CONTRACT NO: HK/2015/01

WANCHAI DEVELOPMENT PHASE II AND CENTRAL WANCHAI BYPASS SAMPLING, FIELD MEASUREMENT AND TESTING WORK (STAGE 3)

**ENVIRONMENTAL PERMIT NO. EP-356/2009,
FURTHER EVIRONMENTAL PERMIT NOS. FEP-02/356/2009,
FEP-03/356/2009, FEP-04/356/2009
FEP-06/356/2009 AND FEP-07/356/2009**

QUARTERLY ENVIRONMENTAL MONITORING AND AUDIT REPORT

- JUNE 2016 TO AUGUST 2016 -

CLIENTS:

Civil Engineering and Development Department

and

Highways Department

PREPARED BY:

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CHECKED BY:

Raymond Dai
Environmental Team Leader

DATE:

29 September 2016

RAMBOLL ENVIRON

Ref.: AACWBIECEM00_0_8559L.15.docx

29 September 2016

AECOM Asia Company Limited
Engineer's Representative's Office
25 Hung Hing Road,
Causeway Bay,
Hong Kong

By Post and Fax (2691 2649)

Attention: Mr. Peter Poon

Dear Sirs,

Re: Contract No. HK/2015/01
Wan Chai Development Phase II - Central-Wan Chai Bypass
Sampling, Field Measurement and Testing Works (Stage 3)

Quarterly EM&A Report (June to August 2016) for EP-356/2009, FEP-02/356/2009. FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009

Reference is made to the Environmental Team's submission of the captioned Quarterly Environmental Monitoring and Audit (EM&A) Report for June to August 2016 received by e-mail on 29 September 2016.

Please be informed that we have no adverse comment on the captioned submission and thereby write to verify the captioned submission.

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

Encl.

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c.c.

HyD	Attn: Mr. Eddy Wu	by fax: 2714 5289
CEDD	Attn: Mr. Stephen Lo	by fax: 2577 5040
AECOM	Attn: Mr. Francis Leong/Stephen Lai	by fax: 2691 2649
AECOM	Attn: Mr. Conrad Ng	by fax: 2691 2649
Lam	Attn: Mr. Raymond Dai	by fax: 2882 3331

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EXECUTIVE SUMMARY

i. This is the Quarterly Environmental Monitoring and Audit (EM&A) Report – June 2016 to August 2016 prepared for the Project of Wan Chai Development Phase II and Central-Wanchai Bypass under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009. This report presents the environmental monitoring and audit findings and information during the period from 27th May 2015 to 26th August 2016. The cut-off date of reporting is at 26th of each reporting period.

Construction Activities for the Reported Period

ii. Contract no HK/2009/01 was commenced on 23 July 2010. During this reporting period, the principal work activities for Contract no. HK/2009/01 are summarized as below:

Table I Principal Work Activities for Contract no. HK/2009/01

June 2016	July 2016	August 2016
• Nil	• Nil	• Nil

iii. Contract no. HK/2009/02 was commenced on 5 July 2010. During this reporting period, the principal work activities for Contract no. HK/2009/02 are summarized as below:

Table II Principal Work Activities for Contract no. HK/2009/02

June 2016	July 2016	August 2016
• Nil	• Nil	• Nil

iv. Contract no. HY/2009/15 was commenced on 10 November 2010. During this reporting period, the principal work activities for Contract no. HY/2009/15 are summarized as below:

Table III Principal Work Activities for Contract no. HY/2009/15

June 2016	July 2016	August 2016
• Reinstatement of vertical seawall at TPCWAE • Removal of temporary reclamation at TPCWAW	• Reinstatement of vertical seawall at TPCWAE • Removal of temporary reclamation at TPCWAW • Diaphragm wall cutting works at TPCWAW	• Reinstatement of vertical seawall at TPCWAE • Removal of temporary reclamation at TPCWAW • Diaphragm wall cutting works at TPCWAW

v. Contract no. HY/2009/19 was commenced on 24 March 2011. During this reporting period, the principal work activities for Contract no. HY/2009/19 are summarized as below:

Table IV Principal Work Activities for Contract no. HY/2009/19

June 2016	July 2016	August 2016
• Nil	• Nil	• Nil

vi. Contract no. HK/2012/08 was commenced on 5 March 2013. During this reporting period, the principal work activities for Contract no. HK/2012/08 are summarized as below:

Table V Principal Work Activities for Contract no. HK/2012/08

June 2016	July 2016	August 2016
• Precast unit construction for Box 1 inside Dry dock • Construction of culvert L Bay 8, Bay 12 and Bay 13	• Precast unit construction for Box 1 inside Dry dock • Construction of culvert L Bay 8, Bay 12 and Bay 13	• Precast unit construction for Box 1 inside Dry dock • Construction of culvert L Bay 8, Bay 12 and Bay 13

vii. Contract no. HY/2010/08 was commenced on 21 March 2013. During this reporting period, the principal work activities for Contract no. HY/2010/08 are summarized as below:

Table VI Principal Work Activities for Contract no. HY/2010/08

June 2016	July 2016	August 2016
• Diversion pipe maintenance • Diaphragm Wall Removal Works	• Diversion pipe maintenance • Diaphragm Wall Removal Works	• Diversion pipe maintenance • Diaphragm Wall Removal Works

Noise Monitoring

viii. With respect to the shift in major construction site portions at Wan Chai North, the noise monitoring station M1a – Harbour Sports Centre was finely adjusted from East of Harbour Road Sports Centre to West of Harbour Road Sports Centre on 21 June 2016.

ix. Noise monitoring during day time and evening time were conducted at the M1a, M2b, M3a, M4b, M5b and M6 on a weekly basis in the reporting period. The Action and Limit level exceedances recorded in the reporting period are listed below. Investigation found that exceedances were not related to the Project. Investigation found that exceedances were not related to the Project.

x. Three limit level exceedances were recorded at noise monitoring station M1a – Harbour Road Sports Centre on 7, 13 and 21 June 2016 in June reporting month. The exceedances were concluded as non-project related.

xi. Three limit level exceedances were recorded at noise monitoring station M6 – HK Baptist Church Henrietta Secondary School on 7, 13 and 21 June 2016 in June reporting month. The exceedances were concluded as non-project related.

xii. One limit level exceedance was recorded at noise monitoring station M1a – Habour Road Sports Center on 28 June 2016 in July reporting month. The exceedance was concluded as non-project related.

xiii. One limit level exceedance was recorded at noise monitoring station M6 – HK Baptist Church Henrietta Secondary School on 12 July 2016 in July reporting month. The exceedance was concluded as non-project related.

xiv. No action or limit level exceedance was recorded in August reporting month.

Air Quality Monitoring

xv. Due to interruption of electricity supply, the 24hr TSP were rescheduled as follows:
CMA6a monitoring station was rescheduled from 7 June 2016 to 8 June 2016.
CMA1b monitoring station was rescheduled from 5 July 2016 to 6 July 2016.
CMA2a monitoring station was rescheduled from 16 July 2016 to 18 July 2016.
CMA5b monitoring station was rescheduled from 11 July 2016 to 12 July 2016.

xvi. No action or limit level exceedance for TSP monitoring was recorded in June reporting month.

xvii. No action or limit level exceedance for TSP monitoring was recorded in July reporting month.

xviii. One 1hr TSP action level exceedance was recorded at CMA1b – Oil Street Site Office on 27 August 2016 in August reporting month.

xix. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 5 July 2016 and 20 July 2016 at the concerned hours (afternoon for higher daily temperature). No action and limit level was recorded during July reporting month.

xx. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 1 August 2016 and 17 August 2016 at the concerned hours (afternoon for higher daily temperature). No action and limit level was recorded during August reporting month.

xxi. The location ID of air monitoring station CMA1b was updated as Oil Street Site Office in April 2013.

xxii. 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.

xxiii. 1hr and 24hr TSP monitoring were conducted at CMA1b, CMA2a, CMA3a, CMA4a, CMA5b and CMA6a in the reporting period.

Water Quality Monitoring

xxiv. Due to the hoisting of Strong Wind Signal No. 3, the water quality monitoring event on 1 August 2016 during flood tide was cancelled in August reporting month.

xxv. Due to the hoisting of Amber Rainstorm Warning Signal, the water quality monitoring event on 6 July 2016 during flood tide was cancelled in July reporting month.

xxvi. Due to the blockage of access at Enhance DO monitoring station Ex-WPCWA SW, the Enhance DO monitoring at monitoring station Ex-WPCWA SW was cancelled on 13 June 2016 during flood tide in June reporting month..

xxvii. Due to the hoisting of Amber Rainstorm Warning Signal, the water quality monitoring event on 6 June 2016 during ebb tide was cancelled in June reporting month.

xxviii. Due to the hoisting of Strong Wind Signal No. 3, the water quality monitoring event on 27 May 2016 during ebb tide was cancelled in June reporting month.

xxix. As advised by the Contractor of HK/2009/01, all silt screen remains removal works at P1, P3, P4, P5 and C1 water quality monitoring stations were completed on 8 May 2016.

xxx. With respect to the marine works undertaken at WCR3 by Contract HK/2009/02, the respective water quality monitoring station C1 associated with Contract HK/2009/01 was updated as in association with Contract HK/2009/01 and Contract HK/2009/02.

xxxi. With respect to the marine works undertaken at CBTS by Contract HY/2010/08, the respective water quality monitoring station C7 associated with Contract HY/2009/15 was updated as in association with Contract HY/2009/15 and Contract HY/2010/08.

xxxii. With respect to the marine works undertaken at HKCEC2 by Contract HK/2012/08, the respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08.

xxxiii. There were 1 limit level of turbidity exceedances and 2 action level of suspended solid exceedances recorded in June reporting month. Investigation found that the turbidity exceedances and suspended solid exceedances recorded in June reporting month were not related to Project works.

xxxiv. There were 1 action and 1 limit level of turbidity exceedances recorded in July reporting month. Investigation found that the turbidity exceedances recorded in July reporting month were not related to Project works.

xxxv. There were 2 action and 1 limit level of turbidity exceedances recorded in August reporting month. Investigation found that the turbidity exceedances recorded in August reporting month were not related to Project works.

xxxvi. Enhanced DO monitoring at 2 monitoring stations in Causeway Bay Typhoon Shelter and Ex-Public Cargo Works Area was conducted three days per week during the reporting period.

xxxvii. There was 1 action level and 4 limit level exceedances recorded for enhanced dissolved oxygen monitoring in June reporting month. Investigation found that the exceedance was not related to Project works.

xxxviii. There was 1 action level and 2 limit level exceedances recorded for enhanced dissolved oxygen monitoring in this July month. Investigation found that the exceedance was not related to Project works.

xxxix. There was 1 action level and 12 limit level exceedances recorded for enhanced dissolved oxygen monitoring in August reporting month. Investigation found that the exceedance was not related to Project works.

Complaints, Notifications of Summons and Successful Prosecutions

xl. No environmental complaint was received in June reporting month.

xli. There was one environmental complaint received in July reporting month.

xlii. A public complaint referred by EPD was received by ET on 06 July 2016 (Case Ref:. H05/RS/00016226-16). The complainant reported that a derrick barge in green colour under Contract HY/2009/15 moored near Royal Hong Kong Yacht Club emitted dark smoke since mid of June 2016.

xliii. ET confirmed with the Resident Site Staff that the concerned green derrick barge was identified as Yue Fat 206 (YF206) and the concerned green derrick barge was operated within the Ex-PCWA area for excavation works intermittently across the period from15 June 2016 to 30 June 2016. The concerned green derrick barge YF206 within Ex-PCWA area was no longer deployed under Contract HY/2009/15 after 02 July 2016.

xliv. Follow-up inspection was conducted on 11 July 2016, the concerned derrick barge YF206 was not deployed at the concerned location and no dark smoke was observed from other derrick barge operating on-site. Nevertheless, in view of the public concern, the Contractor of

HY/2009/15 was reminded to conduct regular checking and maintenance for all derrick barges deployed on site to ensure only well maintained equipment is used to avoid potential dark smoke emission affecting nearby surroundings.

xlv. There was one environmental complaint received in August reporting month.

xlvi. A public complaint referred by EPD was received on 25 August 2016 (Case Ref.: H08/RS/00012592-16). The complainant reported that muddy water was observed at Causeway Bay Typhoon Shelter.

xlvii. ET confirmed with the Resident Site Staff that no marine construction activities were undertaken at the concerned location at East of Temporary Reclamation Zone TS3 within Causeway Bay Typhoon Shelther from 14:00hrs to 17:00hrs on 25 May 2016. Site control measures including the following were implemented by the Contractor of HY/2010/08 around the concerned location. Site control measures including i) Wastewater treatment facilities (AquaSed) were installed at TS3 for treatment of wastewater generated during construction activities. Sampling of effluent from AquaSed was conducted by the Contractor of HY/2010/08 and all results complied with the requirements in the Discharge Licence. Visual inspection and pH measurement of effluent were conducted daily by Environmental Supervisors and all results passed. ii) Brick/ earth/ sandbag bunds were installed alongside the site perimeter of TS3 to prevent muddy runoff into the sea. iii) Piping with idled ends were removed to prevent accidental discharge of untreated wastewater. iv) Diver inspection for silt curtains and/ or impermeable barriers was conducted on an ad-hoc basis. vii) Temporary cut slopes were shotcreted or properly covered with tarpaulin sheets. viii) Regular inspections were conducted by the RSS and Contractor's environmental representatives on regular basis on the conditions of mitigation measures implemented on site.

xlviii. Based on the complainant photo information, the exposed soil slope at Temporary Reclamation Zone TS3 were observed protected by covering and enclosed by double layer of impermeable barrier/ silt curtain and no contaminated discharge was identified. In addition, based on information from Hong Kong Observatory, the tidal condition on 25 May 2016 afternoon was found to be ebb-tide while non construction works marine vessel movements around the identified muddy plume within Causeway Bay Typhoon Shelter was observed in the complainant photo information.

xlix. Based on review on relevant records, no contaminated surface runoff and no contaminated discharge was identified at the concerned location during the environmental site inspection conducted on 25 May 2016. Follow up inspection was conducted on 31 August 2016 and seawall construction and filing works at the Temporary Reclamation Zone TS3 was observed completed. No contaminated discharge and no contaminated surface runoff was found.

l. Nevertheless, the contractor of HY/2010/08 was reminded to maintain appropriate bunding at seawall boundary for protection against potential surface runoff related impact. Also, the Contractor of HY/2010/08 was reminded to maintain proper site drainage for effluent collection and treatment system to ensure the compliance with relevant discharge license.

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-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 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 10.4 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 during the period from 27th May 2016 to 26th August 2016.

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 ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring locations, monitoring frequency, duration and action plan.

Section 4 ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.

Section 5 ***Compliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.

Section 6 ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution

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 ***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 Designed 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. The Project is located mainly in Wan Chai North, Causeway Bay and North Point, and is demarcated by Gloucester Road and Victoria Park Road to the south, Fenwick Pier Street to the west and Tong Shui Road Interchange to the east, as shown in ***Figure 2.1***.

2.2.2. The study area encompasses existing developments along the Wan Chai, Causeway Bay and North Point shorelines. Major land uses include the Hong Kong Convention & Exhibition Centre (HKCEC) Extension, the Wan Chai Ferry Pier, the ex-Wan Chai Public Cargo Working Area (ex-PCWA), the Royal Hong Kong Yacht Club (RHKYC), the Police Officers' Club, the Causeway Bay Typhoon Shelter (CBTS) and commercial and residential developments.

2.2.3. The scope of the Project comprises:

- Land formation for key transport infrastructure and facilities, including the Trunk Road (i.e. CWB) and the associated slip roads for connection to the Trunk Road and for through traffic from Central to Wan Chai and Causeway Bay. The land formed for the above transport infrastructure will provide opportunities for the development of an attractive waterfront promenade for the enjoyment of the public
- Reprovisioning / protection of the existing facilities and structures affected by the land formation works mentioned above

- Extension, modification, reprovisioning or protection of existing storm water drainage outfalls, sewerage outfalls and watermains affected by the revised land use and land formation works mentioned above
- Upgrading of hinterland storm water drainage system and sewerage system, which would be rendered insufficient by the land formation works mentioned above
- Provision of the ground level roads, flyovers, footbridges, necessary transport facilities and the associated utility services
- Construction of the new waterfront promenade, landscape works and the associated utility services
- The Trunk Road (i.e. CWB) within the study area and the associated slip roads for connection to the Trunk Road.

2.2.4. 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, the status of permits and/or licences under the individual contract(s) are presented as below:

Contract no. HK/2010/06 – Wan Chai Development Phase II – Central – Wan Chai Bypass over MTR Tsuen Wan Line under FEP-05/356/2009

2.3.2 The construction works were completed and the FEP-05/356/2009 was surrendered by the Contractor on 3 October 2014.

Contract no. HY/2009/11 – Wan Chai Development Phase II – Central – Wan Chai Bypass - North Point Reclamation

2.3.3 The construction works were completed and the FEP-01/356/2009 was surrendered by the Contractor on 22 October 2012.

2.3.4 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 (FEP) 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.

