and other days and requested follow up action by relevant department.	1) RSS notify ET on 11 June 2013 2) ET confirmed with the Resident Site Staff that According the information confirmed by RSS, major noise generating construction activities undertaken at works area near Central Pier during the concerned time include - Breaking up existing D-wall concrete and excavation at portion 4B and 4C - Sheet piling works at Portion VI (Man Kat Street) 3) Total 1 no. of Backhoe with breaker, 1 no. of Backhoe with vibratory hammer and 4 no.s of pneumatic breakers were deployed for the above construction activities. Reviewing the noise monitoring data at monitoring stations (M7e- International Finance Centre Eastern End of Podium and M7w- International Finance Centre Western End of Podium), no limit level exceedances were recorded during routine noise monitoring event on 28 May 2013 and 03 June 2013. As similar construction works activities conducted on 30 May 2013 was continued across the above monitoring period, the noise emanated from the construction activities under Contract HY/2009/18 was considered to complied with the statutory requirement. In addition, weekly environmental site inspection was conducted on 30 May 2013 at around 10:00. According to the inspection record, no particular observation regarding noise impact was recorded and the mitigation measures including erection of of temporary noise barrier was observed in place. As such, no direct information associated with the noise concerned raised was considered available and no non-conformity was identified. 4) ET recommend the contractor to review the need of additional noise mitigation measures to further reduce the noise enmated during construction works for pier side public area.	Interim report submitted to EPD on 19 June 2013, EPD advised no further comment on 5 Aug 2013 and final report for case closing submitted on 6 Aug 2013.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
131010	03 Oct 2013	ICC Ref: No.1-467000768	Area between Central Pier and International Finance Centre	Noise and air quality impact was experienced at the area located between IFC and Central Pier during peak hours.	ET confirmed with the Resident Site Staff that 1) The major construction activities at the concerned location conducted over the past three months include; - Formwork, rebar and concreting - Backfilling - Water-proofing - Scaffolding erection 2) Mitigation measures implemented by the Contractor for the above construction works include - Select quiet plant and work methods; - Check plant and equipment for condition; - For use of powered mechanical equipment during restricted hours: Obtain necessary Construction Noise Permit and strictly comply with their conditions; - Frequently spray water to major haul road and stockpiles to suppress dust generation; and - Cover stockpiles with impervious sheets The construction activities including backfilling, concreting and other associated tunnel works were undertaken in the past three months. Having reviewing the monitoring data of the monitoring stations in the vicinity of the concerned location raised by the complainant, namely monitoring station M7e and M7w (Noise Monitoring Station) and MA1e and MA1w (Air Monitoring Station), no action or limit level exceedance was recorded. In addition, mitigations measures including water spraying and erection of noise barrier were observed during weekly site inspection in August and September 2013 and reminders on dust mitigations measures given during weekly site inspection to the contractor were rectified. As such, the construction activities under Contract HY/2009/18 were considered in compliance with the statutory requirement and no cumulative air/ noise quality impact was observed in the past three months.	Closed



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Elevated noise level at monitoring station M7e (International Finance Centre East Podium) was noted on 24 September 2013. The Contractor is recommended to review the current measures and to implement additional noise mitigation measures to further avoid potential impact to nearby public area during construction works.	
131217	16 Dec 2013	ICC Case Ref.: 1-484998552	Victoria Park near Hing Fat Street Exit	Sweeping of muddy water into public drains.	ET confirmed with the Resident Site Staff that 1)The major construction activities around the concerned location conducted on 16 Dec 2013 a.m.includes: -Preparation work of rootball for tree transplanting According to the information provided by RSS, the construction activities around the concerned location on 16 Dec 2013 include preparation work of rootball for tree transplanting at Zone 17/18. A further investigation on the complaint was conducted on 19 Dec 2013 during weekly environmental inspection. It was observed that a tree worksarea comprised of mainly loosen soil was located near the concerned location. It was considered that the inclined surface and loosen soil nature of the concerned worksarea could have led to the muddy surface runoff in rain. Deposition of muddy runoff onto nearby public pavement outside worksarea was hence resulted and was subsequently cleaned into nearby public stormwater drain by the Contractor's workers on the complaint date. As such, the case was considered as works related. Sandbags, geotextile and gravels were immediately placed by the Contractor around the gullies at the concerned location to prevent leftover muddy runoff to the public stormwater drain as observed during the weekly inspection on 19 Dec 2013. With respect to the follow-up raised by the complainant on 19 Dec 2013, sandbags, geotextile and gravels placed at gullies located at public area were removed by the Contractor on the same day for maintaining passible public pavement. Follow up measures including sandbag bundle and covering of worksarea with impervious sheeting was immediately placed at the source of impact at the concerned worksarea boundary by the Contractor.	Final investigation report issued on 20 Dec 2013. Case closed on 3 Jan 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
131224	24 Dec 2013	(ICC Case Ref.: 1-486434321	Victoria Park Children Playground	Odour and large amount of dust particles affecting the public user of the Victoria Park near Children playground	ET confirmed with the Resident Site Staff that 1) The major construction activities around the concerned location conducted on 24 Dec 2013 include: - Breaking up existing pillar box for new children playground Portion II - Pressing of sheet pile at bowling green for ELS works Portion XII - Welding work for preparation of sheetpiling work at bowling green Portion VI - Demolition of existing pavilion for bowling green Portion VI - Felling of tree TA50 at Victoria Park Zone 2) Mitigation measures implemented by the Contractor for the above construction works include - Water spraying for demolition and other dust generating works. According to the relevant site records, breaking up of existing pillar box, pressing of sheet pile, welding work for preparation of sheetpiling demolition of existing pavilion and felling of tree TA50 at Victoria Park Zone 13 were conducted at the concerned location during the time of complaint. Based on information and photo record provided by the RSS, dust mitigation measures including water spraying during dust generating works were implemented by the Contractor at the concerned location on 24 Dec 2013. Follow-up investigation was conducted on 27 Dec 2013 during weekly environmental inspection, dust mitigation measures including water spraying to dusty area and major dust generation works were confirmed in place despite a general reminder was given to the contractor to enhance the water spraying to dusty haul road during dry season. Based on on-going site inspection and the follow-up investigation, the site condition was considered generally satisfactory and no non-conformance was identified. Upon further review on the supplementary information provided by the complainant on 31 Dec 2013 and investigation conducted on 2 Jan 2014, the tree felling work of tree TA50 was located nearest to the location of the complainant. According to the location plan provided by the RSS and on site investigation, the tree felling work	Case closed and full investigation report issued on 3 Jan 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					for TA50 was immediately in front of the location of the complainant. Based on site observation, scrap material of bark and leaves inevitably generated from cutting of branches during tree felling work was considered to be the most probable cause for the observation raised by the complainant at the concerned location on 24 Dec 2013. Furthermore, welding work was observed near the concerned location and was considered to be the potential source for the smell and exhaust fumes as described by the complainant. Notwithstanding the above, welding work was not identified as a work activity with air quality impact under Project EIA report but it would be desirable to implement preventive measures to minimize potential nuisance to nearby public.	
140123	22 Jan 2014	ICC Case Ref.:1-494077682	Causeway Bay Typhoon Shelter	Construction works have been undertaken during restricted hours until 2300 hrs and occasionally the working hours were extended to around 0100 hrs at nighttime period over the last two to three months at a construction site located within Causeway Bay Typhoon Shelter. For instance, concreting and excavation works were conducted at the concerned location on 22 Jan 2014 during nighttime hours and generated noise impact to the complainant.	ET confirmed with the Resident Site Staff that No construction activity was undertaken at workzone TS1 under HY/2009/15 within Causeway Bay Typhoon Shelter after 1900 hrs on 21 Jan 2014. No construction activity was undertaken at workzone TS3 under HY/2010/08 within Causeway Bay Typhoon Shelter after 1900 hrs on 21 Jan 2014. Concreting for base slab and hanger wall was conducted at workzone TS2 under HY/2009/15 within Causeway Bay Typhoon Shelter from 1900 to 0000 hrs on 21 Jan 2014; Total 8 no.s of concrete lorry mixers, 1 no. of water pump, 2 no.s of concrete pumps (lorry mounted), 1 no. of mobile crane QPME (diesel) and 3 no.s of vibratory pokers were operating from 1900 to 0000hrs on 21 Jan 2014. Concreting for base slab and hanger wall was conducted at workzone TS2 under HY/2009/15 within Causeway Bay Typhoon Shelter from 0000 to 0700 hrs on 22 Jan 2014; Total 1. no of concrete lorry mixer, 1 no. of water pump, 1 no. of concrete pump (lorry mounted), 1 no. of vibratory poker were operating from 1900 to 0000hrs on 22 Jan 2014	Case closed and full investigation report issued on 4 Feb 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					According to the relevant site records, from 1900-0000hrs on 21 Jan 2014, concreting for base slab and hanger wall was conducted at workzone TS2 under HY/2009/15 within Causeway Bay Typhoon Shelter. Total 8 no.s of concrete lorry mixers, 1 no. of water pump, 2 no.s of concrete pumps (lorry mounted), 1 no. of mobile crane QPME (diesel) and 3 no.s of vibratory pokers were operating at the above period. From 0000 to 0700 hrs on 22 Jan 2014, concreting for base slab and hanger wall was conducted at workzone TS2 under HY/2009/15 within Causeway Bay Typhoon Shelter. Total 1. no of concrete lorry mixer, 1 no. of water pump, 1 no. of concrete pump (lorry mounted), 1 no. of vibratory poker were found operating at the above period. After reviewing relevant photo records and information verified by RSS and the Construction Noise Permit (CNP) no.GW-RS1384-13, it was considered that several conditions of CNP GW-RS1384-13 were not fulfilled by the Contractor in particular for the item(s) below, No acoustic installation was provided for the relevant PME(s) used as stated in CNP condition 3.d.during the concerned concreting works. From 1900 to 2300 hours on 21 Jan 2014, the PME(s) used on-site did not comply with any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in CNP no.GW-RS1384-13. From 0000 to 0700 hours on 22 Jan 2014, the PME(s) used by the Contractor on-site did not comply with any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in CNP no.GW-RS1384-13. From 1900 to 2300 hours on 21 Jan 2014 and from 0000 to 0700 hours on 22 Jan 2014, PME (Concrete Lorry Mixer) was deployed by the Contractor without barge enclosure and was unable to comply with condition 3.a. in CNP no.GW-RS1384-13.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
140127	24 Jan 2014	ICC Case Ref.: 1-494612639	Works area adjacent to the Victoria Park Bowling Green	Noise generated from piling works conducted at the works area adjacent to the Victoria Park Bowling Green have created nuisance to the Bowling Green users.	ET confirmed with the Resident Site Staff that The major construction activities around the concerned location conducted on 23 Jan 2014 include: Pressing of sheetpile Ch.279-285 (RHS) and Ch.317 for ELS works on 23 Jan 2014. Splicing of sheetpile Ch.275-285 (LHS) for ELS works on 23 Jan 2014. Mitigation measures implemented by the Contractor for the above construction works include: Installation of acoustic panels along hoarding line at East Bowling Green; Installation of addition noise barriers on top of hoarding at East Bowling Green; Display of publicity notices along hoarding line; and No noisy work shall be carried out at the areas adjoining East Bowling Green as if there is any Bowling Green competition event to be held (i.e. Saturday afternoon). According to relevant site records, pressing of sheetpile Ch.279-285 (RHS) and Ch.317 for ELS works and splicing of sheetpile Ch.275-285 (LHS) for ELS works were conducted at the concerned location during the time of complaint. Based on the photo records and information verified by RSS, noise mitigation measures including installation of acoustic panels along hoarding line at East Bowling Green and installation of addition noise barriers on top of hoarding at East Bowling Green were implemented by the Contractor at the concerned location. Furthermore, no noisy work was conducted by contractor at the areas adjoining	Case closed and full investigation report issued on 6 Feb 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					East Bowling Green when there is any Bowling Green competition event to be held. Follow-up investigation was conducted on 29 Jan 2014 during weekly environmental inspection, noise mitigation measures including noise barriers and acoustic panels were confirmed in place and maintained in good condition. According to previous environmental inspections recorded in Jan 2014, no particular observation regarding the noise impact was recorded. As such, no non-conformity was identified.	
140311	27 Feb 2014	EPD Complaint Case (Ref:H04/RS/00 04232-14) received by ET on 11 March 2014	Central IFC Area	Excessive noise (from the operation of compressors, other heavy machinery and concrete breaking) was emanated from the construction site near IFC in daytime on 27 Feb 2014.	ET confirmed with the Resident Site Staff that The major construction activities at the concerned location conducted on 27 Feb 2014 (Daytime) include: Backfilling works between north wall and sheetpiles and for roof slab; Site hoarding removal; Formwork erection and removal works, falsework erection; Concrete breaking works at roof slab and base slab and breaking up of existing tunnel corner; Concreting works for profile barrier inside cut and cover tunnel; and Rebar fixing works and WVB basement remediation works. Mitigation measures implemented by the Contractor for the above construction works include: Use of quiet plants (air compressor with a Noise Emission Label of 99 dB(A)).	Interim report submitted to EPD on 18 March 2014, EPD advised no further comment on 26 March 2014 and final report for case closing issued on 26 March 2014



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					According to relevant site records, major noise emanating construction activities conducted around the concerned location on 27 Feb 2014 include concrete breaking works at roof slab and base slab and breaking up of existing tunnel corner and concreting works. Based on information verified by the RSS, noise mitigation measure including utilization of quiet air compressor with noise emission label of 99 dB(A) was implemented by the Contractor on the 27 February 2014 to minimize the potential noise impact. Having reviewed the monitoring data of the monitoring stations in the vicinity of the construction site near IFC, namely noise monitoring stations M7e and M7w, no limit level exceedances were recorded on 24 Feb 2014 and 4 March 2014 and the major concrete breaking works at the concerned location conducted on 27 February 2014 was continued across the above monitoring period. In addition, no particular observations regarding noise impact were recorded during weekly site inspection conducted on 27 Feb 2014. No non-conformity was identified. As such, the construction activities under Contract HY/2009/18 were considered generally in compliance with the statutory requirement. Nevertheless, in view of the concern regarding noise nuisance raised by public, it is considered desirable for the Contractor to review and strengthen the noise mitigation measures around the concerned location. Follow-up inspection was conducted during weekly environmental inspection on 13 March 2014, additional noise mitigation measure including erection of noise blanket for concrete breaking works were implemented by the Contractor to further minimize the noise nuisance to nearby public	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
140623	11 June 2014	EPD Complaint Case (Ref:H04/RS/00 013590-14) received by ET on 23 June 2014	Foot Bridge to Central Pier 7	Excessive Paint Spray Odour	A public complaint regarding odour concern referred by EPD was received by ET on 23 June 2014. The complainant reported that excessive paint spray odour was detected at the foot-bridge to the Central Pier 7. ET confirmed with the Resident Site Staff that spraying of waterproofing membrane (integritank) from Ch1700 to Ch1705 was conducted at roof slab Bay12 on 11 June 2014 and Screeding concrete placing from Ch1700 to Ch1683 was conducted at roof slab Bay12 on 11 June 2014 and Backfilling and removal of concrete blocks was conducted at roof slab Bay 11 and Bay 10-north on 11 June 2014 According to relevant site records, major construction activities conducted around the concerned location on 11 June 2014 include spraying of waterproofing membrane (integritank) from Ch1700 to Ch1705; screeding concrete placing from Ch1700 to Ch1683 and backfilling and removal of concrete blocks. Having reviewed the relevant information verified by RSS, the chemicals applied at the concerned area on 11 June 2014 are waterproof paint and paint adhesives. In view of the concern regarding odour nuisance raised by the public, it is considered desirable for the Contractor to review the application method for waterproof layer nearby public area to minimize the nuisance caused to the surroundings.	Preliminary report issued on 25 June 2014. Interim report submitted to EPD on 30 June 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Follow-up inspection was conducted during weekly environmental inspection on 26 June 2014, no further spraying works was conducted by the Contractor at the concerned area and no particular odour was observed at the concerned location.	
20140723	21 July 2014	ICC complaint (ICC Case Ref.: 2-341537112) received by ET on 23 July 2014	Area opposite to Ngan Tao Building	Noise nuisance due to works and machine at opposite project site during nighttime	A public complaint regarding construction noise impact referred by RSS was received by ET on 25 July 2014 (ICC Case Ref.: 2-341537112 dated 21 July 2014). The complainant reported that : At 00:57hrs on 21 July 2014, he could not sleep due to work and machine at the project site opposite to the building (Ngan Tao Building), where he was living, were still going on and in operation. Noise traveled to his flat despite it was some distance away. ET confirmed with the Resident Site Staff that dewatering works was conducted under HY/2009/19 at the works area at Watson Road from around 23:00hrs on 20 July 2014 to 01:00hrs on 21 July 2014. Total 1 no. of generator and 23 nos. of dewatering pumps were in operation. Mobilization of telescopic arm excavator to trailer truck was performed under HY/2009/19 at the works area at Watson Road from around 00:15hrs to 01:00hrs on 21 July 2014. Total 1 no. of telescopic arm excavator and 1 no. of trailer truck were in operation. According to the relevant site records under Contract HY/2009/19, from around 23:00hrs on 20 July 2014 to 01:00hrs on 21 July 2014, dewatering works was conducted under HY/2009/19 at the works area at Watson Road. Total 1 no. of generator and 23 nos. of dewatering pump were in	Final Investigation report (Issue1) issued on 31 July 2014. Final investigation report (Issue 2) based on further follow-up issued on 12 Aug 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					operation at the above period. In addition, mobilization of telescopic arm excavator to trailer truck was performed under HY/2009/19 at the works area at Watson Road from around 00:15hrs to 01:00hrs on 21 July 2014. Total 1 no. of telescopic arm excavator and 1 no. of trailer truck were in operation. After reviewing relevant records and information verified by RSS and the Construction Noise Permit (CNP) no. GW-RS0152-14, it was considered that the below condition of CNP no.GW-RS0152-14 was not fulfilled by the Contractor of HY/2009/19. From 00:15hrs to 01:00hrs on 21 July 2014, the PME(s) (1 no. of telescopic arm excavator and 1 no. of trailer truck) operated under the Contractor of HY/2009/19 on-site could not follow any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in no.GW-RS0152-14. Notwithstanding the above, according to the information provided by the RSS, the telescopic arm excavator was mobilized at night time hours with consideration that passage of vehicle with large plant & machinery through cross harbour tunnel shall be conducted after mid-night. the Contractor of HY/2009/19 was advised to review the need to renew relevant CNP for PME grouping with respect to specific site operation requirements such that the Construction Noise Permit would be followed. Furthermore, the Contractor of HY/2009/19 was suggested to review the arrangement for PME mobilization with maintenance need to be conducted within specific period allowed under the relevant CNP(s).	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
20140801	30 July 2014	ICC complaint (ICC Case Ref.: 2-360638977) received by ET on 01 August 2014	Area opposite to Harbour Heights	Noise of sand and gravel movements at area opposite to the Harbour Heights	A public complaint regarding construction noise impact referred by RSS was received by ET on 01 Aug 2014 (ICC Case Ref.: 2-360638977 dated 31 July 2014). The complainant reported that at 01:20hrs on 30 July 2014, the complainant was woken up by the noise of sand and gravel movements at area opposite to the Harbour Heights. ET confirmed with the Resident Site Staff that EVB excavation was undertaken at the works area around Watson Road under HY/2009/19 before 23:00hrs on 29 July 2014. (Total 1 no. of excavator, 1 no. of dump truck, 23 nos. of underground dewatering pump and 3 nos. of generator were in operation). Dewatering works was undertaken at works area around Watson Road under HY/2009/19 from 23:00hrs on 29 July 2104 to 01:00 hrs on 30 July 2014. (Total 23 nos. of underground dewatering pumps and 1 no. of generator were in operation). Mobilization of PMEs was performed at works area around Watson Road under HY/2009/19 from 00:45hrs to 01:30hrs on 30 July 2014. (1 no. of excavation machine and 1 no. of dump truck were in operation). No other construction activity or operation was performed at the area opposite to Harbour Heights from 23:00hrs on 29 July 2014 to 01:00hrs on 30 July 2014 under HY/2009/19. According to the relevant site records, before 2300hrs on 29 July 2014, EVB excavation at the works area around Watson Road was conducted under HY/2009/19. (Total 1 no. of dump truck , 1 no. of excavator, 3 nos. of generators and 23 nos. of dewatering pumps were in operation at the	Final investigation report issued on 12 Aug 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					above period). From around 23:00hrs on 29 July 2014 to 01:00hrs on 30 July 2014, dewatering works at works area around Watson Road was conducted under HY/2009/19. Total 23 nos. of dewatering pumps were operating at the above period. In addition, mobilization of PMEs was performed at works area around Watson Road under HY/2009/19 from 00:45hrs to 01:30hrs on 30 July 2014. Total 1 no. of excavation machine and 1 no. of dump truck were in operation. After reviewing relevant records and information verified by RSS and the Construction Noise Permit (CNP) no. GW-RS0152-14, it was considered the below condition of CNP GW-RS0152-14 was not fulfilled by the Contractor of HY/2009/19. From around 00:45hrs to 01:30hrs on 30 July 2014, the operation of PME(s) (1 no. of excavator and 1 no. of dump truck) under the Contractor of HY/2009/19 on-site could not follow any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in no. GW-RS0152-14. Notwithstanding the above, according to the information provided by the RSS, the excavator and dump truck were mobilized away from the edge of the temporary ELS structure towards the area opposite to the Harbour Heights after 23:00hrs under safety consideration. The Contractor of HY/2009/19 was advised to review the arrangement and location for retaining and securing PME(s)/ plants to minimize the movements of PME or plants after completion of works such that the Construction Noise Permit would be followed.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
20140929	26 Sep 2014	ICC complaint (ICC Case Ref.: 2-466911619) received by ET on 29 September 2014	IEC flyover opposite to City Garden	Light originating from the flyover under Central-WanChai Bypass Project was emitted towards City Garden direction and caused light nuisance	A public complaint regarding visual impact referred by RSS was received by ET on 29 September 2014 (ICC Case Ref.: 2-466911619 dated 26 September 2014) The complainant reported that on 26 September 2014 at around 00:50hrs, light originating from the flyover under Central-WanChai Bypass Project was emitted towards City Garden direction and caused light nuisance. ET confirmed with the Resident Site Staff that the light emission on 25 and 26 September 2014 at the concerned area was originated from the temporary lighting provided at the soffit of the permanent noise enclosure at the new Island Eastern Corridor (IEC) Eastbound which was necessary to provide sufficient illumination for the traffic operation on the new IEC Eastbound after the traffic diversion on 28 September 2014. According to the relevant information provided by RSS, the light emission on 25 and 26 September 2014 at the concerned location was originated from the temporary lighting provided at the soffit of the permanent noise enclosure at the new Island Eastern Corridor Eastbound. The lighting was necessary to provide sufficient illumination for the traffic operation on the new IEC Eastbound after traffic diversion on 28 September 2014. Nevertheless, in view of the public concern regarding light nuisance raised by the public, it is considered desirable for the Contractor to review the lighting arrangement and implement additional measures to minimize the nuisance caused to the surrounding receivers as far as practicable.	Final Investigation report submitted on 9 October 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Follow-up inspection was conducted during weekly environmental inspection on 8 October 2014, additional measures including erection of green net and tarpaulin sheet were provided by the Contractor of HY/2009/19 at the concerned area as interim measure to minimize the nuisance caused to the surroundings. Further to the interim measure implemented by the Contractor of HY/2009/19, the Contractor of HY/2009/19 will replace the concerned temporary lighting with temporary lighting facing Victoria Harbour at the other side of the road to minimize the light nuisance to the surroundings. The Contractor of HY/2009/19 was suggested to review the lighting arrangement and implement additional measures to minimize the nuisance caused to the surroundings receivers as far as practicable. Additional measures including erection of green net and tarpaulin sheet were provided by the Contractor of HY/2009/19 at the concerned area as interim measure to minimize the nuisance caused to the surroundings and the Contractor of HY/2009/19 will replace the concerned temporary lighting with temporary lighting facing Victoria Harbour at the other side of the road to minimize the light nuisance to the surroundings.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
20141006	25,26 Sep 2014	ICC complaint (ICC Case Ref.: 2-469099657) received by ET on 06 October 2014	IEC flyover opposite to City Garden	Light originating from the flyover under Central-WanChai Bypass Project was emitted towards City Garden direction and caused light nuisance	A public complaint regarding visual impact referred by RSS was received by ET on 6 October 2014 (ICC Case Ref.: 2-469099657 dated 26 September 2014). The complainant reported that on 25 September 2014 night and on 26 September 2014 at around 23:23 hrs, light originating from the flyover under Central-Wan Chai Bypass Project was emitted towards City Garden direction and caused light nuisance. ET confirmed with the Resident Site Staff that the light emission on 25 and 26 September 2014 at the concerned area was originated from the temporary lighting provided at the soffit of the permanent noise enclosure at the new Island Eastern Corridor (IEC) Eastbound which was necessary to provide sufficient illumination for the traffic operation on the new IEC Eastbound after the traffic diversion on 28 September 2014. According to the relevant information provided by RSS, the light emission on 25 and 26 September 2014 at the concerned location was originated from the temporary lighting provided at the soffit of the permanent noise enclosure at the new Island Eastern Corridor Eastbound. The lighting was necessary to provide sufficient illumination for the traffic operation on the new IEC Eastbound after traffic diversion on 28 September 2014. Nevertheless, in view of the public concern regarding light nuisance raised by the public, it is considered desirable for the Contractor to review the lighting arrangement and implement additional measures to minimize the nuisance caused to the surrounding receivers as far as practicable.	Final Investigation report submitted on 9 October 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Follow-up inspection was conducted during weekly environmental inspection on 8 October 2014, additional measures including erection of green net and tarpaulin sheet were provided by the Contractor of HY/2009/19 at the concerned area as interim measure to minimize the nuisance caused to the surroundings. Further to the interim measure implemented by the Contractor of HY/2009/19, the Contractor of HY/2009/19 will replace the concerned temporary lighting with temporary lighting facing Victoria Harbour at the other side of the road to minimize the light nuisance to the surroundings. The Contractor of HY/2009/19 was suggested to review the lighting arrangement and implement additional measures to minimize the nuisance caused to the surroundings receivers as far as practicable. Additional measures including erection of green net and tarpaulin sheet were provided by the Contractor of HY/2009/19 at the concerned area as interim measure to minimize the nuisance caused to the surroundings and the Contractor of HY/2009/19 will replace the concerned temporary lighting with temporary lighting facing Victoria Harbour at the other side of the road to minimize the light nuisance to the surroundings.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
20141010	07 Oct 2014	ICC complaint (ICC Case Ref.: 2-487376144) received by ET on 10 October 2014	IEC flyover opposite to City Garden	Light originating from the flyover under Central-WanChai Bypass Project was emitted towards City Garden direction and caused light nuisance	ET confirmed with the Resident Site Staff that temporary lighting was provided at the concerned area at the soffit of the permanent noise enclosure at the new Island Eastern Corridor (IEC) Eastbound which was necessary to provide sufficient illumination for the traffic operation on the new IEC Eastbound after the traffic diversion on 28 September 2014. Temporary lighting was provided at the concerned area at the soffit of the permanent noise enclosure at the new Island Eastern Corridor (IEC) Eastbound which was necessary to provide sufficient illumination for the traffic operation on the new IEC Eastbound after the traffic diversion on 28 September 2014. In view of the public concern regarding light nuisance raised by the public, it is considered desirable for the Contractor to review the lighting arrangement and implement additional measures to minimize the nuisance caused to the surrounding receivers as far as practicable. During weekly environmental inspection on 8 October 2014, additional measures including erection of green net and tarpaulin sheet were provided by the Contractor of HY/2009/19 at the concerned area as interim measure to minimize the nuisance caused to the surroundings. Further to the interim measure implemented, on 13 October 2014 the Contractor of HY/2009/19 have replaced the concerned temporary lighting with temporary lighting facing Victoria Harbour at the other side of the road to minimize the light nuisance to the surroundings.	Final investigation report submitted on 14 Oct 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					The Contractor of HY/2009/19 was suggested to review the lighting arrangement and implement additional measures to minimize the nuisance caused to the surroundings receivers as far as practicable. Additional measures including erection of green net and tarpaulin sheet were provided by the Contractor of HY/2009/19 at the concerned area as interim measure and on 13 October 2014 the Contractor of HY/2009/19 have replaced the concerned temporary lighting with temporary lighting facing Victoria Harbour at the other side of the road to minimize the light nuisance to the surroundings.	
141016	14 Oct 2014	EPD complaint EPD Ref.:H05/RS/00 025795-14) received by ET on 16 October 2014	work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	Construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	A public complaint regarding construction noise impact referred by EPD was received by ET on 16 October 2014 (EPD Ref.: EP860/E2/24 Annex IV dated 16 October 2014). The complainant reported that construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground. ET confirmed with the Resident Site Staff that From 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.	Updated interim investigation with supplementary information submitted to EPD on 17 November 2014. EPD advised no further comment on the updated interim report and case closed on 27 Nov 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02. From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway. Total one scissor platform and two hand held drills (battery) were in operation. From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road. Total one crane lorry was in operation. According to the relevant site records under Contract HK/2009/02, from 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02. From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway. Total one scissor platform and two hand held drills (battery) were in operation. From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road. Total one crane lorry was in operation. In view of the above findings, no direct information associated with the noise concern was considered available.	
20141108	07 Nov 2014	EPD complaint (EPD Ref.: H05/RS/00027 815-14) received by ET on 10 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.	A public complaint regarding odour concern referred by EPD was received by ET on 07 November 2014 (EPD Ref.: H05/RS/00027815-14 dated 10 November 2014). The complainant reported that Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool. ET confirmed with the Resident Site Staff that ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.	Interim investigation report submitted to EPD on 17 November 2014. EPD advised no comment on the interim report and case closed on 1 Dec 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Dredging works was conducted on 7 November 2014 during daytime at WCR3 (East of old Wan Chai Ferry Pier) Total 1 no. of dredger, 1 no. of hopper and 1 no. of tug boat were operated. According to the relevant site records under Contract HK/2009/02, ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site. Based on the relevant information provided by RSS, despite no information associated with the malodour concern was identified after investigation, the Contractor was reminded to conduct regular checking on the condition of PME used on site to ensure only well maintained PME are used on site The interim report would be submitted to EPD on 17 November 2014.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
20141113	12 Nov 2014	EPD complaint (EPD Ref.: H05/RS/00028 253-14) received by ET on 13 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians.	A public complaint regarding odour concern referred by EPD was received by ET on 13 November 2014 (EPD Ref.: H05/RS/00028253-14 dated 13 November 2014). The complainant reported that Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians. (Contract HK/2009/02) ET confirmed with the Resident Site Staff that demolition works was conducted under Contract HK/2009/02 on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated. According to the relevant site records under Contract HK/2009/02, demolition works was conducted on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated. In addition, investigation found that due to malfunctioning of one of the excavators deployed at old Wan Chai Ferry Pier, dark smoke was emitted from the defective excavator for a short period of approximately 30 seconds at around 15:00 hrs on 12 November 2014. The operation of excavator was immediately suspended and followed by repair works. The normal operation of the excavator was resumed after repair. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.	Interim investigation report submitted to EPD on 19 November 2014. EPD advised no comment on the interim report and case closed on 8 Dec 2014.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
20150127	21 Jan 2015	EPD complaint (EPD Ref.: H05/RS/00001 725-15) received by ET on 27 January 2015 and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015	A portion of Hung Hing Road immediately to the east of Marsh Road near SPCA	Construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public.	A public complaint regarding air quality impact referred by EPD was received by ET on 27 January 2015 (EPD Case Ref.: H05/RS/00001725-15 dated 27 January 2015) and further information from EPD regarding the updated location under complaint was received by ET on 30 January 2015. The complainant reported that construction dust and grit was emitted from the construction site to the carriageway causing nuisance to the public. ET confirmed with the Resident Site Staff that the major construction activities around the concerned location conducted on 21 January 2015 include breaking of seawall blocks and D-wall at TPCWAW; concreting, grouting and drilling works at TPCWAW;reclamation/ backfilling works at TPCWAW Mitigation measures implemented by the Contractor for the above construction works include spraying haul road with water; covering bagged cement with tarpaulin; providing three sided and top covering for grouting stations; providing water spraying to dusty activities such as breaking works According to the relevant site records, breaking of seawall blocks and D-wall, concreting, grouting and drilling works and reclamation/ backfilling works were conducted at TPCWAW. Dust mitigation measures including spraying haul road with water, covering bagged cement with tarpaulin, providing three sided and top covering for grouting stations and water spraying to dusty activities such as breaking works were implemented by the Contractor of HY/2009/15 near the concerned location on 21 January 2015.	Interim report submitted to EPD on 9 February 2015, EPD advised no comment on 27 February 2015 on the interim report submitted and case closed.



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Follow-up investigation was conducted on 27 January 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works; and provision of three sides and top covering for grouting station were confirmed in place. In addition, based on the review of the monitoring data of the monitoring station located at the concerned location raised by the complainant, namely monitoring station CMA3a, no action or limit level exceedance was recorded during air quality monitoring conducted on 20 and 21 January 2015. Nevertheless, the Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on the complaint date was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants. As such, the site condition under Contract HY/2009/15 at the concerned location was considered to be generally satisfactory and no non-conformity related to cumulative air quality impact was observed. Nevertheless, in view of the public concern, the contractor was reminded to enhance the dust mitigation measures implemented to minimize potential nuisance to nearby public. ET confirmed with the Resident Site Staff that the major construction activities under Contract HK/2009/02 around the concerned location conducted on 21 January 2015 include trenching grabbing for D-wall construction at temporary road eastward, shear pin installation at temporary road westward and ground Investigation drilling at temporary road westward	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Mitigation measures implemented by the Contractor of HK/2009/02 for the above construction works include regular water spraying at haul road, vehicle wheel-washing at the ingress/egress (Gate No. 4) to the temporary road, hard paving at the works area at temporary road northward and frequent water spraying at the ingress/egress (Gate No. 4) to the temporary road. According to the relevant site records, trenching grabbing for D-wall construction, shear pin installation and ground investigation drilling works were conducted at the concerned location. Dust mitigation measures including water spraying for haul road, vehicle wheel washing and hard paving for a section of works area nearby public road were implemented by the Contractor of HK/2009/02 near the concerned location on 21 January 2015. Follow-up investigation was conducted on 5 February 2015 during weekly environmental inspection, dust mitigation measures including water spraying for dusty haul road and major dust generation works and provision of wheel washing combine with cleaning of public road were confirmed in place and no dust related impact from the construction works was observed. The Air Quality Health Index (AQHI) recorded by EPD across Western District and Eastern District on 21 January 2015 was ranged from 4 to 10+ indicating a severely high concentration of ambient air pollutants. Based on reviewing relevant impact monitoring data, elevated TSP were recorded at monitoring stations across Wan Chai West area to North Point area and a non-Project related exceedance was recorded at nearby monitoring station CMA4a (at SPCA) on 21 January 2015 due to ambient air pollutant.	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					In addition, it was noted that a section of the works area at the concerned location was not provided with site hoarding. Based on further review on relevant records it was noted that the works area at concerned section was either hard paved or have to maintain adequate line of sight due to traffic safety consideration. The Contractor of HK/2009/02 was advised to inform EPD with respect to the site constraint and provide relevant updated meeting records on the arrangement for review. In view of the public concern, the contractor has committed to conduct additional cleaning of the concerned public road section once a week to minimize potential nuisance caused to nearby road users. The contractor was also reminded to enhance the dust mitigation measures implemented to minimize potential nuisance to nearby public.	