2.3.5 The details of individual contracts are summarized in ***Table2.2***.

Table 2.2 Details of Individual Contracts under the Project

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/01	Wan Chai Development Phase II – Central –Wanchai Bypass at Hong Kong Convention and Exhibition Centre	DP3, DP6	23 July 2010
		DP1, DP2	25 August 2011
HK/2009/02	Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East	DP3, DP5	5 July 2010
		DP1	26 April 2011
HY/2009/11	Wan Chai Development Phase II and Central – Wan Chai Bypass – North Point Reclamation	DP3	17 March 2010 (Completed)
HY/2009/15	Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)	DP3	10 November 2010
		DP1	13 July 2011
HK/2010/06	Wan Chai Development Phase II-Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011 (Completed)
04/HY/2006	Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street	DP1	September 2010 (Completed)
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	10 March 2014
HY/2009/19	Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link	DP1	24 March 2011
HK/2012/08	Wan Chai Development Phase II Central- Wan Chai Bypass at Wan Chai West	DP1,DP2, DP3	5 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	3912 3388	3912 3010
Chun Wo – Leader Joint Venture	Contractor under Contract no. HK/2009/01	Project Manager	Mr. Simon Liu	9304 8355	2587 1878
		Site Agent	Mr. Andy Yu	9648 4896	
		Engineer Manager	Mr. Terry Wong	9757 9846	
		Construction Manager	Mr. Wyman Wong	9627 2467	
		Construction Manager	Mr. Kenneth Chan	9160 3850	
		Environmental Officer	Ms. Wendy Ng	9803 0057	
		Assistant Environmental Engineer	Miss. Connie Chan	6157 7057	
Chun Wo – CRGL Joint Venture	Contractor under Contract no. HK/2009/02	Project Manager	Mr. Paul Yu	3658 3085	2827 9996
		Quality & Environmental Manager	Mr. C.P. Ho	9191 8856	
China State Construction Engineering (HK) Ltd.	Contractor under Contract no. HY/2009/15	Project Director	Chris Leung	3557 6393	2566 2192
		Site Manager	Y Huo	3557 6368	
		Contractor's Representative	Rex Lau	3557 6405	
		Contractor's Representative	Gene Cheung	3557 6395	
		Environmental Officer	Andy Mak	3557 6347	
Chun Wo -	Contractor	Project Manager	Rayland Lee	3758 6788	2570 8013

Party	Role	Post	Name	Contact No.	Contact Fax
CRGL - MBEC_Joint Venture	under Contract no. HY/2009/19	Site Agent	David Lau	3758 8879	
		Environmental Manager / Environmental Officer	Eric Fong	6191 9337	
		Construction Manager (Marine)	M.H. Isa	9884 0810	
		Construction Manager (Land)	Andy Chan	9879 4325	
		Construction Manager (Land)	Bear Ding	6483 6198	
		Operation Manager (Land)	Yung Kwok Wah	9834 1010	
China State-Leader JV	Contractor under Contract no. HK/2012/08	Project Director	C. N. Lai	9106 5806	2877 1522
		Project Manager	Eddie Chung	9189 8118	
		Site Agent	Keith Tse	9037 1839	
		Environmental Officer	James Ma	9130 9549	
		Environmental Supervisor	Y. L. Ho	9856 5669	
China State	Contractor under Contract no. HY/2010/08	Project Director	Chris Leung	3467 4299	2566 8061
		Project Manager	Chan Ying Lun	3418 3001	
		Site Agent	Dave Chan	3467 4277	
		Environmental Officer	Gabriel Wong	35576466	
		Environmental Supervisor	Desmond Ho Tsz Ho	3557 6466	
Ramboll Environ Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	34652888	34652899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

2.5 Principal Work and Activities

2.5.1. During this reporting period, the principal work activities for Contract no. HK/2009/01 are summarized in ***Table 2.4***.

Table 2.4 Principal Work Activities for Contract no. HK/2009/01

June 2016	July 2016	August 2016
• Nil	• Nil	• Nil

2.5.2. During this reporting period, the principal work activities for Contract no. HK/2009/02 are summarized in ***Table 2.5***.

Table 2.5 Principal Work Activities for Contract no. HK/2009/02

June 2016	July 2016	August 2016
• Nil	• Nil	• Nil

2.5.3. Major construction activities for Contract no. HY/2009/15 was commenced on 10 November 2010. During this reporting period, the principal work activities for Contract no. HY/2009/15 are summarized as below:

Table 2.6 Principal Work Activities for Contract no. HY/2009/15

June 2016	July 2016	August 2016
• Reinstatement of vertical seawall at TPCWAE • Removal of temporary reclamation at TPCWAW	• Reinstatement of vertical seawall at TPCWAE • Removal of temporary reclamation at TPCWAW • Diaphragm wall cutting works at TPCWAW	• Reinstatement of vertical seawall at TPCWAE • Removal of temporary reclamation at TPCWAW • Diaphragm wall cutting works at TPCWAW

2.5.4. Contract no. HY/2009/19 was commenced on 24 March 2011. During this reporting period, the principal work activities for Contract no. HY/2009/19 are summarized as below:

Table 2.7 Principal Work Activities for Contract no. HY/2009/19

June 2016	July 2016	August 2016
• Nil	• Nil	• Nil

2.5.5. Contract no. HK/2012/08 was commenced on March 2013. During this reporting period, the principal work activities for Contract no. HK/2012/08 are summarized as below:

Table 2.8 Principal Work Activities for Contract no. HK/2012/08

June 2016	July 2016	August 2016
• Precast unit construction for Box 1 inside Dry dock • Construction of culvert L Bay 8, Bay 12 and Bay 13	• Precast unit construction for Box 1 inside Dry dock • Construction of culvert L Bay 8, Bay 12 and Bay 13	• Precast unit construction for Box 1 inside Dry dock • Construction of culvert L Bay 8, Bay 12 and Bay 13

2.5.6. Contract no. HY/2010/08 was commenced on 21 March 2013. During this reporting period, the principal work activities for Contract no. HY/2010/08 are summarized as below:

Table 2.9 Principal Work Activities for Contract no. HY/2010/08

June 2016	July 2016	August 2016
• Diversion pipe maintenance • Diaphragm Wall Removal Works	• Diversion pipe maintenance • Diaphragm Wall Removal Works	• Diversion pipe maintenance • Diaphragm Wall Removal Works

2.5.7. Implementation status of the recommended mitigation measures during this reporting period is presented in ***Appendix 2.1***.

3. MONITORING REQUIREMENTS

3.1. Noise Monitoring

NOISE MONITORING STATIONS

3.1.1. The noise monitoring stations for the Project are listed and shown in ***Table 3.1*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

Table 3.1 Noise Monitoring Stations

Station	Description
M1a	Harbour Road Sports Centre
M2b	Noon Gun Area
M3a	Tung Lo Wan Fire Station
M4b	Victoria Centre
M5b	City Garden
M6	HK Baptist Church Henrietta Secondary School

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

3.1.2. 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 L10 and L90 shall also be obtained for reference.

3.1.3. 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.

3.1.4. 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.

3.1.5. 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.

MONITORING EQUIPMENT

3.1.6. As referred to in the Technical Memorandum ™ 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.

3.1.7. 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.

3.2. Air Monitoring

AIR QUALITY MONITORING STATIONS

3.2.1. The air monitoring stations for the Project are listed and shown in ***Table 3.2*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

Table 3.2 Air Monitoring Stations

Station ID	Monitoring Location	Description
CMA1b	Oil Street Site Office**	North Point
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
CMA6a	WDII PRE Site Office *	Wan Chai

Remarks*: As per the ENPC meeting in January 2011, the monitoring stations CMA3a - Future CWB site office at Wanchai Waterfront Promenade and CMA6a - Future AECOM site office at Work Area were 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

3.2.2. 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.

3.2.3. 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.

3.2.4. 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

3.2.5 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.

3.2.6 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

3.2.7 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.

3.2.8 An alternative non-HOKLAS accredited laboratory was set-up for carrying out the laboratory analysis, the laboratory equipment was approved by the ER on 8 February 2011 and the measurement procedures were witnessed by the IEC. Any measurement performed by the laboratory was be demonstrated to the satisfaction of the ER and IEC. IEC shall regularly audit to the measurement performed by the laboratory to ensure the accuracy of measurement results.

3.2.9 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.

3.2.10 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.

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

IMPACT MONITORING FOR ODOUR PATROL

3.2.12 Odour patrols along the shorelines of Causeway Bay Typhoon Shelter and ex-Wan Chai Public Cargo Working Area when there is temporary reclamation in Causeway Bay Typhoon Shelter and/or in the ex-Wan Chai Public Cargo Working Area, or when there is dredging of the odorous sediment and slime at the south-western corner of the Causeway Bay Typhoon Shelter. Odour patrols will be carried out at bi-weekly intervals during July, August and September by a qualified person of the ET who shall:

- be at least 16 years of age;
- be free from any respiratory illnesses; and
- not be allowed to smoke, eat, drink (except water) or use chewing gum or sweets 30 min
- before and during odour patrol

3.2.13 Odour patrol shall be conducted by independent trained personnel / competent persons patrolling and sniffing around the shore as shown in ***Figure 3.1*** to detect any odour at the concerned hours (afternoon is preferred for higher daily temperature).

3.2.14 The qualified person will use the nose (olfactory sensor) to sniff odours at different locations. The main odour emission sources and the areas to be affected by the odour nuisance will be identified.

3.2.15 The perceived odour intensity is to be divided into 5 levels which are ranked in the descending order as follows:

- 0 - Not detected. No odour perceived or an odour so weak that it cannot be easily characterized or described;
- 1 - Slight Identifiable odour, and slight chance to have odour nuisance;
- 2 - Moderate Identifiable odour, and moderate chance to have odour nuisance;
- 3 - Strong Identifiable, likely to have odour nuisance;
- 4 - Extreme Severe odour, and unacceptable odour level.

3.2.16 The findings including odour intensity, odour nature and possible odour sources, and also the local wind speed and direction at each location will be recorded. In addition, some relevant meteorological and tidal data such as daily average temperature, and daily average humidity, on that surveyed day will be obtained from the Hong Kong Observatory Station for reference. The Action and Limit levels for odour patrol are shown in ***Appendix 3.1***.

3.3 Water Quality Monitoring

3.3.1. The EIA Report has identified that the key water quality impact would be associated with the dredging works during the construction phase. Marine water quality monitoring for dissolved oxygen (DO), suspended solid (SS) and turbidity is therefore recommended to be carried out at selected WSD flushing water intakes. The impact monitoring should be carried out during the proposed dredging works to ensure the compliance with the water quality standards.

3.3.2. The updated EM&A Manual for EP-356/2009 (Version in March 2011) is approval by EPD on 29 April 2011. As such, the Action Level and Limit Level for the wet season (April – September) will be effected and applied to the water quality monitoring data from 30 April 2011.

Water Quality Monitoring Stations

3.3.3. Water quality monitoring was undertaken at WSD salt water intakes and cooling water intakes along the seafront of the Victoria Harbour. The proposed water quality monitoring stations of the Project are shown in ***Table 3.3*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

Table 3.3 Marine Water Quality Stations for Water Quality Monitoring

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD19	Sheung Wan	833415.0	816771.0
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
C7	Windsor House	837193.7	816150.0
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2

Station Ref.	Location	Easting	Northing
Cooling Water Intake / WSD Salt Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/ WSD Wanchai salt water intake	836268.0	816020.0

Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water monitoring at C6 was then terminated since 17 May 2011.

- 4-week post construction water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8 and C9 were completed on 6 Feb 2012 and the water quality monitoring at WSD 10 and WSD15 were temporary suspended since 8 Feb 2012, and WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 2012 onwards.
- C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
- C8 & C9 were temporary suspended since 30 March 2013.
- WSD7 and WSD20 water quality monitoring were temporarily suspended from 27 Apr 2012.
- C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013
- C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013.
- WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
- The water quality monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area

WATER QUALITY PARAMETERS AND FREQUENCY

3.3.4. Monitoring of dissolved oxygen (DO), turbidity and suspended solids (SS) shall be carried out at WSD flushing water intakes and cooling water intakes. DO and Turbidity are measured in-situ while SS is determined in laboratory.

3.3.5. In association with the water quality parameters, other relevant data shall also be measured, such as monitoring location/position, time, sampling depth, water temperature, pH, salinity, dissolved oxygen (DO) saturation, weather conditions, sea conditions, tidal stage, and any special phenomena and work underway at the construction site etc.

3.3.6. The interval between two sets of monitoring should not be less than 36 hours except where there are exceedances of Action and/or Limit Levels, in which case the monitoring frequency will be increased. ***Table 3.4*** shows the proposed monitoring frequency and water quality parameters. Duplicate in-situ measurements and water sampling should be carried out in each sampling event. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.

Table 3.4 Marine Water Quality Monitoring Frequency and Parameters

Activities	Monitoring Frequency[1]	Parameters[2]
During the 4-week baseline monitoring period	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity

Activities	Monitoring Frequency[1]	Parameters[2]
During marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
After completion of marine construction works	Three days per week, at mid-flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity

Notes:
1. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.
2. Turbidity should be measured in situ whereas SS should be determined by laboratory.

DISSOLVED OXYGEN AND TEMPERATURE MEASURING EQUIPMENT

3.3.7. The instrument should be a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and use a DC power source. It should be capable of measuring:

- a dissolved oxygen level in the range of 0-20 mg/l and 0-200% saturation
- a temperature of 0-45 degree Celsius

3.3.8. It should have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary. (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).

3.3.9. Should salinity compensation not be build-in in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

TURBIDITY MEASUREMENT INSTRUMENT

3.3.10 The instrument should be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be complete with a cable (e.g. Hach model 2100P or an approved similar instrument).

SAMPLER

3.3.11 Water sampler comprises a transparent PVC cylinder, with a capacity of not less than 2 litres, and can be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Kahlsico Water Sampler or an approved similar instrument).

SAMPLE CONTAINER AND STORAGE

3.3.12 Water samples for suspended solids measurement should be collected in high-density polythene bottles, packed in ice (cooled to 4°C without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. as soon as possible after collection for analysis.

WATER DEPTH DETECTOR

3.3.13 A portable, battery-operated echo sounder shall be used for the determination of water depth at each designated monitoring station. This unit can either be handheld or affixed to the bottom of the workboat, if the same vessel is to be used throughout the monitoring programme.

SALINITY

3.3.14 A portable salinometer capable of measuring salinity in the range of 0-40 ppt shall be provided for measuring salinity of the water at each of monitoring location.

MONITORING POSITION EQUIPMENT

3.3.15 A hand-held or boat-fixed type digital Global Positioning System (GPS) with waypoint bearing indication or other equivalent instrument of similar accuracy shall be provided and used during monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

CALIBRATION OF IN-SITU INSTRUMENTS

3.3.16 All in-situ monitoring instrument shall be checked, calibrated and certified by a laboratory accredited under HOKLAS or equivalent before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.

3.3.17 For the on site calibration of field equipment by the ET, the BS 127:1993, "Guide to Field and on-site test methods for the analysis of waters" should be observed.

3.3.18 Sufficient stocks of spare parts should be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, etc.

LABORATORY MEASUREMENT / ANALYSIS

3.3.19 Analysis of suspended solids has been carried out in a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd. Water samples of about 1L shall be collected at the monitoring stations for carrying out the laboratory SS determination. The SS determination work shall start within 24 hours after collection of the water samples. The SS determination shall follow APHA 19ed or equivalent methods subject to the approval of IEC and EPD.

ENHANCED WATER QUALITY MONITORING IN THE EX-WAN CHAI PUBLIC CARGO WORKING AREA AND THE CAUSEWAY BAY TYPHOON SHELTER

3.3.20 The enhanced water quality monitoring and audit programme is to avoid aggravation of odour nuisance from seawater arising from temporary reclamation in the ex-Wan Chai Public Cargo Working Area and the Causeway Bay Typhoon Shelter.

3.3.21 Dissolved oxygen monitoring at the intakes C6 and C7 in Causeway Bay Typhoon Shelter when there is temporary reclamation in Causeway Bay Typhoon Shelter and at the south-western and south-eastern corners of the ex-Wan Chai Public Cargo Working Area. The proposed water quality monitoring stations of the Project are shown in ***Table 3.5*** and ***Figure 3.1.***

Table 3.5 Marine Water Quality Stations for Enhanced Water Quality Monitoring

Station	Location
C6	Excelsior Hotel
C7	Windsor House
Ex-WPCWA-SW	South-western of the ex-Wan Chai Public Cargo Working Area
Ex-WPCWA-SE	South-eastern of the ex-Wan Chai Public Cargo Working Area

Remarks:

1. Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
2. Enhanced DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area, to be resumed upon completion of seawall reinstatement works

3.3.22 The monitoring of dissolved oxygen are to be carried out 3 days per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be less than 3m, only the mid-depth will be monitored).

DAILY SS MONITORING AND 24 HOURS TURBIDITY MONITORING SYSTEM

3.3.23 During dredging of the sediment at the south-western corner of the Causeway Bay Typhoon Shelter, daily monitoring of suspended solids and 24 hour monitoring of turbidity at the cooling water intakes (C6 and C7) shall be conducted.

3.3.24 The 24 hours monitoring of turbidty at the cooling water intakes (C6 and C7) shall be established by setting up a continuous water quality monitoring station in front of the intakes during the dredging activities. The monitoring system include the turbidity sensor and data logger which is capable of data capturing at every 5 minutes. The data shall be downloaded daily and compared with the Action and Limit level determined during the baseline water qualtiy monitoring at the cooling water intake locations.

ADDITIONAL DISSOVLED OXYGEN MONITORING FOR CULVERT L WATER DISCHARGE FLOW

3.3.25 In response to the Condition 2.18 of the Environmental Permit no. EP-356/2009 requiring that a silt curtain / impermeable barrier system be installed to channel water discharge flow from Culvert L to locations outside the embayment area, a proposed replacement of the requirement with additional dissolved oxygen monitoring has been conducted at three monitoring stations, namely A, B and C between the eastern seawall of Central Reclamation Phase III and the HKCEC Extension since November 2011 under EP-356/2009 so that DO level between the eastern seawall of Central Reclamation Phase II and the HKCEC extension could be continuously monitored.

3.3.26 With respect to the commencement of dredging works under HK/2012/08 and the installation of MTR precast protection unit, the enhanced water quality monitoring for Culvert L was temporarily suspended since 24 July 2013

3.3.27 The monitoring of dissolved oxygen are to be carried out once per week, at mid-flood and mid-ebb tides for 3 water depths (1m below water surface, mid-depth and 1m above sea bed, except where the water depth less than 6m, the mid-depth may be omitted. If the water depth be equal to or less than 3m, only the mid-depth will be monitored).

4. MONITORING RESULTS

4.0.1. The environmental monitoring will be implemented based on the division of works areas of each designed 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 3.1***. The monitoring results are presented in according to the Individual Contract(s).