Appendix 10.1

Construction Programme of Individual Contracts

CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

[illegible]

Remaining Work
 Summary Bar

Actual Work
 Summary Bar

Critical Remaining Work

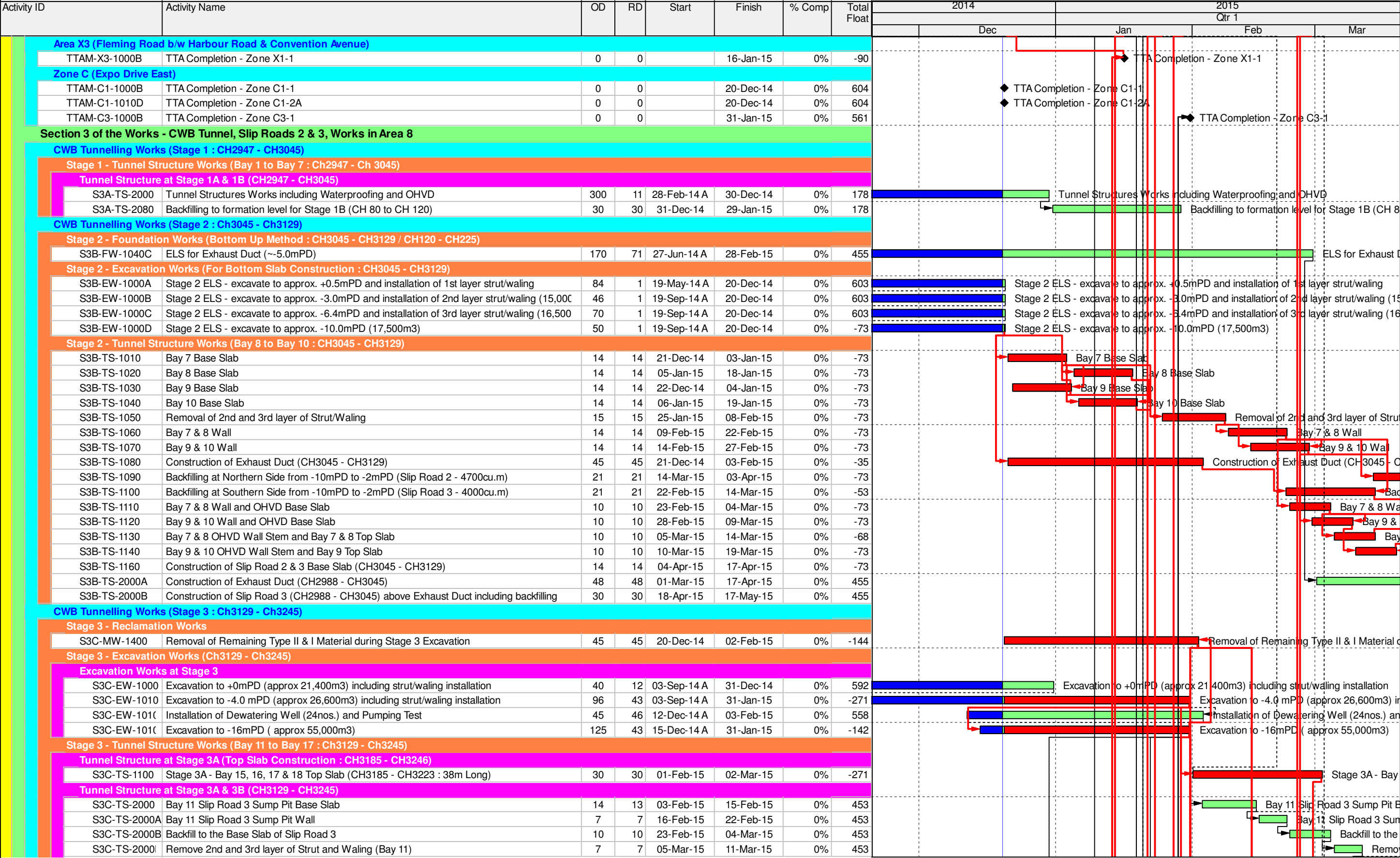
Milestone

CEDD CONTRACT NO. HK/2009/01

Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)

WORKS PROGRAMME Rev.6E - 3 Month Programme starting from 20-Dec-14

Page 1 of 4



Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014		2015							
										Qtr 1							
									Dec		Jan		Feb		Mar		
	S3C-TS-2000C Bay 11 Slip Road 3 Base Slab and Pump Room Base Slab	14	14	12-Mar-15	25-Mar-15	0%	453										
	S3C-TS-2000D Bay 11 Slip Road 3 Pump Room Wall	7	7	26-Mar-15	01-Apr-15	0%	453										
	S3C-TS-2000E Bay 11 Slip Road 3 Elec. Room Base Slab	14	14	02-Apr-15	15-Apr-15	0%	453										
	S3C-TS-2000I Bay 11 Slip Road 3 Wall & OHVD Base Slab	10	10	16-Apr-15	25-Apr-15	0%	453										
	S3C-TS-2000F Bay 11 CWB Base Slab	14	14	02-Jan-15	15-Jan-15	0%	475										
	S3C-TS-2000G Bay 11 CWB Wall	7	7	12-Mar-15	18-Mar-15	0%	470										
	S3C-TS-2000H Bay 11 CWB Wall and OHVD Base Slab	10	10	19-Mar-15	28-Mar-15	0%	491										
	S3C-TS-2000I Bay 11 CWB OHVD Wall Stem and Top Slab	14	14	29-Mar-15	11-Apr-15	0%	491										
	S3C-TS-2000J Backfilling to formation of Slip Road 2	10	10	19-Mar-15	28-Mar-15	0%	470										
	S3C-TS-2000K Bay 11 Slip Road 2 Base Slab	14	14	29-Mar-15	11-Apr-15	0%	470										
	S3C-TS-2000L Bay 11 Slip Road 2 Wall	7	7	12-Apr-15	18-Apr-15	0%	470										
	S3C-TS-2000I Bay 11 Slip Road 2 Top Slab	14	14	19-Apr-15	02-May-15	0%	470										
	S3C-TS-2010 Bay 12 CWB Base Slab	14	14	17-Feb-15	02-Mar-15	0%	443										
	S3C-TS-2010A Remove 2nd and 3rd layers of Strut/Waling (Bay 12)	7	7	08-Mar-15	14-Mar-15	0%	443										
	S3C-TS-2010I Bay 12 CWB Wall	14	14	15-Mar-15	28-Mar-15	0%	443										
	S3C-TS-2010B Backfilling to formation of Slip Road 2 & 3	10	10	29-Mar-15	07-Apr-15	0%	447										
	S3C-TS-2010C Bay 12 Slip Road 2 & 3 Base Slab	10	10	12-Apr-15	21-Apr-15	0%	443										
	S3C-TS-2010D Bay 12 CWB Wall & OHVD Base Slab	14	14	29-Mar-15	11-Apr-15	0%	443										
	S3C-TS-2010E Bay 12 CWB OHVD Wall Stem and Top Slab	14	14	12-Apr-15	25-Apr-15	0%	477										
	S3C-TS-2020 Bay 13 CWB and Slip Road 3 Base Slab	14	14	03-Feb-15	16-Feb-15	0%	-144										
	S3C-TS-2020A Backfilling to formation of Slip Road 2	10	10	17-Feb-15	26-Feb-15	0%	478										
	S3C-TS-2020I Remove 2nd and 3rd layers of Strut/Waling (Bay 13)	7	7	27-Feb-15	05-Mar-15	0%	478										
	S3C-TS-2020B Bay 13 CWB & Slip Road 3 Wall and Slip Road 2 Base Slab	14	14	06-Mar-15	19-Mar-15	0%	478										
	S3C-TS-2020C Bay 13 CWB & Slip Road 3 Wall & OHVD Base Slab and Slip Road 2 Wall	21	21	20-Mar-15	09-Apr-15	0%	478										
	S3C-TS-2020D Bay 13 CWB & Slip Road 3 Top Slab and Slip Road 2 Wall & OHVD Base Slab	14	14	10-Apr-15	23-Apr-15	0%	478										
	S3C-TS-2030 Bay 14 CWB, Sump Pump and Slip Road 3 Base Slab	14	14	17-Feb-15	02-Mar-15	0%	-144										
	S3C-TS-2030A Bay 14 Sump Pump Wall	10	10	03-Mar-15	12-Mar-15	0%	-144										
	S3C-TS-2030B Backfill to formation of Slip Road 2	10	10	13-Mar-15	22-Mar-15	0%	-144										
	S3C-TS-2030C Bay 14 Slip Road 2 Base Slab	14	14	23-Mar-15	05-Apr-15	0%	-144										
	S3C-TS-2030D Remove 2nd and 3rd layer of Strut/Waling (Bay 14)	7	7	11-Apr-15	17-Apr-15	0%	-144										
	S3C-TS-2030E Bay 14 CWB and Slip 3 Road Wall and Pump Room Base Slab	14	14	18-Apr-15	01-May-15	0%	-144										
	S3C-TS-2090 Bay 20 Slip Road 3 Base Slab	10	10	03-Feb-15	12-Feb-15	0%	495										
	S3C-TS-2090A Bay 20 CWB & Slip Road 2 Base Slab and Slip Road 3 Wall	14	14	25-Jan-15	07-Feb-15	0%	500										
	S3C-TS-2090I Remove 2nd and 3rd layer of Strut/Waling (Bay 20)	7	7	18-Feb-15	24-Feb-15	0%	495										
	S3C-TS-2090B Bay 20 CWB & Slip Road 2 Wall and Slip Road 3 Wall & OHVD Base Slab	14	14	25-Feb-15	10-Mar-15	0%	495										
	S3C-TS-2090C Bay 20 CWB & Slip Road 2 Wall & OHVD Base Slab and Slip Road 3 Top Slab	14	14	11-Mar-15	24-Mar-15	0%	495										
	S3C-TS-2090D Bay 20 CWB & Slip Road 2 Top Slab	14	14	25-Mar-15	07-Apr-15	0%	495										
	S3C-TS-2100 Bay 16 & Bay 18 Slip Road 3 Base Slab	14	14	03-Feb-15	16-Feb-15	0%	-131										
	S3C-TS-2100A Bay 16 & Bay 18 CWB & Slip Road 2 Base Slab and Slip Road 3 Wall	21	21	01-Feb-15	21-Feb-15	0%	-139										
	S3C-TS-2100B Remove 2nd and 3rd layer of Strut/Waling (Bay 16 & Bay 18)	14	14	27-Feb-15	12-Mar-15	0%	465										
	S3C-TS-2100C Bay 16 & Bay 18 CWB & Slip Road 2 Wall and Slip Road 3 Wall & OHVD Base Slab	21	21	13-Mar-15	02-Apr-15	0%	465										
	S3C-TS-2100D Bay 16 & Bay 18 CWB & Slip Road 2 Wall & OHVD Base Slab and Slip Road 3 OHVD Wall	21	21	03-Apr-15	23-Apr-15	0%	465										
	S3C-TS-2110 Bay 15, 17 & 19 Slip Road 3 Base Slab	21	21	17-Feb-15	09-Mar-15	0%	-131										
	S3C-TS-2110A Bay 15, 17 & 19 CWB & Slip Road 2 Base Slab and Slip Road 3 Wall	24	24	22-Feb-15	17-Mar-15	0%	-139										
	S3C-TS-2110B Remove 2nd and 3rd layer of Strut/Waling (Bay Bay 15, 17 & 19)	14	14	23-Mar-15	05-Apr-15	0%	-139										
	S3C-TS-2110C Bay 15, 17 & 19 CWB & Slip Road 2 Wall and Slip Road 3 Wall & OHVD Base Slab	24	24	06-Apr-15	29-Apr-15	0%	-139										
Section 4 of the Works - Salt Water Mains, Works in Area 3																	
S8B (DN800) Salt Watermains																	
S4-1000	Zone A4-2C - S8B (20m)	45	7	24-Sep-14 A	26-Dec-14	0%	-132										
S4-1010C	Zone A4-2B - S8B (20m)	48	7	07-Oct-13 A	26-Dec-14	0%	-132										
S4-1010D	Zone A4-2Brev - S8B (10m)	21	7	14-Mar-14 A	26-Dec-14	100%	-132										
Testing and Commissioning																	
S4-1500	Pressure Test of S8B	6	6	27-Dec-14	01-Jan-15	0%	-132										
S4-1510	Cleaning of S8B	7	7	02-Jan-15	08-Jan-15	0%	-132										
S4-1520	Connection to Existing Mains (S8B)	7	7	17-Jan-15	23-Jan-15	0%	-147										

Remaining Work

Actual Work

Summary Bar

Critical Remaining Work

Milestone

Milestone

 Summary Bar

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014		2015				
										Qtr 1				
										Dec	Jan	Feb	Mar	
S9 (DN450) Salt Watermains & Sewer														
S4-2080	Zone A2-4B - S9 (8m) - Testing point	24	16	04-Dec-13 A	10-Jan-15	100%	453							
S4-2120	Zone A3-5C - S9 (8m) - Testing point	14	14	16-Jul-13 A	10-Jan-15	0%	464							
Testing and Commissioning														
S4-2500	Pressure Test of S9	6	6	11-Jan-15	16-Jan-15	0%	569							
S4-2510	Cleaning of S9	7	7	17-Jan-15	23-Jan-15	0%	569							
S4-2520	Connection to Existing Mains (S9)	7	7	17-Jan-15	23-Jan-15	0%	569							
Section 6A of the Works - Cooling Water Discharge System (3 nos. Govt Towers)														
S6A-1200	Zone X1-1 - CHBF (11m)	21	21	27-Dec-14	16-Jan-15	0%	-112							
S6A-1220	Zone X1-3 - CHBF (7m)	21	21	14-Apr-15	04-May-15	0%	-241							
S6A-1230	Zone X1-4A - CHBF (21m) & S3 (21m) Connection Point	24	115	20-Jan-14 A	13-Apr-15	100%	-241							
S6A-1240	Zone C3-1 - CHBF (16m) Test and Connection Point	60	43	22-Jun-14 A	31-Jan-15	0%	-127							
Section 6B of the Works - Cooling Water Intake & Discharge System (Great Eagle / Harbour Centre)														
S6B-1220	Zone C3-1 - CHBG (16m) Test and Connection Point	60	43	22-Jun-14 A	31-Jan-15	0%	-127							
Section 6C of the Works - Cooling Water Discharge System (China Resources Building)														
S6C-1600	Zone C3-1 - CHBI (16m) Test and Connection Point	60	43	22-Jun-14 A	31-Jan-15	0%	-127							
Common Works for Sections 6A, 6B & 6C														
Discharge Outfall Construction														
S6-1030	Connection of the Completed Cooling Mains to Precast Outfall Unit	0	0		07-Feb-15*	0%	0							
S6-1040	Reinstatement of Existing Seawall after Connection	30	30	08-Feb-15	09-Mar-15	0%	524							
Section 8 of the Works - Works in Area 6 (Utilities other than Watermains in Fenwick Pier Street)														
Sewerage Works														
S8-1030	Zone A3-5D & A3-4D	23	28	10-Jan-14 A	24-Jan-15	100%	-120							
S8-1040	Zone A3-2C	23	23	26-Jan-15	27-Feb-15	0%	-120							
S8-1050	Zone A3-2D	23	23	28-Feb-15	26-Mar-15	0%	-120							
S8-2500	CCTV Survey	1	1	27-Mar-15	27-Mar-15	0%	-120							
S8-3000	Connection with Upstream Existing Manhole & Abandon Used Pipe	7	7	28-Mar-15	09-Apr-15	0%	-120							
Section 9 of the Works - Remaindar of the Works														
Box Culvert Construction														
S9-1030	Construction of Precast Bay 1	76	12	25-Sep-14 A	31-Dec-14	84.21%	592							
S9-1040A	Installation of Sheet Pile / ELS and Construction for Bay 7	180	43	07-Sep-14 A	31-Jan-15	0%	-166							
S9-1040B	Installation of Sheet Pile / ELS and Construction for Bay 2	180	43	11-Oct-14 A	31-Jan-15	0%	-166							
S9-1050	Construction of Bay 3 to Bay 6 incl. top slab waterproofing works	75	75	03-Mar-15	16-May-15	0%	-271							
Waterworks in Area 9														
Salt Water Mains (S3, S5A & S5B)														
S9-5500A	Zone X1-1 - S3 (5m)	0	0		16-Jan-15	0%	-90							
Fresh Water Mains (F3)														
S9-7040	Zone X1-1 - F3 (5m)	0	0		16-Jan-15	0%	1							
Section 13 of the Works - Works in Area 11 (other than Section 11)														
S13-3000	Completion of Backfilling to +5.0mPD	0	0		20-Dec-14	0%	70							
Section 9A of the Works - Landscape Softworks in Area 9														
S9A-1000	Transplanting at Expo Drive East and Convention Avenue Junction	180	180	20-Dec-14	17-Jun-15	0%	59							

CEDD CONTRACT NO. HK/2009/01

Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)

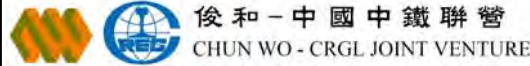
WORKS PROGRAMME Rev.6E - 3 Month Programme starting from 20-Dec-14

Page 4 of 4

CEDD CONTRACT HK/2009/02

CHUN WO - CRGL JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar	2014	2015				
									Jan 61	Feb 62	Mar 63	Apr 64	May 65
Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (dd 20-Jan-14)													
Programme Milestones (Revised up to EOTO No.10 Issued on 29-Nov-13)													
Contractual Completion Dates													
KDC0110	Section 7 Works (831 days) - Box Culvert N1 & Works at Area 7 (7-May-12)	0	0		20-Jan-15 18:00*	-988	Calendar Day						
Soft Landscaping & Establishment Key Dates													
KDC0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8 (10-Feb-14)	0	0		20-Jan-15 18:00*	-344	Calendar Day						
KDC0150	Section 8D Works (1838 days) - Establishment Works in Area 8 (10-Feb-15)	0	0		10-Feb-15 18:00*	0	Calendar Day						
Forecast Completion Dates													
KDF0110	Section 7 Works (831 days) - Box Culvert N1 & Works at Area 7	0	0		11-Apr-15 18:00	-1069	Calendar Day						
Soft Landscaping & Establishment Key Dates													
KDF0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8	0	0		07-Apr-15 18:00	-421	Calendar Day						
Possession of Site													
PS0090	Possession of Portion 9 - Western Bulkhead (By HK/2009/01)	0	0		07-May-15 08:00*	-28	Calendar Day						
Preliminaries													
Interface with Others													
PRE0950	Permanent Diversion of Box Culvert M by HK/2009/01	0	0		31-Mar-15 18:00*	-308	Calendar Day						
Critical Submission & Approval													
PRE-SUB-1000B	Temp Covered Walkway Capping Beam - Design Approval	30	7		19-Jun-13 08:00 A	1377	Calendar Day						
PRE-SUB-1010B	Temp Covered Walkway Cover System (PS30.5) - Design Approval	30	7		12-Jun-14 08:00 A	1377	Calendar Day						
CSD for CWB Tunnel													
PRE-CSD-2030B	Tunnel Portion 2 - Redesign CWB Tunnel Structure Design Submission Approval by AECOM	60	30		16-Nov-13 08:00 A	-63	Calendar Day						
PRE-CSD-3000B	Tunnel Portion 3&4 - Redesign Temp D-Wall Submission Approval by AECOM & GEO	30	10		08-Jun-13 08:00 A	1374	Calendar Day						
PRE-CSD-3010B	Tunnel Portion 3&4 - ELS Submission Approval by AECOM & GEO	60	30		17-Jan-14 08:00 A	-352	Calendar Day						
PRE-CSD-5000B	Tunnel Portion 5 - Temp D-Wall Submission Approval by AECOM & GEO	60	30		15-Aug-13 08:00 A	-252	Calendar Day						
PRE-CSD-5010A	Tunnel Portion 5 - ELS ICE Submission	120	120		21-Jan-15 08:00	-346	Calendar Day						
PRE-CSD-6010A	Tunnel Portion 6 - ELS ICE Submission	120	120		21-Jan-15 08:00	-33	Calendar Day						
Critical Procurement & Site Delivery													
PRE-PRO-1100B	GRP Roof Panel for Temp Covered Walkway (Type 2)	60	21		15-Jun-14 08:00 A	1363	Calendar Day						
Section 3 of the Works - Reprovisioning of Government Helipad and Public Toilet													
Outstanding Works													
S3-0070-1499	Reinstatement of armour rock, retaining walls & new covered walkway along Expo Drive East	254	25		11-Aug-12 08:00 A	1084	HK Working Day						
Section 4A of the Works - Cooling Water Pumping System for Sun Hung Kai Centre (P8)													
Cooling Mains Work above Tunnel Portion & connecting to Pump Station													
S4A-0900	Outstanding Works	365	73		16-Feb-14 08:00 A	1311	Calendar Day						
Section 4B of the Works - Cooling Water Pumping System for China Resources Building (P9)													
Cooling Mains Work above Tunnel Portion & connecting to Pump Station													
S4B-0900	Outstanding Works	365	7		01-Oct-13 08:00 A	1377	Calendar Day						
Section 4C of the Works - Cooling Water Pumping System for Great Eagle Centre / Harbour Centre (P7)													
Cooling Mains Work above Tunnel Portion & connecting to Pump Station													
S4C-0900	Outstanding Works	365	7		21-Nov-13 08:00 A	1377	Calendar Day						
Section 5 of the Works - WSD Salt Water Pumping System													
Overall Testing & Commissioning of Reprovisioned Salt Water Intake System													
S5-0900	Outstanding Works	365	73		06-Mar-14 08:00 A	1311	Calendar Day						
Section 7 of the Works - Box Culvert N1 & Flood Relief System													
Transformer Building for Dining Services at Ferry Pier (VO116)													
Civil Works													
S7-TB-2065	Waterproof applicaion and testing for Roof Top Slab	6	6		21-Jan-15 08:00	-1022	Calendar Day						
S7-TB-2080	Formwork Removal & Scaffolding Dismantling	4	4		04-Mar-15 08:00	-833	HK Working Day						
ABWF Works													
S7-TB-3000	ABWF Works	60	42		05-Jan-15 08:00 A	-1035	Calendar Day						
S7-TB-3100	Landscaping Works	30	30		04-Mar-15 08:00	-695	Calendar Day						
E&M Works													
S7-TB-4000	E&M Installation (with individual testing)	30	30		18-Dec-14 08:00 A	-1069	Calendar Day						
S7-TB-4100	22kV Cable across HHR to Transformer Building by HEC	45	20		29-Oct-14 08:00 A	1364	Calendar Day						
S7-TB-4200	LV Cable Laying to Ferry Pier	30	29		02-Jan-15 08:00 A	-1068	Calendar Day						
S7-TB-4300	Transformer Installation by HEC	30	30		20-Feb-15 08:00	-1069	Calendar Day						
S7-TB-4400	Energization of Transformer	7	7		22-Mar-15 08:00	-1069	Calendar Day						
Overall Testing & Commissioning													
S7-TB-9000	WSD Inspection & Water Cert Approval	14	14		20-Feb-15 08:00	-1046	Calendar Day						
S7-TB-9100	FSD Inspection & Fire Cert Approval	14	14		29-Mar-15 08:00	-1069	Calendar Day						
Section 8A of the Works - Reprovisioning of Wan Chai Ferry Pier in Area 8													
ABWF & E&M Installation													
Roof													
S8A-BS-4010	E&M Installation	28	10		10-Sep-13 08:00 A	1374	Calendar Day						
Works in Area 8 - ABWF Works at Observation Deck of Ferry Pier													
S8B-FP-01100	Roof Finishes & Misc. ABWF Installation	120	36		28-Oct-13 08:00 A	1348	Calendar Day						
S8B-FP-01300	Handrail & Glass Balustrade Installation	45	36		21-Dec-13 08:00 A	1348	Calendar Day						
Section 9B of the Works - CWB Tunnel Structure (CH3400 - CH3796)													



- Remaining Work
- Actual Work
- Summary Bar
- Critical Remaining Work
- Milestone

CEDD CONTRACT NO. HK/2009/02
Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Jan-15)

Date	Revision	Checked	Approved
20-Jan-15...	3MRP		
20-Sep-1...	Revised WP		

Page 1 of 3
TASK filter: 3-Month Rolling.
Print on: 23-Jan-15 14:59

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar	2014	2015				
									Jan	Feb	Mar	Apr	May
									61	62	63	64	65
Tunnel Portion 1 (CH3500-CH3630)													
CWB Structural Works													
Bay 6 (For OHVD Base Slab & Side Wall, Combined to Bay 5)													
Wall													
S9B-T1-B6-1120	Wall (Middle Late Cast) - Rebar Fixing	4	4	06-Feb-15 08:00	10-Feb-15 18:00	205	HK Working Day						
S9B-T1-B6-1130A	Wall (Middle Late Cast) - Formwork	3	3	11-Feb-15 08:00	13-Feb-15 18:00	205	HK Working Day						
S9B-T1-B6-1130B	Wall (Middle Late Cast) - Concrete	1	1	14-Feb-15 08:00	14-Feb-15 18:00	205	HK Working Day						
S9B-T1-B6-1140	Wall (Middle Late Cast) - Curing & Formwork Removal	3	3	15-Feb-15 08:00	17-Feb-15 18:00	259	Calendar Day						
Tunnel Portion 2 (CH3425-CH3500)													
CWB Structural Works													
S9B-T2-2000	Tunnel portion 2 ELSW excavation (62,500m3; 500m3/d)	125	13	20-Aug-14 08:00 A	04-Feb-15 13:30	11	HK Working Day						
S9B-T2-3000	Tunnel Portion 2 - Trim Bored Pile Head, Blinding	21	20	19-Jan-15 08:00 A	12-Feb-15 17:33	-31	HK Working Day						
S9B-T2-4000	Strut S5 Removal	7	7	28-Apr-15 08:00	06-May-15 18:00	-50	HK Working Day						
S9B-T2-4200	Bulk Head Demolition between TP1 & TP2 @ CH3500 & Baseslab Stitching	14	14	16-Jan-15 08:00 A	05-Feb-15 18:00	19	HK Working Day						
Bay 1													
S9B-T2-B1-1010	Base Slab - Waterproofing	4	4	26-Feb-15 08:00	02-Mar-15 18:00	-50	HK Working Day						
S9B-T2-B1-1020	Base Slab - Formwork & Rebar Fixing	14	14	03-Mar-15 08:00	18-Mar-15 18:00	-38	HK Working Day						
S9B-T2-B1-1030	Base Slab - Concrete & Curing	5	5	19-Mar-15 08:00	23-Mar-15 18:00	-35	Calendar Day						
Bay 2													
S9B-T2-B2-1010	Base Slab - Waterproofing	4	4	03-Mar-15 08:00	06-Mar-15 18:00	-50	HK Working Day						
S9B-T2-B2-1020	Base Slab - Formwork & Rebar Fixing	14	14	07-Mar-15 08:00	23-Mar-15 18:00	-28	HK Working Day						
S9B-T2-B2-1030	Base Slab - Concrete & Curing	5	5	24-Mar-15 08:00	28-Mar-15 18:00	-40	Calendar Day						
Bay 3													
S9B-T2-B3-1010	Base Slab - Waterproofing	4	4	07-Mar-15 08:00	11-Mar-15 18:00	-50	HK Working Day						
S9B-T2-B3-1020	Base Slab - Formwork & Rebar Fixing	14	14	19-Mar-15 08:00	08-Apr-15 18:00	-38	HK Working Day						
S9B-T2-B3-1030	Base Slab - Concrete & Curing	5	5	09-Apr-15 08:00	13-Apr-15 18:00	-56	Calendar Day						
S9B-T2-B3-3000	Wall (South) - Waterproofing	4	4	16-May-15 08:00	20-May-15 18:00	-50	HK Working Day						
S9B-T2-B3-3010	Wall (Middle) - Rebar Fixing	4	4	16-May-15 08:00	20-May-15 18:00	-47	HK Working Day						
S9B-T2-B3-3020	Wall (North) - Waterproofing	4	4	16-May-15 08:00	20-May-15 18:00	-50	HK Working Day						
Bay 4													
S9B-T2-B4-1010	Base Slab - Waterproofing	4	4	12-Mar-15 08:00	16-Mar-15 18:00	-50	HK Working Day						
S9B-T2-B4-1020	Base Slab - Formwork & Rebar Fixing	14	14	17-Mar-15 08:00	01-Apr-15 18:00	-50	HK Working Day						
S9B-T2-B4-1030	Base Slab - Concrete & Curing	5	5	02-Apr-15 08:00	06-Apr-15 18:00	-49	Calendar Day						
S9B-T2-B4-3000	Wall (South) - Waterproofing	4	4	12-May-15 08:00	15-May-15 18:00	-50	HK Working Day						
S9B-T2-B4-3010	Wall (Middle) - Rebar Fixing	4	4	12-May-15 08:00	15-May-15 18:00	-47	HK Working Day						
S9B-T2-B4-3020	Wall (North) - Waterproofing	4	4	12-May-15 08:00	15-May-15 18:00	-50	HK Working Day						
S9B-T2-B4-3030	Wall (South) - Rebar Fixing	3	3	16-May-15 08:00	19-May-15 18:00	-38	HK Working Day						
S9B-T2-B4-3040	Wall (North) - Rebar Fixing	3	3	16-May-15 08:00	19-May-15 18:00	-38	HK Working Day						
S9B-T2-B4-3050	Wall (Middle) - Formwork & Concrete	3	3	16-May-15 08:00	19-May-15 18:00	-35	HK Working Day						
Bay 5													
S9B-T2-B5-1010	Base Slab - Waterproofing	4	4	17-Mar-15 08:00	20-Mar-15 18:00	-40	HK Working Day						
S9B-T2-B5-1020	Base Slab - Formwork & Rebar Fixing	14	14	02-Apr-15 08:00	22-Apr-15 18:00	-50	HK Working Day						
S9B-T2-B5-1030	Base Slab - Concrete & Curing	5	5	23-Apr-15 08:00	27-Apr-15 18:00	-70	Calendar Day						
S9B-T2-B5-3000	Wall (South) - Waterproofing	4	4	07-May-15 08:00	11-May-15 18:00	-50	HK Working Day						
S9B-T2-B5-3010	Wall (Middle) - Rebar Fixing	4	4	07-May-15 08:00	11-May-15 18:00	-47	HK Working Day						
S9B-T2-B5-3020	Wall (North) - Waterproofing	4	4	07-May-15 08:00	11-May-15 18:00	-50	HK Working Day						
S9B-T2-B5-3030	Wall (South) - Rebar Fixing	3	3	12-May-15 08:00	14-May-15 18:00	-34	HK Working Day						
S9B-T2-B5-3040	Wall (North) - Rebar Fixing	3	3	12-May-15 08:00	14-May-15 18:00	-34	HK Working Day						
S9B-T2-B5-3050	Wall (Middle) - Formwork & Concrete	3	3	12-May-15 08:00	14-May-15 18:00	-31	HK Working Day						
S9B-T2-B5-3060	Wall (South) - Formwork & Concrete	3	3	15-May-15 08:00	18-May-15 18:00	-34	HK Working Day						
S9B-T2-B5-3070	Wall (North) - Formwork & Concrete	3	3	15-May-15 08:00	18-May-15 18:00	-34	HK Working Day						
S9B-T2-B5-3080	Wall (Middle) - Curing & Formwork Removal	3	3	15-May-15 08:00	17-May-15 18:00	-40	Calendar Day						
S9B-T2-B5-3090	Wall (South) - Curing & Formwork Removal	3	3	19-May-15 08:00	21-May-15 18:00	-44	Calendar Day						
S9B-T2-B5-3100	Wall (North) - Curing & Formwork Removal	3	3	19-May-15 08:00	21-May-15 18:00	-44	Calendar Day						
Tunnel Portion 3 & Tunnel Portion 4 (CH3630-CH3790)													
Foundation													
Stage 3 - Northern Wall after TWCR4 Reclamation (C88-C105)													
S9B-T34-1430C	D-wall Construction at TWCR4 (C88-P94; P101-C105; 6d/Panel)	84	13	31-Oct-14 08:00 A	02-Feb-15 14:24	-349	Calendar Day						
Stage 4 - Southern Wall after HHR Flyover Diversion (Stage 2) (P132-P143)													
S9B-T34-1640	D-wall Construction at Original HHR Flyover Approach Ramp (P132-P143; 8d/Panel)	96	80	08-Jan-15 08:00 A	10-Apr-15 17:43	-416	Calendar Day						
S9B-T34-1660	Capping Beam Construction Between Tunnel Portion 1 and 3 & 4	14	13	21-Jan-15 14:24 A	03-Feb-15 10:42	-335	Calendar Day						
S9B-T34-1670	Installation of Pump Well, Observation Well, Inclinator and Piezometers	28	22	08-Jan-15 14:24 A	12-Feb-15 11:36	-358	Calendar Day						
S9B-T34-1700	Tunnel Portion 3 & 4 Pumping test	28	28	10-Apr-15 17:43	08-May-15 17:43	-416	Calendar Day						
CWB Structural Works													
S9B-T34-2000	Tunnel Portion 3 & 4 Excavation (198,000m3 soil @1500m3/d; 2000m3 rock @100m3/d) & ELS	230	230	24-Apr-15 17:43	05-Feb-16 17:43	-333	HK Working Day						
Section 10 Works - CWB Tunnel Structure (CH3246 - CH3400)													
Tunnel Portion 6 (CH3246-CH3280)													
S10-T6-1020	Tunnel Portion 6 Bored Pile - 13nr. (3 sets @ 12d/pile)	52	52	07-May-15 08:00	09-Jul-15 18:00	-23	HK Working Day						
Section 11 of the Works - Remainder of Works													