4.0.2 According to EP-364/2009/A Part B, "Scale and Scope of Designated Project", Remarks (c),"The permanent and temporary reclamation and associated dredging works related to the CWB construction are separately covered by environmental permit No. EP-356/2009 issued to Civil Engineering and Development Department", and marine piling works to be conducted by the Contractor of Contract no. HY/2009/19 from 28 January 2012 was considered to be governed under EP-356/2009. As the construction site area of Contract no. HY/2009/11 had already been handed over to Contract no. HY/2009/19, the designated noise, water and air quality monitoring stations for Contract no. HY/2009/11 would be shared with Contract no. HY/2009/19 from 28 January 2012.

4.1. Noise Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC and Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

4.1.1. The proposed divisions of noise monitoring stations are summarized in ***Table 4.1*** below.

Table 4.1 Noise Monitoring Station for Contract nos. HK/2009/01 and HK/2009/02

Station	Description
M1a	Harbour Road Sports Centre

4.1.2. Three limit level exceedances were recorded at M1a- Harbour Road Sports Centre on 7, 13 and 21 June 2016 in June reporting month.

4.1.3. Operation of Hydromil Trench Cutter at Ex-Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor as major noise contribution during monitoring on 7 and 13 June 2016. As such, the exceedances were considered as non-Project related.

4.1.4. Breaking work at Ex-Wan Chai Swimming Pool (adjacent to Harbour Road Sports Centre directly opposite to the monitoring station) under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 21 June 2016. As such, the exceedance was considered as non-Project related.

4.1.5. One limit level exceedances was recorded at M1a- Harbour Road Sports Centre on 28 June 2016 in July reporting month.

4.1.6. Operation of drill rig at opposite to the monitoring station under non WDII-CWB Contractor was observed as the major noise contribution during monitoring on 28 June 2016. As such, the exceedances were considered as non-Project related.

4.1.7. No action or limit level exceedance was recorded in August reporting month.

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

4.1.8. The noise monitoring for HY/2009/15 was commenced on 10 November 2010. The proposed division of noise monitoring stations are summarized in ***Table 4.2*** below.

Table 4.2 Noise Monitoring Station for Contract nos. HY/2009/15

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

4.1.9. No action or limit level exceedance was recorded in this report quarter.

Contract no. HY/2009/19 – Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

4.1.10. Noise quality monitoring at M4b and M5b have been implemented with respect to HY/2009/19 since the marine bore piling work started on 28 Jan 2012.

4.1.11. The proposed division of noise monitoring stations for Contract no. HY/2009/19 are summarized in ***Table 4.3*** below:

Table 4.3 Noise Monitoring Stations for Contract no. HY/2009/19

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

4.1.12. School examination was scheduled to be taken place at Henrietta Secondary School on 06 June 2016 to 22 June 2016, the limit level of noise monitoring at station M6 was adjusted to 65dB(A) during examination period accordingly.

4.1.13. Three limit level exceedances were recorded at M6 – HK Baptist Church Henrietta Secondary School on 7, 13 and 21 June 2016 in June reporting month.

4.1.14. No construction work was conducted during the time of measurement on 7 and 13 June 2016, and it was observed that traffic noise was a major noise source during monitoring. It is concluded that the exceedance was not due to project but to traffic noise nearby.

4.1.15. Only rebar fixing and shifting of launching girder for segment placing were conducted around the monitoring location on 21 June 2016 and nearby traffic noise was observed as major noise source during monitoring. In addition, external wall renovation at City Garden was observed. In view of the above, the exceedance was considered as non-Project related.

4.1.16. One limit level exceedance was recorded at M6- HK Baptist Church Henrietta Secondary School on 12 July 2016 in July reporting month.

4.1.17. Traffic noise was observed during monitoring on 12 July 2016 and it was considered as the major noise contribution. As such, the limit level exceedance was concluded as non-project related.

4.1.18. No action or limit level exceedance was recorded in August reporting month.

Contract no. HY/2010/08-Central-Wanchi Bypass Tunnel (Slip Road 8 Section)

4.1.19. The proposed division of noise monitoring stations are summarized in **Table 4.4** below.

Table 4.4 Noise Monitoring Station for Contract no. HY/2010/08

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

4.1.20. No action or limit level exceedance was recorded in the reporting quarter.

4.1.21. All 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 4.1**.

4.2. Air Monitoring Results

4.3.1. 1hr and 24hr TSP monitoring were conducted at CMA1b, CMA2a, CMA3a, CMA4a, CMA5b and CMA6a in the reporting period.

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

4.3.2. Air monitoring was commenced on 1 April 2011 in response to the commencement of the land-filling work for Contract no. HK/2009/01. The proposed division of air monitoring stations are summarized in ***Table 4.5*** below.

Table 4.5 Air Monitoring Stations for Contract no. HK/2009/01

Station	Description
CMA5b	Pedestrian Plaza
CMA6a	WDII PRE Site Office *

4.3.3. No action or limit level exceedance was recorded in this reporting quarter.

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

4.3.4. Air monitoring was commenced in mid-January 2011 for the land-filling work for Contract no. HK/2009/02. The proposed division of air monitoring stations is summarized in ***Table 4.6*** below.

Table 4.6 Air Monitoring Station for Contract no. HK/2009/02

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

4.3.5. No action or limit level exceedance was recorded in this reporting quarter.

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

4.3.6. Air monitoring was commenced on 15 March 2011 for the land filling work for Contract no. HY/2009/15. The proposed division of air monitoring stations are summarized in ***Table 4.7*** below.

Table 4.7 Air Monitoring Station for Contract no. HY/2009/15

Station	Description
CMA3a	CWB PRE Site Office

4.3.7. No action or limit exceedance was recorded in this reporting quarter.

4.3.8. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 5 July 2016 and 20 July 2016 at the concerned hours (afternoon for higher daily temperature). No action and limit level was recorded during July reporting month.

4.3.9. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 1 August 2016 and 17 August 2016 at the concerned hours (afternoon for higher daily temperature). No action and limit level was recorded during August reporting month.

Contract no. HY/2009/19 –Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

4.3.10. Air monitoring at CMA1b and CMA2a have been implemented with respect to HY/2009/19 since the marine bore piling works started on 28 Jan 2012. No exceedance was recorded in the reporting period.

4.3.11. The proposed division of air monitoring stations is summarized in ***Table 4.8*** below.

Table 4.8 Air Monitoring Stations for Contract no. HY/2009/19

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

4.3.12. No action or limit level exceedance was recorded in June reporting month.

4.3.13. No action or limit level exceedance was recorded in July reporting month.

4.3.14. One 1hr TSP action level exceedance was recorded on 27 August 2016 in August reporting month.

4.3.15. No construction works was undertaken on the monitoring date at around Oil Street Site Office. Dust suppression measure including haul road maintained in dampened condition was implemented and no particular observation regarding air quality impact was observed during sampling. In view of the above, the action level exceedance was considered to be non-project related and contributed by local ambient condition.

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

4.3.16. The proposed division of air monitoring stations are summarized in ***Table 4.9*** below.

Table 4.9 Air Monitoring Stations for Contract no. HK/2012/08

Station	Description
CMA5b	Pedestrian Plaza

4.3.17. No action or limit level exceedance was recorded in this reporting quarter.

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

The proposed division of air monitoring stations are summarized in ***Table 4.10*** below.

Table 4.10 Air Monitoring Stations for Contract no. HY/2010/08

Station	Description
CMA3a	CWB PRE Site Office

4.3.18. No action or limit level exceedance was recorded in this reporting quarter.

4.3.19. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 5 July 2016 and 20 July 2016 at the concerned hours (afternoon for higher daily temperature). No action and limit level was recorded during July reporting month

4.3.20. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 1 August 2016 and 17 August 2016 at the concerned hours (afternoon for higher daily temperature). No action and limit level was recorded during August reporting month.

4.4 Water Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

4.4.1. Water quality monitoring for Contract no. HK/2009/01 was commenced on 23 July 2010. The proposed division of water monitoring stations is summarized in ***Table 4.11*** below.

4.4.2. Water quality monitoring station RW21-P789 has been implemented with respect to HK/2009/02 started on 29 July 2013.

Table 4.11 Water Monitoring Stations for Contract no. HK/2009/01

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0

4.4.3. No action or limit level exceedance was recorded in this reporting quarter.

Contract no. HK/2009/02 - Wan Chai Development Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

4.4.4. Water quality monitoring for Contract no. HK/2009/02 was commenced on 8 July 2010. The proposed division of water monitoring stations is summarized in ***Table 4.12*** below.

Table 4.12 Water Monitoring Stations for Contract no. HK/2009/02

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C1	HKCEC Extension	835885.6	816223.0
Cooling Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/WSD Wanchai salt water intake / China Resources Building	836268.0	816020.0

4.4.5. No action or limit level exceedance was recorded in this reporting quarter.

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

4.4.6. Water monitoring for Contract no. HK/2012/08 was commenced on 5 March 2013. The proposed division of water monitoring stations are summarized in ***Table 4.13*** below.

Table 4.13 Water Monitoring Stations for Contract no. HK/2012/08

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD19	Sheung Wan	833415.0	816771.0
Cooling Water Intake			
P1	HKCEC Phase I	835774.7	816179.4
P3	The Academy of performing Arts	835824.6	816212.0
P4	Shui on Centre	835865.6	816220.0
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2

4.4.7. No action or limit level exceedance was recorded in June reporting month.

4.4.8. No action or limit level exceedance was recorded in July reporting month.

4.4.9. There was 1 action level turbidity exceedance recorded at P5 on 19 August 2016 in August reporting month.

4.4.10. After checking with the Contractor, no marine activity was conducted on the monitoring date. Location of construction area was at downstream of monitoring station P5. In view of the above, and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not project related.

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

4.4.11. Due to the commencement of the maintenance dredging on 10 November 2010, water quality monitoring for Contract no. HY/2009/15 was commenced on 9 November 2010. The proposed division of water monitoring stations is summarized in ***Table 4.14*** and ***Table 4.15*** below.

Table 4.14 Water Monitoring Stations for Contract no. HY/2009/15

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C7	Windsor House	837193.7	816150.0

Remarks: - The cessation of seawater intake operation for C6 was confirmed on 17 May 2011, the water monitoring at C6 was then terminated since 17 May 2011.

Table 4.15 Enhance Dissolved Oxygen Monitoring Stations for Contract no. HY/2009/15

Station Ref.	Location
C6	Excelsior Hotel
Ex-WPCWA SW	South-western of the ex-Wan Chai Public Cargo Working Area

Remarks:

1. Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.
2. Enhanced DO monitoring at Monitoring station at Ex-PCWAE was temporarily suspended from 31 August 2015 with respect to seawall reinstatement works and formation of active works area, to be resumed upon completion of seawall reinstatement works

4.4.12. There were no action and 1 limit level turbidity exceedance recorded at C7 on 24 June 2016 and 2 action level and no limit level SS exceedances recorded at C7 on 18 and 24 June 2016 in June reporting month.

4.4.13. After checking with contractor, no marine activity was conducted at Causeway Bay Typhoon Shelter on 18 and 24 June 2016. In view of no marine construction activity, and no turbidity and SS exceedance recorded on the subsequent monitoring, it was considered that the exceedances were not project related.

4.4.14. There was no action and 1 limit level DO exceedance recorded at Ex-WPCWA SE on 1 June 2016 in June reporting month.

4.4.15. After checking with contractor, no marine activity was conducted at TPCWAW on 1 June 2016. Upstream discharge from nearby culvert was noted. In view of no marine activity and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to Project works.

4.4.16. There were 1 action and 3 limit level DO exceedances recorded at Ex-WPCWA SW on 10, 16, 18 and 24 June 2016 in June reporting month.

4.4.17. After checking with contractor, no marine activity was conducted at TPCWAW on 10, 16, 18 and 24 June 2016. Upstream discharge from nearby culvert was noted. In view of no marine activity, the exceedance was considered not related to Project works.

4.4.18. There were 1 action and 1 limit level turbidity exceedance recorded at C7 on 2 July 2016 and 25 July 2016 in this July month.

4.4.19. After checking with contractor, no marine activity was conducted at Causeway Bay Typhoon Shelter on 2 July 2016 and 25 July 2016. In view of no marine construction activity, and no exceedance recorded on the subsequent monitoring, it was considered that the exceedances were not project related.

4.4.20. There were 2 limit level DO exceedances recorded at Ex-WPCWA SW on 2 July 2016 and 4 July 2016 in July reporting month.

4.4.21. After checking with contractor, transfer of mud from shaft B to barge was observed conducted at Ex-PCWA during sampling on 2 July 2016 and silt curtain was observed deployed at the outfall location of culvert O. The silt curtain was observed partially deployed (without extending to water column) at the outfall location of culvert O. In view of the environmental concern on potential accumulation of organic pollutant in relate to the embayment effect at the concerned location due to the silt curtain deployment, the contractor was advised to remove any silt curtain/ impermeable deployed at the outfall location of culvert O. All obstruction at the outfall location of culvert O was subsequently removed by contractor on 5 July 2016. No further dissolved oxygen exceedance was recorded during subsequent monitoring conducted on 4 July 2016. Considering the upstream organic discharge influence and the partial silt curtain deployment (without extending to water column) observed during monitoring, the implication of the partially deployed silt curtain on the water circulation could not concluded. Nevertheless, the contractor was advised that any silt curtain/ impermeable barrier shall not be deployed at the culvert O outfall location so that the water circulation would not be adversely affected. In addition, the contractor was reminded to maintain a tarpaulin sheet between the shaft and barge during soil material transfer to avoid potential drop off to nearby waters and to maintain a proper deployment of silt curtain extending throughout the water column around the derrick barge during excavated material transfer to avoid potential muddy dispersion.

4.4.22. Removal of steel brackets was observed conducted at Ex-PCWA during sampling on 4 July 2016 and impermeable barrier was observed deployed at the outfall location of culvert O. The impermeable barrier was observed partially deployed (without extending to water column) at the outfall location of culvert O. In view of the environmental concern on potential accumulation of organic pollutant in relate to the embayment effect at the concerned location due to the silt curtain deployment, the contractor was advised to remove any silt curtain/ impermeable deployed at the outfall location of culvert O. All obstruction at the outfall location of culvert O was subsequently removed by contractor on 05 July 2016. No further dissolved oxygen exceedance was recorded during subsequent monitoring conducted on 04 July 2016. Considering the upstream organic discharge influence and the partial impermeable barrier deployment (without extending to water column) observed during monitoring, the implication of the partially deployed impermeable barrier on the water circulation could not concluded. Nevertheless, the contractor was advised that any silt curtain/ impermeable barrier shall not be deployed at the culvert O outfall location so that the water circulation would not be adversely affected.

4.4.23. There were 1 action level DO exceedances recorded at Ex-WPCWA SE on 22 July 2016 in this July month.

4.4.24. Despite removal of diaphragm wall and excavation by derrick barge at northern side of TPCWAW were conducted on 22 July 2016, contractor mitigation measures including the use of silt curtain was in place. Upstream discharge from nearby culvert was noted. In view of the

above and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to the Project works.

4.4.25. There were 1 action level and 1 limit level turbidity exceedance recorded at C7 on 3 and 26 August 2016 in August reporting month.

4.4.26. After checking with the contractor, despite mud transhipment was conducted on 3 August 2016, contractor mitigation measures including the use of tarpaulin sheet between two barges was generally in order. In view of the above, the exceedance was considered not related to construction works.

4.4.27. No marine activity was conducted at Causeway Bay Typhoon Shelter on 26 August 2016. In view of no marine construction activity, the exceedances were considered not related to construction works.

4.4.28. There was 11 limit level DO exceedance recorded at Ex-WPCWA SW on 29 July 2016, 1, 5, 8, 13, 15, 22, 24 and 26 August 2016 in August reporting month.

4.4.29. After checking with the Contractor, despite underwater excavation at northern side of TPCWAW was conducted on 29 July 2016, contractor mitigation measures including the use of silt curtain and impermeable barrier was in place. Upstream discharge from nearby culvert was noted. In view of the above and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to the Project works.

4.4.30. Despite removal of diaphragm wall was conducted on 5 and 8 August 2016, contractor mitigation measures including the use of silt curtain and impermeable barrier was in place. Upstream discharge from nearby culvert was noted. In view of the above, the exceedances were considered not related to the Project works.

4.4.31. No marine construction activity was conducted at TPCWAW on 1 and 13 August 2016. Upstream discharge from nearby culvert was noted. In view of no marine construction activity was conducted, the exceedance was considered not related to Project works.

4.4.32. Despite transport of soil from land to derrick barge near Shaft B at TPCWAW was conducted on 15 and 22 August 2016 on the monitoring date, contractor mitigation measures including the provision of tarpaulin sheet between land and barge and use of silt curtain was in place. Upstream discharge from nearby culvert was noted. In view of the above, the exceedance was considered not related to Project works.

4.4.33. Despite removal of seawall blocks near Shaft B and removal of diaphragm wall at Northern side of TPCWAW were conducted on 24 August 2016, contractor mitigation measures including the use of silt curtain and impermeable barrier were in place. Upstream discharge from nearby culvert was noted. In view of the above, and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to Project works.

4.4.34. Despite filling levelling stone for seawall reinstatement at Western side of TPCWAW and underwater excavation works near Shaft B were conducted under Contract HY/2009/15 on 26

August 2016, contractor mitigation measures including the use of silt curtain and impermeable barrier were implemented. Upstream discharge from nearby culvert was noted. In view of the above, and no exceedance was recorded on the subsequent monitoring, the exceedance was considered not related to Project works. Nevertheless, the Contractor of HY/2009/15 was reminded to review the positioning of the impermeable barrier such that the water circulation within the temporarily diverted culvert channel would not be affected to avoid potential odour concern within the temporarily diverted culvert channel.

4.4.35. There were 1 action and 1 limit level DO exceedances recorded at Ex-WPCWA SE on 5 and 8 August 2016 in August reporting month.

4.4.36. Despite removal of diaphragm wall was conducted on 5 and 8 August 2016, contractor mitigation measures including the use of silt curtain and impermeable barrier was in place. Upstream discharge from nearby culvert was noted. In view of the above and no exceedance was recorded on the subsequent monitoring, the exceedances were considered not related to the Project works.

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

4.4.37. The proposed division of water quality monitoring stations are summarized in ***Table 4.16*** and ***Table 4.17*** below:

Table 4.16 Water quality monitoring Stations for Contract no. HY/2010/08

Station Ref.	Location	Easting	Northing
Cooling Water Intake			
C7	Windsor House	837193.7	816150.0

Table 4.17 Enhance Dissolved Oxygen Monitoring Stations for Contract no. HY/2010/08

Station Ref.	Location
C6	Excelsior Hotel

Remarks:

1. Enhanced DO monitoring at Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the formation of temporary reclamation zone TS3 and to be resumed upon removal of the respective temporary reclamation zone.

1.4.1. There were no action and 1 limit level turbidity exceedance recorded at C7 on 24 June 2016 and 2 action level and no limit level SS exceedances recorded at C7 on 18 and 24 June 2016 in June reporting month.

1.4.2. After checking with contractor, no marine activity was conducted on 18 and 24 June 2016. Installed silt screen was in place. In view of no marine construction activity, and no turbidity and SS exceedance recorded on the subsequent monitoring, it was considered that the exceedances were not project related.

1.4.3. There were 1 action and 1 limit level turbidity exceedance recorded at C7 on 2 July 2016 and 25 July 2016 in July reporting month.

1.4.4. After checking with contractor, despite reinstate of seawall was conducted at TS3N3 corner on 2 July 2016, contractor mitigation measure including the deployment of silt curtain was generally in order and installed silt screen was in place. In view of the above, and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

1.4.5. Despite placing of seawall blocks was conducted on the monitoring date, contractor mitigation measures including the use of silt curtain was in place and the installed silt screen was in place. In view of the above, and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

1.4.6. There were 1 action and 1 limit level turbidity exceedance recorded at C7 on 3 and 26 August 2016 in August reporting month.

1.4.7. After checking with contractor, despite reinstatement of seawall at TS3BE was conducted on 3 August 2016, contractor mitigation measures including the use of silt curtain and impermeable barrier was in place and the installed silt screen was in place. In view of the above, and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

1.4.8. No marine activity was conducted on 26 August 2016, and the installed silt screen was in place. In view of the above, and no exceedance was recorded on the subsequent monitoring, it was considered that the exceedance was not project related.

4.5 Waste Monitoring Results

Contract no. HK/2009/01 - Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC

4.5.1. No Inert C&D waste and non-inert C&D waste was disposed of for the site works in this reporting period. Details of the waste flow table are summarized in ***Table 4.18.***

Table 4.18 Details of Waste Disposal for Contract no. HK/2009/01

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	62116.405	TKO137, TM38
Inert C&D materials recycled, m^3	NIL	5856.5	N/A
Non-inert C&D materials disposed, m^3	NIL	1673.69	SENT Landfill
Non-inert C&D materials recycled, kg	NIL	203993	N/A
Chemical waste disposed, kg	NIL	10250	N/A
Marine Sediment (Type 1 – Open Sea Disposal) , m^3	NIL (Bulk Volume)	97428.2 (Bulk Volume)	South of Cheung Chau

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	NIL (Bulk Volume)	52250 (Bulk Volume)	East of Cha Chau
Dredged Sediment Requiring Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers	NIL (Bulk Volume)	6773 (Bulk Volume)	East of Cha Chau

4.5.2. There were no Marine Sediment (Type 1 – Open Sea Disposal) and no Marine Sediment (Type 1- Open Sea Disposal (Dedicate Sites) & Type 2- Confined Marine Disposal) disposed of in this reporting quarter.

Contract no. HK/2009/02 - Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East

4.5.3. No Inert and non-inert C&D waste were disposed of for the site works in this reporting period. Details of the waste flow table are summarized in ***Table 4.19.***

Table 4.19 Details of Waste Disposal for Contract no. HK/2009/02

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	276075.1	TKO137/ TM 38
Inert C&D materials recycled, m^3	NIL	18161	N/A
Non-inert C&D materials disposed, m^3	NIL	1515.103	SENT Landfill
Non-inert C&D materials recycled, m^3	N/A	N/A	N/A
Chemical waste disposed, kg	NIL	13860	SENT Landfill
Marine Sediment (Type 1 – Open Sea Disposal), m^3	NIL	240222 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m^3 *	NIL	146445 (Bulk volume)	East of Sha Chau

4.5.4. There was no Marine Sediment (Type 1 – Open Sea Disposal) and no Marine Sediment (Type 1- Open Sea Disposal (Dedicate Sites) & Type 2- Confined Marine Disposal) disposed of in this reporting quarter.

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

4.5.5. There was Inert C&D waste disposed in this reporting period. No non-inert C&D waste was disposed in this reporting period. Details of the waste flow table are summarized in ***Table 4.20.***

Table 4.20 Details of Waste Disposal for Contract no. HY/2009/15

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Inert C&D materials disposed, m^3	NIL	141579.2	Tuen Mun Area 38	NIL
	NIL	65216	TKO137 FB	NIL
Inert C&D materials recycled, m^3	8127.21	8127.21	HY/2010/08	NIL
	NIL	304	Ex-PCWA	NIL
	NIL	111.9	TS4	NIL
Non-inert C&D materials disposed, m^3	NIL	252.2	SENT Landfill	NIL
Non-inert C&D materials recycled, kg	NIL	299361.5	N/A	NIL
Chemical waste disposed, kg	NIL	8,200	N/A	NIL
Marine Sediment (Type 1 – Open Sea Disposal) , m^3	NIL	156909 (Bulk Volume)	South of Cheung Chau	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	3000	325796 (Bulk Volume)	East of Sha Chau	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers)	NIL	12640 (Bulk Volume)	East of Sha Chau	Dredging from TCBR1W / Maintenance dredging
Marine Sediment (Type 2 – Confined Marine Disposal), m3	NIL (Bulk Volume)	9350 (Bulk Volume)	East of Sha Chau	Dredging from Eastern Breakwater of CBTS
Marine Sediment (Type 1 – Open Sea Disposal) , m3	NIL (Bulk Volume)	600 (Bulk Volume)	East Sha Chau / South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement
Marine Sediment (Type 2– Confined Marine Disposal) , m3	NIL (Bulk Volume)	14,780 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynehetic Containers) , m3	NIL (Bulk Volume)	2,760 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement

4.5.6. There was no Marine Sediment (Type 1 – Open Sea Disposal) disposed in this reporting quarter. Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sties) & Type 2 – Confined Marine Disposal) was disposed in this reporting quarter.

Contract no. HY/2009/19 – Central- WanChai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

4.5.7. No Inert and non-inert C&D waste were disposed of in this reporting quarter. Details of the waste flow table are summarized in ***Table 4.21***.

Table 4.21 Details of Waste Disposal for Contract no. HY/2009/19

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	355921.04	TM38
Inert C&D materials recycled, m^3	NIL	59367	N/A
Non-inert C&D materials disposed, m^3	NIL	1068.6	N/A
Non-inert C&D materials recycled, kg	NIL	333.14	N/A
Chemical waste disposed, L	NIL	2.12	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	NIL	162	South Cheung Chau
Marine Sediment (Type 2 – Confined Marine Disposal) , m^3	NIL	681	East Sha Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	NIL	4976.00	N/A

4.5.8. There were no marine sediments Type1- Open Sea Disposal and there were no Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal in this reporting quarter.

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

4.5.9. No Inert and non-inert C&D waste was disposed of in this reporting quarter. Details of the waste flow table are summarized in ***Table 4.22***.

Table 4.22 Details of Waste Disposal for Contract no. HK/2012/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	4131	TM38
Inert C&D materials recycled, m^3	NIL	NIL	N/A
Non-inert C&D materials disposed, m^3 *	NIL	315	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3 *	NIL (Bulk volume)	31759 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3 *	NIL (Bulk volume)	108542 (Bulk volume)	South of The Brothers (from 27 Aug 2013 onwards)

4.5.10. No Marine Sediment (Type 1 – Open Sea Disposal) disposed in this reporting quarter. No marine sediment Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated disposed in this reporting quarter.

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

4.5.11. There was Inert C&D waste disposed in this reporting period. No non-inert C&D waste was disposed in this reporting period. Details of the waste flow table are summarized in ***Table 4.23***

Table 4.23 Details of Waste Disposal for Contract no. HY/2010/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	8320.5 7560.2	26849.2 19739.4	TM38 TKO137
Inert C&D materials recycled, m^3	NIL	NIL	N/A
Non-inert C&D materials disposed, m^3	NIL	NIL	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal)	NIL	55290	South Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined	NIL	27760	Brothers Island

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Marine disposal)			
Marine Sediment (Type 3 – Special Treatment)	NIL	7780	Brothers Island

Remarks: Contractor has clarified and updated the cumulative quantity of the Inert C&D materials disposed in this reporting quarter. Contractor has clarified and updated that no marine sediment disposal recorded in this reporting quarter.

4.5.12. There was no Marine Sediment (Type 1 – Open Sea Disposal), Marine Sediment (Type 3 – Special Treatment) and marine sediment Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting quarter.

5. COMPLIANCE AUDIT

5.0.1. The Event Action Plan for construction noise, air quality and water quality are presented in ***Appendix 5.1***.

5.1. Noise Monitoring

5.1.1 Three limit level exceedances were recorded at noise monitoring station M1a – Harbour Road Sports Centre on 7, 13 and 21 June 2016 in June reporting month. The exceedances were concluded as non-project related.

5.1.2 Three limit level exceedances were recorded at noise monitoring station M6 – HK Baptist Church Henrietta Secondary School on 7, 13 and 21 June 2016 in June reporting month. The exceedances were concluded as non-project related.

5.1.3 One limit level exceedance was recorded at noise monitoring station M1a – Habour Road Sports Center on 28 June 2016 in July reporting month. The exceedance was concluded as non-project related.

5.1.4 One limit level exceedance was recorded at noise monitoring station M6 – HK Baptist Church Henrietta Secondary School on 12 July 2016 in July reporting month. The exceedance was concluded as non-project related.

5.1.5 No action or limit level exceedance was recorded in August reporting month.

5.1.6 Noise monitoring results measured in this reporting period are reviewed and summarized. Details of graphical presentation can be referred in ***Appendix 4.1.***

5.2. Air Monitoring

5.2.1 No action or limit level exceedance for TSP monitoring was recorded in June reporting month.

5.2.2 No action or limit level exceedance for TSP monitoring was recorded in July reporting month.

5.2.3 One 1hr TSP action level exceedance was recorded at CMA1b – Oil Street Site Office on 27 August 2016 in August reporting month.

5.2.4 The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 5 July 2016 and 20 July 2016 at the concerned hours (afternoon for higher daily temperature). No action and limit level was recorded during July reporting month.

5.2.5 The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 1 August 2016 and 17 August 2016 at the concerned hours (afternoon for higher daily temperature). No action and limit level was recorded during August reporting month..

5.3. Water Quality Monitoring

5.3.1 There were 1 limit level of turbidity exceedances and 2 action level of suspended solid exceedances recorded in June reporting month. Investigation found that the turbidity exceedances and suspended solid exceedances recorded in June reporting month were not related to Project works.

5.3.2 There were 1 action and 1 limit level of turbidity exceedances recorded in July reporting month. Investigation found that the turbidity exceedances recorded in July reporting month were not related to Project works.

5.3.3 There were 2 action and 1 limit level of turbidity exceedances recorded in August reporting month. Investigation found that the turbidity exceedances recorded in August reporting month were not related to Project works.

5.3.4 There was 1 action level and 4 limit level exceedances recorded for enhanced dissolved oxygen monitoring in June reporting month. Investigation found that the exceedance was not related to Project works.

5.3.5 There was 1 action level and 2 limit level exceedances recorded for enhanced dissolved oxygen monitoring in this July month. Investigation found that the exceedance was not related to Project works.

5.3.6 There was 1 action level and 12 limit level exceedances recorded for enhanced dissolved oxygen monitoring in August reporting month. Investigation found that the exceedance was not related to Project works.

5.4. Site Audit

5.5.1. There was no non-compliance from the site audits in the reporting period. During environmental site inspections conducted during the reporting period, minor deficiencies were noted.

5.5. Review of the Reasons for and the Implications of Non-compliance

5.5.1 There was no non-compliance from the site audits in the reporting quarter.

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

5.6.1 There was no particular action taken since no project-related non-compliance was recorded from the site audits in this reporting quarter.

6. COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

6.0.1. No environmental complaint was received in June reporting month.

6.0.2. There was one environmental complaint received in July reporting month.

6.0.3. A public complaint referred by EPD was received by ET on 06 July 2016 (Case Ref:. H05/RS/00016226-16). The complainant reported that a derrick barge in green colour under Contract HY/2009/15 moored near Royal Hong Kong Yacht Club emitted dark smoke since mid of June 2016.

6.0.4. ET confirmed with the Resident Site Staff that the concerned green derrick barge was identified as Yue Fat 206 (YF206) and the concerned green derrick barge was operated within the Ex-PCWA area for excavation works intermittently across the period from15 June 2016 to 30 June 2016. The concerned green derrick barge YF206 within Ex-PCWA area was no longer deployed under Contract HY/2009/15 after 02 July 2016.

6.0.5. Follow-up inspection was conducted on 11 July 2016, the concerned derrick barge YF206 was not deployed at the concerned location and no dark smoke was observed from other derrick barge operating on-site. Nevertheless, in view of the public concern, the Contractor of HY/2009/15 was reminded to conduct regular checking and maintenance for all derrick barges deployed on site to ensure only well maintained equipment is used to avoid potential dark smoke emission affecting nearby surroundings.

6.0.6. There was one environmental complaint received in August reporting month.

6.0.7. A public complaint referred by EPD was received on 25 August 2016 (Case Ref.: H08/RS/00012592-16). The complainant reported that muddy water was observed at Causeway Bay Typhoon Shelter.

6.0.8. ET confirmed with the Resident Site Staff that no marine construction activities were undertaken at the concerned location at East of Temporary Reclamation Zone TS3 within Causeway Bay Typhoon Shelther from 14:00hrs to 17:00hrs on 25 May 2016. Site control measures including the following were implemented by the Contractor of HY/2010/08 around the concerned location. Site control measures including i) Wastewater treatment facilities (AquaSed) were installed at TS3 for treatment of wastewater generated during construction activities. Sampling of effluent from AquaSed was conducted by the Contractor of HY/2010/08 and all results complied with the requirements in the Discharge Licence. Visual inspection and pH measurement of effluent were conducted daily by Environmental Supervisors and all results passed. ii) Brick/ earth/ sandbag bunds were installed alongside the site perimeter of TS3 to prevent muddy runoff into the sea. iii) Piping with idled ends were removed to prevent accidental discharge of untreated wastewater. iv) Diver inspection for silt curtains and/ or impermeable barriers was conducted on an ad-hoc basis. vii) Temporary cut slopes were shotcreted or properly covered with tarpaulin sheets. viii) Regular inspections were conducted by the RSS and Contractor's environmental representatives on regular basis on the conditions of mitigation measures implemented on site.

6.0.9. Based on the complainant photo information, the exposed soil slope at Temporary Reclamation Zone TS3 were observed protected by covering and enclosed by double layer of impermeable barrier/ silt curtain and no contaminated discharge was identified. In addition, based on information from Hong Kong Observatory, the tidal condition on 25 May 2016 afternoon was found to be ebb-tide while non construction works marine vessel movements around the identified muddy plume within Causeway Bay Typhoon Shelter was observed in the complainant photo information.

6.0.10. Based on review on relevant records, no contaminated surface runoff and no contaminated discharge was identified at the concerned location during the environmental site inspection conducted on 25 May 2016. Follow up inspection was conducted on 31 August 2016 and seawall construction and filing works at the Temporary Reclamation Zone TS3 was observed completed. No contaminated discharge and no contaminated surface runoff was found.

6.0.11. Nevertheless, the contractor of HY/2010/08 was reminded to maintain appropriate bunding at seawall boundary for protection against potential surface runoff related impact. Also, the Contractor of HY/2010/08 was reminded to maintain proper site drainage for effluent collection and treatment system to ensure the compliance with relevant discharge license..

6.0.12. The details of cumulative complaint log and summary of complaints are presented in ***Appendix 6.1***.

6.0.13. Cumulative statistic on complaints and successful prosecutions are summarized in ***Table 6.1*** and ***Table 6.2*** respectively.

Table 6.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
Commencement works (Mar 2010) to last reporting quarter	45
June 2016 – August 2016	2
Project-to-Date	**47**

Table 6.2 Cumulative Statistics on Successful Prosecutions

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

7. CUMULATIVE CONSTRUCTION IMPACT DUE TO THE CONCURRENT PROJECTS

7.0.1. According to Condition 3.4 of the EP-356/2009, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Central Reclamation Phase III, Central-Wanchai Bypass and Island Eastern Corridor Link projects.

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 and no Project-related exceedance was recorded for air and noise monitoring. It can be concluded that cumulative construction impact due to the concurrent activities of the current projects with the Central Reclamation Phase III (CRIII) was insignificant.

7.0.3. According to the construction programme of Central-Wanchai Bypass at Wanchai West at the Central Reclamation Phase III area include structural works for tunnel construction, road works and drainage works, and seawall modification were performed in August 2016 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 tunnel works at Wan Chai East and back filling works, culvert reinstatement and road and drain works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were road works and ventilation building construction at Central Interchange, temporary reclamation removal works at Ex-PCWAW, ELS works and retaining wall construction at Victoria Park, ELS works and tunnel works at TS3; bridge construction, piling and tunnel works at North Point area in the reporting month. In addition, other non-Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects was observed undertaken at Wan Chai North and North Point area.