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar	2014	2015				
									Jan	Feb	Mar	Apr	May
									61	62	63	64	65
Marine Works at WCR3		184	123	05-Dec-14 08:00 A	23-May-15 18:00	-486	Calendar Day						
S11-R3-0500	Fabrication of Caisson Seawalls for WCR3 Reclamation (1st Stage - 5 Nos.)	60	30	05-Dec-14 08:00 A	19-Feb-15 18:00	-466	Calendar Day						
S11-R3-1300	1st Stage Rockfilling for Seawall (24,000m3 @ 1000m3/d)	24	12	22-Dec-14 08:00 A	01-Feb-15 18:00	-486	Calendar Day						
S11-R3-1400	Placing leveling stones to -6.0mPD (1500m2 @ 40m2/d)	38	38	02-Feb-15 08:00	11-Mar-15 18:00	-486	Calendar Day						
S11-R3-1500	Installation of Permanent Seawall (5 nos.) & Rockfilling behind seawall	16	16	12-Mar-15 08:00	27-Mar-15 18:00	-486	Calendar Day						
S11-R3-1600	2nd Stage Dredging incl. Existing Wan Chai Ferry Pier (20,000m3 @ 1,000m3/d)	20	17	15-Jan-15 08:00 A	06-Feb-15 18:00	-437	Calendar Day						
S11-R3-1700	Reclamation from -14 mPD to -2.0mPD by Hopper (121,000m3 @ 3,000m3/d)	41	41	28-Mar-15 08:00	07-May-15 18:00	-486	Calendar Day						
S11-R3-1800	Installation of Permanent Seawall & Rockfilling behind seawall	16	16	08-May-15 08:00	23-May-15 18:00	-486	Calendar Day						
Soft Landscaping & Establishment Works		2375	587	24-Feb-10 18:00 A	29-Aug-16 18:00	0	Calendar Day						
Section 8C of the Works - Landscape Softworks in Area 8		90	77	07-Oct-14 08:00 A	07-Apr-15 18:00	-421	Calendar Day						
S8C-0010	Carry out landscape soft work on new ferry pier	90	77	07-Oct-14 08:00 A	07-Apr-15 18:00	-421	Calendar Day						
Section 8D of the Works - Establishment Works in Area 8		365	365	08-Apr-15 08:00	06-Apr-16 18:00	-421	Calendar Day						
S8D-0010	Carry out establishment work on new ferry pier	365	365	08-Apr-15 08:00	06-Apr-16 18:00	-421	Calendar Day						
Section 12 of the Works - Protection and Preservation of Existing Trees		2375	587	24-Feb-10 18:00 A	29-Aug-16 18:00	0	Calendar Day						
S12-0010	Protection and preservation of existing trees	2375	587	24-Feb-10 18:00 A	29-Aug-16 18:00	0	Calendar Day						
SUMMARY PROGRAMME		992	381	07-May-13 08:00 A	05-Feb-16 17:43	1003	Calendar Day						
CWB Tunnel Construction & Remaining Works (Section 9A, 9B, 10 & 11)		795	381	11-Nov-13 08:00 A	05-Feb-16 17:43	-158	Calendar Day						
CWB Tunnel Works in WCR2		396	285	17-Oct-14 08:00 A	01-Nov-15 18:00	-62	Calendar Day						
SUM-CWB-22000	Pump Test & Excavation for Tunnel Portion 2	134	15	17-Oct-14 08:00 A	04-Feb-15 13:30	13	Calendar Day						
SUM-CWB-23000	CWB Tunnel Portion 2 Construction	261	285	19-Jan-15 08:00 A	01-Nov-15 18:00	-62	Calendar Day						
CWB Tunnel Works in WCR3		314	170	30-Aug-14 08:00 A	09-Jul-15 18:00	-29	Calendar Day						
SUM-CWB-30000	Reclamation at WCR3 & Ferry Pier Demolition (Except Water Channel Maintained for HK/2009/	209	158	30-Aug-14 08:00 A	27-Jun-15 18:00	-486	Calendar Day						
SUM-CWB-35000B	Foundation for Tunnel Portion 6 - Bored Pile	64	64	07-May-15 08:00	09-Jul-15 18:00	-29	Calendar Day						
CWB Tunnel Works in WCR4/TWCR4		795	381	11-Nov-13 08:00 A	05-Feb-16 17:43	-368	Calendar Day						
SUM-CWB-41000B	Foundation for Tunnel Portion 3&4 (except Eastern Bulkhead Wall)	457	80	11-Nov-13 08:00 A	10-Apr-15 17:43	-67	Calendar Day						
SUM-CWB-42000	Pump Test & Excavation for Tunnel Portion 3&4	301	301	10-Apr-15 17:43	05-Feb-16 17:43	-422	Calendar Day						
Reprovisioning of Existing Facilities (Section 3, 4A, 4B, 4C, 5, 6, 7, 8A & 8B)		754	81	07-May-13 08:00 A	11-Apr-15 18:00	1303	Calendar Day						
Reprovisioning of Box Culvert N (Section 7)		249	81	08-Oct-14 00:00 A	11-Apr-15 18:00	-1069	Calendar Day						
SUM-FAC-52000	VO116 - New Transformer Building to Ferry Pier	249	81	08-Oct-14 00:00 A	11-Apr-15 18:00	-1069	Calendar Day						
Reprovisioning of Wan Chai Ferry Pier & Covered Walkway (Section 8A & 8B)		150	36	07-May-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day						
SUM-FAC-65000	ABWF Works on Observation Deck under Section 8B	150	36	07-May-13 08:00 A	25-Feb-15 18:00	1348	Calendar Day						

3 Month Rolling Programme (Non-CRIII Area)
December 2014 to February 2015

Project Star :22-Jan-13
Project End: 21-Jul-18
Date Date: 30-Nov-14

Date	Revi...	Chec...	Approved
30-No...	3MRP		

		CEDD Contract No. HK/2012/08 Wan Chai Development Phase II Central -Wan Chai Bypass at Wan Chai West					Page 2 / 5				
Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015			
						Nov	Dec	Jan	Feb	Mar	
	SII10570	Sec II - MVB A&B - Install pumping well/observation well	01-Dec-14	05-Jan-15	28	0%					
	SII10580	Sec II - MVB A&B - pumping test for Dwall	06-Jan-15	23-Jan-15	18	0%					
	SII10600	Sec II - MVB A&B - pumping test for precaution grout curtain and fissure grout	06-Jan-15	23-Jan-15	18	0%					
	SII10610	Sec II - MVB A&B - Install shear pin on Dwall panel P18-P33 & P33A	16-Oct-14 A	02-Jan-15	26	40%					
	SII10615	Sec II - MVB A&B - Install king post	17-Dec-14	03-Jan-15	12	0%					
	SII10620	Sec II - MVB C - Construct Guide Wall [P42-P43]	03-Dec-14	09-Dec-14	6	0%					
	SII10622	Sec II - MVB C - construct Dwall [P42-P43] (1.5m thk on rock)	10-Dec-14	28-Jan-15	40	0%					
MVB Substructure - Diaphragm Wall - Construction Sequences		14-Nov-14 A	13-Dec-14	12							
Group 1		28-Nov-14 A	13-Dec-14	12							
	SII-10210	Sec II - MVB - Dwall P25	28-Nov-14 A	13-Dec-14	12	50%					
Group 2		17-Nov-14 A	09-Dec-14	8							
	SII-10325	Sec II - MVB - Dwall P23	17-Nov-14 A	09-Dec-14	8	55%					
Group 3		14-Nov-14 A	08-Dec-14	6							
	SII-10480	Sec II - MVB - Dwall P39	14-Nov-14 A	08-Dec-14	6	70%					
MVB Substructure - Bored Pile and Prebored H-Pile		26-Jun-14 A	31-Mar-15	96							
	SII10340	Sec II - MVB A&B - Construct bored piles	26-Jun-14 A	17-Dec-14	15	90%					
	SII10360	Sec II - MVB A&B - bored pile sonic test, interface core & full core	04-Oct-14 A	10-Jan-15	33	63.33%					
	SII10380	Sec II - MVB C - predrilling for prebored H-piles	07-Jan-15	03-Feb-15	24	0%					
	SII10400	Sec II - MVB C - construct prebored H-piles	25-Feb-15	31-Mar-15	30	0%					
MVB Substructure - Bored Pile - Construction Sequences		22-Nov-14 A	17-Dec-14	15							
Group 1		22-Nov-14 A	15-Dec-14	13							
	SII-11200	Ssec II - MVB - Bored Pile BC7	01-Dec-14	15-Dec-14	13	0%					
	SII-11210	Ssec II - MVB - Bored Pile BC9	01-Dec-14 A	13-Dec-14	11	25%					
	SII-11240	Ssec II - MVB - Bored Pile BC18	22-Nov-14 A	08-Dec-14	7	55%					
Group 2		01-Dec-14	17-Dec-14	15							
	SII-11160	Ssec II - MVB - Bored Pile BC15	01-Dec-14	17-Dec-14	15	0%					
MVB Substructure - Structural Works for Portion A		12-Jan-15	27-Feb-15	36							
	SII10820	Sec II - MVB A - Excavation down to +1.7mPD	12-Jan-15	19-Jan-15	7	0%					
	SII10840	Sec II - MVB A - Install Strut L1 at +2.7mPD	20-Jan-15	29-Jan-15	9	0%					
	SII10860	Sec II - MVB A - Excavation down to -1.5mPD	30-Jan-15	10-Feb-15	10	0%					
	SII10880	Sec II - MVB A - Install Strut L2 at -1.0mPD	11-Feb-15	27-Feb-15	10	0%					
MVB Substructure - Structural Works for Portion B		12-Jan-15	10-Mar-15	45							
	SII11440	Sec II - MVB B: Excavation down to +1.7mPD	12-Jan-15	19-Jan-15	7	0%					
	SII11460	Sec II - MVB B: Install Strut L1 at +2.7mPD	20-Jan-15	29-Jan-15	9	0%					
	SII11480	Sec II - MVB B: Excavation down to -1.0mPD	30-Jan-15	07-Feb-15	8	0%					
	SII11500	Sec II - MVB B: Install Strut L2 at 1.0mPD	09-Feb-15	24-Feb-15	9	0%					
	SII11520	Sec II - MVB B: Excavation down to -5.5mPD	25-Feb-15	10-Mar-15	12	0%					
Section II A - CWB Tunnel & Slip Road Structures and Facilities		04-Aug-14 A	20-Jul-15	183							
Section II A - CWB Tunnel - Design, Submission and Approval		08-Dec-14	03-Mar-15	86							
	SIIA10500	CWB Tunnel - Temp work design for bulk exc & ELS - ICE check & issue check cert	08-Dec-14	02-Jan-15	26	0%					
	SIIA10520	CWB Tunnel - Temp work design for bulk exc & ELS - Eng comment & approve	03-Jan-15	28-Jan-15	26	0%					
	SIIA10540	CWB Tunnel - Temp work design for tunnel structural works - prepare & submit to ICE	08-Dec-14	05-Feb-15	60	0%					
	SIIA10560	CWB Tunnel - Temp work design for tunnel structural works - ICE check & issue check cert	06-Feb-15	03-Mar-15	26	0%					
CWB CRIII & A1		22-Sep-14 A	15-Jun-15	155							
CWB CRIII & A1 - Dwall and Pile Construction		22-Sep-14 A	28-Jan-15	47							
	SIIA11120	Sec II A - CWB A1 - construct temporary DWall and temp bulk head wall	22-Sep-14 A	31-Dec-14	24	68%					

		CEDD Contract No. HK/2012/08 Wan Chai Development Phase II Central -Wan Chai Bypass at Wan Chai West					Page 3 / 5				
Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015			
						Nov	Dec	Jan	Feb	Mar	
	SIIA11140	Sec II A - CWB A1 - Construct pre-bored H-pile	31-Oct-14 A	10-Jan-15	33	43.1%					
	SIIA11165	SIIA - CWB A1 - install shear pins to existing bored piles	31-Dec-14	15-Jan-15	12	0%					
	SIIA11220	Sec II A - CWB A1 - D-wall Sonic test	15-Dec-14	09-Jan-15	20	0%					
	SIIA11240	Sec II A - CWB A1 - install dewater/ recharge / observation well	13-Dec-14	15-Jan-15	25	0%					
	SIIA11255	Sec II A - CWB A1- pumping test (CRIII, A1)	15-Jan-15	28-Jan-15	11	0%					
	CWB CRIII & A1 - Tunnel Structure		24-Jan-15	15-Jun-15	111						
	SIIA11280	Sec II A - CWB A1: Shoring & Excavation	24-Jan-15	15-Jun-15	111	0%					
	SIIA11300	Sec II A - CWB A1: Roof slab (1st bay)	17-Feb-15	03-Apr-15	35	0%					
	CWB A2 & B		10-Sep-14 A	01-Jun-15	143						
	CWB A2 & B - Dwall Construction		10-Sep-14 A	01-Jun-15	143						
	SIIA11480	Sec II A - CWB B: ground treatment	10-Sep-14 A	05-Dec-14	5	91.67%					
	SIIA11500	Sec II A - CWB B: construct Guide Wall	25-Oct-14 A	03-Dec-14	3	90%					
	SIIA11520	Sec II A - CWB B: Construct Permanent DWall and barrette (1.2m thk on rock)	30-Oct-14 A	26-Feb-15	68	26.88%					
	SIIA11525	Sec II A - CWB B: Construct temp Dwall (1.2m thk)	29-Jan-15	24-Apr-15	65	0%					
	SIIA11540	Sec II A - CWB B: Construct pre-bored H-pile	29-Jan-15	24-Apr-15	65	0%					
	SIIA11560	Sec II A - CWB B: Ground treatment to Stop End (MTR CWL)	27-Feb-15	02-Apr-15	30	0%					
	SIIA11580	Sec II A - CWB B: Dwall sonic test / interface core	30-Dec-14	07-May-15	100	0%					
	SIIA11600	Sec II A - CWB B: Dwall precaution grout / fissure grout / grout curtain	30-Dec-14	07-May-15	100	0%					
SIIA11620	Sec II A - CWB B: Install dewatering/ recharging/ observation well	30-Dec-14	01-Jun-15	120	0%						
SIIA13340	Sec II A - CWB A2(1): Predrilling for Dwall & piles	01-Dec-14	04-Feb-15	54	0%						
SIIA13360	Sec II A - CWB A2(1): ground pretreatment	08-Dec-14	02-Feb-15	46	0%						
SIIA13380	Sec II A - CWB A2(1): Guide Wall	10-Dec-14	26-Feb-15	60	0%						
SIIA13400	Sec II A - CWB A2(1): construct temp DWall (1.2m thk) and temp bulk head wall	12-Jan-15	11-May-15	93	0%						
CWB C		04-Aug-14 A	30-May-15	142							
CWB C - Dwall Construction		04-Aug-14 A	30-May-15	142							
SIIA11880	Sec II A - CWB CW: Predrilling for Dwall & piles	04-Aug-14 A	13-Dec-14	12	82.86%						
SIIA11900	Sec II A - CWB CW: ground Pre-treatment	01-Nov-14 A	13-Jan-15	35	42%						
SIIA11920	Sec II A - CWB CW: Guide Wall	29-Oct-14 A	31-Dec-14	25	58.33%						
SIIA11940	Sec II A - CWB CW: construct north DWall & barrette (1.5m thk) (on rock)	06-Dec-14	15-Apr-15	100	0%						
SIIA11945	Sec II A - CWB CW: construct south DWall (1.5m thk) (on rock)	08-Jan-15	27-Apr-15	85	0%						
SIIA12960	Sec II A - CWB CE: Predrilling for Dwall	18-Sep-14 A	17-Dec-14	15	83.33%						
SIIA12980	Sec II A - CWB CE: ground pre-treatment	05-Jan-15	29-Apr-15	90	0%						
SIIA13000	Sec II A - CWB CE: construct Guide Wall	10-Jan-15	26-Mar-15	60	0%						
SIIA13010	Sec II A - CWB CE: construct barrette (1.2m thk)	16-Jan-15	30-May-15	105	0%						
CWB C - Exhaust Duct		18-Dec-14	24-Jan-15	30							
SIIA12820	Sec II A - Exhaust Duct at Slip Rd3: Predrilling for Piles	18-Dec-14	24-Jan-15	30	0%						
CWB D - Slip Road 1		11-Dec-14	20-Jul-15	174							
CWB D - Slip Road 1 - Dwall Construction		11-Dec-14	20-Jul-15	174							
SIIA12240	Sec II A - CWB SR1: Predrilling for Dwall & piles	11-Dec-14	03-Apr-15	90	0%						
SIIA12260	Sec II A - CWB SR1: ground pre-treatment	19-Dec-14	22-May-15	120	0%						
SIIA12280	Sec II A - CWB SR1: Guide Wall	06-Jan-15	13-May-15	100	0%						
SIIA12300	Sec II A - CWB SR1: construct permanent DWall (1.2m thk)	14-Jan-15	12-Mar-15	45	0%						
SIIA12305	Sec II A - CWB SR1: construct temp DWall (1.2m thk)	23-Jan-15	20-Jul-15	140	0%						

		CEDD Contract No. HK/2012/08 Wan Chai Development Phase II Central -Wan Chai Bypass at Wan Chai West				Page 4 / 5				
Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015		
						Nov	Dec	Jan	Feb	Mar
Section VI A - Box Culvert La, L1 & FRP-L Construction		11-Nov-13 A	10-Mar-15	78						
Sec VI A - Box Culvert La bay 1-3 and Roadwork		22-Oct-14 A	26-Jan-15	46						
Box Culvert La Bay 1-3		22-Oct-14 A	26-Jan-15	46						
CUL10570	Sec VI A - Area 1 - Culvert La bay 3 wall and roof slab - curing, backfill and remove upper layer of strut	22-Oct-14 A	10-Dec-14	9	1.99%					
CUL10703	Sec VI A - Area 1 - Culvert La bay 2 wall and roof slab - curing, backfill and remove upper layer of strut	29-Nov-14 A	03-Dec-14	3	50%					
CUL10705	Sec VI A - Area 1 - Culvert La bay 1-3 - construct manhole DO-01; IM-01	02-Dec-14	08-Dec-14	6	0%					
CUL10720	Sec VI A - Area 1 - Culvert La bay 1-3 - backfill to pavement formation	03-Dec-14	16-Dec-14	12	0%					
CUL10730	Sec VI A - Area 1 - Culvert La bay 1-3 - sub-base	10-Dec-14	16-Dec-14	6	0%					
CUL10740	Sec VI A - Area 1 - Culvert La bay 1-3 - road kerb	15-Dec-14	22-Dec-14	7	0%					
CUL10760	Sec VI A - Area 1 - Culvert La bay 1-3 - road paving	15-Dec-14	23-Dec-14	8	0%					
CUL10780	Sec VI A - Area 1 - Culvert La bay 1-3 - pedestrian way paving	24-Dec-14	05-Jan-15	8	0%					
CUL11680	Sec VI A - Area 1 - reinstatement of Kiosks	03-Jan-15	26-Jan-15*	20	0%					
CUL12380	Sec VI A - Area 1 - road marking and road sign	24-Dec-14	31-Dec-14	5	0%					
Section VI A - Area 2 - Lung King Street Roadwork & Utilities		11-Nov-13 A	07-Jan-15	30						
SVIA10040	Sec VI A - Area 1 - Summary of Box Culvert La Construction	11-Nov-13 A	05-Jan-15	28	79.41%					
SVIA10080	Sec VI A - Area 2 - Reinstate the area	01-Dec-14	07-Jan-15	30	0%					
Sec VI C - Box Culvert La bay 4 and Roadwork		08-Dec-14	10-Mar-15	72						
CUL11570	Sec VI C - Culvert L - bay 4 - sheet pile & ELS	08-Dec-14	06-Jan-15	23	0%					
CUL11580	Sec VI C - Culvert L - bay 4 (south half) - construct base slab	07-Jan-15	13-Jan-15	6	0%					
CUL11600	Sec VI C - Culvert L - bay 4 (south half) - construct wall and roof	14-Jan-15	27-Jan-15	12	0%					
CUL11605	Sec VI C - Culvert L - bay 4 (south half) - curing and remove internal formwork	28-Jan-15	04-Feb-15	7	0%					
CUL11615	Sec VI C - Culvert L - bay 4 (south half) - contract temp bulk head inside cells	05-Feb-15	24-Feb-15	12	0%					
CUL11620	Sec VI C - Culvert L - bay 4 - construct top slab	25-Feb-15	10-Mar-15	12	0%					
CUL11645	Sec VI C - Culvert L - bay 4 (north half) - drive pipe pile	28-Jan-15	17-Feb-15	18	0%					
CUL11650	Sec VI C - Culvert L - bay 4 (north half) - demolish existing seawall	25-Feb-15	07-Mar-15	10	0%					
Box Culvert L1 & FRP-L Construction (Bay 5 - Bay 13)		15-Aug-14 A	09-Jun-15	150						
Box Culvert L1 & FRP-L - Bay 5 to 7		15-Aug-14 A	18-Mar-15	85						
CUL10015	Culvert L - form temp opening at existing box culvert Bay 4 for temp flow diversion	01-Dec-14	13-Jan-15	35	0%					
CUL10275	Sec VI C - Culvert L - bay 5,6,7 - erect temp platform for predrilling	03-Oct-14 A	17-Jan-15	39	40%					
CUL10280	Sec VI C - Culvert L - bay 5,6,7 - predrilling	01-Dec-14	19-Jan-15	40	0%					
CUL10800	Sec VI C - Culvert L - bay 7 - construct pre-bored H-pile	12-Dec-14	30-Jan-15	40	0%					
CUL10820	Sec VI C - Culvert L - bay 6 - construct pre-bored H-pile	29-Dec-14	13-Feb-15	40	0%					
CUL10840	Sec VI C - Culvert L - bay 5 - construct pre-bored H-pile	26-Jan-15	18-Mar-15	40	0%					
CUL10868	Sec VI C - Culvert L - bay 5-7 - Form Dry Dock for precast culvert units	15-Aug-14 A	28-Jan-15	48	35.14%					
CUL10870	Sec VI C - Culvert L - bay 5-7 - Construct bottom slabs for precast culvert units	29-Jan-15	28-Feb-15	22	0%					
CUL10940	Sec VI C - Culvert L - bay 5 - pile head treatment and construct pile cap	06-Dec-14	17-Dec-14	10	0%					
CUL10960	Sec VI C - Culvert L - bay 5 - construct base slab	18-Dec-14	02-Jan-15	11	0%					
CUL10980	Sec VI C - Culvert L - bay 5 - construct wall	03-Jan-15	16-Jan-15	12	0%					
CUL11000	Sec VI C - Culvert L - bay 5 - construct top slab	17-Jan-15	03-Feb-15	15	0%					
CUL11020	Sec VI C - Culvert L - bay 6 - pile head treatment and construct pile cap	18-Dec-14	31-Dec-14	10	0%					
CUL11040	Sec VI C - Culvert L - bay 6 - construct base slab	02-Jan-15	14-Jan-15	11	0%					
CUL11060	Sec VI C - Culvert L - bay 6 - construct wall	15-Jan-15	28-Jan-15	12	0%					

		CEDD Contract No. HK/2012/08 Wan Chai Development Phase II Central -Wan Chai Bypass at Wan Chai West				Page 5 / 5					
Activity ID	Activity Name	Start	Finish	Remaining Duration	Activity % Complete	2014		2015			
						Nov	Dec	Jan	Feb	Mar	
	CUL11080	Sec VI C - Culvert L - bay 6 - construct top slab	29-Jan-15	14-Feb-15	15	0%					
	CUL11090	Sec VI C - Culvert L - bay 5, 6 - dismantle formwork and curing	16-Feb-15	11-Mar-15	16	0%					
	Box Culvert L1 & FRP-L - Bay 8 to 13		31-Dec-14	09-Jun-15	126						
	CUL10120	Culvert L - bay 8 - predrilling for pre-bored H-pile	31-Dec-14	15-Jan-15	12	0%					
	CUL10180	Culvert L - bay 8 - construct pre-bored H-pile	08-Jan-15	12-Feb-15	30	0%					
	CUL10260	Culvert L - Bay 8 - install sheetpile	12-Feb-15	07-Mar-15	15	0%					
	CUL11690	CWBA1 - [Summary] Tunnel waterproofing and backfill for Culvert L construction	05-Feb-15	09-Jun-15	96	0%					
	CUL12350	Culvert L - Bay 12 & 13 - Erect temp platform for predrill and pre-bored H-piles	13-Jan-15	02-Feb-15	18	0%					
	CUL12352	Culvert L - Bay 12 & 13 - predrilling for pre-bored H-pile	03-Feb-15	03-Mar-15	20	0%					
	Section VI C - Area 3, 6, 8A & 8C		01-Dec-14	23-May-15	137						
	Area 8A & 8C - Seawall Modification (Reviewed)		01-Dec-14	24-Mar-15	90						
	Modification of Seawall		01-Dec-14	24-Mar-15	90						
	A11705	Sec VI C - pile head treatment	01-Dec-14	07-Jan-15	30	0%					
	A11715	Sec VI C - southbound	16-Dec-14	22-Jan-15	30	0%					
	A11725	Sec VI C - northbound	06-Jan-15	09-Feb-15	30	0%					
	A11780	Sec VI C - drive pipe pile	01-Dec-14	24-Mar-15	90	0%					
	A11800	Sec VI C - seawall modification - bay 1	10-Feb-15	21-Mar-15	30	0%					
	MTR Pump Room Stabilization (Reviewed)		01-Dec-14	06-Mar-15	75						
	PRS-1010	Sec VI C - Install props inside MTR pump house	15-Dec-14	19-Dec-14	5	0%					
	PRS-1020	Sec VI C - Place counter weight on top of MTR pump house	01-Dec-14*	30-Dec-14	24	0%					
	PRS-1030	Sec VI C - Trim existing rubble mound	31-Dec-14	31-Jan-15	27	0%					
	PRS-1040	Sec VI C - fill up void under pump house	02-Feb-15	06-Mar-15	24	0%					
	Area 6 - Box Culvert bay 5-6		29-Jan-15	23-May-15	89						
	SVIC10000	Sec VI C - [Summary] Construct Box Culvert Bay 5-6	29-Jan-15	23-May-15	89	0%					
	Area 3 - Box Culvert bay 4 and Roadwork		08-Dec-14	30-Apr-15	112						
	SVIC10220	Sec VI C - [Summary] Construct Box Culvert Bay 4 in Area 3	08-Dec-14	30-Apr-15	112	0%					
	Section VI D - Area 8B & 10		15-Jan-15	04-Apr-15	80						
	WDII Box 1 Construction (Reviewed)		15-Jan-15	04-Apr-15	80						
	WDII Box 1 Submission and Approval / Material Procurement		15-Jan-15	04-Apr-15	80						
	PCU60410	Sec VI D - WD II Box 1 - Prepare Subcontract for Box 1 structure	16-Jan-15	18-Jan-15	3	0%					
	S0721040	Sec VI D - WD II Box 1 - temp work design - ICE check and issue check cert	15-Jan-15	11-Feb-15	28	0%					
	S0721060	Sec VI D - WD II Box 1 - temp work design - Engineer comment and approve	15-Jan-15	11-Feb-15	28	0%					
	S0721070	Sec VI D - WD II Box 1 - method statement and temp work design - MTR comment and approve	12-Feb-15	04-Apr-15	52	0%					
	S0721080	Sec VI D - WD II Box 1 - Prepare and submit method statement	12-Feb-15	11-Mar-15	28	0%					
	Section VII - Remainder Works		16-Jan-15	05-Feb-15	18						
	Landing Steps Construction		16-Jan-15	05-Feb-15	18						
	SVII11180	Sec VII - Landing Steps - form temporary access from landing steps to Fleet Acade	16-Jan-15	05-Feb-15	18	0%					
	Section VIII - Landscape Softworks		20-Nov-13 A	11-Mar-15	79						
	Soft Landscaping Works		20-Nov-13 A	11-Mar-15	79						
	SVIII10020	Sec VIII - Tree Felling/Transplanting at Portion 2 & 2A	20-Nov-13 A	11-Mar-15	79	12.22%					

WP13-0

Layout: CWB - Working Layout for DWP Rev M

Date Printed 26-Sep-14 11

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
HY/2009/15 - Works Programme Rev. M (DD:20-Sep-12)														
Works in East Ventilation Adit - Based on Alternative Method														
Reinstatement of Breakwater														
S3_54840	Reinstatement works -west side	7d/wk-1	60d	21-Feb-14 08 A	30-Sep-14 18	-85d		Reinstatement works -west side						
S3_60085	Reinstatement works east side	7d/wk-1	60d	31-May-14 08 A	30-Sep-14 18	-85d		Reinstatement works east side						
S3_54845	Completion of Section 3 (KD8) in EVA Area (Alternative Method)	7d/wk-2	0d		30-Sep-14 18	-86d		Completion of Section 3 (KD8) in EVA Area (Alternative Method)						
Works in TS1/TS2 - OHVD and Cable Trough/Maintenance Walkway														
TS2 - OHVD and Cable Trough/Maintenance Walkway														
OHVD Slab and Cable Trough Construction														
S3_6210	TS2 - OHVD/ Cable trough	7d/wk-1	40d	20-May-14 08 A	30-Sep-14 18	-85d		TS2 - OHVD/ Cable trough						
S3_6212	Completion of Section 3 - TS1/TS2 Area (below -6mpd) KD8	7d/wk-2	0d		30-Sep-14 18	-86d		Completion of Section 3 - TS1/TS2 Area (below -6mpd) KD8						
Works in TS4/ME4 Area (Portion 14A, 14B, 15, 23)														
TS4/ME4 - Removal of Temporary Reclamation														
Remaining Works at TZ6														
Stage 4 - Seawall and Reclamation at TZ6														
A-2010	Installation of seawall blocks (Qty: 245 nos.)	7d/wk-2	6d	15-Sep-14 08 A	26-Sep-14 18	-332d		Installation of seawall blocks (Qty: 245 nos.)						
A-2020	Soil Backfilling up to -2.45mPD (Qty:3,000 cu.m.)	7d/wk-2	2d	25-Sep-14 08	26-Sep-14 18	-332d		Soil Backfilling up to -2.45mPD (Qty:3,000 cu.m.)						
A-2030	Utilities installation for Mined Tunnel	7d/wk-2	1d	27-Sep-14 08	27-Sep-14 18	-332d		Utilities installation for Mined Tunnel						
A-2040	Soil backfilling up to ground level (Qty:2,000 cu.m.)	7d/wk-2	2d	28-Sep-14 08	29-Sep-14 18	-332d		Soil backfilling up to ground level (Qty:2,000 cu.m.)						
A-2050	Site clearance	7d/wk-2	1d	30-Sep-14 08	30-Sep-14 18	-305d		Site clearance						
A-2060	Handover to MTR	7d/wk-2	0d		30-Sep-14 18	-305d		Handover to MTR						
Removal of Temporary Reclamation at TS4/ME4														
Stage 5 (Zones A, D & F - TS4-D33 to D-26, SCL2 & ME4-D19 to D13)														
A-3000	D-Wall horizontal cutting (Qty: 62 pcs.)	7d/wk-2	21d	29-Aug-14 08 A	23-Sep-14 18	-340d		D-Wall horizontal cutting (Qty: 62 pcs.)						
Stage 6 (Zone C - P4, ME4-D12 to ME4-D18 & P3)														
A-3011	Marine removal of temporary reclamation and seawall blocks (Zones C)	7d/wk-2	21d	31-Aug-14 08 A	02-Oct-14 18	-353d		Marine removal of temporary reclamation and seawall blocks (Zones C)						
A-3030	D-Wall vertical cutting (Qty: 15 pcs.)	7d/wk-2	4d	03-Oct-14 08	06-Oct-14 18	-353d		D-Wall vertical cutting (Qty: 15 pcs.)						
A-3040	D-Wall horizontal cutting (Qty: 20 pcs.)	7d/wk-2	5d	06-Oct-14 08	10-Oct-14 18	-352d		D-Wall horizontal cutting (Qty: 20 pcs.)						

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

1 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float									
							2015			2016					
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Stage 7 (Zones C & E - ME4-D06 to D01, SCL1 & TS4-D25)															
A-4000	Marine removal of temporary reclamation and seawall blocks (Zones C & E)	7d/wk-2	18d	06-Sep-14 08 A	06-Oct-14 18	-353d		Marine removal of temporary reclamation and seawall blocks (Zones C & E)							
A-3090	Hole coring (Qty: 44 nos)	7d/wk-2	9d	20-Sep-14 08*	28-Sep-14 18	-346d		Hole coring (Qty: 44 nos)							
A-4010	D-Wall vertical cutting (Qty: 27pcs.)	7d/wk-2	7d	07-Oct-14 08	13-Oct-14 18	-353d		D-Wall vertical cutting (Qty: 27pcs.)							
A-4020	D-Wall horizontal cutting (Qty: 37 pcs.)	7d/wk-2	10d	11-Oct-14 08	20-Oct-14 18	-353d		D-Wall horizontal cutting (Qty: 37 pcs.)							
Stage 9 (Zone I - TS4-D01 to TS4-D08)															
A-3050	Remaining removal of temporary reclamation (Zone I)	7d/wk-2	28d	29-Aug-14 08 A	01-Oct-14 18	-342d		Remaining removal of temporary reclamation (Zone I)							
A-3060	Hole coring (Qty: 25 nos)	7d/wk-2	5d	02-Oct-14 08	06-Oct-14 18	-342d		Hole coring (Qty: 25 nos)							
A-3070	D-Wall vertical cutting (Qty: 14 pcs.)	7d/wk-2	3d	07-Oct-14 08	09-Oct-14 18	-342d		D-Wall vertical cutting (Qty: 14 pcs.)							
A-3080	D-Wall horizontal cutting (Qty: 24 pcs.)	7d/wk-2	5d	21-Oct-14 08	25-Oct-14 18	-353d		D-Wall horizontal cutting (Qty: 24 pcs.)							
Stage 8 (Zones G & K - TS4-D24 to TS4-D15)															
A-4040	Relocation of RHKYC floating pontoon	7d/wk-2	5d	22-Sep-14 08*	26-Sep-14 18	-338d		Relocation of RHKYC floating pontoon							
A-4050	Hole coring (Qty: 27 nos)	7d/wk-2	6d	29-Sep-14 08	04-Oct-14 18	-346d		Hole coring (Qty: 27 nos)							
A-4060	Marine removal of temporary reclamation and seawall blocks (Zone G & K)	7d/wk-2	14d	11-Oct-14 08	24-Oct-14 18	-352d		Marine removal of temporary reclamation and seawall blocks (Zone G & K)							
A-4070	D-Wall vertical cutting (Qty: 18pcs.)	7d/wk-2	4d	25-Oct-14 08	28-Oct-14 18	-352d		D-Wall vertical cutting (Qty: 18pcs.)							
A-4080	D-Wall horizontal cutting (Qty: 25 pcs.)	7d/wk-2	7d	26-Oct-14 08	01-Nov-14 18	-352d		D-Wall horizontal cutting (Qty: 25 pcs.)							
Stage 10 (Zone J - TS4-D09 to TS4-D14)															
A-4090	Land removal of temporary reclamation (Zone J)	7d/wk-2	10d	07-Oct-14 08	16-Oct-14 18	-344d		Land removal of temporary reclamation (Zone J)							
A-5000	Hole coring (Qty: 32 nos)	7d/wk-2	7d	17-Oct-14 08	23-Oct-14 18	-340d		Hole coring (Qty: 32 nos)							
A-5010	Marine removal of temporary reclamation (Zone J)	7d/wk-2	7d	26-Oct-14 08	01-Nov-14 18	-353d		Marine removal of temporary reclamation (Zone J)							
A-5020	D-Wall vertical cutting (Qty: 20 pcs.)	7d/wk-2	5d	02-Nov-14 08	06-Nov-14 18	-353d		D-Wall vertical cutting (Qty: 20 pcs.)							
A-5030	D-Wall horizontal cutting (Qty: 26 pcs.)	7d/wk-2	7d	04-Nov-14 08	10-Nov-14 18*	-353d		D-Wall horizontal cutting (Qty: 26 pcs.)							
Stage 13 - Phase 3 Mooring															
A-5050	Final trimming of sea bed level	7d/wk-2	4d	02-Nov-14 08	05-Nov-14 18	-347d		Final trimming of sea bed level							
A-5060	Phase 3 Mooring	7d/wk-2	6d	06-Nov-14 08	11-Nov-14 18	-347d		Phase 3 Mooring							
A-5040	Reinstatement of existing seawall (Zones I & J)	7d/wk-2	7d	11-Nov-14 08	17-Nov-14 18	-353d		Reinstatement of existing seawall (Zones I & J)							
Stage 12 - Re-provisioning of Jetty															
S6_5258	Provision of Mobile Crane (until permanent re-provision of Jetty is completed)	7d/wk-1	160d	20-Feb-14 08 A	30-Dec-14 18	-335d		Provision of Mobile Crane (until permanent re-provision of Jetty is completed)							
A-6010	BA8 submission and consent for commencement of superstructure	7d/wk-2	28d	20-Sep-14 08 A	16-Oct-14 18	-336d		BA8 submission and consent for commencement of superstructure							

-  Summary Bar
-  Actual Level of Effort
-  Actual Work
-  Remaining Work
-  Critical Remaining Work
-  Milestone

2 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep-14	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A-6012	Submission of performance report	7d/wk-2	1d	25-Oct-14 08*	25-Oct-14 18	-286d								
A-6020	Erection of working platform for jetty beams and reinstate the floating portoon	7d/wk-2	10d	02-Nov-14 08	11-Nov-14 18	-352d								
A-6040	BA10 submission for authorized signatory and subcontractor	7d/wk-2	1d	12-Nov-14 08	12-Nov-14 18	-304d								
A-6030	Jetty beams construction	7d/wk-2	14d	12-Nov-14 08	25-Nov-14 18	-352d								
A-6052	Construction of floating pontoon	7d/wk-2	14d	26-Nov-14 08	09-Dec-14 18	-331d								
A-6050	BA13 submission + 14-day cube test results	7d/wk-2	28d	26-Nov-14 08	23-Dec-14 18	-352d								
A-6060	E&M and accessories installation	7d/wk-2	7d	24-Dec-14 08	30-Dec-14 18	-352d								
A-6070	Handover to RHKYC	7d/wk-2	1d	31-Dec-14 08	31-Dec-14 18	-352d								
Stage 11 - Construction of TZ4														
A-6080	South side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	24-Sep-14 08	05-Oct-14 18	-339d								
A-6090	South side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	6d	06-Oct-14 08	11-Oct-14 18	-339d								
A-7000	South side - general fill (Qty: 2,000 cu.m.)	7d/wk-2	2d	12-Oct-14 08	13-Oct-14 18	-339d								
A-7010	North side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	21-Oct-14 08	01-Nov-14 18	-346d								
A-7020	North side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	6d	02-Nov-14 08	07-Nov-14 18	-346d								
A-7030	North side - general fill (Qty:2,000 cu.m.)	7d/wk-2	2d	08-Nov-14 08	09-Nov-14 18	-346d								
A-7040	Handover to contract TS3/SR8	7d/wk-2	1d	10-Nov-14 08	10-Nov-14 18*	-346d								
TS4/ME4, Removal of Temporary Reclamation														
S26875	Completion of Section 2 (With ME4 option) (KD7)	7d/wk-2	0d		17-Nov-14 18	-353d								
S26890	Completion of Section 7B (ME4) (KD13)	7d/wk-2	0d		17-Nov-14 18	-353d								
TS4 - OHVD / Cable Trough														
S5_6185	TS4 (incl. TS4+) - OHVD Slab - Area C (access through temp. opening at TZ4)	7d/wk-1	36d	02-Jan-15 08*	06-Feb-15 18	195d								
S5_6190	TS4 (incl. TS4+) - Cable Trough (access through temp. opening at TZ4)	7d/wk-1	60d	07-Feb-15 08*	14-Apr-15 18	195d								
S5_59850	Completion of Section 5 - TS4/ME4 Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d								
Works in TPCWAE Area (Portion 20A, 20B)														
Removal of Temporary Reclamation														
Removal of Temporary Reclamation & Form TZ5														
S67670	Remove general fill /sea wall block	7d/wk-1	24d	20-May-14 08 A	08-Oct-14 18	-296d								
S67675	Diaphragm wall saw cutting (1st D Wall cut on 23 Jun 2014)	7d/wk-1	31d	03-Sep-14 08 A	16-Oct-14 18	-306d								
S67755	Form TZ5	7d/wk-1	18d	25-Sep-14 08	14-Oct-14 18	-304d								

3 of 18

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015							2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
S67685	Achievement of KD5	7d/wk-2	0d		16-Oct-14 18	-323d	◆ Achievement of KD5									
S67687	Complete Reinstatement of Vertical Seawall (near PRE Office)	7d/wk-2	0d		27-Oct-14 18	-322d	◆ Complete Reinstatement of Vertical Seawall (near PRE Office)									
Reinstate Mucking Out Access Shaft "C"																
S67240	Start reinstatement works (after completion of TPCWAW OHVD works)	6d/wk	0d	26-Mar-16 08		-102d								◆ Start reinstatement works (after completion of TPCWAW OHVD works)		
S67225	Cast slab opening at top of CCT West bound (access shaft)	6d/wk	18d	28-Mar-16 08	16-Apr-16 18	-102d								Cast slab opening at top of CCT West bound (access shaft)		
S67230	Removal of vertical shaft and backfilling	6d/wk	48d	11-Apr-16 08	04-Jun-16 18	-102d								Removal of vertical shaft and backfilling		
S67235	Reinstatement of pavement	6d/wk	12d	30-May-16 08	11-Jun-16 18	-102d								Reinstatement of pavement		
TPCWAE - OHVD / Cable Trough																
S5_7405	TPCWAE - Cable Trough (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d								TPCWAE - Cable Trough (access through temp. opening at TZ5 & Portion 19)		
S5_7400	TPCWAE - OHVD Slab AT Area A (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d								TPCWAE - OHVD Slab AT Area A (access through temp. opening at TZ5 & Portion 19)		
S5_59840	Completion of Section 5 - TPCWAE Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d								◆ Completion of Section 5 - TPCWAE Area (KD10), below -20mPD		
Works in TPCWAW Area																
TPCWAW - Temporary Reclamation																
Temporary Reclamation -																
S6_9440	TPCWAW - place levelling stone and tamping, South side	7d/wk-1	6d	15-Oct-14 08	20-Oct-14 18	-122d	TPCWAW - place levelling stone and tamping, South side									
S6_9450	TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-122d	TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)									
S6_9465	TPCWAW - place levelling stone and tamping, North side	7d/wk-1	6d	02-Nov-14 08	07-Nov-14 18	-122d	TPCWAW - place levelling stone and tamping, North side									
S6_9470	TPCWAW - place seawall blocks to +4 North side (Qty: 672 nos @ 50 nos/day)	7d/wk-1	14d	08-Nov-14 08	21-Nov-14 18	-122d	TPCWAW - place seawall blocks to +4 North side (Qty: 672 nos @ 50 nos/day)									
S6_9495	TPCWAW - General fill to +2 within the seawall	7d/wk-1	17d	15-Nov-14 08	01-Dec-14 18	-122d	TPCWAW - General fill to +2 within the seawall									
S6_9490	TPCWAW - place seawall blocks to +4 at the temporary opening	7d/wk-1	7d	02-Dec-14 08	08-Dec-14 18	-122d	TPCWAW - place seawall blocks to +4 at the temporary opening									
S6_9475	TPCWAW - Remaining General fill to +4 within the seawall	7d/wk-1	10d	09-Dec-14 08	18-Dec-14 18	-122d	TPCWAW - Remaining General fill to +4 within the seawall									
TPCWAW - Diaphragm Wall																
Diaphragm Wall																
S6_9385	Site investigation	7d/wk-1	49d	01-Dec-14 08	21-Jan-15 18	-113d	Site investigation									
S6_8960	Install guide wall	7d/wk-1	40d	17-Dec-14 08	28-Jan-15 18	-120d	Install guide wall									
S6_8955	Curtain grout along proposed diaphragm wall	7d/wk-1	40d	19-Dec-14 08	30-Jan-15 18	-122d	Curtain grout along proposed diaphragm wall									
S6_9382	Set up bentonite silo/plants and equipments	7d/wk-1	30d	19-Dec-14 08	20-Jan-15 18	-112d	Set up bentonite silo/plants and equipments									
S6_9345	Diaphragm wall construction (34 panels @ 3 panels/ week)	7d/wk-1	68d	30-Jan-15 08	14-Apr-15 18	-141d	Diaphragm wall construction (34 panels @ 3 panels/ week)									
S6_9350	Install shear pins on diaphragm wall	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d	Install shear pins on diaphragm wall									

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

◆ Milestone

4 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

CSCEC

中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015												2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3							
S6_9355	Install king posts	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d			Install king posts												
S6_8970	Diaphragm Wall Pile test	7d/wk-1	40d	20-Mar-15 08	03-May-15 18	-129d			Diaphragm Wall Pile test												
S6_9375	Carry out contact/fissure grouting	7d/wk-1	29d	21-Mar-15 08	22-Apr-15 18	-141d			Carry out contact/fissure grouting												
TPCWAW- ELS Works																					
ELS Works																					
S6_9360	Install dewatering wells and piezometers	7d/wk-1	20d	30-Mar-15 08	22-Apr-15 18	-141d			Install dewatering wells and piezometers												
S6_9365	Install inclinometers inside D-wall	7d/wk-1	20d	15-Apr-15 08	05-May-15 18	-141d			Install inclinometers inside D-wall												
S6_8975	Carry out pumping tests	7d/wk-1	12d	23-Apr-15 08	05-May-15 18	-141d			Carry out pumping tests												
S6_8980	1st Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	06-May-15 08	15-May-15 18	-141d			1st Layer - D Wall conc over break if any & Soft Excavation												
S6_9260	Submit pumping test report	7d/wk-1	1d	06-May-15 08	06-May-15 18	-137d			Submit pumping test report												
S6_8985	1st Layer - install lateral support	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			1st Layer - install lateral support												
S6_8990	Install vibrating wire strain gauge	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			Install vibrating wire strain gauge												
S6_8995	2nd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	18-May-15 08	28-May-15 18	-141d			2nd Layer - D Wall conc over break if any & Soft Excavation												
S6_9000	2nd Layer - install lateral support	7d/wk-1	10d	29-May-15 08	07-Jun-15 18	-141d			2nd Layer - install lateral support												
S6_9005	3rd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	31-May-15 08	09-Jun-15 18	-141d			3rd Layer - D Wall conc over break if any & Soft Excavation												
S6_9010	3rd Layer - install lateral support	7d/wk-1	10d	10-Jun-15 08	19-Jun-15 18	-141d			3rd Layer - install lateral support												
S6_9015	4th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	12-Jun-15 08	22-Jun-15 18	-141d			4th Layer - D Wall conc over break if any & Soft Excavation												
S6_9020	4th Layer - install lateral support	7d/wk-1	10d	23-Jun-15 08	03-Jul-15 18	-141d			4th Layer - install lateral support												
S6_9025	5th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	25-Jun-15 08	05-Jul-15 18	-141d			5th Layer - D Wall conc over break if any & Soft Excavation												
S6_9030	5th Layer - install lateral support	7d/wk-1	10d	27-Jun-15 08	07-Jul-15 18	-141d			5th Layer - install lateral support												
S6_9035	6th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	08-Jul-15 08	17-Jul-15 18	-141d			6th Layer - D Wall conc over break if any & Soft Excavation												
S6_9040	6th Layer - install lateral support	7d/wk-1	10d	18-Jul-15 08	27-Jul-15 18	-69d			6th Layer - install lateral support												
TPCWAW - ROCK EXCAVATION																					
S6_6180	Rock excavation to formation	7d/wk-1	112d	18-Jul-15 08	09-Nov-15 18	-141d			Rock excavation to formation												
S6_9370	Install tie back anchor to D- Walls (area on west side, near Portion 11)	7d/wk-1	25d	20-Jul-15 08	13-Aug-15 18	-69d			Install tie back anchor to D- Walls (area on west side, near Portion 11)												
S6_9415	Install tie back anchor to D- Walls (east area)	7d/wk-1	20d	20-Jul-15 08	08-Aug-15 18	-69d			Install tie back anchor to D- Walls (east area)												
S6_9055	Provide Access to WDII Contractor for demolition of bulkhead at Portion 11	7d/wk-2	0d		10-Nov-15 18	-133d			Provide Access to WDII Contractor for demolition of bulkhead												
TPCWAW- CCT RC Structure																					
TPCWAW - CCT / OHVD																					
Summary Bar Actual Level of Effort Actual Work Remaining Work Critical Remaining Work Milestone							5 of 18														
China State Construction Engineering (Hong Kong) Ltd																					
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)																					
WORKS PROGRAMME REV. M																					
							Prepared by William Caluza														
							Date		Revision		Checked		Approved								
							26-Sep...		1st submission												

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015								2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3				
S6_9070	TPCWAW Construct tunnel base slab	7d/wk-1	50d	23-Oct-15 08	11-Dec-15 18	-141d									TPCWAW Construct tunnel base slab			
S6_9075	TPCWAW Construct tunnel wall + OHVD + roof slab	7d/wk-1	80d	13-Nov-15 08	02-Feb-16 18	-141d									TPCWAW Construct tunnel wall + OHVD +			
S6_9077	TPCWAW - external waterproofing on top of completed CCT box (incl. screeding)	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d									TPCWAW - external waterproofing on			
S6_9076	TPCWAW King post load transfer	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d									TPCWAW King post load transfer			
TPCWAW - Removal of Temporary Reclamation																		
Removal of Temporary Reclamation																		
S6_9140	Backfilling/Removal of ELS/ Reinstatement of sea wall at Portion 11 (concurrent activities)	7d/wk-1	30d	17-Feb-16 08	17-Mar-16 18	-120d									Backfilling/Removal of ELS/ Reinsta			
S6_9105	Remove general fill/ seawall block (concurrent activities)	7d/wk-1	25d	06-Mar-16 08	30-Mar-16 18	-120d									Remove general fill/ seawall bloc			
S6_9120	Saw cut diaphragm wall	7d/wk-1	63d	21-Mar-16 08	23-May-16 18	-120d									Saw cut diaphragm w			
S6_7550	Completion of Section 6- (KD11), above - 20mPD	7d/wk-2	0d		23-May-16 18	-121d									Completion of Section			
TPCWAW -Cable Trough/ Maintenance Walkway																		
S6_9085	TPCWAW - Cable Trough (access through temp. opening at Portion 19)	7d/wk-2	24d	02-Mar-16 08	25-Mar-16 18	-144d									TPCWAW - Cable Trough (access			
S6_9135	Completion of Section 5 - TPCWAW Area (KD10), below -20mPD	7d/wk-2	0d		25-Mar-16 18	-144d									Completion of Section 5 - TPCWA			
Works in Wan Chai PCWA (Portion 11)																		
Initial Works & Utilities Works																		
S4_2810	Installation of Hoarding	7d/wk-1	24d	05-May-14 08 A	17-Oct-14 18	-58d									Installation of Hoarding			
S4_2720	Remove existing rock mound	7d/wk-1	24d	21-Oct-14 08	13-Nov-14 18	-61d									Remove existing rock mound			
S4_2750	Carry out Site Investigation for BW1/BW2	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-61d									Carry out Site Investigation for BW1/BW2			
S4_2755	BW1/BW2 Engineers confirmation of provisional Barrettes	7d/wk-1	0d		07-Nov-14 18	-61d									BW1/BW2 Engineers confirmation of provisional Barrettes			
Allow Access to WDII																		
S4_2785	Complete Section 4 - Portion 11 (KD9)	7d/wk-2	0d		10-Nov-15 18	-132d									Complete Section 4 - Portion 11 (KD9)			
S4_2775	Return Portion 11 to WDII	7d/wk-1	0d		10-Nov-15 18	-129d									Return Portion 11 to WDII			
Works for Mined Tunnel (Portion 16, 17, 18)																		
SR8 (Tunnel Excavation + Lining)																		
From West (TPCWAE)																		
Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																		
A8676	SR8 Heading Excavation From West, CH 4095- 4107 = 8m @2d/m	7d/wk-1a	16d	03-Sep-14 08 A	28-Sep-14 18	164d									SR8 Heading Excavation From West, CH 4095- 4107 = 8m @2d/m			
Bench Excavation (1.5d-2d/m, 20m separation with heading)																		
A8700	SR8 Bench Excavation From West, CH 4055- 4065 = 10m	7d/wk-1a	20d	08-Sep-14 08 A	24-Sep-14 18	148d									SR8 Bench Excavation From West, CH 4055- 4065 = 10m			
6 of 18							Prepared by William Caluza				Date		Revision		Checked		Approved	
China State Construction Engineering (Hong Kong) Ltd											26-Sep...		1st submission					
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)																		
WORKS PROGRAMME REV. M																		
Summary Bar																		
Actual Level of Effort																		
Actual Work																		
Remaining Work																		
Critical Remaining Work																		
Milestone																		

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A8705	SR8 Bench Excavation From West, CH 4065- 4075 = 10m	7d/wk-1a	20d	25-Sep-14 08	15-Oct-14 18	148d								
A8685	SR8 Bench Excavation From West, CH 4075- 4085 = 10m	7d/wk-1a	20d	16-Oct-14 08	04-Nov-14 18	148d								
A8680	SR8 Bench Excavation From West, CH 4085- 4095 = 10m	7d/wk-1a	20d	05-Nov-14 08	24-Nov-14 18	148d								
A8725	SR8 Bench Excavation From West, CH 4095- 4100 = 5m	7d/wk-1a	10d	25-Nov-14 08	04-Dec-14 18	148d								
From East (TS4)														
Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)														
A8495	SR8 Heading Excavation From East CH 4115- 4107 = 8m @2d/m	7d/wk-1a	16d	15-Sep-14 08 A	28-Sep-14 18	10d								
Bench Excavation (1.5d/m, 20m separation with heading)														
A8455	SR8 Bench Excavation From East, CH 4147.5- 4135 = 12.5m	7d/wk-1a	19d	20-Sep-14 08	09-Oct-14 18	0d								
A8470	SR8 Bench Excavation From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	10-Oct-14 08	24-Oct-14 18	0d								
A8460	SR8 Bench Excavation From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	25-Oct-14 08	08-Nov-14 18	0d								
A8465	SR8 Bench Excavation From East, CH 4115- 4100 = 15m	7d/wk-1a	23d	09-Nov-14 08	01-Dec-14 18	0d								
Tunnel Lining Works														
From West - Base Slab (10m/bay, 10m separation with benching excavation)														
A8525	SR8, From West, CH 4015 - 4025 = 10m/bay, base slab	7d/wk-1a	10d	15-Sep-14 08 A	04-Oct-14 18	137d								
A8530	SR8, From West,CH 4025 - 4035 = 10m/bay, base slab	7d/wk-1a	10d	05-Oct-14 08	14-Oct-14 18	163d								
A8535	SR8, From West,CH 4035 - 4045 = 10m/bay, base slab	7d/wk-1a	8d	15-Oct-14 08	22-Oct-14 18	165d								
A8540	SR8, From West, CH 4045 - 4055 = 10m/bay, base slab	7d/wk-1a	8d	23-Oct-14 08	30-Oct-14 18	165d								
A8545	SR8, From West, CH 4055 - 4065 = 10m/bay, base slab	7d/wk-1a	8d	05-Nov-14 08	12-Nov-14 18	160d								
A8550	SR8, From West, CH 4065 - 4075 = 10m/bay, base slab	7d/wk-1a	8d	25-Nov-14 08	02-Dec-14 18	148d								
A8555	SR8, From West, CH 4075 - 4085 = 10m/bay, base slab	7d/wk-1a	8d	05-Dec-14 08	12-Dec-14 18	148d								
A8560	SR8, From West, CH 4085 - 4095 = 10m/bay, base slab	7d/wk-1a	8d	13-Dec-14 08	20-Dec-14 18	150d								
A8561	SR8, From West, CH 4095 - 4105 = 10m/bay, base slab	7d/wk-1a	8d	21-Dec-14 08	29-Dec-14 18	152d								
A8562	SR8, From West, CH 4105 - 4115 = 10m/bay, base slab	7d/wk-1a	8d	30-Dec-14 08	07-Jan-15 18	154d								
From West - Lining (5m/bay, 10m separation with base slab)														
A8575	SR8, From West, CH 3995 - 4000 = 1bay, lining	7d/wk-1a	9d	20-Sep-14 08	28-Sep-14 18	0d								
A8580	SR8, From West, CH 4000 - 4005 = 1bay, lining	7d/wk-1a	9d	05-Oct-14 08	13-Oct-14 18	137d								
A8585	SR8, From West, CH 4005 - 4010 = 1bay, lining	7d/wk-1a	9d	14-Oct-14 08	22-Oct-14 18	137d								
A8590	SR8, From West, CH 4010 - 4015 = 1bay, lining	7d/wk-1a	9d	23-Oct-14 08	31-Oct-14 18	137d								

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

7 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A8595	SR8, From West, CH 4015 - 4020 = 1bay, lining	7d/wk-1a	9d	01-Nov-14 08	09-Nov-14 18	137d	■ SR8, From West, CH 4015 - 4020 = 1bay, lining							
A8600	SR8, From West, CH 4020 - 4025 = 1bay, lining	7d/wk-1a	9d	10-Nov-14 08	18-Nov-14 18	137d	■ SR8, From West, CH 4020 - 4025 = 1bay, lining							
A8605	SR8, From West, CH 4025 - 4030 = 1bay, lining	7d/wk-1a	5d	19-Nov-14 08	23-Nov-14 18	137d	■ SR8, From West, CH 4025 - 4030 = 1bay, lining							
A8610	SR8, From West, CH 4030 - 4035 = 1bay, lining	7d/wk-1a	5d	24-Nov-14 08	28-Nov-14 18	137d	■ SR8, From West, CH 4030 - 4035 = 1bay, lining							
A8615	SR8, From West, CH 4035 - 4040 = 1bay, lining	7d/wk-1a	5d	29-Nov-14 08	03-Dec-14 18	137d	■ SR8, From West, CH 4035 - 4040 = 1bay, lining							
A8620	SR8, From West, CH 4040 - 4045 = 1bay, lining	7d/wk-1a	5d	04-Dec-14 08	08-Dec-14 18	137d	■ SR8, From West, CH 4040 - 4045 = 1bay, lining							
A8625	SR8, From West, CH 4045 - 4050 = 1bay, lining	7d/wk-1a	5d	09-Dec-14 08	13-Dec-14 18	137d	■ SR8, From West, CH 4045 - 4050 = 1bay, lining							
A8630	SR8, From West, CH 4050 - 4055 = 1bay, lining	7d/wk-1a	5d	14-Dec-14 08	18-Dec-14 18	137d	■ SR8, From West, CH 4050 - 4055 = 1bay, lining							
A8635	SR8, From West, CH 4055 - 4060 = 1bay, lining	7d/wk-1a	5d	19-Dec-14 08	23-Dec-14 18	137d	■ SR8, From West, CH 4055 - 4060 = 1bay, lining							
A8640	SR8, From West, CH 4060 - 4065 = 1bay, lining	7d/wk-1a	5d	24-Dec-14 08	29-Dec-14 18	137d	■ SR8, From West, CH 4060 - 4065 = 1bay, lining							
A8645	SR8, From West, CH 4065 - 4070 = 1bay, lining	7d/wk-1a	5d	30-Dec-14 08	04-Jan-15 18	137d	■ SR8, From West, CH 4065 - 4070 = 1bay, lining							
A8647	SR8, From West, CH 4070 - 4075 = 1bay, lining	7d/wk-1a	5d	05-Jan-15 08	09-Jan-15 18	137d	■ SR8, From West, CH 4070 - 4075 = 1bay, lining							
A8648	SR8, From West, CH 4075 - 4080 = 1bay, lining	7d/wk-1a	5d	10-Jan-15 08	14-Jan-15 18	137d	■ SR8, From West, CH 4075 - 4080 = 1bay, lining							
A8649	SR8, From West, CH 4080 - 4085 = 1bay, lining	7d/wk-1a	5d	15-Jan-15 08	19-Jan-15 18	137d	■ SR8, From West, CH 4080 - 4085 = 1bay, lining							
A8651	SR8, From West, CH 4085 - 4090 = 1bay, lining	7d/wk-1a	5d	20-Jan-15 08	24-Jan-15 18	137d	■ SR8, From West, CH 4085 - 4090 = 1bay, lining							
A8652	SR8, From West, CH 4090 - 4095 = 1bay, lining	7d/wk-1a	5d	25-Jan-15 08	29-Jan-15 18	137d	■ SR8, From West, CH 4090 - 4095 = 1bay, lining							
A8653	SR8, From West, CH 4095 - 4100 = 1bay, lining	7d/wk-1a	5d	30-Jan-15 08	03-Feb-15 18	137d	■ SR8, From West, CH 4095 - 4100 = 1bay, lining							
A8654	SR8, From West, CH 4100 - 4105 = 1bay, lining	7d/wk-1a	5d	04-Feb-15 08	08-Feb-15 18	137d	■ SR8, From West, CH 4100 - 4105 = 1bay, lining							
From East - Base Slab (10m/bay, 10m separation with benching excavation)														
A9775	SR8 From East, CH 4149.5 - 4145 = 4.5m, base slab	7d/wk-1a	8d	02-Dec-14 08	09-Dec-14 18	0d	■ SR8 From East, CH 4149.5 - 4145 = 4.5m, base slab							
A9780	SR8 From East, CH 4145 - 4135 = 10m/bay, base slab	7d/wk-1a	8d	10-Dec-14 08	17-Dec-14 18	0d	■ SR8 From East, CH 4145 - 4135 = 10m/bay, base slab							
A9785	SR8 From East, CH 4135 - 4125 = 10m/bay, base slab	7d/wk-1a	8d	18-Dec-14 08	26-Dec-14 18	8d	■ SR8 From East, CH 4135 - 4125 = 10m/bay, base slab							
A9786	SR8 From East, CH 4125 - 4115 = 10m/bay, base slab	7d/wk-1a	8d	27-Dec-14 08	04-Jan-15 18	10d	■ SR8 From East, CH 4125 - 4115 = 10m/bay, base slab							
From East - Lining (5m/bay, 10m separation with base slab)														
A9820	From East, SR8 CH 4149.5 - 4145 = 4.5m, 1 bay, lining	7d/wk-1a	5d	18-Dec-14 08	22-Dec-14 18	0d	■ From East, SR8 CH 4149.5 - 4145 = 4.5m, 1 bay, lining							
A9815	From East, SR8 CH 4145 - 4140 = 1bay, lining	7d/wk-1a	5d	23-Dec-14 08	28-Dec-14 18	6d	■ From East, SR8 CH 4145 - 4140 = 1bay, lining							
A9810	From East, SR8 CH 4140 - 4135 = 1bay, lining	7d/wk-1a	5d	29-Dec-14 08	03-Jan-15 18	6d	■ From East, SR8 CH 4140 - 4135 = 1bay, lining							
A9805	From East, SR8 CH 4135 - 4130 = 1bay, lining	7d/wk-1a	5d	04-Jan-15 08	08-Jan-15 18	6d	■ From East, SR8 CH 4135 - 4130 = 1bay, lining							

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

8 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015								2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3			
A9870	From East, SR8 CH 4130 - 4125 = 1bay, lining	7d/wk-1a	5d	09-Jan-15 08	13-Jan-15 18	6d		■ From East, SR8 CH 4130 - 4125 = 1bay, lining									
A9800	From East, SR8 CH 4125 - 4120 = 1bay, lining	7d/wk-1a	5d	14-Jan-15 08	18-Jan-15 18	143d		■ From East, SR8 CH 4125 - 4120 = 1bay, lining									
A9860	From East, SR8 CH 4120 - 4115 = 1bay, lining	7d/wk-1a	5d	19-Jan-15 08	23-Jan-15 18	143d		■ From East, SR8 CH 4120 - 4115 = 1bay, lining									
A9855	From East, SR8 CH 4115 - 4110 = 1bay, lining	7d/wk-1a	5d	24-Jan-15 08	28-Jan-15 18	143d		■ From East, SR8 CH 4115 - 4110 = 1bay, lining									
A9850	From East, SR8 CH 4110 - 4105 = 1bay, lining	7d/wk-1a	5d	29-Jan-15 08	02-Feb-15 18	143d		■ From East, SR8 CH 4110 - 4105 = 1bay, lining									
OHVD(10m/bay) / Utility Trough																	
A8570	SR8 Tunnel OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a	120d	09-Feb-15 08	13-Jun-15 18	137d			■ SR8 Tunnel OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay								
EB Outer Tunnel Excavation																	
From West (TPCWAE)																	
Outer Bench Excavation (1.5d - 2d/m, 20m separation with heading)																	
A9550	EB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	30d	07-Aug-14 08 A	20-Oct-14 18	135d		■ EB, Outer Bench From West, CH 4035- 4045 = 10m									
A9555	EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)	7d/wk-1a	20d	20-Oct-14 08	08-Nov-14 18	135d		■ EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)									
A9560	EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)	7d/wk-1a	20d	09-Nov-14 08	28-Nov-14 18	135d		■ EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)									
A9565	EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)	7d/wk-1a	20d	29-Nov-14 08	18-Dec-14 18	135d		■ EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)									
A9520	EB, Outer Bench From West, CH 4075- 4085 = 10m (2d/m)	7d/wk-1a	20d	19-Dec-14 08	09-Jan-15 18	135d		■ EB, Outer Bench From West, CH 4075- 4085 = 10m (2d/m)									
A9545	EB, Outer Bench From West, CH 4085- 4095 = 10m 1.5d/m)	7d/wk-1a	15d	10-Jan-15 08	24-Jan-15 18	135d		■ EB, Outer Bench From West, CH 4085- 4095 = 10m 1.5d/m)									
From East (TS4)																	
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)																	
A9605	EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	30d	20-Oct-14 08*	18-Nov-14 18	120d		■ EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m									
A9610	EB, Outer Bench From East, CH 4145- 4135 = 10m (2d/m)	7d/wk-1a	20d	19-Nov-14 08	08-Dec-14 18	120d		■ EB, Outer Bench From East, CH 4145- 4135 = 10m (2d/m)									
A9615	EB, Outer Bench From East, CH 4135- 4125 = 10m (2d/m)	7d/wk-1a	20d	09-Dec-14 08	29-Dec-14 18	120d		■ EB, Outer Bench From East, CH 4135- 4125 = 10m (2d/m)									
A9620	EB, Outer Bench From East, CH 4125- 4115 = 10m (2d/m)	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	120d		■ EB, Outer Bench From East, CH 4125- 4115 = 10m (2d/m)									
A9625	EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	120d		■ EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)									
A9630	EB, Outer Bench From East, CH 4105- 4095 = 10m (1.5d/m)	7d/wk-1a	15d	08-Feb-15 08	26-Feb-15 18	120d		■ EB, Outer Bench From East, CH 4105- 4095 = 10m (1.5d/m)									
EB (Inner Tunnel Excavation + Lining)																	
From West (TPCWAE)																	
Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																	
A8805	EB, Inner Heading From West, CH 3992- 4005 = 13m @3d/m	7d/wk-1a	39d	29-Sep-14 08	07-Nov-14 18	0d		■ EB, Inner Heading From West, CH 3992- 4005 = 13m @3d/m									
A8815	EB, Inner Heading From West, CH 4005- 4015 = 10m @2d/m	7d/wk-1a	20d	08-Nov-14 08	27-Nov-14 18	0d		■ EB, Inner Heading From West, CH 4005- 4015 = 10m @2d/m									

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

9 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float									
							2015			2016					
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
A8820	EB,Inner Heading From West , CH 4015- 4025 = 10m @2d/m	7d/wk-1a	20d	28-Nov-14 08	17-Dec-14 18	0d		EB,Inner Heading From West , CH 4015- 4025 = 10m @2d/m							
A8780	EB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	18-Dec-14 08	08-Jan-15 18	0d		EB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m							
A8810	EB,Inner Heading From West , CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	09-Jan-15 08	28-Jan-15 18	0d		EB,Inner Heading From West , CH 4035- 4045 = 10m @2d/m							
A8785	EB,Inner Heading From West , CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	29-Jan-15 08	17-Feb-15 18	0d		EB,Inner Heading From West , CH 4045- 4055 = 10m @2d/m							
A8790	EB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	18-Feb-15 08	12-Mar-15 18	0d		EB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m							
A8795	EB,Inner Heading From West , CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	13-Mar-15 08	01-Apr-15 18	0d		EB,Inner Heading From West , CH 4065- 4075 = 10m, @ 2d/m							
A8800	EB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	02-Apr-15 08	22-Apr-15 18	0d		EB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m							
A8825	EB,Inner Heading From West, CH 4085- 4095 = 10m @ 2d/m	7d/wk-1a	20d	23-Apr-15 08	13-May-15 18	0d		EB,Inner Heading From West, CH 4085- 4095 = 10m @ 2d/m							
Inner Bench Excavation (1.5-2d/m, 20m separation with heading)															
A8765	EB, Inner Bench From West, CH 3992- 4005 = 13m (2d/m)	7d/wk-1a	26d	08-Nov-14 08	03-Dec-14 18	23d		EB, Inner Bench From West, CH 3992- 4005 = 13m (2d/m)							
A8770	EB, Inner Bench From West,CH 4005- 4015 = 10m	7d/wk-1a	15d	18-Dec-14 08	03-Jan-15 18	9d		EB, Inner Bench From West,CH 4005- 4015 = 10m							
A8775	EB, Inner Bench From West,CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Jan-15 08	23-Jan-15 18	4d		EB, Inner Bench From West,CH 4015- 4025 = 10m							
A8735	EB, Inner Bench From West,CH 4025- 4035 = 10m	7d/wk-1a	15d	29-Jan-15 08	12-Feb-15 18	14d		EB, Inner Bench From West,CH 4025- 4035 = 10m							
A8740	EB, Inner Bench From West,CH 4035- 4045 = 10m	7d/wk-1a	15d	18-Feb-15 08	07-Mar-15 18	11d		EB, Inner Bench From West,CH 4035- 4045 = 10m							
A8745	EB, Inner Bench From West,CH 4045- 4055 = 10m	7d/wk-1a	15d	13-Mar-15 08	27-Mar-15 18	6d		EB, Inner Bench From West,CH 4045- 4055 = 10m							
A8750	EB, Inner Bench From West,CH 4055- 4065 = 10m	7d/wk-1a	15d	02-Apr-15 08	17-Apr-15 18	1d		EB, Inner Bench From West,CH 4055- 4065 = 10m							
A8755	EB, Inner Bench From West,CH 4065- 4075 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	1d		EB, Inner Bench From West,CH 4065- 4075 = 10m							
A8760	EB, Inner Bench From West,CH 4075- 4085 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d		EB, Inner Bench From West,CH 4075- 4085 = 10m							
A8761	EB, Inner Bench From West,CH 4085- 4095 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d		EB, Inner Bench From West,CH 4085- 4095 = 10m							
From East (TS4)															
Inner Heading Excavation (3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)															
A8835	EB,Inner Heading From East, CH 4147.5 to 4145 = 2.5m, @ 3d/m	7d/wk-1a	8d	06-Jan-15 08	13-Jan-15 18	0d		EB,Inner Heading From East, CH 4147.5 to 4145 = 2.5m, @ 3d/m							
A8850	EB,Inner Heading From East, CH 4145- 4135 = 10m, @ 3d/m	7d/wk-1a	30d	14-Jan-15 08	12-Feb-15 18	0d		EB,Inner Heading From East, CH 4145- 4135 = 10m, @ 3d/m							
A8830	EB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	13-Feb-15 08	07-Mar-15 18	0d		EB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m							
A8840	EB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	08-Mar-15 08	27-Mar-15 18	0d		EB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m							
A9910	EB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	28-Mar-15 08	17-Apr-15 18	0d		EB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m							
A8845	EB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Apr-15 08	08-May-15 18	0d		EB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m							
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)															
A8860	EB,Inner Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	4d	08-Mar-15 08	11-Mar-15 18	11d		EB,Inner Bench From East, CH 4147.5 - 4145 = 2.5m							