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. CONCLUSION

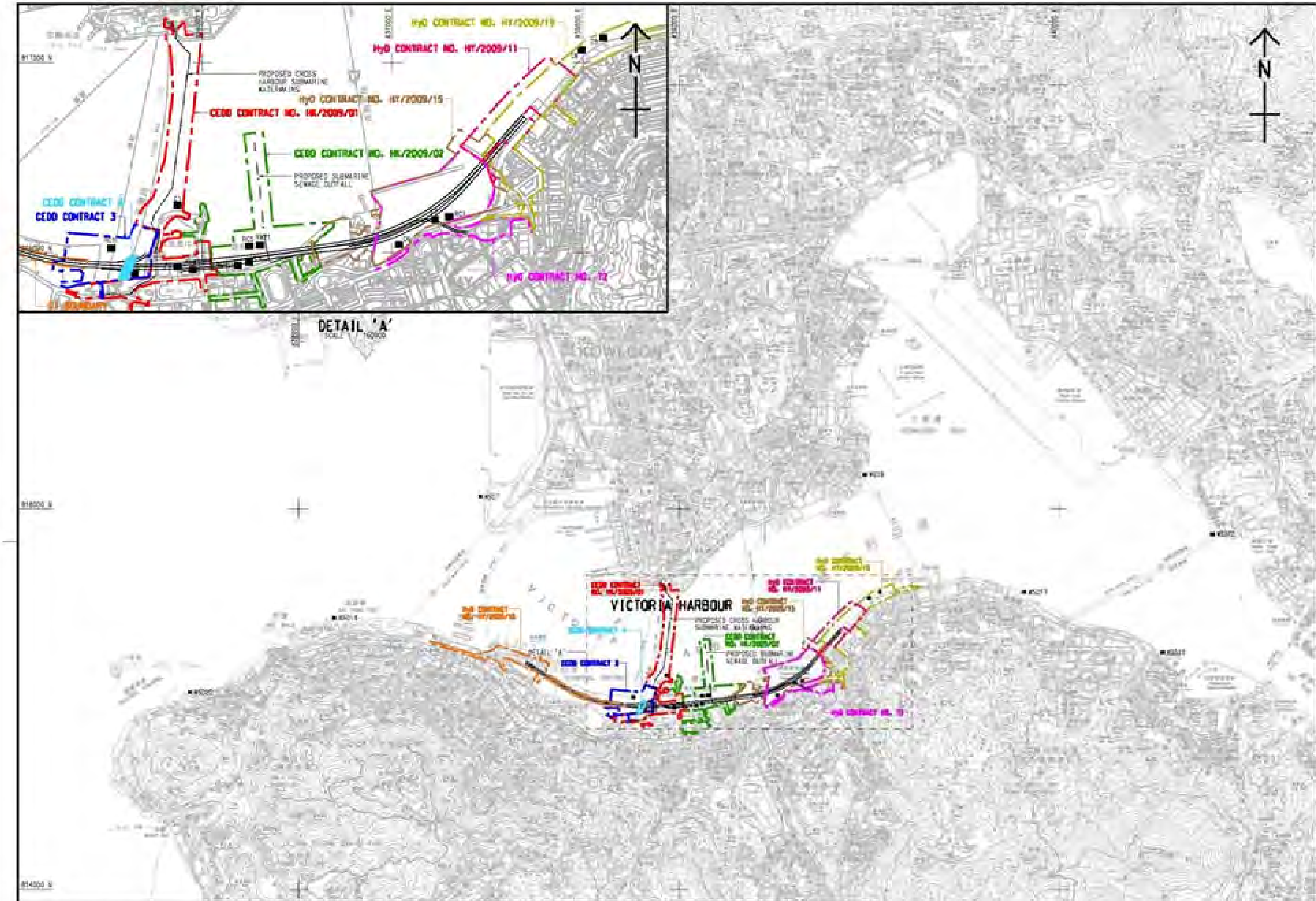
8.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

8.0.2. No non-compliance was noted and no prosecution was received in this reporting quarter.

8.0.3. The construction programmes of individual contracts are provided in ***Appendix 8.1***.

Figure 2.1

Project Layout



LEGEND:

■ WATER QUALITY MONITORING STATIONS

COOLING WATER INTAKES

C1 HONG KONG CONVENTION AND EXHIBITION CENTRE EXTENSION

C2 SUN HUNG KAI CENTRE

C3 HONG KONG CONVENTION AND EXHIBITION CENTRE PHASE I

C4 WAN CHAI TOWER AND GREAT EAGLE CENTRE

C5 SUN HUNG KAI CENTRE

C6 PROPOSED EXHIBITION STATION / WORLD TRADE CENTRE

C7 WINDSOR HOUSE

C8 CITY GARDEN

C9 PROVIDENT CENTRE

RC1 PROPOSED HKAPA EXTENSION

RC5 SUN HUNG KAI CENTRE (REPROVISION)

RC7 WINDSOR HOUSE (TEMPORARY REPROVISION)

WSD SALT WATER INTAKE

WSD21 WAN CHAI

WSD21 WAN CHAI (REPROVISION)

WSD7 KOWLOON SOUTH

WSD9 TAI WAN

WSD10 CHA KWO LING

WSD15 SAI WAN HO

WSD17 QUARRY BAY

WSD19 SHEUNG WAN

WSD20 KENNEDY TOWN

DESIGNATED PROJECTS (DP)

DP1 — CENTRAL-WAN CHAI BYPASS (CWB) (INCLUDING ITS ROAD TUNNEL AND SLIP ROADS)

DP2 — ROAD P2 AND OTHER ROADS (PRIMARY / DISTRICT DISTRIBUTOR ROADS)

DP3 — PERMANENT AND TEMPORARY RECLAMATION WORKS INCLUDING ASSOCIATED DREDGING WORKS IN WAN CHAI DEVELOPMENT PHASE II (WDII) AREA

~~DP4 — TEMPORARY TYPHOON SHELTER~~ (DP4 NOT TO BE IMPLEMENTED)

DP5 — WAN CHAI EAST SEWAGE OUTFALL

DP6 — DREDGING FOR THE CROSS-HARBOUR WATER MAINS

DP1 IS COVERED BY EP - 356/2009

DP2 IS COVERED BY EP - 376/2009

DP3, DP5 AND DP6 ARE COVERED BY EP - 356/2009

WORKS CONTRACT	DESIGNATED PROJECT INVOLVED	CONSTRUCTION COMMENCEMENT
CEDD CONTRACT NO. HK/2009/01	DP1, DP3, DP6	APRIL 2010
CEDD CONTRACT NO. HK/2009/02	DP1, DP3, DP5	APRIL 2010
CEDD CONTRACT 3	DP1, DP3	END 2011
CEDD CONTRACT 4	DP1, DP3	END 2011
CEDD CONTRACT 5	DP3	2013
HyD CONTRACT NO. HY/2009/11	DP3	18 MARCH 2010
HyD CONTRACT NO. HY/2009/15	DP1, DP3	SEPTEMBER 2010
HyD CONTRACT NO. HY/2009/18	DP1	OCTOBER 2010
HyD CONTRACT NO. HY/2009/19	DP1	NOVEMBER 2010
HyD CONTRACT 12	DP1, DP3	MID 2013

土木工程拓展署
Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II

WAN CHAI DEVELOPMENT PHASE II AND CENTRAL - WAN CHAI BYPASS - SAMPLING, FIELD MEASUREMENT AND TESTING WORKS (STAGE 1)

LOCATIONS OF WATER QUALITY MONITORING STATIONS

AECOM

DRG NO. 60041297/C5/SK001

SCALE A1 1:20000

DIMENSIONS IN METRES

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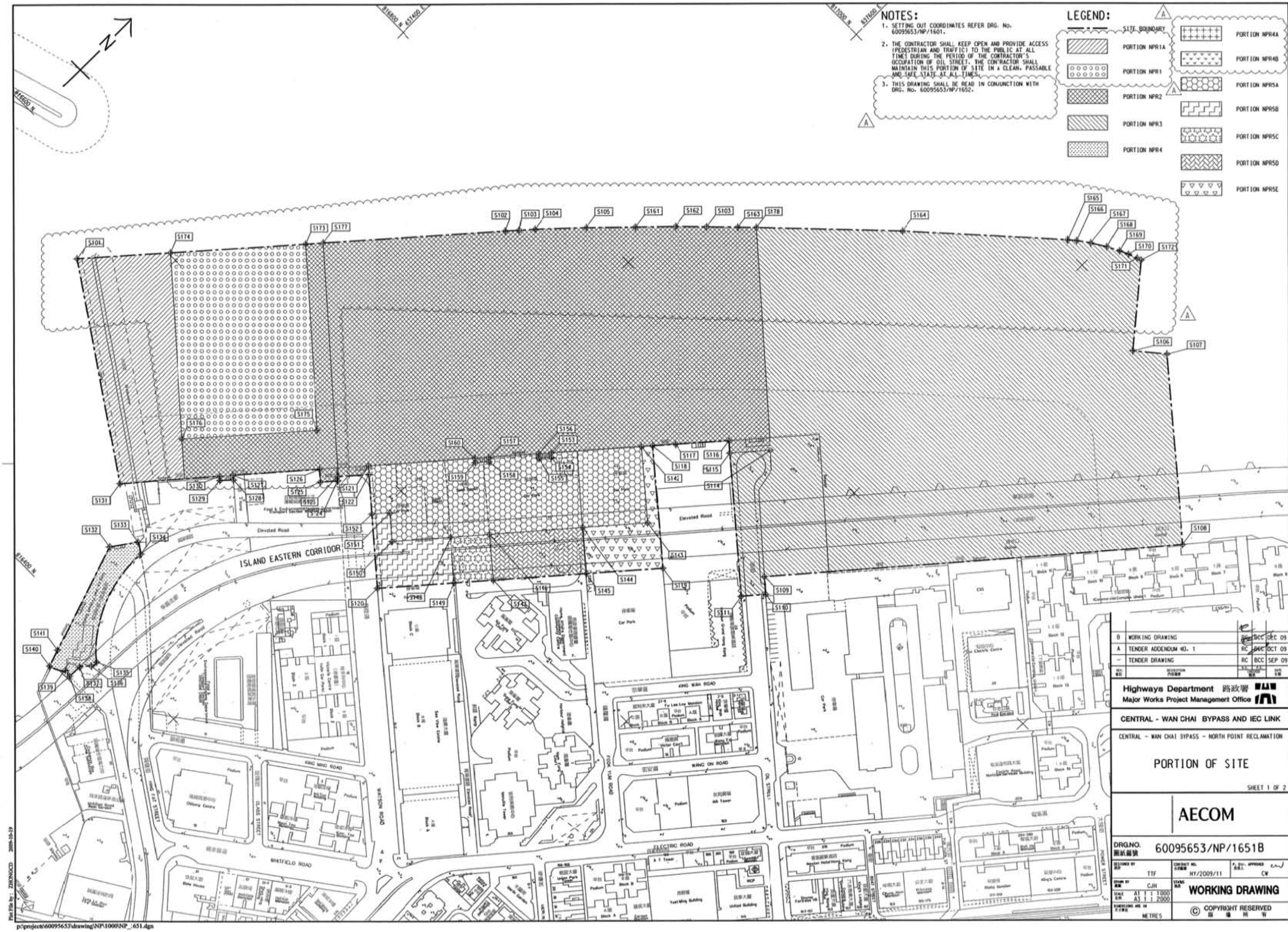
NOTES:

1. SETTING OUT COORDINATES REFER DRG. No. 60095653/NP/1601.
2. THE CONTRACTOR SHALL KEEP OPEN AND PROVIDE ACCESS (PEDESTRIAN AND TRAFFIC) TO THE PUBLIC AT ALL TIMES DURING THE PERIOD OF THE CONTRACTOR'S OCCUPATION OF OIL STREET. THE CONTRACTOR SHALL MAINTAIN THIS PORTION OF SITE IN A CLEAN, PASSABLE AND SAFE STATE AT ALL TIMES.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG. No. 60095653/NP/1652.

LEGEND:

- SITE BOUNDARY
- PORTION NPR1A
- PORTION NPR1
- PORTION NPR2
- PORTION NPR3
- PORTION NPR4
- PORTION NPR4A
- PORTION NPR4B
- PORTION NPR5A
- PORTION NPR5B
- PORTION NPR5C
- PORTION NPR5D
- PORTION NPR5E



REV.	DESCRIPTION	CHECKED		DATE
B	WORKING DRAWING	RC	BCC	DEC 09
A	TENDER ADDENDUM NO. 1	RC	BCC	OCT 09
–	TENDER DRAWING	RC	BCC	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

PORTION OF SITE

SHEET 1 OF 2

AECOM

DRG.NO. 60095653/NP/1651B

DESIGNED BY: TTF	CONTRACT NO.: HY/2009/11	P. DIV. APPROVED: CW
DRAWN BY: CJH	STATUS: WORKING DRAWING	
SCALE: A1 1 : 1000, A3 1 : 2000		
DIMENSIONS ARE IN METRES		

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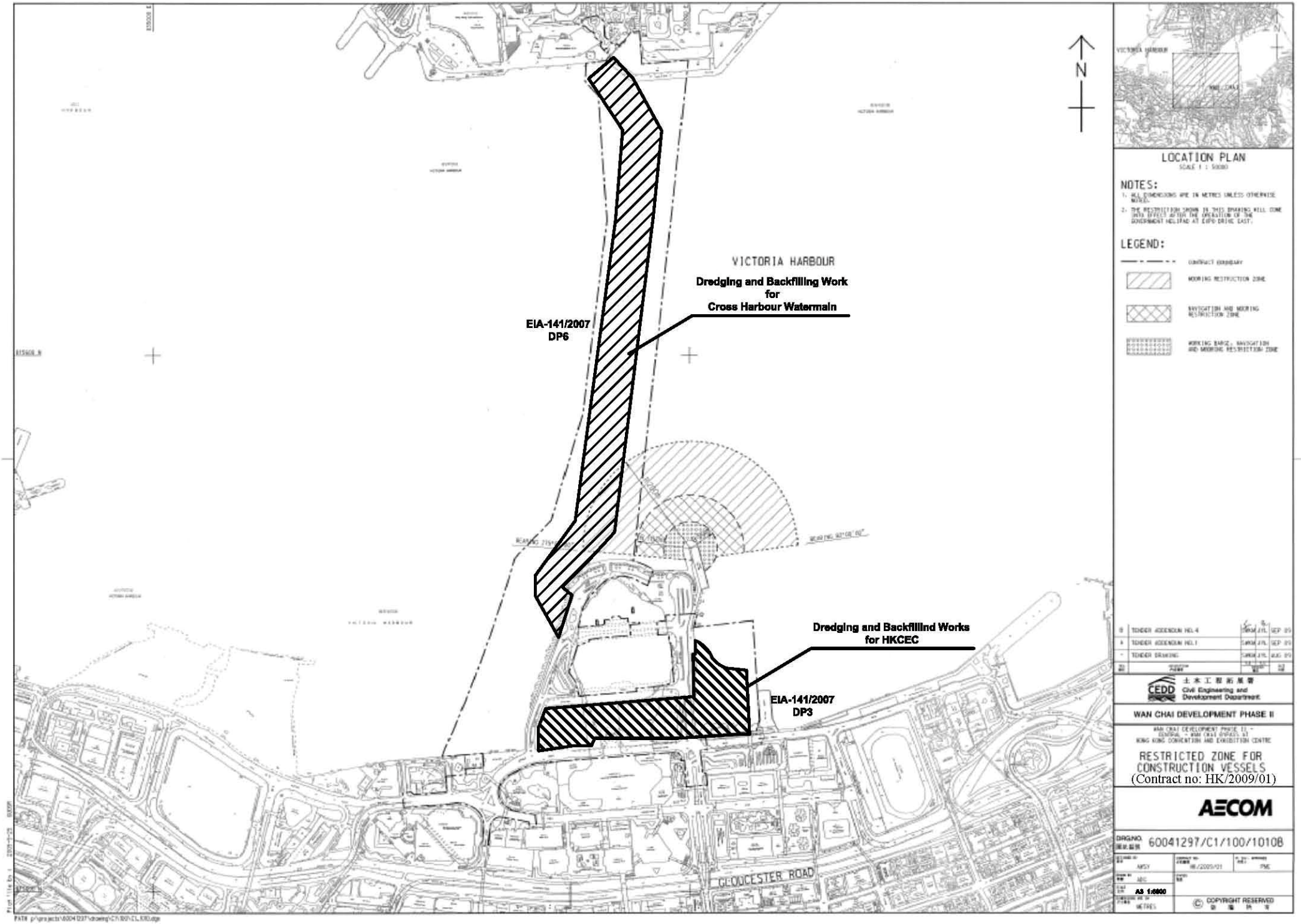
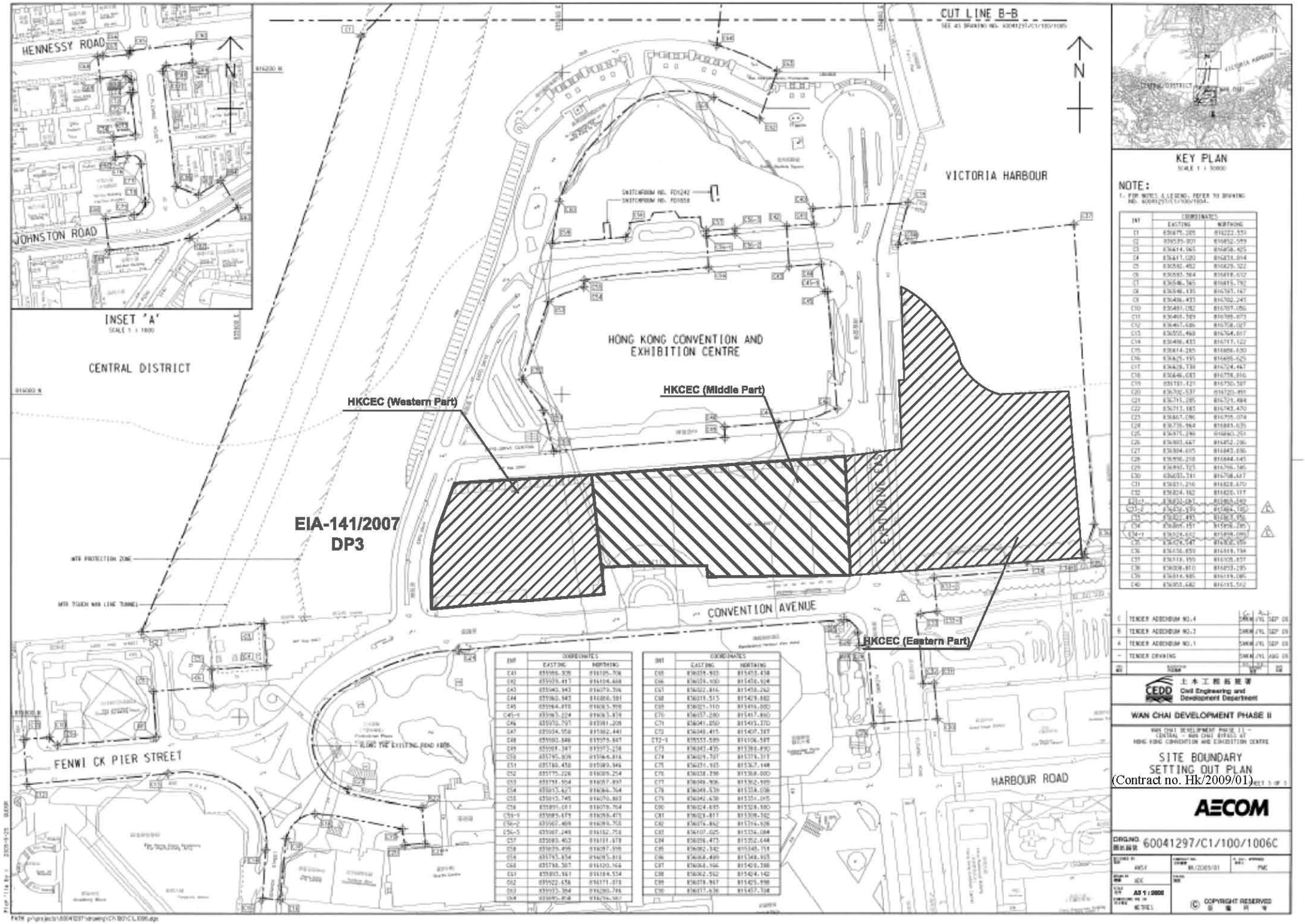
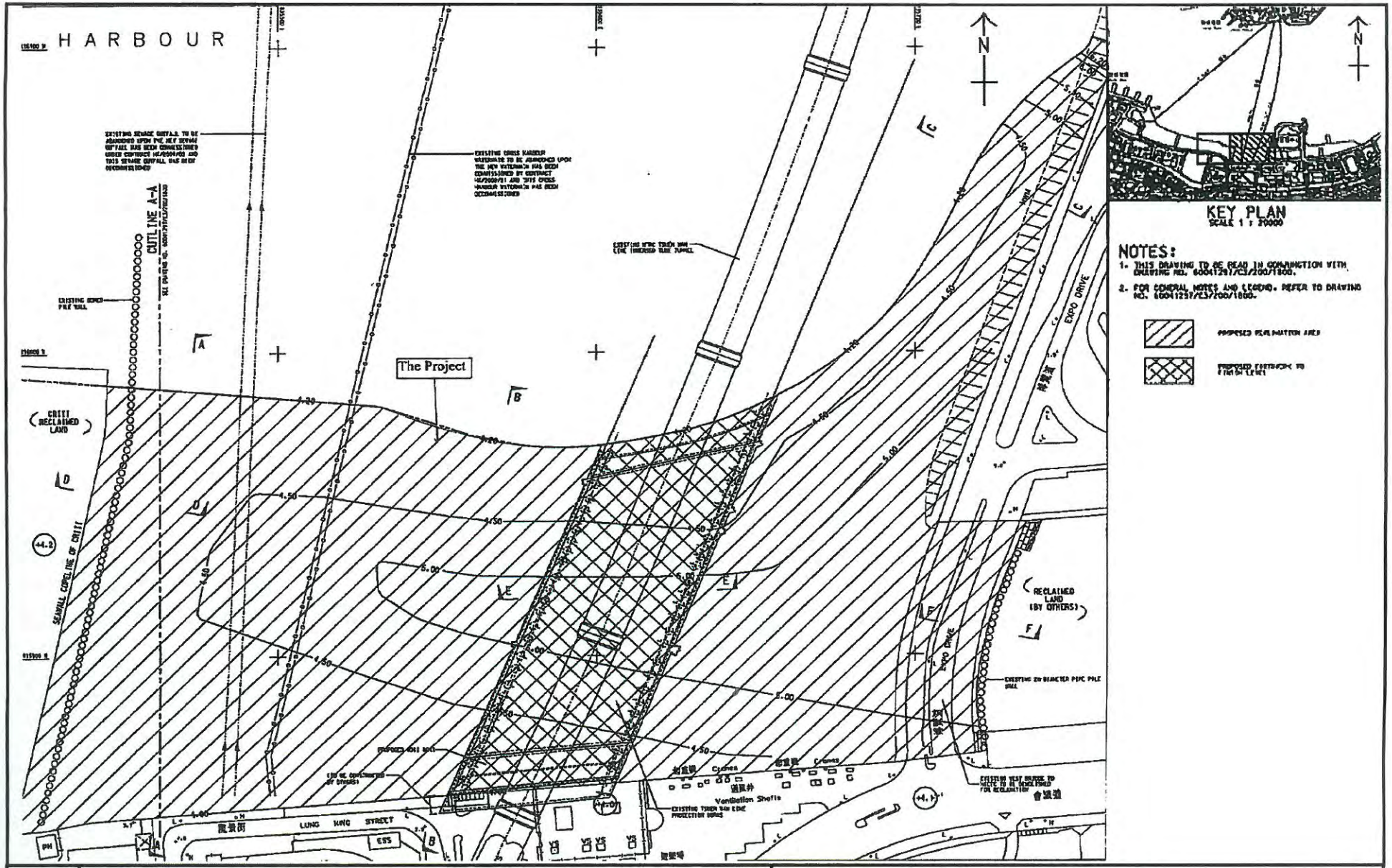