- Summary Bar
- Actual Level of Effort
- Actual Work
- Remaining Work
- Critical Remaining Work
- Milestone

10 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A8865	EB, Inner Bench From East, CH 4145- 4135 = 10m	7d/wk-1a	15d	12-Mar-15 08	26-Mar-15 18	11d			■ EB, Inner Bench From East, CH 4145- 4135 = 10m				
A8870	EB, Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	28-Mar-15 08	12-Apr-15 18	10d			■ EB, Inner Bench From East, CH 4135- 4125 = 10m				
A8855	EB, Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	5d			■ EB, Inner Bench From East, CH 4125- 4115 = 10m				
A8875	EB, Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	09-May-15 08	23-May-15 18	0d			■ EB, Inner Bench From East, CH 4115- 4105 = 10m				
A9915	EB, Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	16d	24-May-15 08	08-Jun-15 18	0d			■ EB, Inner Bench From East, CH 4105- 4095 = 10m				
Tunnel Lining Works													
From West Base Slab (10m/bay, 10m separation with benching excavation)													
A8900	EB From West, Base Slab CH 3990 - 3995 = 1 bay	7d/wk-1a	10d	04-Dec-14 08	13-Dec-14 18	33d			■ EB From West, Base Slab CH 3990 - 3995 = 1 bay				
A8890	EB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Jan-15 08	13-Jan-15 18	14d			■ EB From West, Base Slab CH 3995 - 4005 = 10m/bay				
A8905	EB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	24-Jan-15 08	02-Feb-15 18	4d			■ EB From West, Base Slab CH 4005 - 4015 = 10m/bay				
A8910	EB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	14d			■ EB From West, Base Slab CH 4015 - 4025 = 10m/bay				
A8915	EB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	12d			■ EB From West, Base Slab CH 4025 - 4035 = 10m/bay				
A8920	EB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	28-Mar-15 08	07-Apr-15 18	8d			■ EB From West, Base Slab CH 4035 - 4045 = 10m/bay				
A8925	EB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	18-Apr-15 08	27-Apr-15 18	4d			■ EB From West, Base Slab CH 4045 - 4055 = 10m/bay				
A8930	EB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	5d			■ EB From West, Base Slab CH 4055 - 4065 = 10m/bay				
A8880	EB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	5d			■ EB From West, Base Slab CH 4065 - 4075 = 10m/bay				
A8885	EB From West, Base Slab CH 4075 - 4085 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	0d			■ EB From West, Base Slab CH 4075 - 4085 = 10m/bay				
A8895	EB From West, Base Slab CH 4085 - 4095 = 10m/bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	0d			■ EB From West, Base Slab CH 4085 - 4095 = 10m/bay				
From East Base Slab (10m/bay, 10m separation with benching excavation)													
A9905	EB From East, Base Slab CH 4149.5 - 4145 = 4.5m	7d/wk-1a	10d	13-Apr-15 08	22-Apr-15 18	26d			■ EB From East, Base Slab CH 4149.5 - 4145 = 4.5m				
A9900	EB From East, Base Slab CH 4145 - 4135 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	16d			■ EB From East, Base Slab CH 4145 - 4135 = 10m/bay				
A9895	EB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	24-May-15 08	02-Jun-15 18	6d			■ EB From East, Base Slab CH 4135 - 4125 = 10m/bay				
A9890	EB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	09-Jun-15 08	18-Jun-15 18	0d			■ EB From East, Base Slab CH 4125 - 4115 = 10m/bay				
A9885	EB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d			■ EB From East, Base Slab CH 4115 - 4105 = 10m/bay				
A9880	EB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d			■ EB From East, Base Slab CH 4105 - 4095 = 10m/bay				
Lining (5m/bay, 15m separation with base slab)													
A9065	EB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	10d	03-Feb-15 08	12-Feb-15 18	4d			■ EB From West, Lining CH 3990 - 3995 = 1bay				
A9005	EB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	4d			■ EB From West, Lining CH 3995 - 4000 = 1bay				
A9090	EB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	10d	26-Feb-15 08	07-Mar-15 18	4d			■ EB From West, Lining CH 4000 - 4005 = 1bay				

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

11 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

CSCEC

中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A9050	EB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	4d			■ EB From West, Lining CH 4005 - 4010 = 1bay					
A9055	EB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	10d	18-Mar-15 08	27-Mar-15 18	4d			■ EB From West, Lining CH 4010 - 4015 = 1bay					
A9080	EB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	10d	26-Mar-15 08	05-Apr-15 18	4d			■ EB From West, Lining CH 4015 - 4020 = 1bay					
A9070	EB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	10d	03-Apr-15 08	13-Apr-15 18	4d			■ EB From West, Lining CH 4020 - 4025 = 1bay					
A9075	EB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	10d	12-Apr-15 08	21-Apr-15 18	4d			■ EB From West, Lining CH 4025 - 4030 = 1bay					
A9080	EB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	10d	20-Apr-15 08	29-Apr-15 18	4d			■ EB From West, Lining CH 4030 - 4035 = 1bay					
A9085	EB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	10d	28-Apr-15 08	08-May-15 18	4d			■ EB From West, Lining CH 4035 - 4040 = 1bay					
A9015	EB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	10d	07-May-15 08	16-May-15 18	4d			■ EB From West, Lining CH 4040 - 4045 = 1bay					
A9020	EB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	10d	15-May-15 08	24-May-15 18	4d			■ EB From West, Lining CH 4045 - 4050 = 1bay					
A9025	EB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	10d	23-May-15 08	01-Jun-15 18	4d			■ EB From West, Lining CH 4050 - 4055 = 1bay					
A9030	EB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	10d	31-May-15 08	09-Jun-15 18	4d			■ EB From West, Lining CH 4055 - 4060 = 1bay					
A9035	EB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	10d	07-Jun-15 08	16-Jun-15 18	4d			■ EB From West, Lining CH 4060 - 4065 = 1bay					
A9040	EB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	4d			■ EB From West, Lining CH 4065 - 4070 = 1bay					
A9045	EB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	10d	25-Jun-15 08	05-Jul-15 18	0d			■ EB From West, Lining CH 4070 - 4075 = 1bay					
A8955	EB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d			■ EB From West, Lining CH 4075 - 4080 = 1bay					
A8960	EB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d			■ EB From West, Lining CH 4080 - 4085 = 1bay					
A8970	EB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d			■ EB From West, Lining CH 4085 - 4090 = 1bay					
A8975	EB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d			■ EB From West, Lining CH 4090 - 4095 = 1bay					
A8980	EB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d			■ EB From West, Lining CH 4095 - 4100 = 1bay					
A8985	EB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d			■ EB From West, Lining CH 4100 - 4105 = 1bay					
A8990	EB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d			■ EB From West, Lining CH 4105 - 4110 = 1bay					
A8995	EB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d			■ EB From West, Lining CH 4110 - 4115 = 1bay					
A9000	EB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d			■ EB From West, Lining CH 4115 - 4120 = 1bay					
A9010	EB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d			■ EB From West, Lining CH 4120 - 4125 = 1bay					
A8965	EB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d			■ EB From West, Lining CH 4125 - 4130 = 1bay					
A8935	EB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d			■ EB From West, Lining CH 4130 - 4135 = 1bay					
A8940	EB From West, Lining CH 4135 - 4140 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d			■ EB From West, Lining CH 4135 - 4140 = 1bay					
A8945	EB From West, Lining CH 4140 - 4145 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d			■ EB From West, Lining CH 4140 - 4145 = 1bay					
A8950	EB From West, Lining CH 4145 - 4149.5 = 4.5m	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d			■ EB From West, Lining CH 4145 - 4149.5 = 4.5m					

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

◆ Milestone

12 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
28-Sep...	1st submission		

CSCEC

中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015							2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
OHVD(10m/bay) / Utility Trough																
A9095	EB From West OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a	120d	03-Jul-15 08	02-Nov-15 18	0d								EB From West OHVD and utility trough =, 167= 17 bays @ 10		
WB Outer Tunnel Excavation																
From West (TPCWAE)																
Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																
A9651	WB, Outer Heading From West, CH 4085- 4092.5 = 7.5m @ 2d/m	7d/wk-1a	15d	13-Sep-14 08 A	30-Sep-14 18	163d	WB, Outer Heading From West, CH 4085- 4092.5 = 7.5m @ 2d/m									
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)																
A9680	WB, Outer Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	12-Oct-14 08	26-Oct-14 18	163d	WB, Outer Bench From West, CH 4025- 4035 = 10m									
A9665	WB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	27-Oct-14 08	10-Nov-14 18	163d	WB, Outer Bench From West, CH 4035- 4045 = 10m									
A9670	WB, Outer Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	11-Nov-14 08	25-Nov-14 18	163d	WB, Outer Bench From West, CH 4045- 4055 = 10m									
A9675	WB, Outer Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	26-Nov-14 08	10-Dec-14 18	163d	WB, Outer Bench From West, CH 4055- 4065 = 10m									
A9700	WB, Outer Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	11-Dec-14 08	26-Dec-14 18	163d	WB, Outer Bench From West, CH 4065- 4075 = 10m									
A9701	WB, Outer Bench From West, CH 4075- 4082.5 = 7.5m	7d/wk-1a	15d	27-Dec-14 08	11-Jan-15 18	163d	WB, Outer Bench From West, CH 4075- 4082.5 = 7.5m									
From East (TS4)																
Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																
A9730	WB, Outer Heading From East, CH 4105- 4092.5 = 12.5m @2d/m	7d/wk-1a	25d	30-Aug-14 08 A	30-Sep-14 18	168d	WB, Outer Heading From East, CH 4105- 4092.5 = 12.5m @2d/m									
Outer Bench Excavation (1.5d-2d/m, 20m separation with heading)																
A9740	WB, Outer Bench From East, CH 4136- 4135 = 1m	7d/wk-1a	2d	12-Oct-14 08	13-Oct-14 18	168d	WB, Outer Bench From East, CH 4136- 4135 = 1m									
A9770	WB, Outer Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	14-Oct-14 08	28-Oct-14 18	168d	WB, Outer Bench From East, CH 4135- 4125 = 10m									
A9745	WB, Outer Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	28-Oct-14 08	11-Nov-14 18	168d	WB, Outer Bench From East, CH 4125- 4115 = 10m									
A9750	WB, Outer Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	11-Nov-14 08	25-Nov-14 18	168d	WB, Outer Bench From East, CH 4115- 4105 = 10m									
A9755	WB, Outer Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	26-Nov-14 08	10-Dec-14 18	168d	WB, Outer Bench From East, CH 4105- 4095 = 10m									
A9760	WB, Outer Bench From East, CH 4095- 4082.5 = 12.5m	7d/wk-1a	25d	11-Dec-14 08	06-Jan-15 18	168d	WB, Outer Bench From East, CH 4095- 4082.5 = 12.5m									
WB (Inner Tunnel Excavation + Lining)																
From West (TPCWAE)																
Inner Heading Excavation (2-3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																
A9130	WB,Inner Heading From West, CH 3993- 4005 = 12m @3d/m	7d/wk-1a	50d	29-Sep-14 08	18-Nov-14 18	0d	WB,Inner Heading From West, CH 3993- 4005 = 12m @3d/m									
A9135	WB,Inner Heading From West,CH 4005- 4015 = 10m @2d/m	7d/wk-1a	20d	19-Nov-14 08	08-Dec-14 18	0d	WB,Inner Heading From West,CH 4005- 4015 = 10m @2d/m									
A9140	WB,Inner Heading From West, CH 4015- 4025 = 10m @2d/m	7d/wk-1a	20d	09-Dec-14 08	29-Dec-14 18	0d	WB,Inner Heading From West, CH 4015- 4025 = 10m @2d/m									

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

13 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2016									
							Q4			Q1	Q2	Q3	Q4	Q1	Q2	Q3
A9100	WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	0d			WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m							
A9105	WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	0d			WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m							
A9110	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	09-Feb-15 08	03-Mar-15 18	0d			WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m							
A9115	WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	04-Mar-15 08	23-Mar-15 18	0d			WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m							
A9120	WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	24-Mar-15 08	13-Apr-15 18	0d			WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m							
A9125	WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	14-Apr-15 08	04-May-15 18	0d			WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m							
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)																
A9180	WB,Inner Bench From West, CH 3993- 4005 = 12m	7d/wk-1a	18d	30-Dec-14 08	17-Jan-15 18	27d			WB,Inner Bench From West, CH 3993- 4005 = 12m							
A9205	WB,Inner Bench From West, CH 4005- 4015 = 10m	7d/wk-1a	15d	20-Jan-15 08	03-Feb-15 18	25d			WB,Inner Bench From West, CH 4005- 4015 = 10m							
A9190	WB,Inner Bench From West, CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	20d			WB,Inner Bench From West, CH 4015- 4025 = 10m							
A9185	WB,Inner Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	04-Mar-15 08	18-Mar-15 18	15d			WB,Inner Bench From West, CH 4025- 4035 = 10m							
A9155	WB,Inner Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	24-Mar-15 08	08-Apr-15 18	10d			WB,Inner Bench From West, CH 4035- 4045 = 10m							
A9160	WB,Inner Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	14-Apr-15 08	28-Apr-15 18	5d			WB,Inner Bench From West, CH 4045- 4055 = 10m							
A9165	WB,Inner Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d			WB,Inner Bench From West, CH 4055- 4065 = 10m							
A9170	WB,Inner Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d			WB,Inner Bench From West, CH 4065- 4075 = 10m							
A9175	WB,Inner Bench From West, CH 4075- 4085 = 10m	7d/wk-1a	15d	04-Jun-15 08	18-Jun-15 18	0d			WB,Inner Bench From West, CH 4075- 4085 = 10m							
From East (TS4)																
Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)																
A9210	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	14-Jan-15 08	02-Feb-15 18	6d			WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m							
A9215	WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	03-Feb-15 08	25-Feb-15 18	6d			WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m							
A9230	WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	26-Feb-15 08	17-Mar-15 18	6d			WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m							
A9232	WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Mar-15 08	07-Apr-15 18	6d			WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m							
A9225	WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m	7d/wk-1a	20d	08-Apr-15 08	27-Apr-15 18	6d			WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m							
Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)																
A9235	WB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	18-Mar-15 08	01-Apr-15 18	16d			WB,Inner Bench From East, CH 4135- 4125 = 10m							
A9240	WB,Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	08-Apr-15 08	22-Apr-15 18	11d			WB,Inner Bench From East, CH 4125- 4115 = 10m							
A9245	WB,Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	28-Apr-15 08	13-May-15 18	6d			WB,Inner Bench From East, CH 4115- 4105 = 10m							
A9247	WB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	14-May-15 08	28-May-15 18	6d			WB,Inner Bench From East, CH 4105- 4095 = 10m							
A9250	WB,Inner Bench From East, CH 4095- 4085 = 10m	7d/wk-1a	15d	29-May-15 08	12-Jun-15 18	6d			WB,Inner Bench From East, CH 4095- 4085 = 10m							

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

14 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		

中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float									
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Tunnel Lining Works															
From West Base Slab (10m/bay, 10m separation with benching excavation)															
A9295	WB From West, Base Slab CH 3990 - 3995 = 5m bay	7d/wk-1a	10d	18-Jan-15 08	27-Jan-15 18	37d	■ WB From West, Base Slab CH 3990 - 3995 = 5m bay								
A9320	WB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Feb-15 08	13-Feb-15 18	30d	■ WB From West, Base Slab CH 3995 - 4005 = 10m/bay								
A9255	WB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	27-Feb-15 08	08-Mar-15 18	50d	■ WB From West, Base Slab CH 4005 - 4015 = 10m/bay								
A9260	WB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	19-Mar-15 08	28-Mar-15 18	40d	■ WB From West, Base Slab CH 4015 - 4025 = 10m/bay								
A9265	WB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	09-Apr-15 08	18-Apr-15 18	30d	■ WB From West, Base Slab CH 4025 - 4035 = 10m/bay								
A9300	WB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	29-Apr-15 08	09-May-15 18	20d	■ WB From West, Base Slab CH 4035 - 4045 = 10m/bay								
A9325	WB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	10d	■ WB From West, Base Slab CH 4045 - 4055 = 10m/bay								
A9305	WB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	5d	■ WB From West, Base Slab CH 4055 - 4065 = 10m/bay								
A9310	WB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d	■ WB From West, Base Slab CH 4065 - 4075 = 10m/bay								
A9315	WB From West, Base Slab CH 4075 - 4080 = 5m	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d	■ WB From West, Base Slab CH 4075 - 4080 = 5m								
From East Base Slab (10m/bay, 10m separation with benching excavation)															
A9960	WB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	23-Apr-15 08	03-May-15 18	26d	■ WB From East, Base Slab CH 4135 - 4125 = 10m/bay								
A9955	WB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	14-May-15 08	23-May-15 18	16d	■ WB From East, Base Slab CH 4125 - 4115 = 10m/bay								
A9950	WB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	29-May-15 08	07-Jun-15 18	11d	■ WB From East, Base Slab CH 4115 - 4105 = 10m/bay								
A9945	WB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	13-Jun-15 08	23-Jun-15 18	6d	■ WB From East, Base Slab CH 4105 - 4095 = 10m/bay								
A9940	WB From East, Base Slab CH 4095 - 4085 = 10m/bay	7d/wk-1a	10d	24-Jun-15 08	04-Jul-15 18	6d	■ WB From East, Base Slab CH 4095 - 4085 = 10m/bay								
A9941	WB From East, Base Slab CH 4085 - 4080 = 5m	7d/wk-1a	10d	05-Jul-15 08	14-Jul-15 18	6d	■ WB From East, Base Slab CH 4085 - 4080 = 5m								
Lining (5m/bay, 10m separation with base slab)															
A9430	WB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	7d	14-Feb-15 08	23-Feb-15 18	30d	■ WB From West, Lining CH 3990 - 3995 = 1bay								
A9470	WB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	7d	24-Feb-15 08	02-Mar-15 18	30d	■ WB From West, Lining CH 3995 - 4000 = 1bay								
A9435	WB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	7d	03-Mar-15 08	09-Mar-15 18	30d	■ WB From West, Lining CH 4000 - 4005 = 1bay								
A9360	WB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	7d	10-Mar-15 08	16-Mar-15 18	30d	■ WB From West, Lining CH 4005 - 4010 = 1bay								
A9365	WB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	7d	17-Mar-15 08	23-Mar-15 18	30d	■ WB From West, Lining CH 4010 - 4015 = 1bay								
A9370	WB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	7d	24-Mar-15 08	30-Mar-15 18	30d	■ WB From West, Lining CH 4015 - 4020 = 1bay								
A9375	WB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	7d	31-Mar-15 08	07-Apr-15 18	30d	■ WB From West, Lining CH 4020 - 4025 = 1bay								
A9380	WB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	7d	08-Apr-15 08	14-Apr-15 18	30d	■ WB From West, Lining CH 4025 - 4030 = 1bay								
A9385	WB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	7d	15-Apr-15 08	21-Apr-15 18	30d	■ WB From West, Lining CH 4030 - 4035 = 1bay								

Summary Bar

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

15 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Kaluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



中國建築工程(香港)有限公司

CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A9390	WB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	7d	22-Apr-15 08	28-Apr-15 18	30d			■ WB From West, Lining CH 4035 - 4040 = 1bay				
A9330	WB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	7d	29-Apr-15 08	06-May-15 18	30d			■ WB From West, Lining CH 4040 - 4045 = 1bay				
A9335	WB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	7d	07-May-15 08	13-May-15 18	30d			■ WB From West, Lining CH 4045 - 4050 = 1bay				
A9340	WB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	7d	14-May-15 08	20-May-15 18	30d			■ WB From West, Lining CH 4050 - 4055 = 1bay				
A9345	WB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	7d	21-May-15 08	27-May-15 18	30d			■ WB From West, Lining CH 4055 - 4060 = 1bay				
A9350	WB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	7d	28-May-15 08	03-Jun-15 18	30d			■ WB From West, Lining CH 4060 - 4065 = 1bay				
A9355	WB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	5d	04-Jun-15 08	08-Jun-15 18	30d			■ WB From West, Lining CH 4065 - 4070 = 1bay				
A9415	WB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d			■ WB From West, Lining CH 4070 - 4075 = 1bay				
A9475	WB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d			■ WB From West, Lining CH 4075 - 4080 = 1bay				
A9440	WB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d			■ WB From West, Lining CH 4080 - 4085 = 1bay				
A9445	WB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d			■ WB From West, Lining CH 4085 - 4090 = 1bay				
A9450	WB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d			■ WB From West, Lining CH 4090 - 4095 = 1bay				
A9455	WB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d			■ WB From West, Lining CH 4095 - 4100 = 1bay				
A9420	WB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d			■ WB From West, Lining CH 4100 - 4105 = 1bay				
A9425	WB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d			■ WB From West, Lining CH 4105 - 4110 = 1bay				
A9460	WB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d			■ WB From West, Lining CH 4110 - 4115 = 1bay				
A9465	WB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d			■ WB From West, Lining CH 4115 - 4120 = 1bay				
A9395	WB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d			■ WB From West, Lining CH 4120 - 4125 = 1bay				
A9400	WB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d			■ WB From West, Lining CH 4125 - 4130 = 1bay				
A9405	WB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d			■ WB From West, Lining CH 4130 - 4135 = 1bay				
A9410	WB From West, Lining CH 4135 - 4136.5 = 1bay	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d			■ WB From West, Lining CH 4135 - 4136.5 = 1bay				
OHVD(10m/bay) / Utility Trough													
A9480	WB From West OHVD and utility trough =, 153= 16 bays @ 10m/bay @ 7d/bay	7d/wk-1a	115d	08-Jul-15 08	02-Nov-15 18	0d			■ WB From West OHVD and utility trough =, 153= 16 bays @ 10m/bay @ 7d/bay				
Completion of KD10- Section 5													
A8445	KD10- Section 2: Completion of Mined Tunnel Works (orig. Target KD10- 2 Nov 2015)	7d/wk-2	0d		02-Nov-15 18*	0d			◆ KD10- Section 2: Completion of Mined Tunnel Works (orig. Target KD10- 2 Nov 2015)				
Interface works with other Contracts													
S5_60115	Handover TZ6 to MTR	7d/wk-2	0d		30-Sep-14 18	-249d	◆ Handover TZ6 to MTR						
S6_5283	Handover TZ4 to CWB(T2)	7d/wk-2	0d		10-Nov-14 18	-290d	◆ Handover TZ4 to CWB(T2)						
S6_5275	Provide access to CWB (CC) Contractor- TS1 & TS2	7d/wk-2	0d		21-Nov-14 18*	-85d	◆ Provide access to CWB (CC) Contractor- TS1 & TS2						
16 of 18							Prepared by William Caluza						
China State Construction Engineering (Hong Kong) Ltd Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M							Date	Revision	Checked	Approved	 中國建築工程(香港)有限公司 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.		
							26-Sep...	1st submission					

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015						2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
SB_5280	Provide access to CWB (CC) Contractor- TS4, TPCWA, Mined Tunnel	7d/wk-2	0d		31-Mar-16 18*	-124d									◆ Provide access to CWB (CC) C
Stage and Section Completion															
KD_5735	KD8 - Completion of Section 3, (1326d)	7d/wk-2	0d		30-Sep-14 18*	-86d	◆ KD8 - Completion of Section 3, (1326d)								
KD_5720	KD5 - Achievement of Stage 5, (1152d)	7d/wk-2	0d		16-Oct-14 18*	-323d	◆ KD5 - Achievement of Stage 5, (1152d)								
KD_5760	KD13 - Completion of Section 7B, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-353d	◆ KD13 - Completion of Section 7B, (1152d)								
KD_5730	KD7 - Completion of Section 2, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-297d	◆ KD7 - Completion of Section 2, (1152d)								
KD_5740	KD9 - Completion of Section 4, (1739d)	7d/wk-2	0d		10-Nov-15 18*	-132d						◆ KD9 - Completion of Section 4, (1739d)			
KD_5745	KD10 - Completion of Section 5, (1863d)	7d/wk-2	0d		25-Mar-16 18	-144d							◆ KD10 - Completion of Section 5,		
KD_5750	KD11 - Completion of Section 6, (1949d)	7d/wk-2	0d		23-May-16 18*	-121d							◆ KD11 - Completion of		
Portion Handover Date															
CD_5685	Portion Handover - Portion IV(4), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion IV(4), KD8 +28								
CD_5680	Portion Handover - Portion V (5), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion V (5), KD8 +28								
CD_5695	Portion Handover - Portion VI (6), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion VI (6), KD8 +28								
CD_5735	Portion Handover - Portion XIII B (13B), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion XIII B (13B), KD8 +28								
CD_5790	Portion Handover - Portion XXII (22), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion XXII (22), KD8 +28								
CD_5670	Portion Handover - Portion III (3), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion III (3), KD8 +28								
CD_5720	Portion Handover - Portion XIII A (13A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIII A (13A), KD7 +28								
CD_5705	Portion Handover - Portion VIII (8), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion VIII (8), KD7 +28								
CD_5730	Portion Handover - Portion XIVA (14A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIVA (14A), KD7 +28								
CD_5740	Portion Handover - Portion XV (15), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XV (15), KD7 +28								
CD_5805	Portion Handover - Portion XXIII (23), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XXIII (23), KD7 +28								
CD_5775	Portion Handover - Portion XVIII (18), KD10 +28	7d/wk-2	0d		30-Nov-15 18*	0d							◆ Portion Handover - Portion XVIII (18), KD10 +28		
CD_5710	Portion Handover - Portion XI (11), KD9 +28	7d/wk-2	0d		27-Dec-15 18*	0d							◆ Portion Handover - Portion XI (11), KD9 +28		
CD_5700	Portion Handover - Portion IX (9), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d							◆ Portion Handover - Portion		
CD_5745	Portion Handover - Portion XIV B (14B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d							◆ Portion Handover - Portion		
CD_5755	Portion Handover - Portion XVI (16), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d							◆ Portion Handover - Portion		
CD_5750	Portion Handover - Portion XVII (17), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d							◆ Portion Handover - Portion		
CD_5760	Portion Handover - Portion XIX (19), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d							◆ Portion Handover - Portion		

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
CD_5690	Portion Handover - Portion VII (7), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5725	Portion Handover - Portion XII (12), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5715	Portion Handover - Portion X (10), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5785	Portion Handover - Portion XXA (20A), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov
CD_5795	Portion Handover - Portion XXI (21), KD11 +28	7d/wk-2	0d		20-Jun-16 18	0d								◆ Portion Handov

 Summary Bar
 Actual Level of Effort
 Actual Work
 Remaining Work
 Critical Remaining Work
 Milestone

18 of 18

China State Construction Engineering (Hong Kong) Ltd

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME REV. M

Prepared by William Caluza

Date	Revision	Checked	Approved
26-Sep...	1st submission		



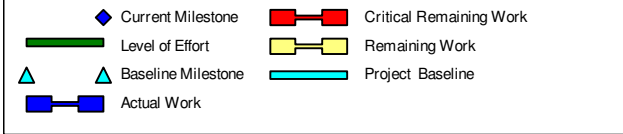
中國建築工程(香港)有限公司
 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Data Date: 20-Jan-15

HY/2009/18 Central - Wan Chai Bypass (Central Interchange)
TASK filters: 3 Months_1, Not HL.

TASK filters: 3 Months_1, Not HL.

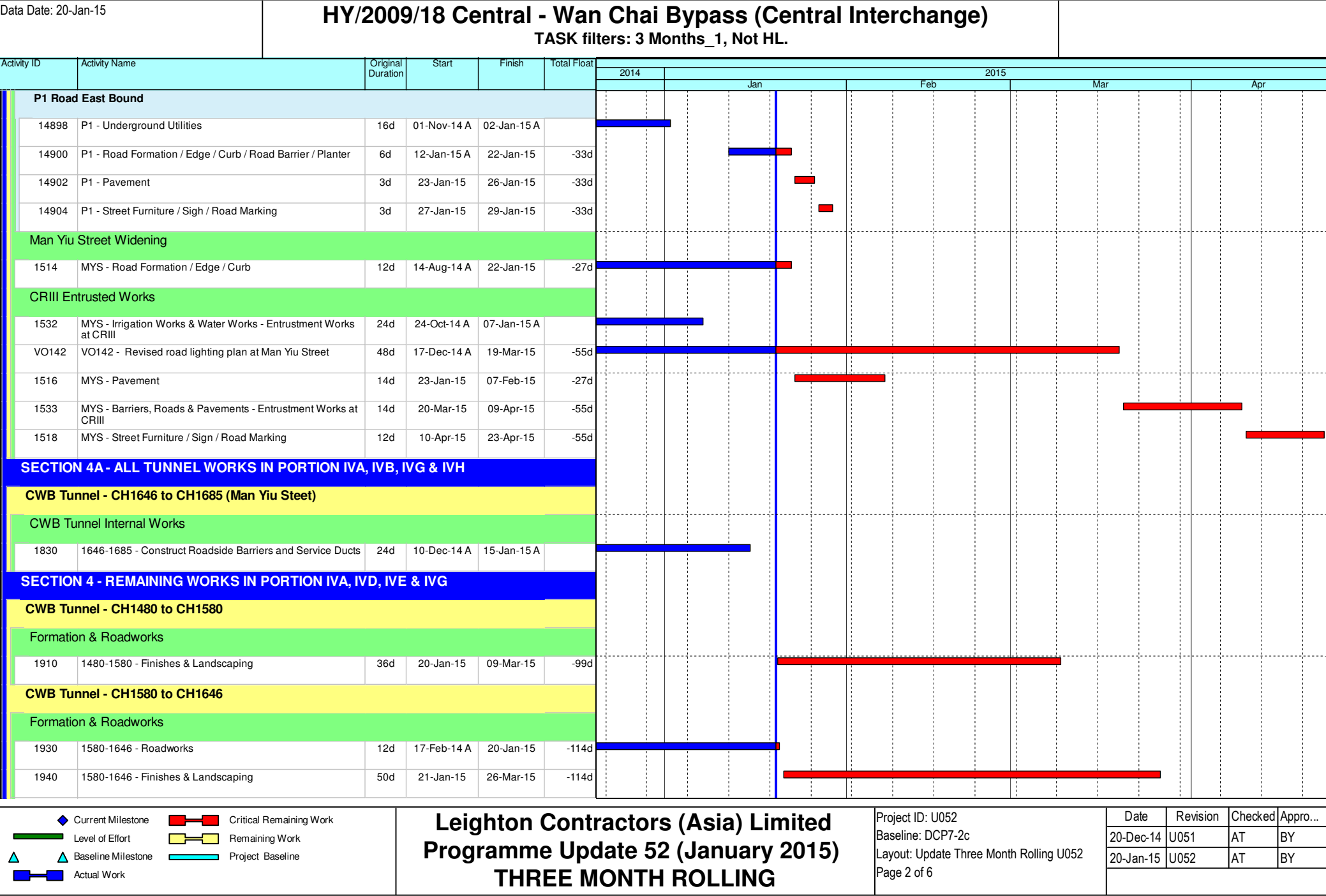
Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	2015												
						2014	Jan			Feb			Mar			Apr		
Update 2015-01-20 CWB - Central Interchange (2014-06-20)Revised DWP R6a																		
PRELIMINARIES																		
Submissions & Approvals																		
Traffic																		
Temporary Traffic Management																		
1313	TTM - Revise & Resubmit for (TTA Stage 6)	16d	17-Dec-14 A	05-Jan-15 A														
1317	TTM - Engineer / TMLG Review & Approve (TTA Stage 6)	12d	06-Jan-15 A	29-Jan-15	54d													
Establishment, Mobilisation & Advanced Works																		
Temporary Traffic Management, Site Establishment / Setup																		
Stage 6 (Man Po Street to Bridge A)																		
1201	Stage 6 - RWA	7d	13-Mar-15	20-Mar-15	10d													
2570	Stage 6 - Open Slip Road D (Bridge A) / Man Po Street	0d		20-Mar-15	10d													
SECTION 3A - ALL TUNNEL WORKS IN PORTION IIIB																		
CWB Tunnel - CH1685 to CH1704																		
CWB Tunnel Internal Works																		
1470	1685-1704 - Construct Roadside Barriers and Service Ducts	7d	20-Dec-14 A	30-Dec-14 A														
SECTION 3 - REMAINING WORKS IN PORTION IIIA & IIIB																		
Surface Works - East of Man Yiu Street																		
Road P1																		
14906	P1 - Finishes & Landscaping	40d	30-Jan-15	24-Mar-15	-33d													
P1 Road West Bound																		
11002	P1 - Underground Utilities	15d	27-Jan-15	12-Feb-15	-17d													
11003	P1 - Road Formation / Edge / Curb / Road Barrier / Planter	6d	13-Feb-15	26-Feb-15	-17d													
11004	P1 - Pavement	3d	27-Feb-15	02-Mar-15	-17d													
1520	P1 - Street Furniture / Sign / Road Marking	3d	03-Mar-15	05-Mar-15	-17d													

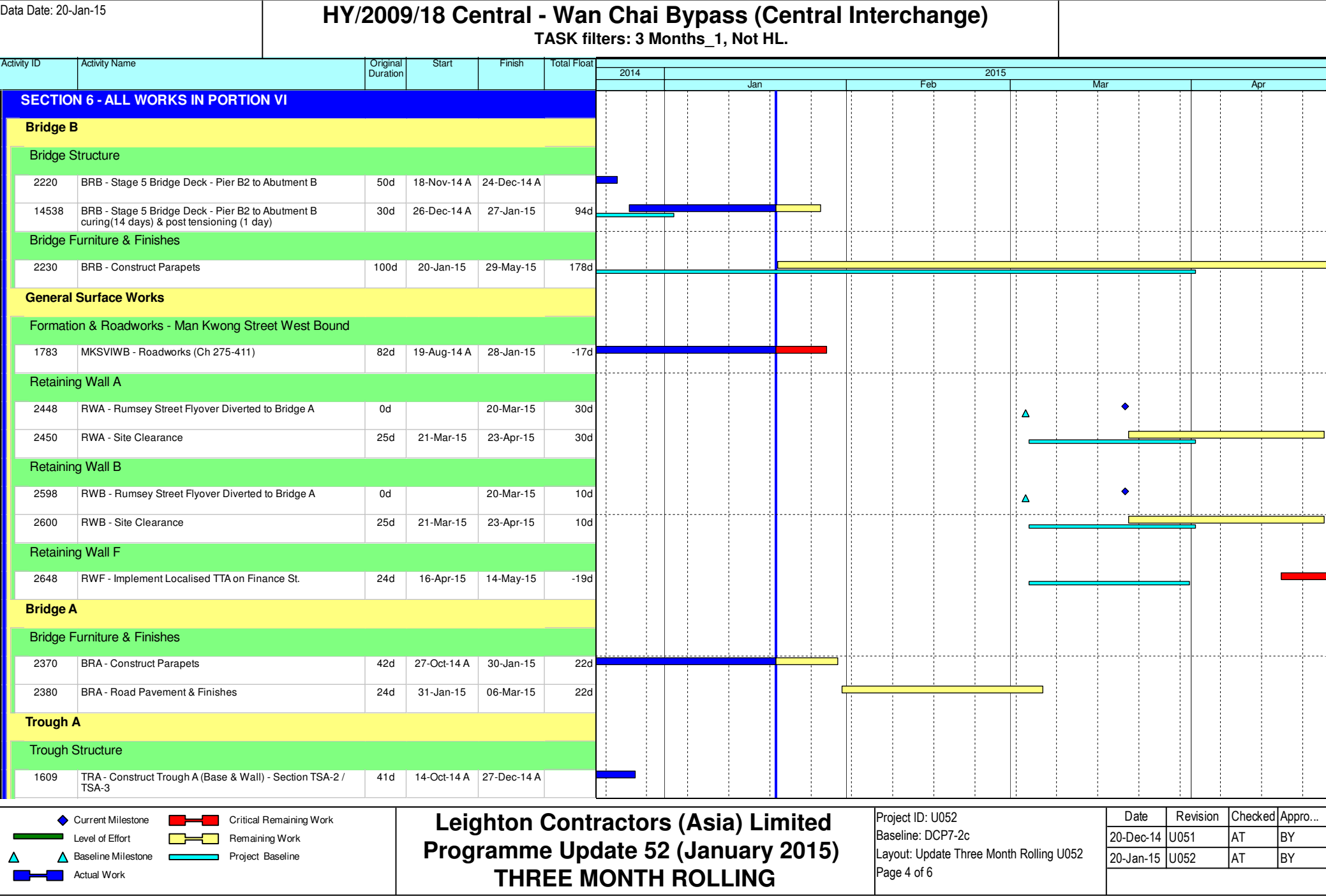


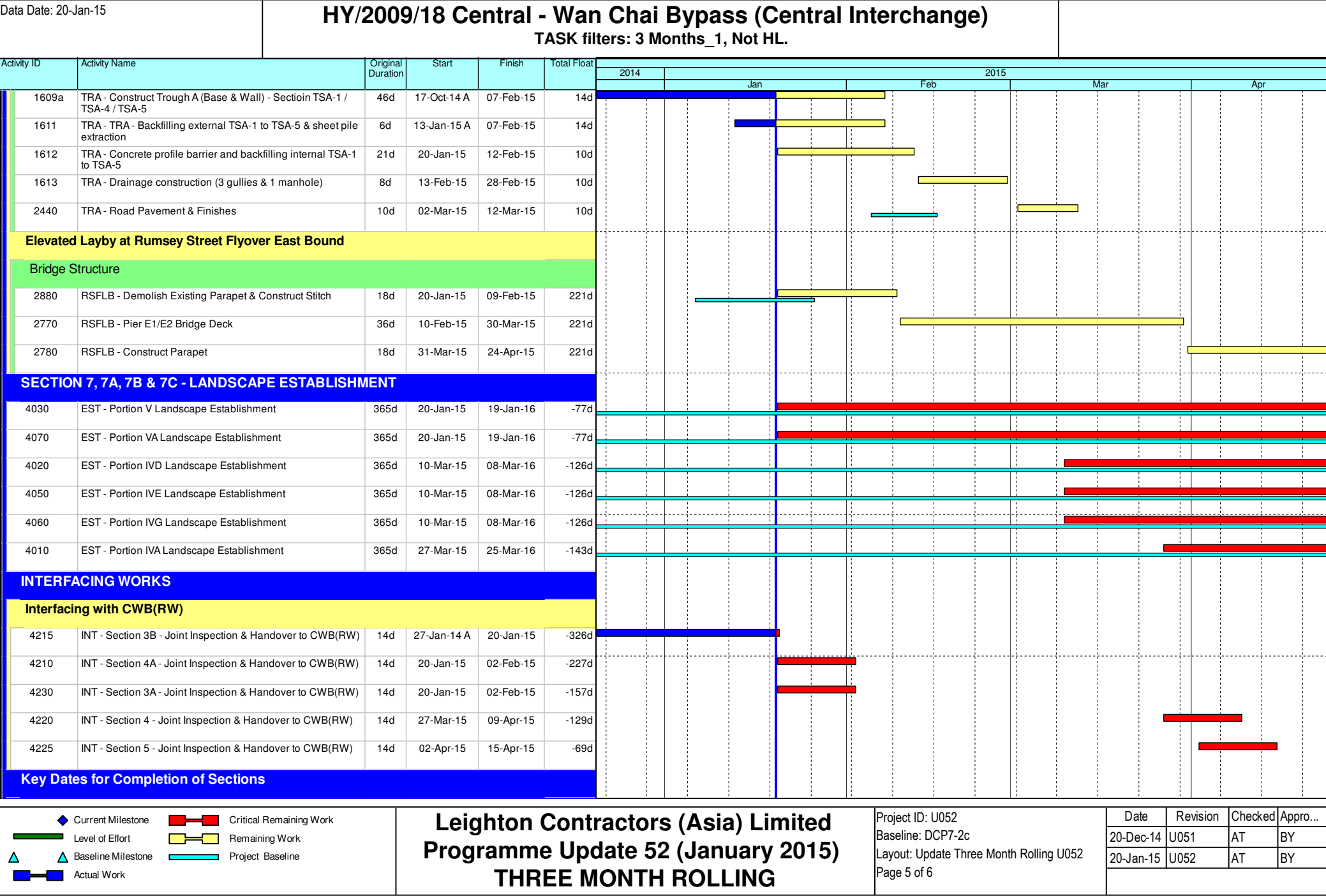
**Leighton Contractors (Asia) Limited
Programme Update 52 (January 2015)
THREE MONTH ROLLING**

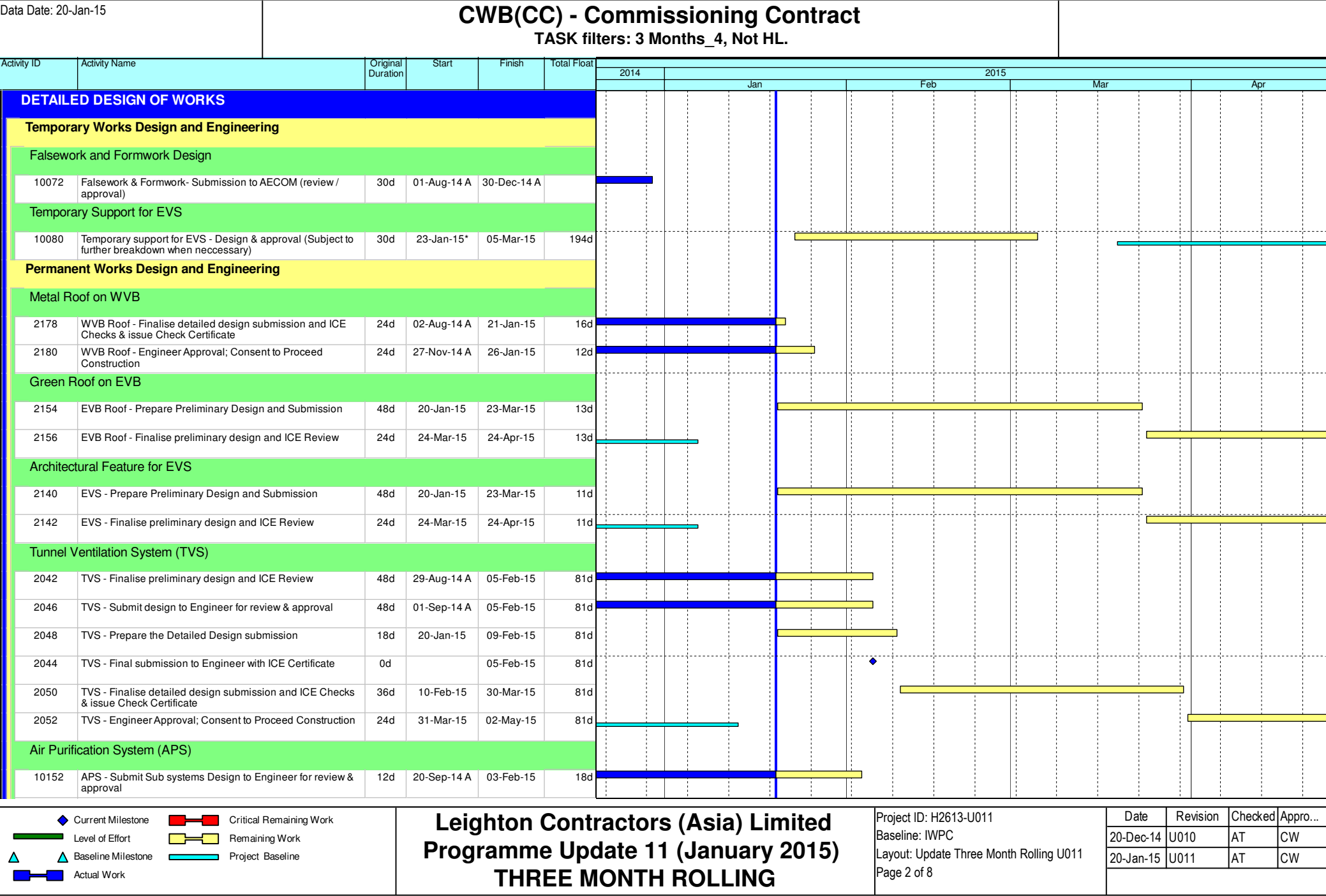
Project ID: U052
Baseline: DCP7-2c
Layout: Update Three Month Rolling U052
Page 1 of 6

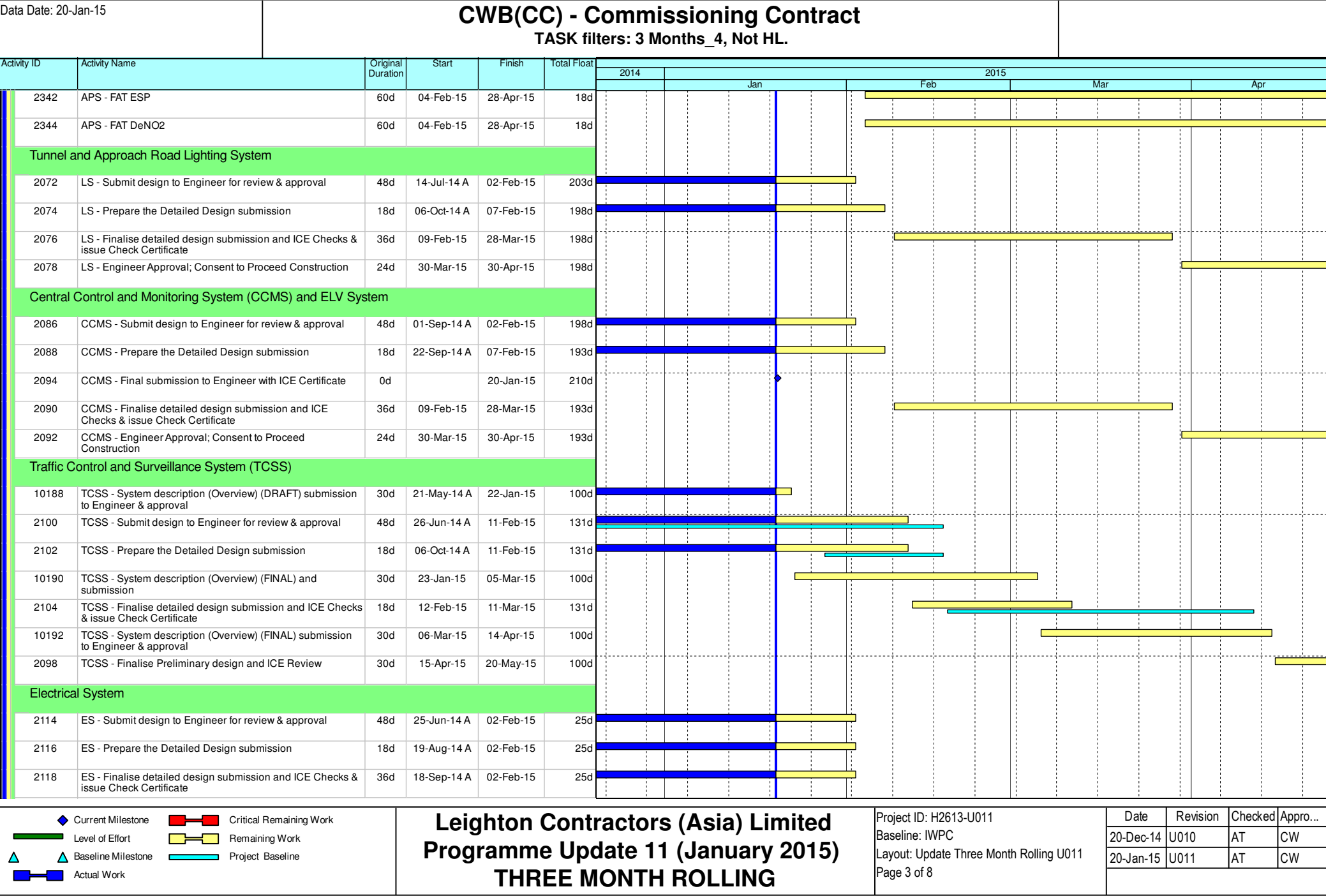
Date	Revision	Checked	Appro...
20-Dec-14	U051	AT	BY
20-Jan-15	U052	AT	BY

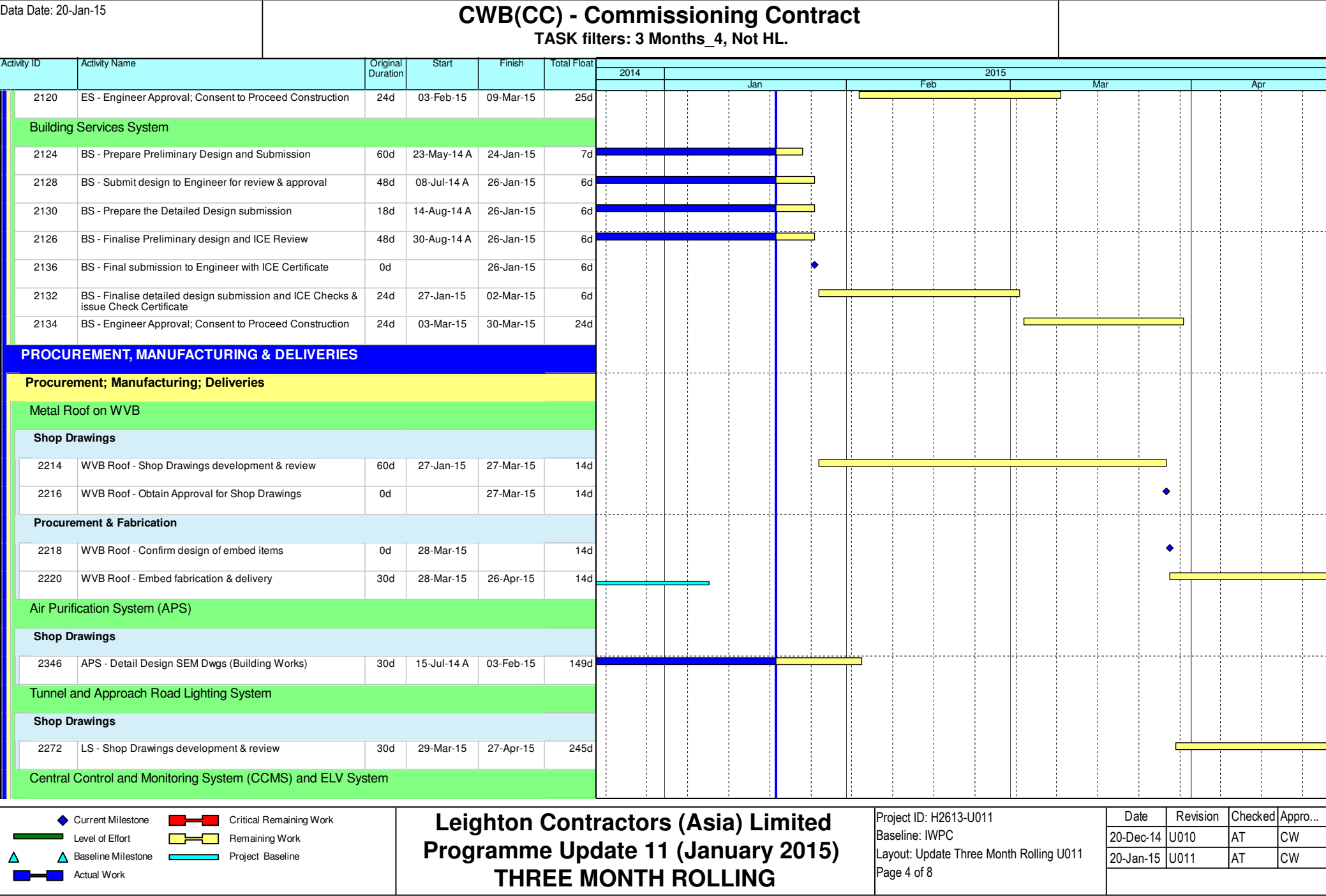


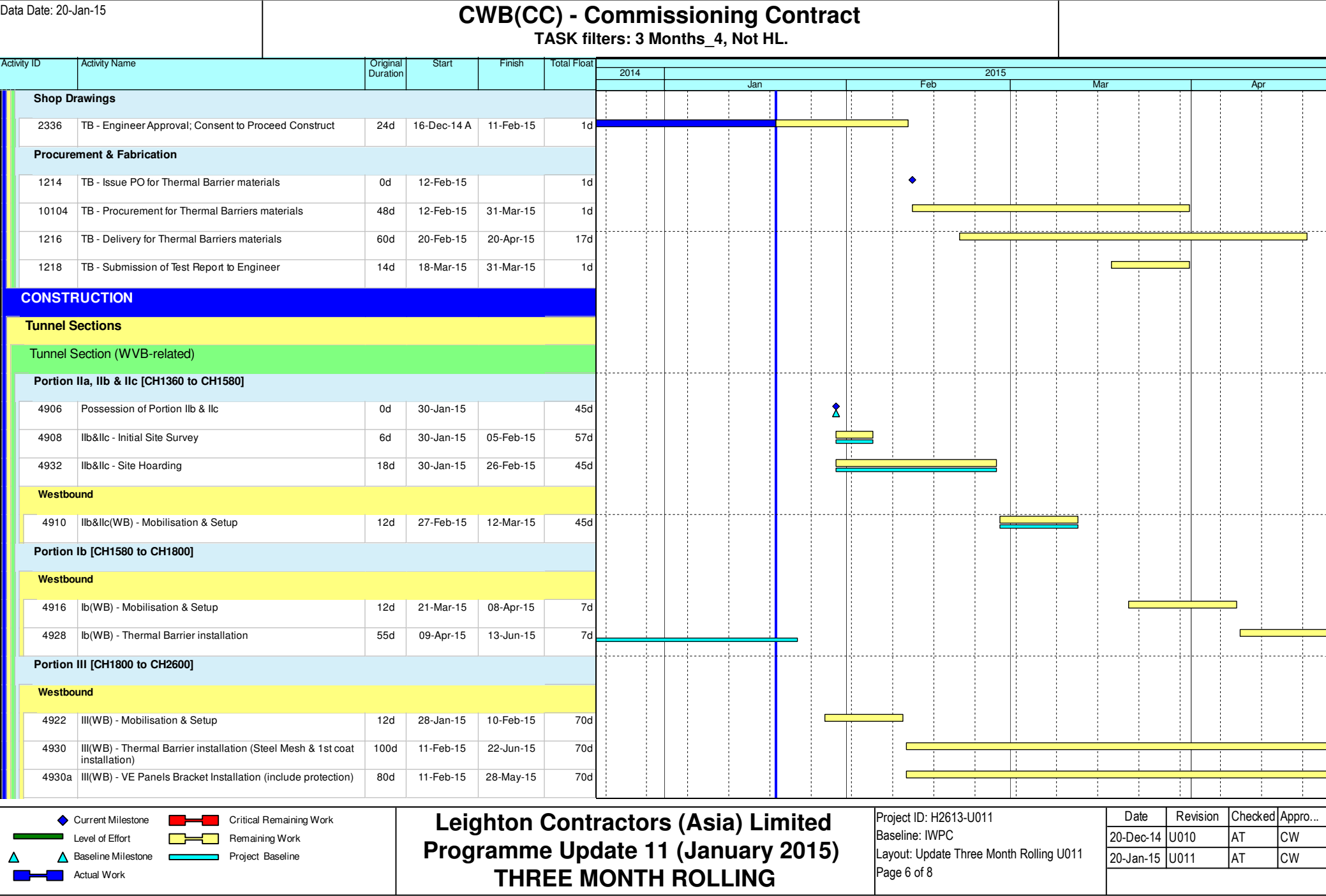


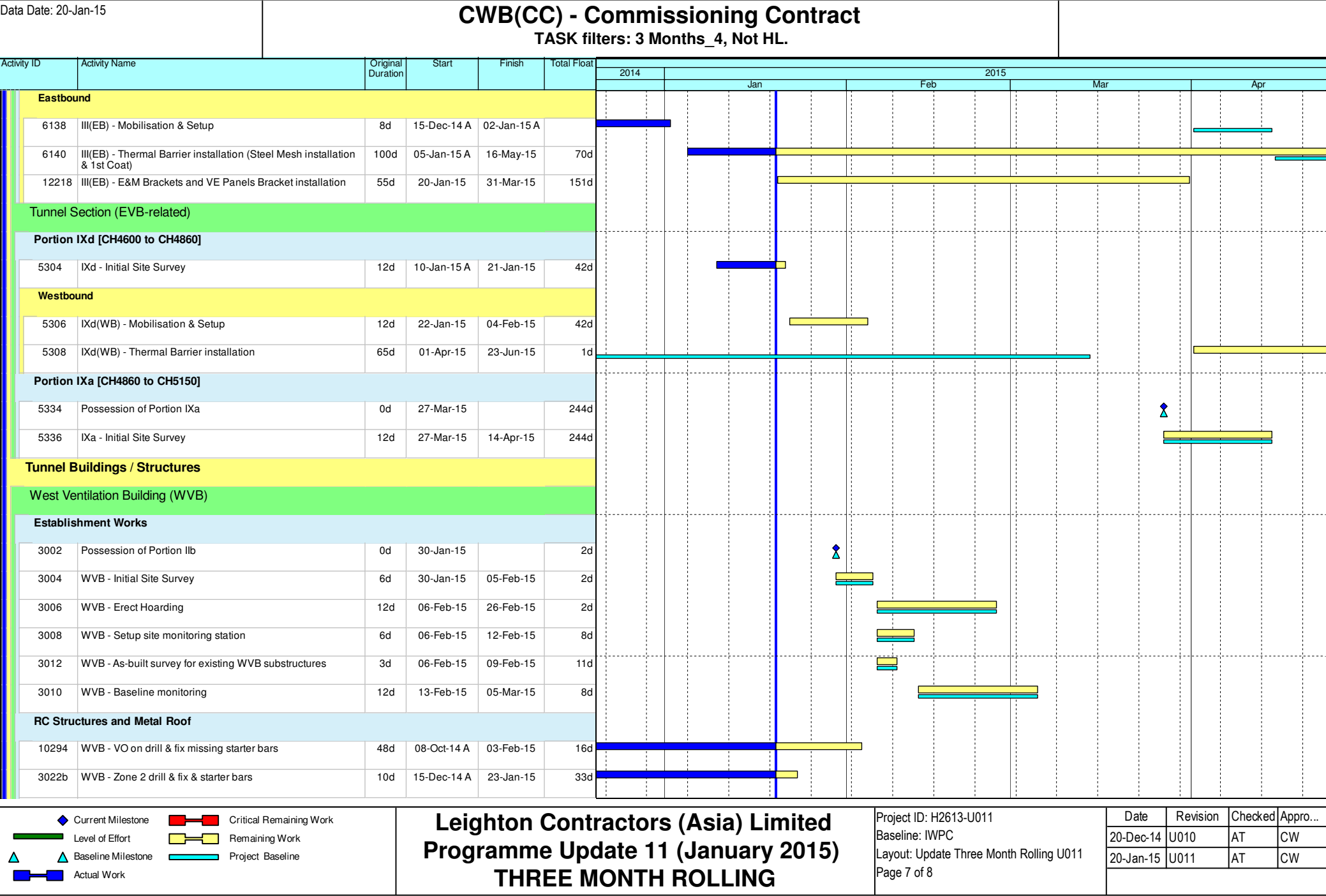


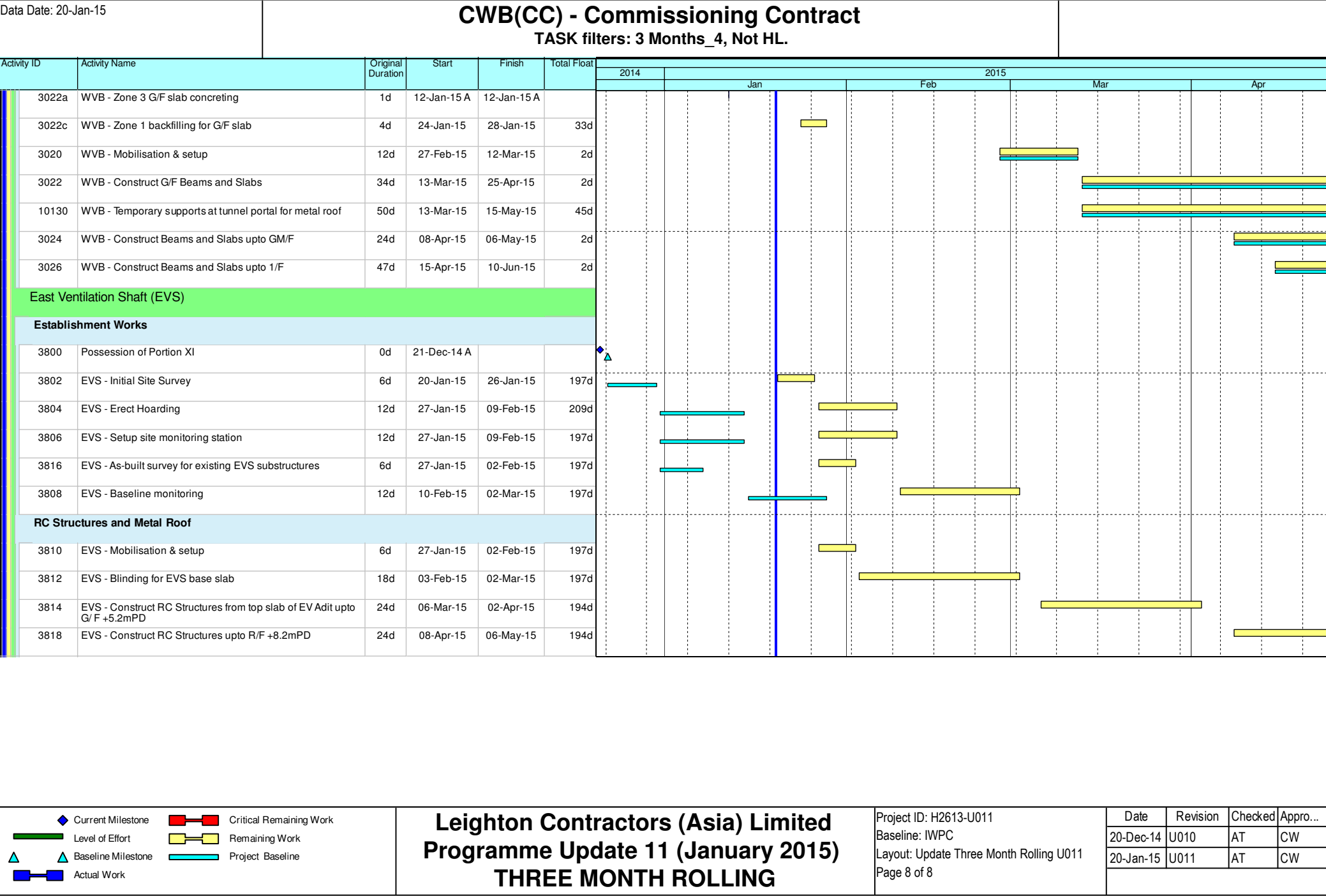












Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																				
						January				February				March				April				May				
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03			
	05.1.1 - D-Wall Construction																									
	A5990	D-Wall Interface Coring	14	20-Jan-15*	04-Feb-15	14																				
	A6000	D-Wall Grouting/Pressure Grouting	3	05-Feb-15	07-Feb-15	14																				
	05.1.2 - ELS																									
	0512-1275	Middle Lev. Bay 14 (Break Permanent Bulkhead Wall)	0	10-Dec-14 A	12-Jan-15 A																					
	05.1.3 - APS & Tunnel Structure																									
	0513-1316	APS Bay 17 Col - (Reb. Fix + Concrete)	12	27-Feb-15	13-Mar-15	63																				
	0513-1400	Tunnel Bay 17- Base Slab - (Reb. Fix + Concrete)-Lower Portion	0	15-Dec-14 A	26-Dec-14 A																					
	0513-1410	Tunnel Bay 17 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	0	16-Dec-14 A	11-Jan-15 A																					
	0513-1420	Tunnel Bay 17 - Struts Removal	4	12-Jan-15 A	23-Jan-15	3																				
	0513-1430	Tunnel Bay 17 - Central Wall - (Reb. Fix)	5	24-Jan-15	29-Jan-15	3																				
	0513-1440	Tunnel Bay 17 - Central Wall - (Concrete)	1	30-Jan-15	30-Jan-15	21																				
	0513-1450	OHVD Bay 17 - Falseworks	8	24-Jan-15	02-Feb-15	3																				
	0513-1460	OHVD + Wall Bay 17 - Steel Fixing	5	03-Feb-15	07-Feb-15	4																				
	0513-1470	OHVD + Wall Bay 17 - Concreting	1	08-Feb-15	08-Feb-15	4																				
	0513-1480	OHVD + Wall Bay 17 - Curing of Concrete	1	09-Feb-15	09-Feb-15	4																				
	0513-1510	Tunnel Bay 17 -Tunnel Roof - Falseworks	8	09-Feb-15	16-Feb-15	4																				
	0513-1520	Tunnel Bay 17 -Tunnel Roof - CJ Preparation	4	09-Feb-15	12-Feb-15	9																				
	0513-1530	Tunnel Bay 17 -Tunnel Roof - Steel Fixing	6	17-Feb-15	22-Feb-15	4																				
	0513-1540	Tunnel Bay 17 -Tunnel Roof - (Concrete)	1	23-Feb-15	23-Feb-15	4																				
	0513-1630	Tunnel Bay 18 - Struts Removal	4	15-Jan-15 A	23-Jan-15	3																				
	0513-1640	Tunnel Bay 18 - Central Wall - (Reb. Fix)	7	24-Jan-15	31-Jan-15	3																				
	0513-1650	Tunnel Bay 18 - Central Wall - (Concrete)	1	02-Feb-15	02-Feb-15	18																				
	0513-1660	OHVD Bay 18 - Falseworks	8	24-Jan-15	02-Feb-15	3																				
	0513-1670	OHVD + Wall Bay 18 - Steel Fixing	5	03-Feb-15	07-Feb-15	3																				
	0513-1680	OHVD + Bay 18 - Concreting	1	08-Feb-15	08-Feb-15	3																				
	A3370	OHVD + Wall Bay 18 - Curing of Concrete	1	09-Feb-15	09-Feb-15	3																				
	A3400	Tunnel Bay 18 -Tunnel Roof - Falseworks	6	09-Feb-15	16-Feb-15	3																				
	A3410	Tunnel Bay 18 -Tunnel Roof - CJ Preparation	6	09-Feb-15	14-Feb-15	9																				
	A3420	Tunnel Bay 18 -Tunnel Roof - Steel Fixing	6	16-Feb-15	22-Feb-15	5																				
	A3430	Tunnel Bay 18 -Tunnel Roof - (Concrete)	1	23-Feb-15	23-Feb-15	4																				
	A3540	OHVD Bay 19	0	22-Dec-14 A	24-Dec-14 A																					
	A3550	OHVD Wall Bay	0	26-Dec-14 A	30-Dec-14 A																					
A3560	OHVD + Wall Bay 19 - Curing of Concrete	0	30-Dec-14 A	31-Dec-14 A																						
A3590	Tunnel Bay 19 -Tunnel Roof - Falseworks	0	31-Dec-14 A	06-Jan-15 A																						
A3600	Tunnel Bay 19 -Tunnel Roof - CJ Preparation	0	31-Dec-14 A	08-Jan-15 A																						
A3610	Tunnel Bay 19 -Tunnel Roof - Steel Fixing	0	07-Jan-15 A	20-Jan-15	38																					
A3620	Tunnel Bay 19 -Tunnel Roof - (Concrete)	1	20-Jan-15	21-Jan-15	38																					