VICTORIA HARBOUR
Dredging and Backfilling Work
for
Cross Harbour Watermain
EIA-141/2007
DP6
Dredging and Backfillind Works
for HKCEC
EIA-141/2007
DP3
GLOUCESTER ROAD
N
LOCATION PLAN
SCALE 1 : 50000
NOTES:
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
2. THE RESTRICTION SHOWN IN THIS DRAWING WILL CEASE TO HAVE EFFECT AFTER THE OPERATION OF THE GOVERNMENT HELIPAD AT EASTERN DRIVE EAST.
LEGEND:
CONTRACT BOUNDARY
MOORING RESTRICTION ZONE
NAVIGATION AND MOORING RESTRICTION ZONE
WORKING BARGE, NAVIGATION AND MOORING RESTRICTION ZONE
B TENDER ADDENDUM NO.4 SEP 09
A TENDER ADDENDUM NO.1 SEP 09
- TENDER DRAWING AUG 09
CEDD
土木工程拓展署
Civil Engineering and Development Department
WAN CHAI DEVELOPMENT PHASE II
WAN CHAI DEVELOPMENT PHASE II - EXTERNAL WORKS AT HONG KONG CONVENTION AND EXHIBITION CENTRE
RESTRICTED ZONE FOR CONSTRUCTION VESSELS
(Contract no: HK/2009/01)
AECOM
DRG.NO. 60041297/C1/100/10108
AS 1:6000
METRES
© COPYRIGHT RESERVED


HENNESSY ROAD
JOHNSTON ROAD
INSET 'A'
SCALE 1 : 1000
CENTRAL DISTRICT
CUT LINE B-B
SEE A3 DRAWING NO. 60041297/C1/100/1005
VICTORIA HARBOUR
HONG KONG CONVENTION AND EXHIBITION CENTRE
HKCEC (Western Part)
HKCEC (Middle Part)
HKCEC (Eastern Part)
EIA-141/2007
DP3
MTR PROTECTION ZONE
MTR TSUEN WAN LINE TUNNEL
CONVENTION AVENUE
FENWI CK PIER STREET
HARBOUR ROAD
KEY PLAN
SCALE 1 : 50000
NOTE:
1. FOR NOTES & LEGEND, REFER TO DRAWING NO. 60041297/C1/100/1004.
WAN CHAI DEVELOPMENT PHASE II
WAN CHAI DEVELOPMENT PHASE II - CENTRAL - WAN CHAI BYPASS AT HONG KONG CONVENTION AND EXHIBITION CENTRE
SITE BOUNDARY SETTING OUT PLAN
(Contract no. Hk/2009/01)
Civil Engineering and Development Department
AECOM
DRG.NO. 60041297/C1/100/1006C
AS 1:2000
METRES
© COPYRIGHT RESERVED

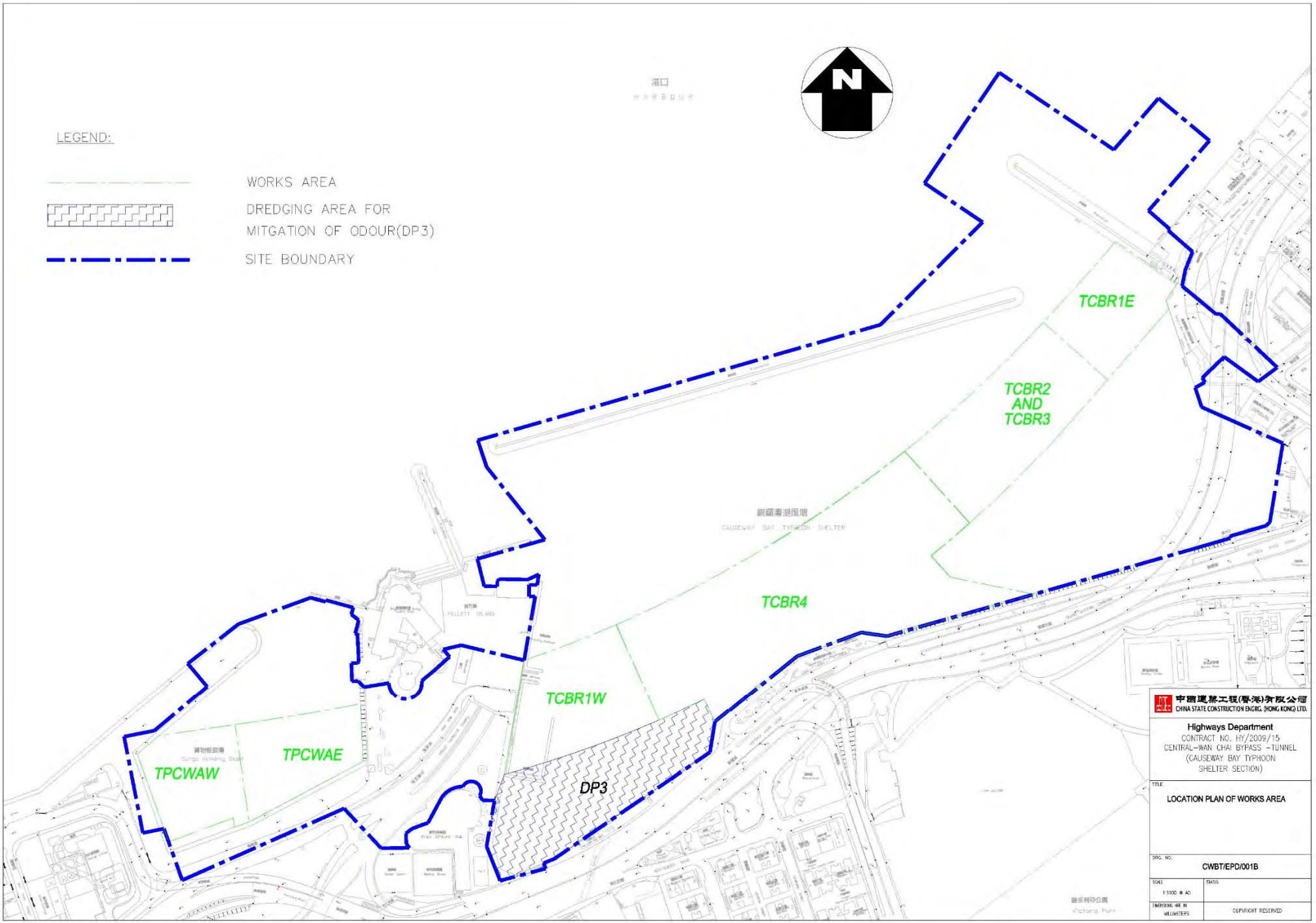


Project Title: Wan Chai Development Phase II – Central Wan Chai Bypass at Wan Chai West (Contract No. HK/2012/08) – Marine Works
工程項目名稱: 灣仔發展計劃第二期 - 中環灣仔繞道-灣仔西段(合約編號:HK/2012/08)-海事工程
Environmental Permit No. : FEP-06/356/2009
環境許可證編號 : FEP-06/356/2009

Figure 1b : General Layout of the Project
圖 1b : 工程項目佈局圖

(This figure was prepared based on Figure 1b of Application for Further Environmental Permit (Application No.: FEP 145/2013))
(本圖是根據申請新的環境許可證(申請書編號 FEP-145/2013) 圖 1b 編製)

EIAO DPD


LEGEND:
WORKS AREA
DREDGING AREA FOR MITGATION OF ODOUR(DP3)
SITE BOUNDARY
N
TCBR1E
TCBR2 AND TCBR3
TCBR4
TCBR1W
DP3
TPCWAE
TPCWAW
中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.
Highways Department
CONTRACT NO. HY/2009/15
CENTRAL-WAN CHAI BYPASS -TUNNEL
(CAUSEWAY BAY TYPHOON SHELTER SECTION)
TITLE
LOCATION PLAN OF WORKS AREA
DRG. NO.
CWBT/EPD/001B
SCALE
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STATUS
DIMENSIONS ARE IN MILLIMETERS
COPYRIGHT RESERVED

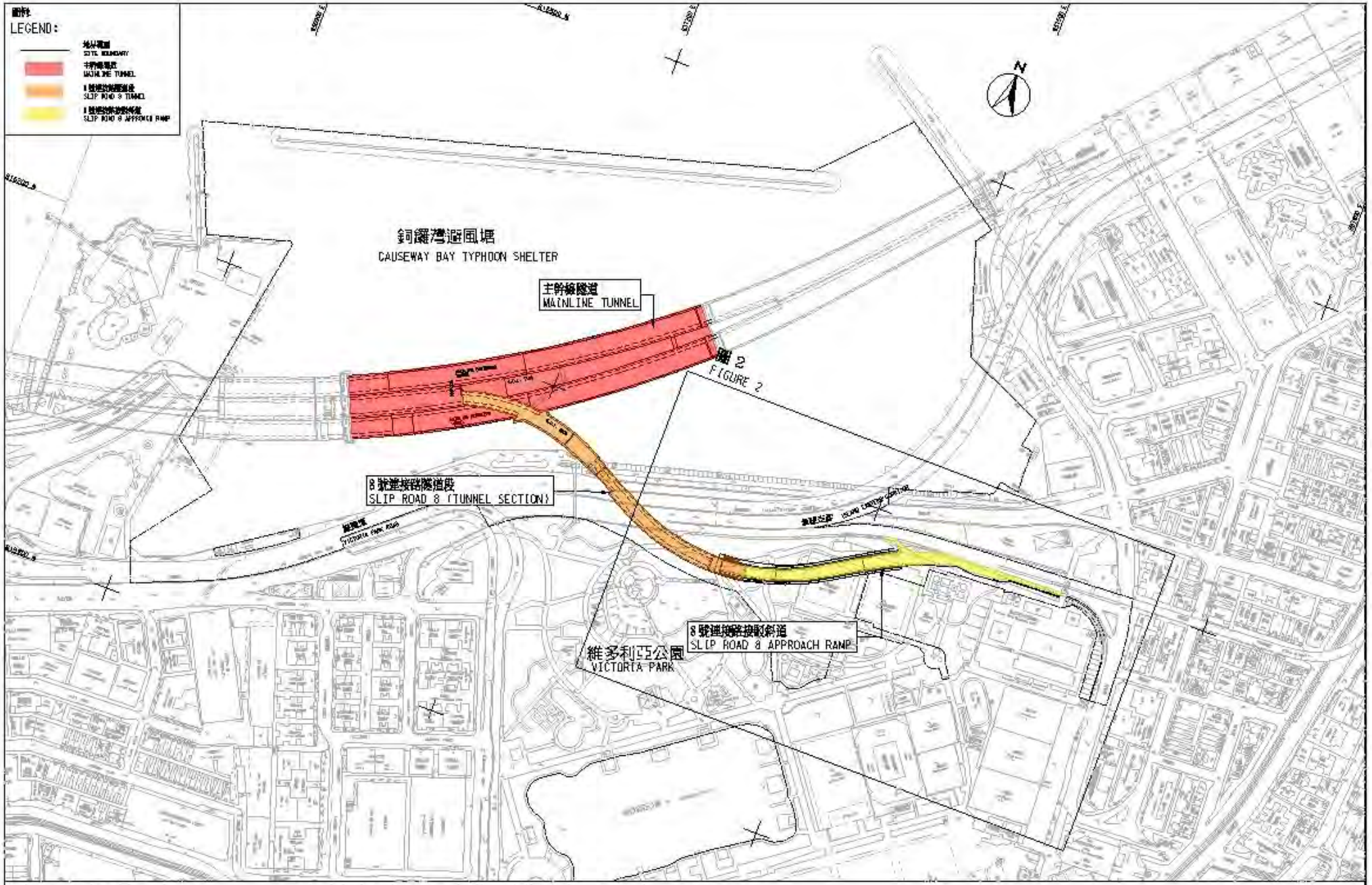


圖1- 合約編號 HY/2010/08中環灣仔繞道-8號連接路段隧道

SCALE 1 : 3000

FIGURE 1 - CONTRACT NO. HY/2010/08 - CENTRAL - WAN CHAI BYPASS - TUNNEL (SLIP ROAD 8 SECTION)