Remaining Level of Effort

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Page 3 of 14

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																	
						January				February				March					April				May
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03
A3680	Tunnel Bay 20 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	0	14-Dec-14 A	23-Dec-14 A		- Base Slab - (Reb. Fix + Concrete)-Upper Portion																	
A3690	Tunnel Bay 20 - Struts Removal	0	24-Dec-14 A	07-Jan-15 A		Tunnel Bay 20 - Struts Removal																	
A3691	Tunnel Bay 20 - Central Wall - (Reb. Fix)	0	08-Jan-15 A	16-Jan-15 A		Tunnel Bay 20 - Central Wall - (Reb. Fix)																	
A3692	Tunnel Bay 20 - Central Wall - (Concrete)	1	20-Jan-15	20-Jan-15	38	Tunnel Bay 20 - Central Wall - (Concrete)																	
A3693	OHVD Bay 20 - Falseworks	9	20-Jan-15	28-Jan-15	7	OHVD Bay 20 - Falseworks																	
A3694	OHVD + Wall Bay 20 - Steel Fixing	4	29-Jan-15	01-Feb-15	7	OHVD + Wall Bay 20 - Steel Fixing																	
A3695	OHVD + Wall Bay 20 - Concreting	1	02-Feb-15	02-Feb-15	7	OHVD + Wall Bay 20 - Concreting																	
A3696	OHVD Bay 20 - Curing of Concrete	1	03-Feb-15	03-Feb-15	7	OHVD Bay 20 - Curing of Concrete																	
A3790	Tunnel Bay 20 -Tunnel Roof - Falsework/Formworks	6	04-Feb-15	09-Feb-15	7	Tunnel Bay 20 -Tunnel Roof - Falsework/Formworks																	
A3791	Tunnel Bay 20 -Tunnel Roof - CJ Preparation	5	04-Feb-15	08-Feb-15	18	Tunnel Bay 20 -Tunnel Roof - CJ Preparation																	
A3800	Tunnel Bay 20 -Tunnel Roof - Steel Fixing	6	09-Feb-15	16-Feb-15	6	Tunnel Bay 20 -Tunnel Roof - Steel Fixing																	
A3810	Tunnel Bay 20 -Tunnel Roof - (Concrete)	1	16-Feb-15	17-Feb-15	6	Tunnel Bay 20 -Tunnel Roof - (Concrete)																	
A3813	APS Bay 21 Col - (Reb. Fix + Concrete)	12	23-Feb-15	06-Mar-15	85	APS Bay 21 Col - (Reb. Fix + Concrete)																	
A3860	Tunnel Bay 21- Base Slab - (Reb. Fix + Concrete)-Lower Portion	0	06-Dec-14 A	13-Jan-15 A		Tunnel Bay 21- Base Slab - (Reb. Fix + Concrete)-Lower Portion																	
A3861	Tunnel Bay 21 - Base Slab - (Reb. Fix + Concrete)-Upper Portion	2	08-Jan-15 A	21-Jan-15	0	Tunnel Bay 21 - Base Slab - (Reb. Fix + Concrete)-Upper Portion																	
A3880	Tunnel Bay 21 - Struts Removal	3	22-Jan-15	24-Jan-15	0	Tunnel Bay 21 - Struts Removal																	
A3890	Tunnel Bay 21 - Central Wall - (Reb. Fix)	6	25-Jan-15	30-Jan-15	5	Tunnel Bay 21 - Central Wall - (Reb. Fix)																	
A3900	Tunnel Bay 21 - Central Wall - (Concrete)	1	31-Jan-15	31-Jan-15	7	Tunnel Bay 21 - Central Wall - (Concrete)																	
A3910	OHVD Bay 21 - Falseworks	9	25-Jan-15	02-Feb-15	5	OHVD Bay 21 - Falseworks																	
A3920	OHVD + Wall Bay 21 - Steel Fixing	4	03-Feb-15	06-Feb-15	5	OHVD + Wall Bay 21 - Steel Fixing																	
A3930	OHVD + Wall Bay 21 - Concreting	1	07-Feb-15	07-Feb-15	5	OHVD + Wall Bay 21 - Concreting																	
A3940	OHVD + Wall Bay 21 - Curing of Concrete	1	07-Feb-15	07-Feb-15	5	OHVD + Wall Bay 21 - Curing of Concrete																	
A3970	Tunnel Bay 21 -Tunnel Roof - Falseworks/Formworks	6	08-Feb-15	13-Feb-15	5	Tunnel Bay 21 -Tunnel Roof - Falseworks/Formworks																	
A3980	Tunnel Bay 21 -Tunnel Roof - CJ Preparation	7	08-Feb-15	14-Feb-15	5	Tunnel Bay 21 -Tunnel Roof - CJ Preparation																	
A3990	Tunnel Bay 21 -Tunnel Roof - Steel Fixing	7	15-Feb-15	21-Feb-15	5	Tunnel Bay 21 -Tunnel Roof - Steel Fixing																	
A4000	Tunnel Bay 21 -Tunnel Roof - (Concrete)	1	22-Feb-15	22-Feb-15	5	Tunnel Bay 21 -Tunnel Roof - (Concrete)																	
A5414	APS Basement (Bay 21a) - Staircase - Falseworks/Formworks	12	16-Feb-15	04-Mar-15	1	APS Basement (Bay 21a) - Staircase - Falseworks/Formworks																	
A5424	APS Basement (Bay 21a) - Staircase - Rebar-Fixing + Concreting	14	05-Mar-15	20-Mar-15	1	APS Basement (Bay 21a) - Staircase - Rebar-Fixing + C																	
A5425	APS Basement (Bay 21a) - Partition wall	14	16-Feb-15	06-Mar-15	13	APS Basement (Bay 21a) - Partition wall																	
A5426	APS Basement (Bay 21b) - Staircase - Falseworks/Formworks	12	21-Mar-15	07-Apr-15	1	APS Basement (Bay 21b) - Stairca																	
A5427	APS Basement (Bay 21b) - Staircase - Rebar-Fixing + Concreting	14	08-Apr-15	23-Apr-15	31	APS Basement																	
A5427.1	APS Basement (Bay 21b) - Partition wall	14	21-Mar-15	09-Apr-15	1	APS Basement (Bay 21b) - Parti																	
A5427.2	APS Basement (Bay 20) - Partition wall	14	21-Mar-15	09-Apr-15	1	APS Basement (Bay 20) - Partiti																	
A5427.3	APS Basement (Bay 19) - Partition wall	14	10-Apr-15	25-Apr-15	1	APS Baseme																	
A5454	Vertical Saw Cutting of BHW upper portion @ 2M(H) X 32M(L)	12	24-Jan-15	07-Feb-15	0	Vertical Saw Cutting of BHW upper portion @ 2M(H) X 32M(L)																	
A5465	Horizontal Saw Cutting of BHW @ 2M(H) X 32M(L)	7	07-Feb-15	16-Feb-15	0	Horizontal Saw Cutting of BHW @ 2M(H) X 32M(L)																	
A5474	Removal of BHW Saw Cutted Blocks at upper portion	12	16-Feb-15	05-Mar-15	0	Removal of BHW Saw Cutted Blocks at upper portion																	

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

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
						January				February				March				April				May																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
A5484	Removal of BHW Middle Portion By Breaker Machine @ 3.5M(H) X 32M(L)	14	05-Mar-15	21-Mar-15	0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

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

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
	A5285	OHVD Bay 16 - Falseworks/Forworks	6	30-Jan-15	06-Feb-15	0																			
	A5286	OHVD + Wall Bay 16 - Reb Fix + Concreting	10	06-Feb-15	18-Feb-15	0																			
	A5288	Tunnel Bay 16 -Tunnel Roof - Falseworks/Formworks	6	14-Feb-15	25-Feb-15	0																			
	A5383	Tunnel Bay 16 -Tunnel Roof - CJ Preparation	7	15-Feb-15	21-Feb-15	6																			
	A5393	Tunnel Bay 16 -Tunnel Roof - Steel Fixing	8	19-Feb-15	26-Feb-15	0																			
	A5394	Tunnel Bay 16 -Tunnel Roof - (Concrete)	1	27-Feb-15	27-Feb-15	0																			
	A5395	Weak Seam Rectification works for sub-standard D-Wall	30	20-Jan-15	26-Feb-15	1																			
	A5396	Complete Tunnel Roof	0		27-Feb-15*	0																			
05.1.5 - EVB Sub-structure & Tunnel																									
	A5514	Tunnel (Zone A,B & C) - Tunnel Roadside/Profile Barrier and Cable Trough Portion V	14	27-Feb-15	16-Mar-15	272																			
	A5524	EVB Basement (Zone A1) - Partition Wall (Reb. Fix + Concreting)	14	27-Feb-15	16-Mar-15	120																			
	A5534	EVB Basement (Zone A1) - Staircase-2nos.(Reb. Fix + Concreting)	14	16-Mar-15	01-Apr-15	160																			
	A5544	EVB Basement (Zone A2) - Partition Wall (Reb. Fix + Concreting)	14	01-Apr-15	21-Apr-15	160																			
	A5744	EVB Mezzanine (Zone A1) - (Reb. Fix + Concreting)	14	16-Mar-15	01-Apr-15	120																			
	A5754	EVB Mezzanine (Zone A1) - Staircase-2nos.(Reb. Fix + Concreting)	14	01-Apr-15	21-Apr-15	120																			
05.2 - Cut & Cover Tunnel Ch 4932-5149																									
05.2.3 - ELS																									
	A4192	Tunnel Base Slab - Erect Falsework and Soffit	2	20-Jan-15	21-Jan-15	26																			
	A4242	Pump Sump E (Pump Rm) - Erect Falsework	0	15-Dec-14 A	07-Jan-15 A																				
	A4252	Tunnel Bay 1 & 2 (Center Wall)+ Pump Rm - Rebar Fix. & Conc.	0	15-Dec-14 A	26-Dec-14 A																				
	A4282	Tunnel Bay 1 & 2 (OHVD) Rebar Fix. & Conc.	0	19-Dec-14 A	10-Jan-15 A																				
	A4283	Tunnel Bay 1 & 2 Elec. & Duct Rm - Rebar Fix. & Conc.	7	15-Jan-15 A	29-Jan-15	22																			
	A4292	Tunnel Bay 1 & 2 (Hanger Wall) - Formworks + Rebar Fix & Conc.	0	11-Jan-15 A	15-Jan-15 A																				
	A4302	Tunnel Bay 1 & 2 - (Roof Slab) - Falseworks	2	21-Jan-15	23-Jan-15	22																			
	A4312	Tunnel Bay 1 & 2 - (Roof Slab) - Relocating the Runner Beam	2	24-Jan-15	25-Jan-15	26																			
	A4322	Tunnel Bay 1 & 2 - (Roof Slab) - Formworks + Rebar Fix. & Conc.	7	26-Jan-15	01-Feb-15	26																			
05.2.4 - Tunnel Structure																									
	0524-2535	Waterproof Top Slab Bay 1 to Bay 4	2	02-Feb-15	03-Feb-15	63																			
05.2.5 - Road & Miscellaneous Works																									
	0525-2882	Backfill above Tunnel Structure Bay 1 to Bay 4	7	04-Feb-15	11-Feb-15	63																			
	0525-2900	Tunnel Roadside/Profile Barrier (excl vent bldg)	30	05-Aug-14 A	26-Feb-15	76																			
	0525-2940	Backfill above Tunnel Structure Bay 5 to Bay 9	20	28-Nov-14 A	11-Feb-15	11																			
	0525-2950	Backfill above Tunnel Structure Bay 10 to Bay 13	20	28-Nov-14 A	11-Feb-15	11																			
06 - SECTION 3 OF THE WORKS																									
06.1 - Westbound - Pier 29-34																									
	A6050	Pier 29 Additional 12nos. Pre bore H-Pile > P29-8	0	20-Dec-14 A	06-Jan-15 A																				
	A6120	Pier 29 Additional 12nos. Pre bore H-Pile > P29-15	0	19-Nov-14 A	05-Jan-15 A																				
06.2 - Box Culvert U1																									
	0620-2635	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Backfill/Extract Sheet Pile	0	15-Jan-15 A	19-Jan-15 A																				

[illegible]

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
A7670	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS39b	18	02-Jan-15 A	09-Feb-15	36	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS39b																			
A7671	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40a	18	10-Feb-15	05-Mar-15	36	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40a																			
A7672	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40b	18	10-Feb-15	05-Mar-15	36	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40b																			
A7673	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS41a	18	20-Jan-15	09-Feb-15	54	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS41a																			
A7680	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42a	18	20-Jan-15	09-Feb-15	36	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42a																			
A7690	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42b	18	20-Jan-15	09-Feb-15	36	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42b																			
A7720	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44a	0	12-Dec-14 A	10-Jan-15 A		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44a																			
A7730	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44b	0	15-Dec-14 A	10-Jan-15 A		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44b																			
A7740	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS45a	0	06-Dec-14 A	20-Jan-15	72	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS45a																			
A7750	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS45b	0	05-Dec-14 A	05-Jan-15 A		Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS45b																			
A7760	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS46a	0	26-Nov-14 A	27-Dec-14 A		Wall F Pre-Bored H-Pile - H - Beam + Grout > BS46a																			
A7780	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS47a	0	02-Dec-14 A	27-Dec-14 A		Wall F Pre-Bored H-Pile - H - Beam + Grout > BS47a																			
A7800	Complete Pre-Bored H-Pile > Retaining Wall	0		20-Apr-15*	0	◆ Complete Pre-Bored H-Pile > Retaining Wall																			
10 - SECTION X OF THE WORKS																									
10.1 - E/B Bridges (Bridge D, E and F)																									
10.1.1 - Marine Pier Construction																									
Pier F03 to F15																									
1011-3274	F1 Dolphin Construction	0	23-Jul-14 A	06-Jan-15 A		F1 Dolphin Construction																			
Pier F01 to F02																									
1011-2900	F1B Pier/Column Construction	12	20-Jan-15	02-Feb-15	664	F1B Pier/Column Construction																			
1011-2910	F1B Crosshead Construction	18	03-Feb-15	26-Feb-15	664	F1B Crosshead Construction																			
1011-2930	Bearing installation pier F1B/F2B	12	27-Feb-15	12-Mar-15	664	Bearing installation pier F1B/F2B																			
10.1.3 - E/B Bridge Construction																									
Bridge F1A																									
1013-1868.2	TTA > Bridge F1A Int. Double Noise Encl. Install Panel (Stage 2 - North)	14	21-Jan-15*	05-Feb-15	0	TTA > Bridge F1A Int. Double Noise Encl. Install Panel (Stage 2 - North)																			
1013-1868.3	Bridge F1A Int. Double Noise Encl. Install Panel (Stage 2 - North)	14	21-Jan-15	05-Feb-15	40	Bridge F1A Int. Double Noise Encl. Install Panel (Stage 2 - North)																			
Bridge F2A																									
1013-1378.2	TTA > Bridge F2A Int. Double Noise Encl. Install Panell (Stage 2 - North)	14	21-Jan-15*	05-Feb-15	0	TTA > Bridge F2A Int. Double Noise Encl. Install Panell (Stage 2 - North)																			
1013-1378.3	Bridge Bridge F2A Int. Double Noise Encl. Install Panel (Stage 2 - North)	14	21-Jan-15	05-Feb-15	50	Bridge Bridge F2A Int. Double Noise Encl. Install Panel (Stage 2 - North)																			
Bridge F5/F4																									
1013-2172.25	Bridge F4 MJ at Pier F14	3	20-Jan-15	22-Jan-15	0	Bridge F4 MJ at Pier F14																			
All E/B Bridges (Common)																									
1013-1720	Permanent Noise Barrier Type B1 E/B Bridge Ch 962-1059 (132m)	5	02-Dec-14 A	30-Jan-15	46	Permanent Noise Barrier Type B1 E/B Bridge Ch 962-1059 (132m)																			
1013-1730	Permanent Noise Barrier Type A1 E/B Bridge Ch 826-962 (136m)	5	05-Dec-14 A	30-Jan-15	46	Permanent Noise Barrier Type A1 E/B Bridge Ch 826-962 (136m)																			
1013-1750	E/B Bridge Sign Gantries and Misc. Mounting Structure/Support	14	20-Sep-14 A	04-Feb-15	42	E/B Bridge Sign Gantries and Misc. Mounting Structure/Support																			
A6150	Permanent Water Mains install E/B > Pier D1 - D3	7	20-Jan-15	27-Jan-15	21	Permanent Water Mains install E/B > Pier D1 - D3																			
A6160	Permanent Water Mains install E/B > Pier D3-D5	7	28-Jan-15	04-Feb-15	21	Permanent Water Mains install E/B > Pier D3-D5																			
A6170	Permanent Water Mains install E/B > Pier D5-D7	7	05-Feb-15	12-Feb-15	21	Permanent Water Mains install E/B > Pier D5-D7																			
A6180	Permanent Water Mains install E/B > Pier D7-D9	7	13-Feb-15	24-Feb-15	21	Permanent Water Mains install E/B > Pier D7-D9																			
A6190	Permanent Water Mains install E/B > Pier D9-D12	7	25-Feb-15	04-Mar-15	21	Permanent Water Mains install E/B > Pier D9-D12																			

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

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Page 9 of 14

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
A6300	Temporary Water Mains install Bridge "TD" > Pier F5-F15	10	20-Jan-15	30-Jan-15	26																				
A6310	Temporary Water Mains install W/B > Pier 45 - 50	10	31-Jan-15	11-Feb-15	26																				
A6320	Temporary Water Mains install E/B > Pier 16 - 20	10	12-Feb-15	26-Feb-15	26																				
A7620	Remaining E/B Bridges Bitumin Paving Works	12	11-Mar-15*	22-Mar-15	0																				
10.1.4 - Bridge E / Hing Fat Slip Road																									
Pier Construction																									
1014-1240.12	Bridge E (Pier E2 & 18)) - Pile Cap & Pier	0	02-Dec-14 A	24-Dec-14 A																					
1014-1240.20	Bridge E (Pier 18) - Const. Crosshead Part 1	0	12-Aug-14 A	02-Jan-15 A																					
1014-1240.21	Bridge E (Pier 18) - Const. Crosshead Part 2	0	03-Jan-15 A	18-Jan-15 A																					
1014-1249	Bridge E (Pier 17) - Const. Crosshead	0	30-Oct-14 A	12-Jan-15 A																					
1014-1249.1	Bridge E (Pier E1b - 19) - Connect E1b Crosshead to Pier 19	0	08-Dec-14 A	15-Jan-15 A																					
Bridge Construction																									
1014-1210.1	Bridge C1 (Pier 17) - Install Bearing	0	15-Jan-15 A	20-Jan-15	3																				
1014-1240.2	Bridge E (Pier 19) - Install Bearing	0	16-Jan-15 A	22-Jan-15	0																				
1014-1240.3	Bridge E (Pier 18) - Install Bearing	3	19-Jan-15 A	22-Jan-15	0																				
1014-1240.4	Bridge E (Pier 18 - 19) - Erect Pre-Cast Beam (4nos)	4	23-Jan-15	27-Jan-15	0																				
1014-1240.5	Bridge E (Pier 19 - D1) - Erect Pre-Cast Beam (4nos)	4	28-Jan-15	31-Jan-15	0																				
1014-1240.6	Bridge E (Pier 17 - 18) - Erect Pre-Cast Beam (2nos)	3	01-Feb-15	03-Feb-15	1																				
A9230	Bridge E (Pier 18-19) - Pre-Cast Planking erection	4	28-Jan-15	31-Jan-15	0																				
A9240	Bridge E (Pier 18-19) - Erect Scaffoldings & Platform for Diaphragm	5	01-Feb-15	05-Feb-15	1																				
A9250	Bridge E (Pier 18-19) - Formworks > Diaphragm	4	02-Feb-15	06-Feb-15	7																				
A9251	Bridge E (Pier 18-19) - Erect Scaffoldings & Platform for Cantilever Slab	4	02-Feb-15	05-Feb-15	0																				
A9260	Bridge E (Pier 18-19) - Rebar Fix > Diaphragm + Slab + Pipe install	8	06-Feb-15	14-Feb-15	0																				
A9270	Bridge E (Pier 18-19) - Formworks > Slab	1	16-Feb-15	16-Feb-15	0																				
A9280	Bridge E (Pier 18-19) - Concreting > Diaphram + Slab	1	17-Feb-15	17-Feb-15	0																				
A9300	Bridge E (Pier 18-19) - Hanger Formworks for Stitching	7	18-Feb-15	28-Feb-15	0																				
A9310	Bridge E (Pier 18-19) - Stitching > Reb. Fix + Concretin	14	01-Mar-15	14-Mar-15	1																				
A9320	Bridge E (Pier 17 - 18) - Pre-Cast Planking erection	3	03-Feb-15	06-Feb-15	1																				
A9330	Bridge E (Pier 17 - 18) - Erect Scaffoldings & Platform for Diaphragm	5	07-Feb-15	11-Feb-15	1																				
A9340	Bridge E (Pier 17 - 18) - Formworks > Diaphragm	4	07-Feb-15	12-Feb-15	1																				
A9350	Bridge E (Pier 17 - 18) - Erect Scaffoldings & Platform for Cantilever Slab	5	07-Feb-15	11-Feb-15	4																				
A9360	Bridge E (Pier 17 - 18) - Rebar Fix > Diaphragm + Slab + Pipe install	4	11-Feb-15	14-Feb-15	1																				
A9370	Bridge E (Pier 17 - 18) - Formworks > Slab	1	14-Feb-15	16-Feb-15	0																				
A9380	Bridge E (Pier 17 - 18) - Concreting > Diaphram + Slab	1	16-Feb-15	17-Feb-15	0																				
A9390	Bridge E (Pier 17 - 18) - Hanger Formworks for Stitching	7	17-Feb-15	28-Feb-15	0																				
A9400	Bridge E (Pier 17 - 18) - Stitching > Reb. Fix + Concretin	14	01-Mar-15	14-Mar-15	1																				
A9410	Bridge E (Pier 19 - D1) - Pre-Cast Planking erection	3	02-Feb-15	04-Feb-15	11																				
A9420	Bridge E (Pier 19 - D1) - Erect Scaffoldings & Platform for Diaphragm	5	04-Feb-15	08-Feb-15	8																				

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

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Page 10 of 14

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March					April				May		
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
A9430	Bridge E (Pier 19 - D1) - Formworks > Diaphragm	4	04-Feb-15	09-Feb-15	7																				
	A9440	Bridge E (Pier 19 - D1) - Erect Scaffoldings & Platform for Cantilever Slab	4	04-Feb-15	07-Feb-15	8																			
	A9450	Bridge E (Pier 19 - D1) - Rebar Fix > Diaphragm + Slab + Pipe install	10	09-Feb-15	24-Feb-15	7																			
	A9460	Bridge E (Pier 19 - D1) - Formworks > Slab	1	24-Feb-15	25-Feb-15	7																			
	A9470	Bridge E (Pier 19 - D1) - Concreting > Diaphram + Slab	1	25-Feb-15	26-Feb-15	7																			
	A9471	Bridge E (Pier E1 - D1) - Stitching > Reb. Fix + Concretin	12	27-Feb-15	10-Mar-15	8																			
	A9472	Bridge E (Pier 19 - D1) - Temporary L3 Parapet Railings	7	27-Feb-15	05-Mar-15	24																			
	A9500	Bridge E (Pier 16 - 19) - Lightings	6	15-Mar-15	20-Mar-15	1																			
	A9510	Bridge E (Pier 17 - 19) - MJ	10	01-Mar-15	10-Mar-15	10																			
	A9520	Bridge E (Pier 17 - 19) - install pre-cast Parapet	16	24-Feb-15	11-Mar-15	12																			
	A9521	Bridge E (Pier 17 - 19) - Instatall L3 Railing/Parapet	4	12-Mar-15	15-Mar-15	12																			
	A9540	Bridge E (Pier 17 - D1) - Drainage Gully	5	16-Mar-15	20-Mar-15	0																			
	A9560	Bridge E (Pier 19 - D1) - Parapet + Noise Barrier > Post + Panel	25	30-Mar-15	30-Apr-15	0																			
	A9570	Bridge E (Pier 19 - D1) - Green Wall	2	28-Apr-15	30-Apr-15*	0																			
	A9590	Bridge E (Pier D1) - MJ	6	10-Mar-15	17-Mar-15	7																			
	A9600	Bridge E (Pier 17 - D1) - Asphalting	4	21-Mar-15	25-Mar-15	0																			
	A9610	Bridge E (Pier 17 - D1) - Road Marking	2	26-Mar-15	27-Mar-15	0																			
A9620	Bridge E (Pier 17 - D1) - Signage	5	16-Mar-15	20-Mar-15	6																				
10.2 - W/B Bridges (Bridge C and F)																									
10.2.2 - Bridge Construction																									
A7270	Int. Noise Enclosure Main + Sub Frames Fab / Del	150	18-Feb-15	22-Aug-15	155																				
A7280	Int. Noise Enclosure Noise Panel Fab / Del	150	07-Apr-15	05-Oct-15	155																				
All W/B Bridges (Common)																									
A10390	TTA > Opening of Median Barrier at Existing W/B bridge (Pier 15-21 & 44-49)	13	30-Mar-15	11-Apr-15	0																				
A8060	Opening of Median Barrier at Existing W/B bridge (Pier 15-21 & 44-49)	13	30-Mar-15	11-Apr-15	0																				
A8530	Saw - Cutting of Slab at W/B Bridge (Pier 26-44)	15	14-Apr-15	28-Apr-15	8																				
A9820	Erection of Fixed Gantry > Pier 34-35	4	13-Apr-15	17-Apr-15	138																				
10.3 - Middle Bridge (Bridge F)																									
10.3.1 - Pier Construction																									
Abutment D12																									
1031-1057	Abut D12 (Approach Ramp Area) - Reb Fix + Concrete Pour 2	0	19-Dec-14 A	23-Dec-14 A																					
1031-1058	Abut D12 (Approach Ramp Area) - Reb Fix + Concrete Pour 3	14	20-Jan-15	04-Feb-15	137																				
1031-1060	Construct partial D12 under old E/B	18	20-Jan-15	09-Feb-15	663																				
1031-1070	Bearing installation at Abutment D12 under old E/B	6	10-Feb-15	16-Feb-15	663																				
10.4 - Bridge Deck Demolition																									
10.4.1 - Existing W/B Bridge (Part 1)																									
A6640	Erect/Assemble LG1 + T&C	50	13-Apr-15	11-Jun-15	7																				
A6770	TTA for Bridge Demolition at Watson Road & Oil Street	90	22-Jan-15	15-May-15	50																				
A8070	Pier 43 Erect Falsework at existing W/B Bridge prior to demolition	0	22-Dec-14 A	27-Dec-14 A																					

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
	A8072	Pier 42 Erect Falsework at existing W/B Bridge prior to demolition	0	27-Dec-14 A	31-Dec-14 A		2 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8073	Pier 41 Erect Falsework at existing W/B Bridge prior to demolition	0	01-Jan-15 A	06-Jan-15 A		Pier 41 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8074	Pier 40 Erect Falsework at existing W/B Bridge prior to demolition	0	05-Jan-15 A	10-Jan-15 A		Pier 40 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8075	Pier 39 Erect Falsework at existing W/B Bridge prior to demolition	0	08-Jan-15 A	13-Jan-15 A		Pier 39 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8076	Pier 38 Erect Falsework at existing W/B Bridge prior to demolition	0	12-Jan-15 A	16-Jan-15 A		Pier 38 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8077	Pier 37 Erect Falsework at existing W/B Bridge prior to demolition	2	15-Jan-15 A	21-Jan-15	111	Pier 37 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8078	Pier 36 Erect Falsework at existing W/B Bridge prior to demolition	5	19-Jan-15 A	26-Jan-15	111	Pier 36 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.1	Pier 28 Erect Falsework at existing W/B Bridge prior to demolition	6	26-Jan-15	31-Jan-15	111	Pier 28 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.11	Pier 29 Erect Falsework at existing W/B Bridge prior to demolition	6	31-Jan-15	06-Feb-15	111	Pier 29 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.12	Pier 30 Erect Falsework at existing W/B Bridge prior to demolition	6	06-Feb-15	12-Feb-15	111	Pier 30 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.13	Pier 31 Erect Falsework at existing W/B Bridge prior to demolition	6	12-Feb-15	18-Feb-15	111	Pier 31 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.14	Pier 32 Erect Falsework at existing W/B Bridge prior to demolition	6	18-Feb-15	27-Feb-15	111	Pier 32 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.15	Pier 33 Erect Falsework at existing W/B Bridge prior to demolition	6	27-Feb-15	05-Mar-15	111	Pier 33 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.16	Pier 34 Erect Falsework at existing W/B Bridge prior to demolition	6	05-Mar-15	11-Mar-15	111	Pier 34 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.17	Pier 35 Erect Falsework at existing W/B Bridge prior to demolition	6	11-Mar-15	17-Mar-15	111	Pier 35 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.18	Pier 17 Erect Falsework at existing W/B Bridge prior to demolition	6	17-Mar-15	23-Mar-15	197	Pier 17 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.19	Pier 26 Erect Falsework at existing W/B Bridge prior to demolition	6	23-Mar-15	28-Mar-15	197	Pier 26 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.2	Pier 25 Erect Falsework at existing W/B Bridge prior to demolition	6	28-Mar-15	07-Apr-15	197	Pier 25 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.21	Pier 24 Erect Falsework at existing W/B Bridge prior to demolition	6	07-Apr-15	13-Apr-15	197	Pier 24 Erect Falsework at existing W/B Bridge prior to demolition																		
	A8079.22	Pier 23 Erect Falsework at existing W/B Bridge prior to demolition	6	13-Apr-15	18-Apr-15	197	Pier 23 Erect Falsework at existing W/B Bridge prior to demolition																		
A8079.3	Pier 22 Erect Falsework at existing W/B Bridge prior to demolition	6	18-Apr-15	24-Apr-15	197	Pier 22 Erect Falsework at existing W/B Bridge prior to demolition																			
A8079.4	Pier 21 Erect Falsework at existing W/B Bridge prior to demolition	6	24-Apr-15	30-Apr-15	197	Pier 21 Erect Falsework at existing W/B Bridge prior to demolition																			
10.5 - Temporary Bridge																									
10.5.1 - Temporary Bridge 'TA'																									
1051-1019	Temporary Bridge TA2 - Mini-Pile	0	19-Dec-14 A	31-Dec-14 A		Temporary Bridge TA2 - Mini-Pile																			
A9630	(TA21 > C15) - Cap Construction	10	17-Jan-15 A	30-Jan-15	43	(TA21 > C15) - Cap Construction																			
A9631	(TA22 > C15) - Cap Construction	11	17-Jan-15 A	31-Jan-15	48	(TA22 > C15) - Cap Construction																			
A9640	(TA21 & TA22 > C15) - Steel Tower Erection	6	31-Jan-15	06-Feb-15	43	(TA21 & TA22 > C15) - Steel Tower Erection																			
A9650	(TA21 & TA22 > C15) - Beam Erection (4nos)	10	06-Feb-15	17-Feb-15	43	(TA21 & TA22 > C15) - Beam Erection (4nos)																			
A9660	(TA21 & TA22 > C15) - Deck Construction	15	18-Feb-15	10-Mar-15	43	(TA21 & TA22 > C15) - Deck Construction																			
A9670	(TA23 & TA25 > C19-EVB Roof) - Steel Tower + Bearing + Beam	12	04-Mar-15	18-Mar-15	0	(TA23 & TA25 > C19-EVB Roof) - Steel Tower + Bearing + Beam																			
A9680	(TA26 - TA28> C19-EVB Roof) - Steel Tower + Bearing + Beam	16	18-Mar-15	09-Apr-15	18	(TA26 - TA28> C19-EVB Roof) - Steel Tower + Bearing + Beam																			
A9690	(TA23 - TA24 > C19-EVB Roof) - Deck construction	18	18-Mar-15	11-Apr-15	0	(TA23 - TA24 > C19-EVB Roof) - Deck construction																			
A9700	(TA24 - TA25 > C19-EVB Roof) - Deck construction	18	18-Mar-15	11-Apr-15	0	(TA24 - TA25 > C19-EVB Roof) - Deck construction																			
A9710	(TA25 - TA26 > C19-EVB Roof) - Deck construction	18	11-Apr-15	04-May-15	0	(TA25 - TA26 > C19-EVB Roof) - Deck construction																			
A9720	(TA26 - TA27 > C19-EVB Roof) - Deck construction	18	11-Apr-15	04-May-15	0	(TA26 - TA27 > C19-EVB Roof) - Deck construction																			
A9740	(TA23 - TA25 > C19-EVB Roof) - Parapet + Lightings + MJ	14	11-Apr-15	28-Apr-15	18	(TA23 - TA25 > C19-EVB Roof) - Parapet + Lightings + MJ																			
A9780	(TA2 > C15) - Stitching to Existing Bridge	14	11-Mar-15	26-Mar-15	43	(TA2 > C15) - Stitching to Existing Bridge																			