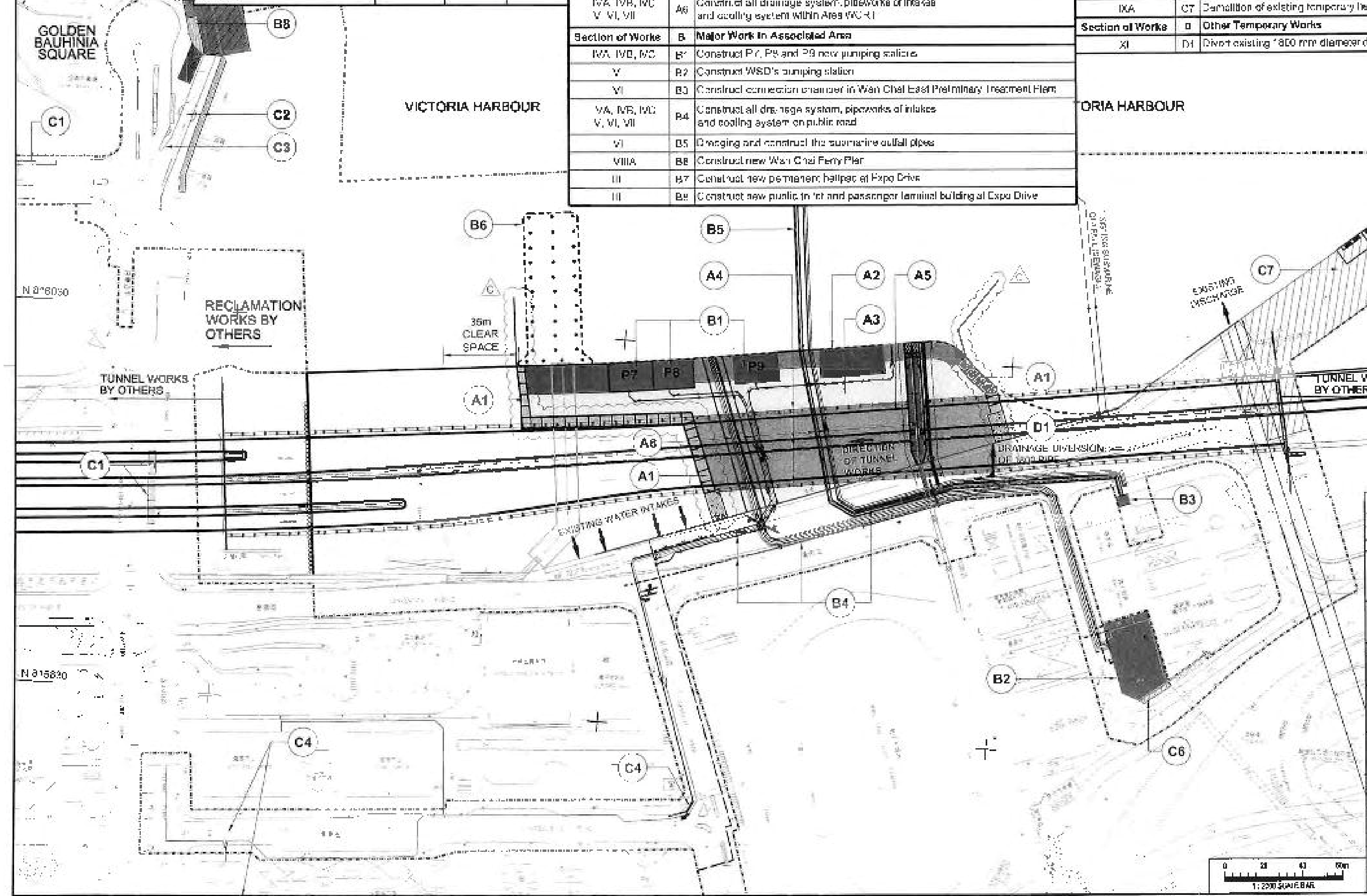
T:\HY_2010_08\Misc\ARE\Docs\Figure for Website\T2 Figure 1.dgn 08-Apr-13

ACTIVITY	DURATION	START	FINISH
OVERALL STAGE : (Days 1 to 830)	830	26/01/10	30/05/12
DREDGING & RECLAMATIONS PHASE 1 (WCR1)	146	22/05/10	19/10/10
DREDGING & LAYING OF SUBMARINE OUTFALL PIPE ON SEA	410	21/09/10	32/02/12

[illegible]

Section of Works	A	Major Work at Area WCR1
XI	A1	Construct western and eastern temporary seawall
XI	A2	Dredging and construct new seawall
XI	A3	Reclamation to level +3.5mPD
IXB	A4	Construct diaphragm wall and barrette pile of tunnel "Portion 1"
IXB	A5	Construct tunnel "Portion 1" structures including excavation and backfilling with CLSW
IVA, IVB, IVC V, VI, VII	A6	Construct all drainage system, pipeworks of intakes and cooling system within Area WCR1
Section of Works	**B**	**Major Work in Associated Area**
IVA, IVB, IVC	B1	Construct P7, P8 and P9 new pumping stations
V	B2	Construct WSD's pumping station
VI	B3	Construct connection chamber in Wan Chai East Preliminary Treatment Plant
VA, IVB, IVC V, VI, VII	B4	Construct all drainage system, pipeworks of intakes and cooling system on public road
VI	B5	Dredging and construct the submarine outfall pipes
VIIIA	B6	Construct new Wan Chai Ferry Pier
III	B7	Construct new permanent helipad at Expo Drive
III	B8	Construct new public transport and passenger terminal building at Expo Drive

Section of Works	C	Other Miscellaneous Works
III	C1	Construct new taxi and coach bus parking space at Expo Drive East
III	C2	Modification work on existing seawall and provide new EVA at Expo Drive
III	C3	Road re-alignment work on existing PTI at Expo Drive
II	C4	Road improvement work at junction of Harbour Road / Fenwick Road and Fleming Road / Gloucester Road
III	C5	Demolition of existing above ground structure at Expo Drive
V	C6	Demolition of existing staircase of footbridge at Wan Shing Street
IXA	C7	Demolition of existing temporary helipad at ex-PCWA
Section of Works	**D**	**Other Temporary Works**
XI	D1	Divert existing 1800 mm diameter drain pipe



REV	DATE	DESCRIPTION
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B	[illegible]	[illegible]
A	[illegible]	[illegible]

CLIENT

ENGINEER'S REPRESENTATIVE

CONTRACTOR

[illegible]

PROJECT
CONTRACT NO. HK/2009/02
WAN CHAI DEVELOPMENT PHASE II
CENTRAL - WAN CHAI BYPASS AT WAN CHAI EAST

DRAWING TITLE
DETAILED WORKS SCHEDULE AND LOCATION PLAN - STAGE 1

	DESIGN	DRAWN	CHECKED
INITIAL	-	[illegible]	-
DATE	-	[illegible]	-

DRAWING NO. [illegible]K202902/SK0031 REV C

SCALE 1:2000 (A3)

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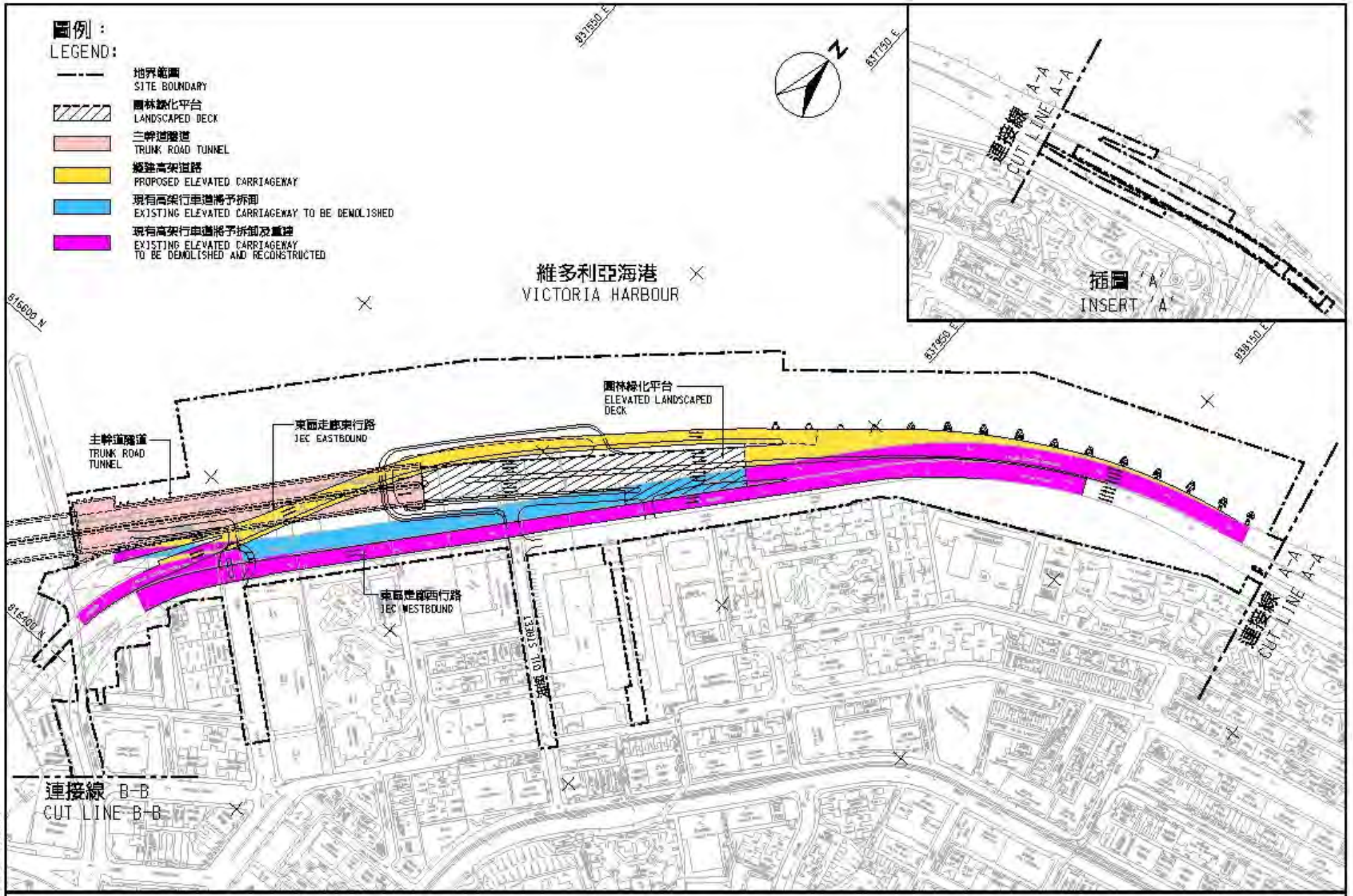

合約編號 HY/2009/19 - 中環灣仔繞道 - 北角段隧道及東區走廊連接路

CONTRACT NO. HY/2009/19 - CENTRAL-WAN CHAI BYPASS - TUNNEL (NORTH POINT SECTION) AND ISLAND EASTERN CORRIDOR LINK

SCALE 1 : 3000

Plotted by: ZUUL_NL 2011-1-12

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Figure 2.2

Project Organization Chart

Project Organization Chart

Project Proponent

Civil Engineering & Development Department

Mr. Stephen Lo
Senior Engineer
Tel: 2231 4442
Fax: 2577 5040

Project Proponent

Highways Department

Mr. Eddy Wu
Senior Engineer
Tel: 2762 3508
Fax: 2714 5289

Environmental Protection Department

Mr. Billy Ma
Environmental Protection Officer
Tel: 2835 2390
Fax: 2591 0558

Engineer's Representative for WDII

AECOM

Mr. Frankie Fan
Principal Resident Engineer
Tel: 2587 1778
Fax: 2587 1877

Engineer's Representative for CWB

AECOM

Mr. Peter Poon
Principal Resident Engineer
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Fax: 3529 2829

Independent Environmental Checker

Ramboll Environ Hong Kong Limited

Mr. David Yeung
Independent Environmental Checker
Tel: 3465 2888
Fax: 3565.2899

HK/2009/01 Contractor

Chun Wo – Leader JV

Mr.Andy Yu
Site Agent
Tel: 2162 9909 Fax: 2634 1626

HK/2009/02 Contractor

Chun Wo – CRGL JV

Mr. K.K. Yuen
Site Agent
Tel: 3658 3002 Fax: 2827 9996

HK/2012/08 Contractor

China State - Leader JV

Mr. Keith Tse
Site Agent
Tel: 9037 1839 Fax: 2877 1522

HY/2009/15 Contractor

China State Co. Engineering Ltd.
Mr. K C Cheung
Project Director
Tel: 2823 7813
Fax: 2865 5229

HY/2009/19 Contractor

Chun Wo- CRGL JV

Mr. David Lau
Project Manager
Tel: 3758 8879
Fax: 2570 8013

HY/2010/08 Contractor

China State Construction Engineering (HK) Ltd.

Mr. Chan Ying Lun
Project Manager
Tel: 3418 3001
Fax: 2566 8061

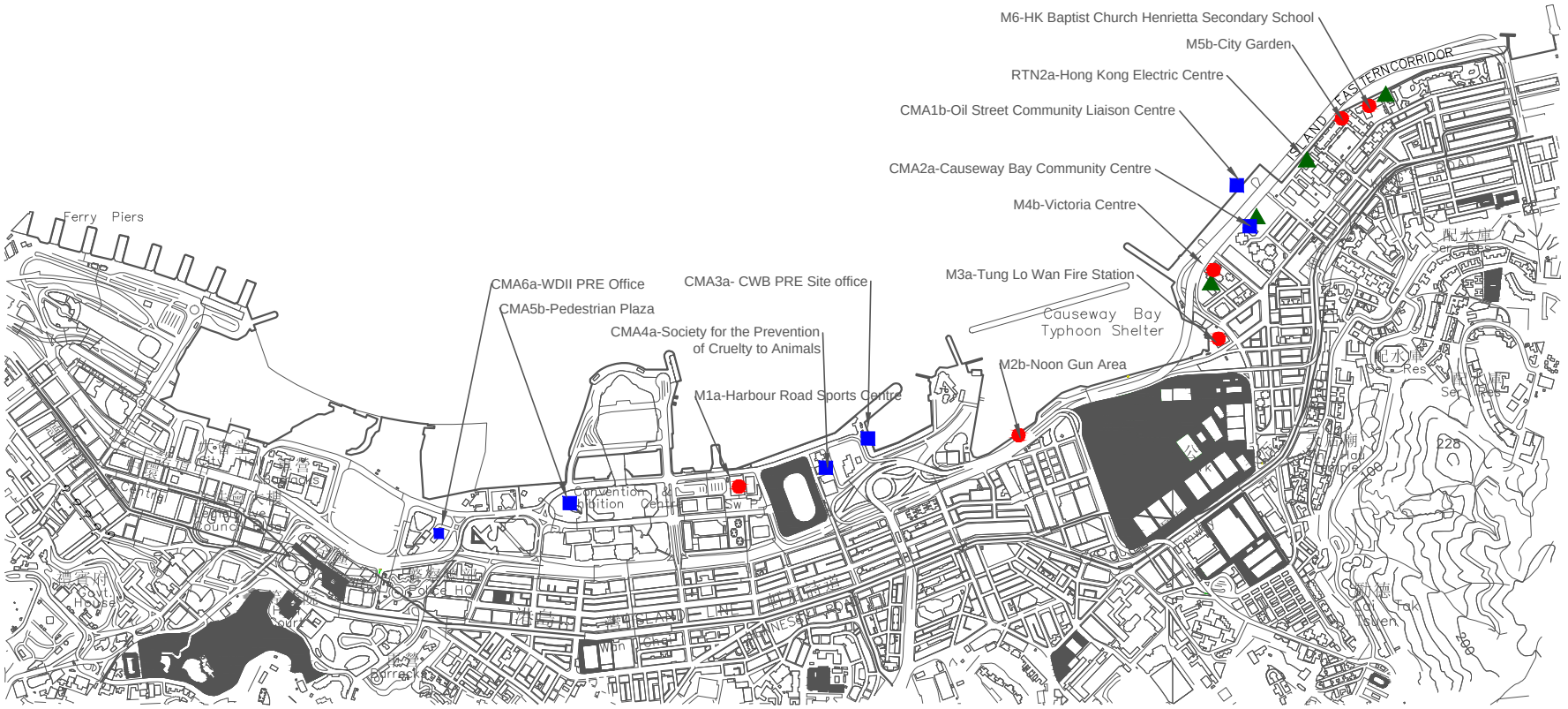
Environmental Team

Lam Geotechnics Limited

Mr. Raymond Dai
Environmental Team Leader
Tel: 2882 3939 Fax: 2882 3331

Figure 3.1

Locations of Monitoring Stations



LOCATIONS OF AIR QUALITY AND NOISE MONITORING STATIONS

Legend

Water Quality Monitoring Stations

RW21-P789 (Wanchai WSD intake/ Great Eagle Centre/ China Resources Centre/ Sun Hung Kai Centre)

C1 Hong Kong Convention and Exhibition Centre Extension

P1 Hong Kong Convention and Exhibition Centre Phase 1

P3 HK Academy For Performing Art

P4 Shui On Centre

P5 Government buildings (Wanchai Tower/ Revenue Tower/ Immigration Tower)