Activity ID	Activity Name	Remaining Duration	Start	Finish	Total Float	2015																			
						January				February				March				April				May			
						04	11	18	25	01	08	15	22	01	08	15	22	29	05	12	19	26	03		
10.5.2 - Temporary Bridge 'TB'																									
A10240	TB > Beams Pier 16 -17	2	20-Jan-15	21-Jan-15	10	TB > Beams Pier 16 -17																			
A10250	TB > (Pier 16 -17) - Install Bondeck & Shear Stub	6	22-Jan-15	28-Jan-15	10	TB > (Pier 16 -17) - Install Bondeck & Shear Stub																			
A10260	TB > (Pier 16 -17) - Rebar Fixing for Bridge deck + Fixing Holding Down Bolt	10	29-Jan-15	09-Feb-15	10	TB > (Pier 16 -17) - Rebar Fixing for Bridge deck + Fixing Holding Down Bolt																			
A10270	TB > (Pier 16 -17) - Concreting	1	10-Feb-15	10-Feb-15	10	TB > (Pier 16 -17) - Concreting																			
A10280	TB > (Pier 16-17) - Stitching	6	11-Feb-15	17-Feb-15	10	TB > (Pier 16-17) - Stitching																			
A10290	TB > (Pier TB1-16) - L3 Railing Installation	5	23-Feb-15	27-Feb-15	10	TB > (Pier TB1-16) - L3 Railing Installation																			
A10300	Bridge E (Pier 16) - MJ	8	02-Mar-15	10-Mar-15	9	Bridge E (Pier 16) - MJ																			
A2461	TB > Erection of TB I - Beams TB1-16	0	29-Dec-14 A	30-Dec-14 A		rection of TB I - Beams TB1-16																			
A2470	TB > (Pier TB1-16) - Install Bondeck & Shear Stub	0	06-Jan-15 A	12-Jan-15 A		TB > (Pier TB1-16) - Install Bondeck & Shear Stub																			
A2471	TB > (Pier TB1-16) - Rebar Fixing for Bridge deck + Fixing Holding Down Bolt	0	13-Jan-15 A	23-Jan-15	39	TB > (Pier TB1-16) - Rebar Fixing for Bridge deck + Fixing Holding Down Bolt																			
A2472	TB > (Pier TB1-16) - Concreting	1	23-Jan-15	24-Jan-15	39	TB > (Pier TB1-16) - Concreting																			
A2473	TB > (Pier TB1-16) - Stitching	7	24-Jan-15	02-Feb-15	39	TB > (Pier TB1-16) - Stitching																			
A2480	TB > (Pier TB1-16) - L3 Railing Installation	5	02-Feb-15	07-Feb-15	39	TB > (Pier TB1-16) - L3 Railing Installation																			
10.5.3 - Temporary Bridge 'TD'																									
1053-1166	Bridge TD - MJ at Pier F14	3	20-Jan-15	22-Jan-15	53	Bridge TD - MJ at Pier F14																			
10.6 - Tunnel Approach Ramp																									
10.6.1 - Approach Ramp (Excluding Portion IIB)																									
Bored Piles																									
1061-1012	Pre-drilling Approach Ramp Piles Remaining (70 nos) (excl IIB & VD)	46	18-Oct-13 A	17-Mar-15	544	Pre-drilling Approach Ramp Piles Remaining (70 nos) (excl IIB & VD)																			
1061-1030	Founding LevelApproach Ramp Piles Remaining (excl IIB & VD)	69	08-Jan-14 A	16-Apr-15	521	Founding LevelApproach Ramp Piles Remaining (excl IIB & VD)																			
1061-1053	Remaining Bored Piles & Pre-Bored H-Pile Testing	60	18-Apr-15	29-Jun-15	668	Remaining Bored Piles & Pre-Bored H-Pile Testing																			
1061-2031	Bored Pile Ramp - BN28	0	15-Dec-14 A	23-Dec-14 A		Bored Pile Ramp - BN28																			
A5851	Bored Pile Ramp - BN25	15	27-Feb-15	16-Mar-15	25	Bored Pile Ramp - BN25																			
A5851.1	Bored Pile Ramp - BN26	15	29-Dec-14 A	05-Feb-15	25	Bored Pile Ramp - BN26																			
A5852	Bored Pile Ramp - BN25a	15	06-Feb-15	26-Feb-15	25	Bored Pile Ramp - BN25a																			
A5854	Bored Pile Ramp - BN23	18	23-Dec-14 A	09-Feb-15	22	Bored Pile Ramp - BN23																			
A5855	Bored Pile Ramp - BN28	14	15-Dec-14 A	04-Feb-15	26	Bored Pile Ramp - BN28																			
A5856	Bored Pile Ramp > LHR- BN32	14	05-Feb-15	24-Feb-15	90	Bored Pile Ramp > LHR- BN32																			
A5857	Bored Pile Ramp > LHR - BN34	14	05-Feb-15	24-Feb-15	104	Bored Pile Ramp > LHR - BN34																			
A5859.2	Bored Pile Ramp - BN19	15	10-Apr-15	27-Apr-15	22	Bored Pile Ramp - BN19																			
A5859.21	Bored Pile Ramp - BN20	15	20-Mar-15	09-Apr-15	22	Bored Pile Ramp - BN20																			
A5859.22	Bored Pile Ramp - BN21	15	03-Mar-15	19-Mar-15	22	Bored Pile Ramp - BN21																			
A5859.23	Bored Pile Ramp - BN22	15	10-Feb-15	02-Mar-15	22	Bored Pile Ramp - BN22																			
A5859.24	Bored Pile Ramp - BS21	15	07-Apr-15	23-Apr-15	25	Bored Pile Ramp - BS21																			
A5859.25	Bored Pile Ramp - BS22	15	17-Mar-15	02-Apr-15	25	Bored Pile Ramp - BS22																			
A5859.32	Bored Pile Ramp > LHR - BN14	14	25-Feb-15	12-Mar-15	90	Bored Pile Ramp > LHR - BN14																			
A5859.33	Bored Pile Ramp > LHR - BN15	14	25-Feb-15	12-Mar-15	104	Bored Pile Ramp > LHR - BN15																			
A5859.34	Bored Pile Ramp > LHR - BN16	14	13-Mar-15	28-Mar-15	90	Bored Pile Ramp > LHR - BN16																			

Remaining Level of Effort

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

◆

 Milestone

Contract HY/2009/19

Three Months Rolling Programme (20 Jan to 19 Apr 2015)

Page 13 of 14

SR8_DWP_1502_Feb_15					SR8 - 3 Month 201502					09-Mar-15 14:11								
Activity ID		Activity Name		Original Duration	Start	Finish	Qtr 1, 2015					Qtr 2, 2015					Qtr 3, 2015	
							Feb		Mar			Apr		May		Jun		Jul
HY/2010/08: CWB-SR8 Three Months Rolling Programm																		
Key Dates				28	20-Feb-15	19-Mar-15	◆ Handover of Portion of TS3W to Portion of Portion (DT)											
Executive Summary Programme				1488	21-Mar-13 A	14-Dec-17												
Works in TS3				365	17-Jul-14 A	08-Oct-15												
TS3 East & West Reclamation Works				105	20-Dec-14 A	20-Apr-15												
TS3W - Reclamation Works (new scheme)				105	20-Dec-14 A	20-Apr-15												
TS3W.MW.2140		TS3W - Handover to D-wall (Phase 1)		0		27-Feb-15	◆ TS3W - Handover to D-wall (Phase 1)											
TS3W.MW.2110		TS3W - General Fill Area 2 (3 Barges)		40	20-Dec-14 A	13-Mar-15	■ TS3W - General Fill Area 2 (3 Barges)											
TS3W.MW.2120		TS3W - General Fill Area 3 (1 Barges)		22	29-Mar-15	20-Apr-15	■ TS3W - General Fill Area 3 (1 Barges)											
TS3W.MW.2190		TS3W - Completion of Reclamation Works		0		20-Apr-15	◆ TS3W - Completion of Reclamation Works											
TS3W - North				38	21-Jan-15 A	29-Mar-15												
TS3W.MW.2040		TS3W North - Rockfill		21	21-Jan-15 A	28-Feb-15	■ TS3W North - Rockfill											
TS3W.MW.2040A		TS3W North - Levelling		4	01-Feb-15 A	02-Mar-15	■ TS3W North - Levelling											
TS3W.MW.2050		TS3W North - Phase 1 Seawall Block Installation		28	01-Feb-15 A	16-Mar-15	■ TS3W North - Phase 1 Seawall Block Installation											
TS3W.MW.2060		TS3W North - Phase 2 Seawall Block Installation		13	16-Mar-15	29-Mar-15	■ TS3W North - Phase 2 Seawall Block Installation											
TS3W - South				16	28-Jan-15 A	27-Feb-15												
TS3W.MW.2090		TS3W South - Seawall Block Installation		16	28-Jan-15 A	27-Feb-15	■ TS3W South - Seawall Block Installation											
Works for Box Culvert Q & Water Intake				12	28-Jan-15 A	14-Feb-15 A												
Box Culvert Q				12	28-Jan-15 A	14-Feb-15 A												
Box Culvert Q Outfall Diversion				12	28-Jan-15 A	14-Feb-15 A												
TS3_1145.50		Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works		12	28-Jan-15 A	14-Feb-15 A	Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works											
Works in TS3-East				290	17-Jul-14 A	09-Jul-15												
Diaphragm Wall				182	28-Nov-14 A	15-Jun-15												
TS3-East Pre-D/wall Works				117	28-Nov-14 A	16-Feb-15 A												
TS3E_2540		Guidewall construction		51	20-Dec-14 A	10-Feb-15 A	Guidewall construction											
TS3E_2530		Curtain grout/soil pre-treatment/slurry wall		49	01-Dec-14 A	11-Feb-15 A	Curtain grout/soil pre-treatment/slurry wall											
TS3E_2520A		Pre-Drilling / Ground Investigation (SI) - Stage 2		27	28-Nov-14 A	16-Feb-15 A	Pre-Drilling / Ground Investigation (SI) - Stage 2											
TS3-East Diaphragm Construction				80	24-Dec-14 A	03-May-15												
TS3E_3110		Diaphragm wall construction Phase 1 (16/50 panels @ proposed bulkhead)		37	24-Dec-14 A	16-Feb-15 A	Diaphragm wall construction Phase 1 (16/50 panels @ proposed bulkhead)											
TS3E_3120		Diaphragm wall construction Phase 2 (34/50 panels @ proposed bulkhead)		80	10-Feb-15 A	03-May-15	■ Diaphragm wall construction Phase 2 (34/50 panels @ proposed bulkhead)											
TS3-East Post D/wall Works				73	03-Apr-15	15-Jun-15												
TS3E_4100		D/wall Interface coring + grouting		60	03-Apr-15	02-Jun-15	■ D/wall Interface coring + grouting											
TS3E_4110		D/wall coring + fissure grouting		60	03-Apr-15	02-Jun-15	■ D/wall coring + fissure grouting											
TS3E_4120		D/wall integrity test		60	03-Apr-15	02-Jun-15	■ D/wall integrity test											
TS3E_4130		Dewatering & observation well installation		36	03-May-15	08-Jun-15	■ Dewatering & observation well installation											
TS3E_4140		Pumping test		7	08-Jun-15	15-Jun-15	■ Pumping test											
ELS				290	17-Jul-14 A	09-Jul-15												
ELS Fabrication Works				260	17-Jul-14 A	02-Jun-15												
TS3E_2055		Shop drawing re-submission		24	17-Jul-14 A	20-Feb-15 A	Shop drawing re-submission											
TS3E_2065		Review and approval by AECOM		24	20-Feb-15 A	03-Mar-15	■ Review and approval by AECOM											
TS3E_2070		Start Fabrication works		0	04-Mar-15		◆ Start Fabrication works											
TS3E_5510		ELS struts & waling fabrication		72	04-Mar-15	02-Jun-15	■ ELS struts & waling fabrication											
TS3-East ELS Works				140	20-Feb-15	09-Jul-15												
TS3E_5515		King Post installation		38	20-Feb-15	29-Mar-15	■ King Post installation											
TS3E_5520		ELS Layer 1 - Soft Excav + Strut installation		12	15-Jun-15	27-Jun-15	■ ELS Layer 1 - S											

Activity ID	Activity Name	Original Duration	Start	Finish	Qtr 1, 2015		Qtr 2, 2015		Qtr 3, 2015	
					Feb	Mar	Apr	May	Jun	Jul
TS3E_5540	ELS Layer 1 - Soft Excav + Strut installation	12	27-Jun-15	09-Jul-15						
Cut & Cover Tunnel Structure		96	23-Feb-15	22-Jun-15						
Temporary Works Design		48	23-Feb-15	23-Apr-15						
TS3E_2080	(01) RC Temp Work Design - submission	24	23-Feb-15	21-Mar-15		(01) RC Temp Work Design - submission				
TS3E_2085	(01) RC Temp Work Design - review and approval by AECOM	24	23-Mar-15	23-Apr-15			(01) RC Temp Work Design - review and approval by AECOM			
Method Statement		48	24-Apr-15	22-Jun-15						
TS3E_2090	(01)RC works method statement - submission	24	24-Apr-15	22-May-15			(01)RC works method statement - submission			
TS3E_2095	(01)RC works method statement - review and approval by AECOM	24	23-May-15	22-Jun-15				(01)RC works method statement - review and approval by AECOM		
Works in TS3-West		206	03-Dec-14 A	08-Oct-15						
Diaphragm Wall		206	03-Dec-14 A	08-Oct-15						
Method Statement		24	29-Dec-14 A	07-Mar-15						
TS3W_2025	(01) D Wall works method statement - submission	24	29-Dec-14 A	03-Feb-15 A	(01) D Wall works method statement - submission					
TS3W_2030	(01) D Wall works method statement - review and approval by AECOM	24	04-Feb-15 A	07-Mar-15		(01) D Wall works method statement - review and approval by AECOM				
TS3-West Pre-D/wall Works		199	03-Dec-14 A	03-Aug-15						
TS3W_2520	Pre-drilling / Ground Investigation (SI) - Phase 1	20	03-Dec-14 A	02-Feb-15 A	Pre-drilling / Ground Investigation (SI) - Phase 1					
TS3W_2510	Bentonite silo & plant establishment	48	11-Feb-15 A	23-Mar-15		Bentonite silo & plant establishment				
TS3W_2540	Guidewall construction	106	26-Jan-15 A	15-Jun-15			Guidewall construction			
TS3W_2530	Curtain grout/soil pre-treatment/slurry wall	137	28-Feb-15	14-Jul-15						
TS3W_2520A	Pre-drilling / Ground Investigation (SI) - Phase 2	107	03-Feb-15 A	03-Aug-15						
TS3-West Diaphragm Construction		201	21-Mar-15	08-Oct-15						
TS3W_3110	Diaphragm wall construction Phase 1 (53/137 panels-include SR8)	145	21-Mar-15	12-Aug-15						
TS3W_3120	Diaphragm wall construction Phase 2 (84/137 panels)	152	09-May-15	08-Oct-15						
ELS & Rock Excavation		120	23-Feb-15	21-Jul-15						
ELS Fabrication Works		96	23-Feb-15	22-Jun-15						
TS3W_2095	Shop drawing submission	24	23-Feb-15	21-Mar-15		Shop drawing submission				
TS3W_2100	Review and approval by AECOM	24	23-Mar-15	23-Apr-15			Review and approval by AECOM			
TS3W_2105	Shop drawing re-submission	24	24-Apr-15	22-May-15				Shop drawing re-submission		
TS3W_2110	Review and approval by AECOM	24	23-May-15	22-Jun-15					Review and approval by AECOM	
Method Statement		24	23-Jun-15	21-Jul-15						
TS3W_2115	(01) ELS works method statement - submission	24	23-Jun-15	21-Jul-15						
Works in SR8 (Open Cut Method)		367	19-Sep-14 A	22-Aug-15						
SR8 - Cofferdam & Cut & Cover Tunnel Works		304	01-Nov-14 A	22-Aug-15						
SR8 East Bound - (Seaside to Victoria Road / IEC Central Divider)		201	01-Nov-14 A	22-Aug-15						
Method Statement		24	05-Jun-15	04-Jul-15						
ELS		24	05-Jun-15	04-Jul-15						
SR8_2260	ELS Method statement - submission	24	05-Jun-15	04-Jul-15						
TTA Stage 1 - East Bound		127	01-Nov-14 A	24-Apr-15						
Stage 2 - East Bound (Ref. DRG. No.CDD/SR8/083)		127	01-Nov-14 A	24-Apr-15						
SR8.EB.1340	Stage 2 - Sheet Pile Work	18	01-Nov-14 A	07-Feb-15 A	Stage 2 - Sheet Pile Work					
SR8.EB.1360	Stage 2 - TAM Grout	18	20-Feb-15 A	04-Mar-15		Stage 2 - TAM Grout				
SR8.EB.1400	Ground Treatment - Jet Grout	21	20-Feb-15 A	10-Mar-15			Ground Treatment - Jet Grout			
SR8.EB.1380	Demolish part of the Wing Wall of Abutment M	14	23-Feb-15	10-Mar-15			Demolish part of the Wing Wall of Abutment M			
SR8.EB.1385	Install Dewatering Wells and Observation Wells & Pump Test	14	10-Mar-15	26-Mar-15			Install Dewatering Wells and Observation Wells & Pump Test			
SR8.EB.1390	Construct Traffic Deck	35	05-Mar-15	18-Apr-15			Construct Traffic Deck			
SR8.EB.1530	Construct IEC East Bound Up Ramp	60	11-Feb-15 A	24-Apr-15			Construct IEC East Bound Up Ramp			
TTA Stage 2 - East Bound		98	26-Apr-15	22-Aug-15						

Activity ID	Activity Name	Original Duration	Start	Finish	Qtr 1, 2015		Qtr 2, 2015		Qtr 3, 2015	
					Feb	Mar	Apr	May	Jun	Jul
Stage 3 - East Bound (Ref. DRG. No.CDD/SR8/084)		98	26-Apr-15	22-Aug-15						
SR8.EB.1410	Implement TTA Stage 2 - Traffic Diversion at East Bound (DRG REF.4843/011/030B and 4843/011/040B)	0	26-Apr-15					◆ Implement TTA Stage 2 - Traffic Diversion at East Bound (DRG REF.4843/011/030B and 4843/011/040B)		
SR8.EB.1420	Demolish Part of EB Existing Abutment M and Part of the Central Divider	12	27-Apr-15	11-May-15				Demolish Part of EB Existing Abutment M and Part of the Central Divider		
SR8.EB.1430	Carry out Pre-boring for Sheet Pile	24	27-Apr-15	26-May-15				Carry out Pre-boring for Sheet Pile		
SR8.EB.1440	Carry out Stage 3 - Sheet Pile Work	21	20-May-15	13-Jun-15				Carry out Stage 3 - Sheet Pile Work		
SR8.EB.1450	Carry out Stage 3 - Pipe Piling Work	60	12-Jun-15	22-Aug-15					Carry out Stage 3 - Pipe Piling Work	
Stage 4 - East Bound (Ref. DRG. No.CDD/SR8/084)		24	15-Jun-15	14-Jul-15						
SR8.EB.1470	Commence Stage 4 (After Completion of reclamation works)	0	15-Jun-15						◆ Commence Stage 4 (After Completion of reclamation works)	
SR8.EB.1480	Carry out Stage 4 Sheet Piling Works	24	15-Jun-15	14-Jul-15					Carry out Stage 4 Sheet Piling Works	
SR8 West Bound - Ch. 459.000 to 385.000 (Victoria Road / IEC Central Diverter)		109	29-Dec-14 A	08-Jul-15						
TTA Stage 1 - West Bound		26	29-Dec-14 A	08-Feb-15 A						
Stage 2B - West Bound (Ref. DRG. No.CDD/SR8/086)		26	29-Dec-14 A	08-Feb-15 A						
SR8.WB.2110	Construct Temporary Traffic Deck	26	29-Dec-14 A	02-Feb-15 A	Construct Temporary Traffic Deck					
SR8.WB.2150	Asphalt Laying + Temporary Street Furniture	3	02-Feb-15 A	08-Feb-15 A	Asphalt Laying + Temporary Street Furniture					
TTA Stage 2 - West Bound		109	08-Feb-15 A	08-Jul-15						
Stage 3 - West Bound (Ref. DRG. No.CDD/SR8/087)		109	08-Feb-15 A	08-Jul-15						
SR8.WB.3010	Implement TTA Stage 2 - Traffic Diversion at West Bound	0	08-Feb-15 A		◆ Implement TTA Stage 2 - Traffic Diversion at West Bound					
SR8.WB.3020	Shift / Divert HEC Cable (Fibre Optic) during Construction of Sheet Pile and Pipe Pile Works	12	11-Feb-15 A	16-Feb-15 A	Shift / Divert HEC Cable (Fibre Optic) during Construction of Sheet Pile and Pipe Pile Works					
SR8.WB.3015	Excavate and expose U/G Utilities (HEC Fiber Optic)	12	11-Feb-15 A	16-Feb-15 A	Excavate and expose U/G Utilities (HEC Fiber Optic)					
SR8.WB.3030	Carry out Stage 3 Sheet Pile works	27	17-Feb-15 A	25-Mar-15	Carry out Stage 3 Sheet Pile works					
SR8.WB.3040	Carry out Stage 3 Pipe Piling Works	45	26-Mar-15	22-May-15	Carry out Stage 3 Pipe Piling Works					
SR8.WB.3050	Carry out Stage 3 TAM Grout	17	23-May-15	12-Jun-15				Carry out Stage 3 TAM Grout		
SR8.WB.3060	Install Dewatering Wells & Carry out Pump Test	20	13-Jun-15	08-Jul-15					Install Dewatering Wells & Carry out Pump Test	
SR8 Ch.385.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)		108	16-Jan-15 A	07-Jul-15						
SR8 Tunnel - ELS / CCT / BF Works (7 Bays Ch. 385.000 to Ch.317.500)		108	16-Jan-15 A	07-Jul-15						
ELS		38	16-Jan-15 A	11-Apr-15						
SR8.VP.5070	ELS Layer 2 - Soft Excavation + Strut Installation	24	16-Jan-15 A	10-Feb-15 A	ELS Layer 2 - Soft Excavation + Strut Installation					
SR8.VP.5070A	ELS Layer 3 - Soft Excavation + Strut Installation	8	11-Feb-15 A	19-Mar-15	ELS Layer 3 - Soft Excavation + Strut Installation					
SR8.VP.5080	Soft Excavation down to Formation Level	16	20-Mar-15	11-Apr-15	Soft Excavation down to Formation Level					
Portal Structure		70	13-Apr-15	07-Jul-15						
Blinding + Waterproofing		14	13-Apr-15	28-Apr-15						
SR8.VP.5030	Blinding for Bay 1 to Bay 7	7	13-Apr-15	20-Apr-15			Blinding for Bay 1 to Bay 7			
SR8.VP.5090	Waterproofing for Bay 1 to Bay 7	7	21-Apr-15	28-Apr-15			Waterproofing for Bay 1 to Bay 7			
Base Slab + Drainage		56	29-Apr-15	07-Jul-15						
SR8.VP.5100	Base Slab - Bay 1	8	29-Apr-15	08-May-15			Base Slab - Bay 1			
SR8.VP.5110	Base Slab - Bay 2	8	09-May-15	18-May-15			Base Slab - Bay 2			
SR8.VP.5120	Base Slab - Bay 3	8	19-May-15	28-May-15			Base Slab - Bay 3			
SR8.VP.5130	Base Slab - Bay 4	8	29-May-15	06-Jun-15			Base Slab - Bay 4			
SR8.VP.5140	Base Slab - Bay 5	8	08-Jun-15	16-Jun-15			Base Slab - Bay 5			
SR8.VP.5150	Base Slab - Bay 6	8	17-Jun-15	26-Jun-15			Base Slab - Bay 6			
SR8.VP.5160	Base Slab - Bay 7	8	27-Jun-15	07-Jul-15			Base Slab - Bay 7			
Pump Sump E		50	29-Apr-15	29-Jun-15						
SR8.VP.5360	Base Slab	8	29-Apr-15	08-May-15			Base Slab			
SR8.VP.5370	Wall Up to Portal Base Slab Bottom	10	09-May-15	20-May-15			Wall Up to Portal Base Slab Bottom			
SR8.VP.5380	Fill Up Void Up to Portal Base Slab Bottom	7	21-May-15	29-May-15			Fill Up Void Up to Portal Base Slab Bottom			
SR8.VP.5390	Wall Up to Portal Roof Bottom	10	17-Jun-15	29-Jun-15					Wall Up to Portal Roof Bottom	

Activity ID	Activity Name	Original Duration	Start	Finish	Qtr 1, 2015			Qtr 2, 2015			Qtr 3, 2015				
					Feb		Mar		Apr		May		Jun		Jul
SR8 Ch 317.500 to Ch 210.000 - U-Structure & Slab (Victoria Park)					304	18-Nov-14 A	14-Jul-15								
Excavation and Lateral Support					28	08-Apr-15	11-May-15								
SR8_2300	Form Temporary Access to Bowling Green at Bay 3(CH230 to CH240)	7	08-Apr-15	15-Apr-15	Form Temporary Access to Bowling Green at Bay 3(CH230 to CH240)										
SR8_2310	ELS - Excavation to Formation Level + Lateral Support for UBA2 to UBA5	21	16-Apr-15	11-May-15	ELS - Excavation to Formation Level + Lateral Support for UBA2 to UBA5										
RC CCT & Backfill Ch317.5000 to Ch240.000					167	18-Nov-14 A	14-Jul-15								
Structure					167	18-Nov-14 A	14-Jul-15								
Blinding + Waterproofing					28	13-Apr-15	15-May-15								
SR8_1840	Remove Bulk Head at CH317.5	7	13-Apr-15	20-Apr-15	Remove Bulk Head at CH317.5										
SR8_1860	Blinding & Waterproofing Bay UBA8	4	21-Apr-15	24-Apr-15	Blinding & Waterproofing Bay UBA8										
SR8_1830	Blinding & Waterproofing Bay UBA2 to UBA5	4	12-May-15	15-May-15	Blinding & Waterproofing Bay UBA2 to UBA5										
Base Slab					167	18-Nov-14 A	14-Jul-15								
SR8_1800	SR8 U-structure Base slab (UBA6 - UBA7 & UBA1)	24	18-Nov-14 A	17-Mar-15	SR8 U-structure Base slab (UBA6 - UBA7 & UBA1)										
SR8_1801	Remove SL3 - (UBA6 - UBA7 & UBA1)	14	18-Mar-15	02-Apr-15	Remove SL3 - (UBA6 - UBA7 & UBA1)										
SR8_1812	SR8 U-structure Base slab (UBA8)	24	25-Apr-15	23-May-15	SR8 U-structure Base slab (UBA8)										
SR8_1813	Remove SL3 - (UBA8)	14	26-May-15	10-Jun-15	Remove SL3 - (UBA8)										
SR8_1810	SR8 U-structure Base slab (UBA2 - UBA5)	48	16-May-15	14-Jul-15											
Wall					108	23-Feb-15	07-Jul-15								
SR8_1850	SR8 U-structure Wall (UBA6-UBA7) - Stage 1	14	23-Feb-15	10-Mar-15	SR8 U-structure Wall (UBA6-UBA7) - Stage 1										
SR8_1850A	Remove SL2, 1 (UBA6-UBA7)	14	11-Mar-15	26-Mar-15	Remove SL2, 1 (UBA6-UBA7)										
SR8_1850B	SR8 U-structure Wall (UBA6-UBA7) - Stage 2	14	27-Mar-15	16-Apr-15	SR8 U-structure Wall (UBA6-UBA7) - Stage 2										
SR8_2060	SR8 U-structure Wall (UBA8) - Stage 1	7	11-Jun-15	18-Jun-15									SR8 U-structure Wall (UBA8) - Stage 1		
SR8_2100	Remove SL2, 1 (UBA8)	7	19-Jun-15	27-Jun-15									Remove SL2, 1 (UBA8)		
SR8_2110	SR8 U-structure Wall (UBA8) - Stage 2	7	29-Jun-15	07-Jul-15											
SR8 Structural Slab Ch.240.000 to Ch.210.000					60	03-Jan-15 A	03-Feb-15 A								
SR8_2080	Drainage Works	60	03-Jan-15 A	03-Feb-15 A	Drainage Works										
Tsing Fung St - RW & Subway Extension & Toe Wall at Hing Fat St					253	19-Sep-14 A	10-Aug-15								
Ret. Wall & TF Subway Extension (Portion V)					104	14-Jan-15 A	02-Jul-15								
Retaining Wall RW8C at Tsing Fung Street (Portion V)					104	14-Jan-15 A	02-Jul-15								
VP_1370	TFS New Ret. Wall - backfilling & compactionworks	24	23-Feb-15	21-Mar-15	TFS New Ret. Wall - backfilling & compactionworks										
VP_1770	Install Steel Railing on Top of RW8C	14	23-Mar-15	11-Apr-15	Install Steel Railing on Top of RW8C										
VP_1390	Demolish Top Portion of Existing Wall Head and Kerb	18	13-Apr-15	04-May-15	Demolish Top Portion of Existing Wall Head and Kerb										
VP_1400	Road Formation - Subbase + Kerb + U-shape Channel	48	05-May-15	02-Jul-15									Road Formation - Subbase + Kerb + U-shape Channel		
Bay 3 & Bay 4					21	14-Jan-15 A	07-Feb-15 A								
VP_1760	TFS New Ret. Wall - wall stem Bay 3 & Bay 4	21	14-Jan-15 A	07-Feb-15 A	TFS New Ret. Wall - wall stem Bay 3 & Bay 4										
Retaining Wall + Toe Wall at Hing Fat Street					253	19-Sep-14 A	10-Aug-15								
Subway Extension at Tsing Fung Street (Portion VIII)					63	05-May-15	20-Jul-15								
West Side					63	05-May-15	20-Jul-15								
VP_1330	Divert Footpath for Closing West Part of Subway	2	05-May-15	06-May-15	Divert Footpath for Closing West Part of Subway										
VP_1365	Excavation and Demolition (West Part) of Subway	14	07-May-15	22-May-15	Excavation and Demolition (West Part) of Subway										
VP_1375.10	TFS Subway extension - Blinding and Waterproofing	8	23-May-15	02-Jun-15	TFS Subway extension - Blinding and Waterproofing										
VP_1375.20	TFS Subway extension - Base slab + Drainage	21	03-Jun-15	27-Jun-15									TFS Subway extension - Base slab + Drainage		
VP_1375.30	TFS Subway extension - Walls	18	29-Jun-15	20-Jul-15											
Tree Transplanting at Portion VIII (Tree Zone 20) (6 trees)					36	19-Sep-14 A	24-Mar-15								
VP_1700	Preparation and Site Hoarding	36	19-Sep-14 A	24-Mar-15	Preparation and Site Hoarding										
RC Works - Toe Wall (RW8E)					81	05-May-15	10-Aug-15								
VP_6152	Construct and divert Temporary Footpath	36	05-May-15	16-Jun-15									Construct and divert Temporary Footpath		

Activity ID	Activity Name	Original Duration	Start	Finish	Qtr 1, 2015		Qtr 2, 2015		Qtr 3, 2015	
					Feb	Mar	Apr	May	Jun	Jul
VP_6160	Sheet Piling and Excavation to Formation level	45	17-Jun-15	10-Aug-15						
Works in Victoria Park		1488	21-Mar-13 A	14-Dec-17						
Re-Provisioning Works		236	23-Sep-14 A	21-Jul-15						
VP_1650	KD4 - Completion of Section 1B of Works (Children Playground & BGO)	0		20-Feb-15		◆ KD4 - Completion of Section 1B of Works (Children Playground & BGO)				
Bowling Green Office		0	20-Feb-15	20-Feb-15						
BGO - Construction Works		0	20-Feb-15	20-Feb-15						
VP_1270	BGO - Completion of KD4 - Works in Section1B	0		20-Feb-15		◆ BGO - Completion of KD4 - Works in Section1B				
Pavilion		104	03-Feb-15 A	02-Jul-15						
Temp. Works Design		31	17-Feb-15 A	30-Mar-15						
VP_0210	(01) Temp. Work Design + ICE - submission	7	17-Feb-15 A	02-Mar-15		(01) Temp. Work Design + ICE - submission				
VP_0230	(01) Temp. Work Design - review and approval by AECOM	24	03-Mar-15	30-Mar-15		(01) Temp. Work Design - review and approval by AECOM				
Materials Submission		76	03-Feb-15 A	28-May-15						
VP_6640	Materials submission (Specification and Samples)	7	03-Feb-15 A	26-Feb-15		Materials submission (Specification and Samples)				
VP_6650	Materials - ER review and approval	24	27-Feb-15	26-Mar-15		Materials - ER review and approval				
VP_6660	Issue P.O. / Manufacturing / Fabrication	48	27-Mar-15	28-May-15		Issue P.O. / Manufacturing / Fabrication				
Shop Drawings		31	31-Mar-15	11-May-15						
VP_0195	Shopdrawing submission	7	31-Mar-15	11-Apr-15		Shopdrawing submission				
VP_0215	Shopdrawing - ER review and approval	24	13-Apr-15	11-May-15		Shopdrawing - ER review and approval				
Method Statement		31	31-Mar-15	11-May-15						
VP_6680	(01) Method statement - submission	7	31-Mar-15	11-Apr-15		(01) Method statement - submission				
VP_6690	(01)Method statement - review and approval by AECOM	24	13-Apr-15	11-May-15		(01)Method statement - review and approval by AECOM				
Construction Works - BG Pavilion		104	23-Feb-15	02-Jul-15						
VP_1310	PV - Site Possession, Portion VI/VII	0	23-Feb-15			◆ PV - Site Possession, Portion VI/VII				
VP_1340	Demolish existing BGO	24	12-Mar-15	13-Apr-15		Demolish existing BGO				
VP_1300	PV - Initial works (Site Clearance, underground utilities etc.)	24	14-Apr-15	12-May-15		PV - Initial works (Site Clearance, underground utilities etc.)				
VP_1360	PV - foundation works	21	12-May-15	05-Jun-15		PV - foundation works				
VP_1380	PV- structural works, G/F to Roof	24	03-Jun-15	02-Jul-15		PV- structural works, G/F to Roof				
Bowling Green		236	23-Sep-14 A	21-Jul-15						
Design Submissions for Bowling Green Lighting		24	23-Sep-14 A	02-Mar-15						
VP_0330	Engineer's Review and Approval	24	23-Sep-14 A	02-Mar-15		Engineer's Review and Approval				
Method Statement		24	20-Nov-14 A	11-Mar-15						
VP_0260	(01)Method statement - review and approval by AECOM	24	20-Nov-14 A	11-Mar-15		(01)Method statement - review and approval by AECOM				
Procurement		93	03-Feb-15 A	26-Jun-15						
VP_1010.164	Material submission	7	03-Feb-15 A	13-Feb-15 A		Material submission				
VP_1010.174	Materials - ER review and approval	24	14-Feb-15 A	30-Mar-15		Materials - ER review and approval				
VP_1010.184	Issue PO / Manufacturing	42	31-Mar-15	23-May-15		Issue PO / Manufacturing				
VP_1010.194	Delivery	11	26-May-15	06-Jun-15		Delivery				
VP_6670	Materials Delivery - Green Turf	24	29-May-15	26-Jun-15		Materials Delivery - Green Turf				
Portion VII Tree Transplanting, DBH <300mm		12	05-Nov-14 A	07-Mar-15						
VP_1330.04	<300mm dia trees (3months) - Stage 4 root pruning & removal/Transplanting	12	05-Nov-14 A	07-Mar-15		<300mm dia trees (3months) - Stage 4 root pruning & removal/Transplanting				
Construction Works		120	23-Feb-15	21-Jul-15						
VP_1320	BG - Site Possession, Portion VI, VII	0	23-Feb-15			◆ BG - Site Possession, Portion VI, VII				
VP_1170	Demolish existing CP / BGO / Site Clearance	24	12-Mar-15	13-Apr-15		Demolish existing CP / BGO / Site Clearance				
VP_1180	Site Survey / Setting up	12	14-Apr-15	27-Apr-15		Site Survey / Setting up				
VP_1710	BG - Install U/G Sewerage System	24	21-Apr-15	19-May-15		BG - Install U/G Sewerage System				
VP_1720	BG - Install Drainage System	24	06-May-15	03-Jun-15		BG - Install Drainage System				

Activity ID		Activity Name	Original Duration	Start	Finish	Qtr 1, 2015												Qtr 2, 2015												Qtr 3, 2015																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
						Feb				Mar				Apr				May				Jun				Jul																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	VP_1730	BG - Install Irrigation System	24	20-May-15	17-Jun-15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									