C6 Proposed Exhibition Station/ World Trade Centre

C7 Windsor House

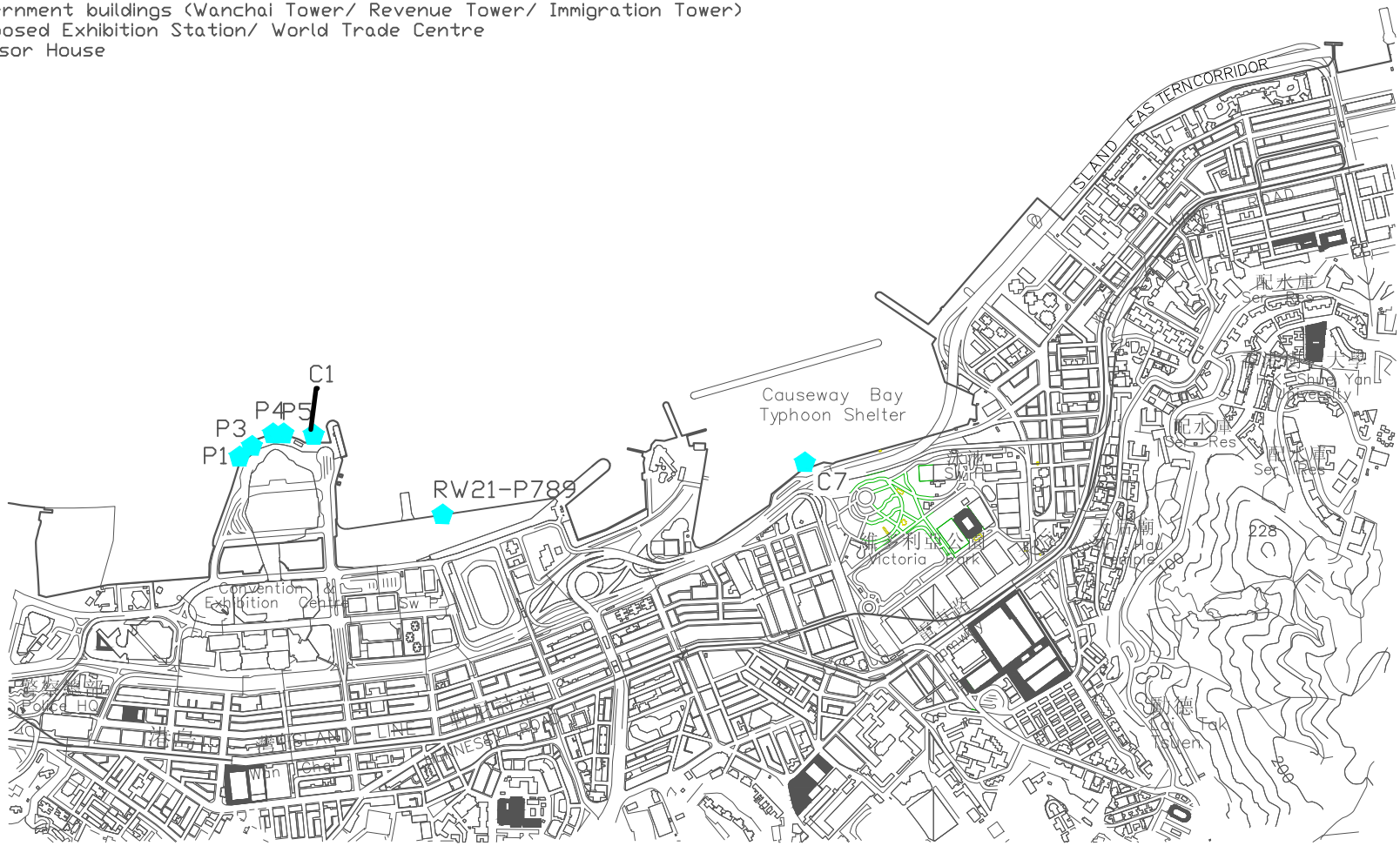


FIGURE	LOCATIONS OF WATER QUALITY MONITORING STATIONS

Legend

Enhance DO Monitoring Stations
Ex-PCWA SE Ex-Public Cargo Wanchai Area SouthEast Station
Ex-PCWA SW Ex-Public Cargo Wanchai Area Southwest Station
C6 Proposed Exhibition Station/ World Trade Centre
C7 Windsor House

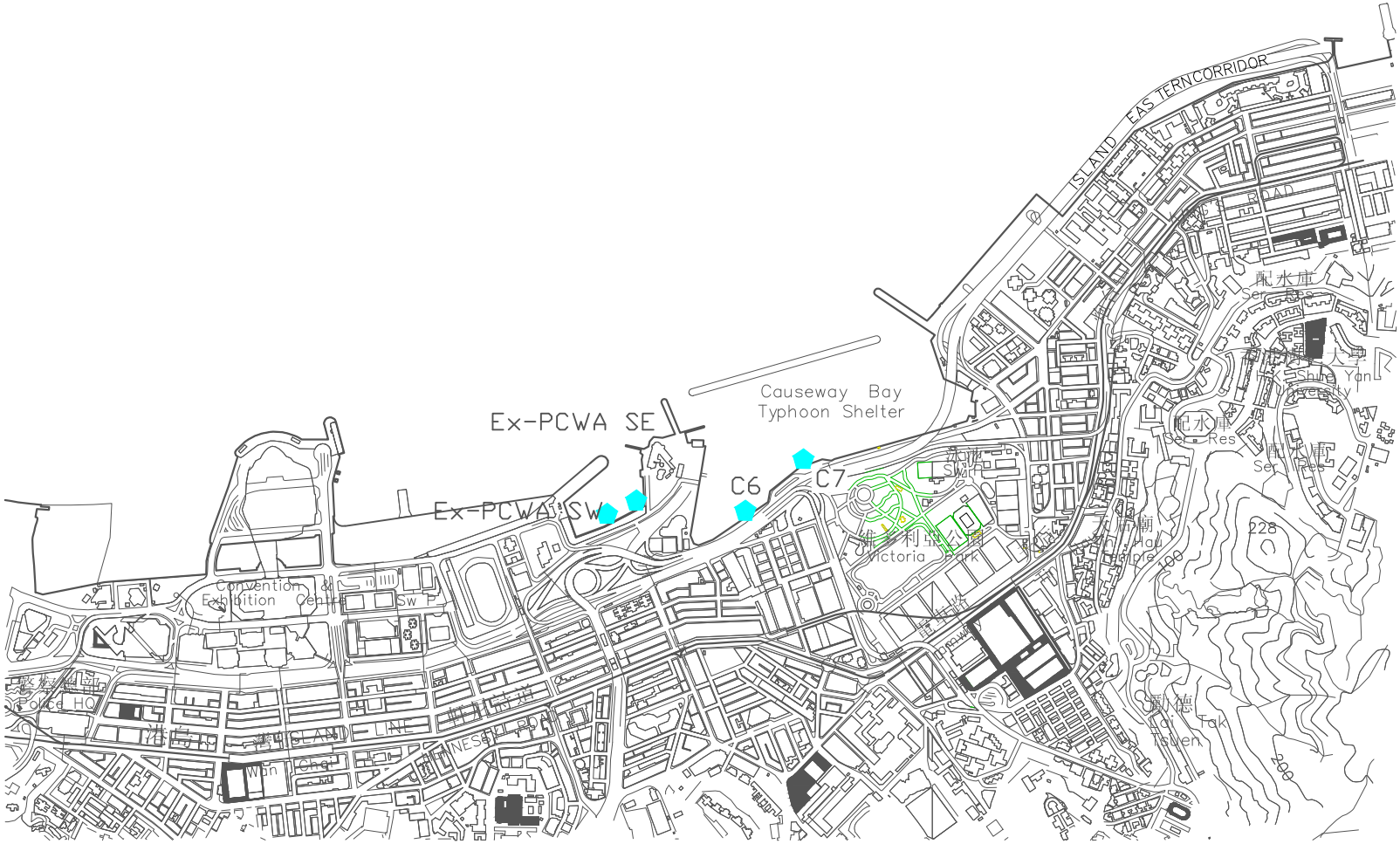


FIGURE	LOCATIONS OF ENHANCE DO MONITORING STATIONS

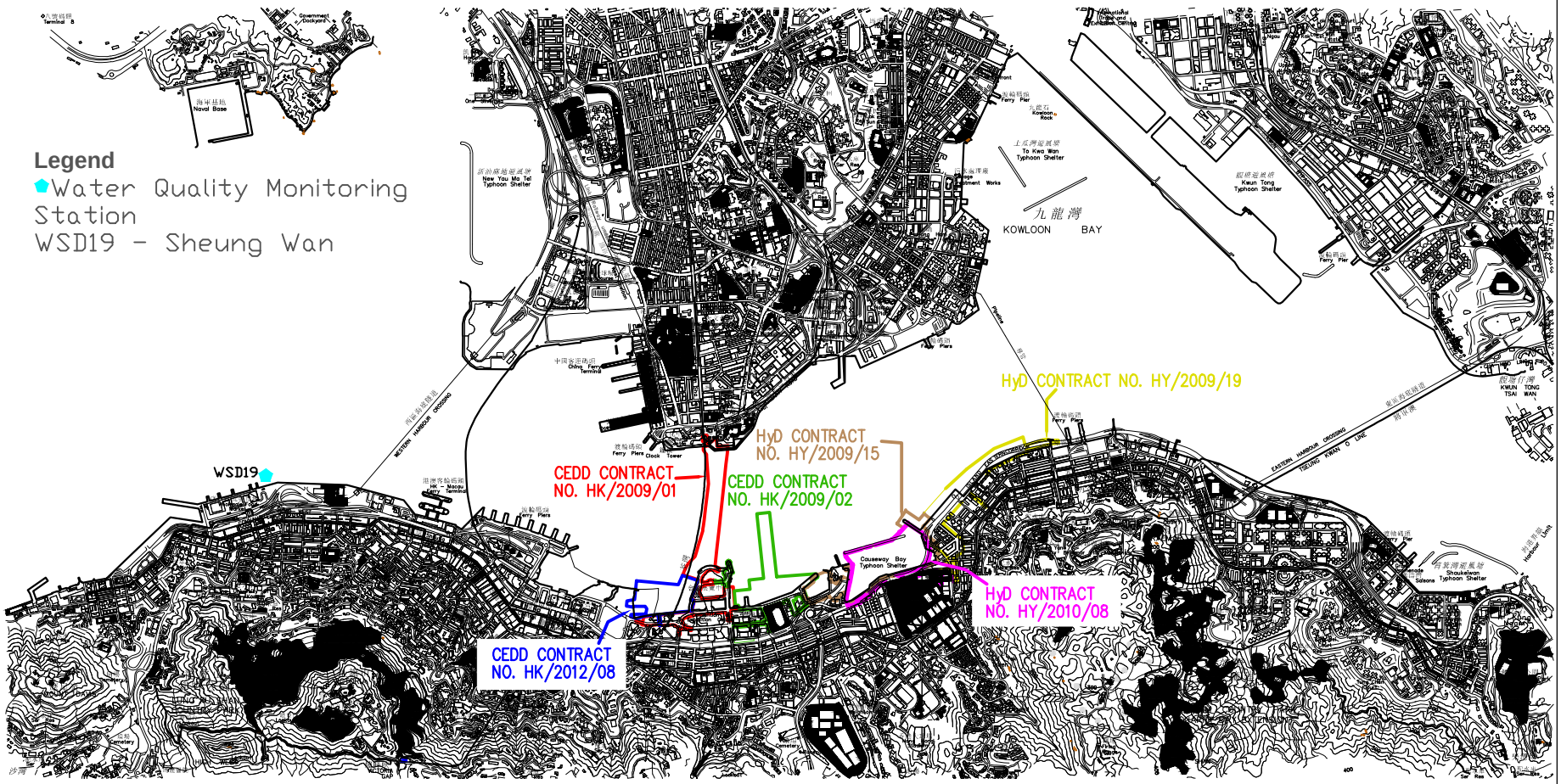
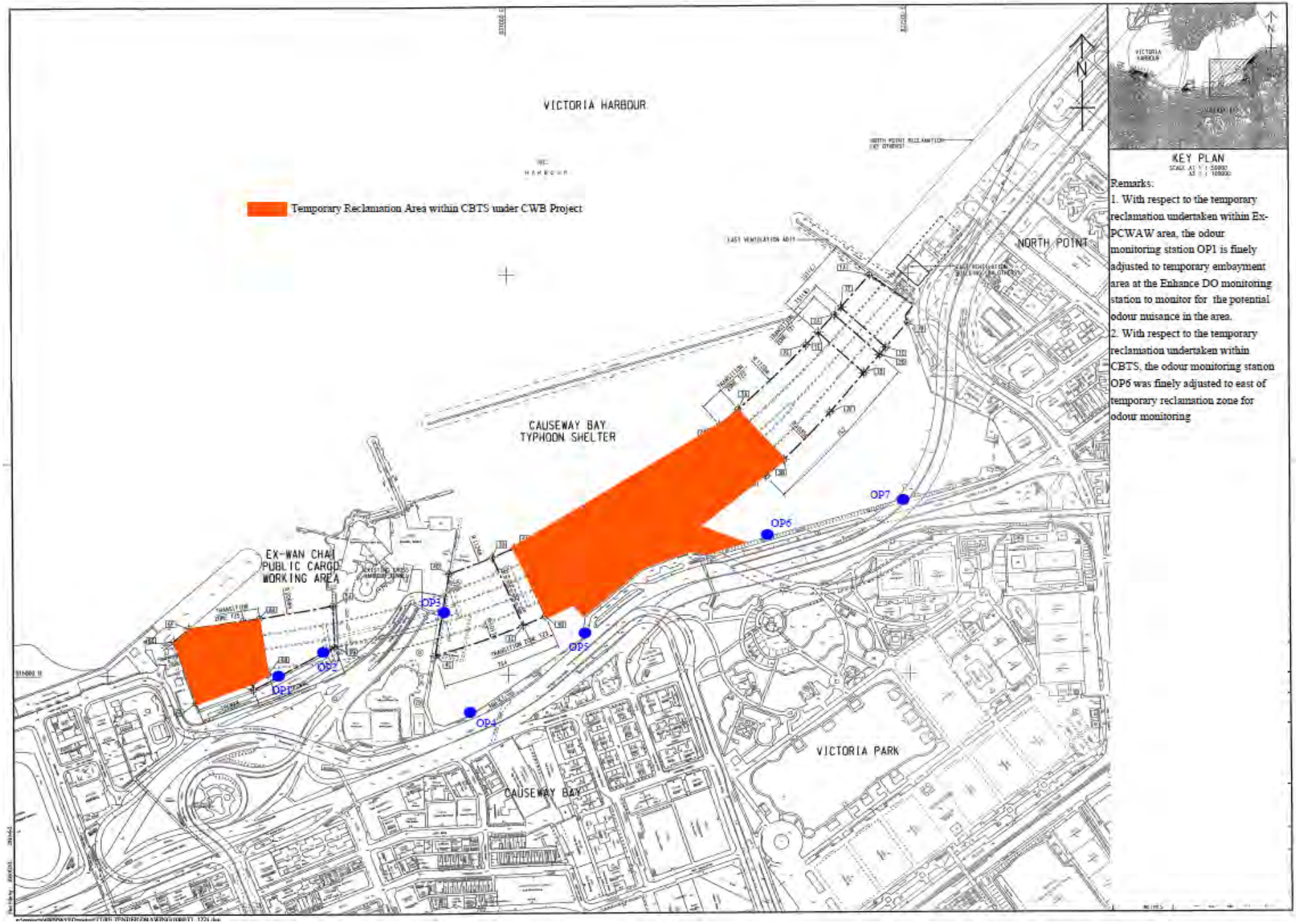


FIGURE	LOCATIONS OF WATER QUALITY MONITORING STATIONS



Remarks:

1. With respect to the temporary reclamation undertaken within Ex-PCWAW area, the odour monitoring station OP1 is finely adjusted to temporary embayment area at the Enhance DO monitoring station to monitor for the potential odour nuisance in the area.
2. With respect to the temporary reclamation undertaken within CBTS, the odour monitoring station OP6 was finely adjusted to east of temporary reclamation zone for odour monitoring

Appendix 2.1

Environmental Mitigation Implementation Schedule

Environmental Mitigation Implementation Schedule

Implementation Schedule for Air Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
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		√			

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.5.6	For the dredging activities carried out in the vicinity of Police Officers' Club, the dredging operation will be restricted to only 1 small close grab dredger to minimise the odour impact during the dredging activity. The dredging rate should be reduced as much as practicable for the area in close proximity to the Police Officers' Club. The sediments contain highly contaminated mud which may be disposed with the use of geosynthetic containers (details shall refer to Section 6), grab dredger has to be used for filling up the geosynthetic containers on barges. the dredging rate for the removal of the sediments at the south-west corner of the typhoon shelter shall be slowed down or restricted to specific non-popular hours in weekdays when it is necessary during construction.	Corner of CBTS/implementation of harbour-front enhancement	CEDD[1]		√			EIAO-TM
S3.8.8	Carry out dredging at the corner of CBTS to remove the sediment and clean the slime attached on the CBTS shoreline seawall	Corner of CBTS & CBTS shoreline seawall/implementation of harbour-front enhancement	CEDD[2]		√			EIAO-TM
Operation Phase								
For the Whole Project								

[1] CEDD will identify an implementation agent.

[2] CEDD will identify an implementation agent.

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S3.10.2	Monthly (from July to September) monitoring of odour impacts, for a period of 5 years, is proposed during the operational phase of the Project to ascertain the effectiveness of the Enhancement Package over time, and to monitor any on-going odour impacts at the ASRs.	Planned ASRs (CBTS Breakwater)/First 5-year period of operation phase	CEDD[1]			√		EIAO-TM
For DP1 – CWB (Within the Project Boundary)								
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	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

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Table A13.2 Implementation Schedule for Noise Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								

Appendix 2.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.9.4	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
For DP1 – CWB (Within the Project Boundary)								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.3 – S4.8.5	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 • 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	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP2 – WDII Major Roads (Road P2)								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks: • Temporary road diversion • Resurfacing • At-grade roadwork	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP3 – Reclamation Works								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following task: • Filling behind seawall • Seawall construction	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
For DP5 – Wan Chai East Sewage Outfall								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: • Submarine pipelines (marine section) Use of quiet powered mechanical equipment and movable noise barrier for the following tasks: • Installation of a new pipeline (land section)	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: • Submarine pipelines (marine section) •	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Operation Phase								
For DP1 – CWB (Within the Project Boundary)								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.14 – S4.8.18	• 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 3m cantilever inclined at 45° with transparent panel on the eastbound slip road to the IEC • 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
	For Future/Planned NSRs • about 265m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC	In between the Electric Centre (next to City Garden) and CDA(1) site / Before occupation of Planned NSRs in CDA and CDA(1) sites.	HyD	√	√ #			

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	• 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.	Near Causeway Bay Fire Station / During detailed design of the re-provisioned Tin Hau Temple	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 A13.3 Implementation Schedule for Water Quality Control

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For DP3 – Reclamation Works, DP5 (Wan Chai East Sewage Outfall), DP6 (Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui), DP1 – CWB (within the Project Boundary)								
S5.8	A phased reclamation approach is planned for the WDII. Containment of fill within each of the reclamation phases by seawalls is proposed, with the seawall constructed first (above high water mark) with filling carried out behind the completed seawalls. Any gaps that may need to be provided for marine access will be shielded by silt curtains to control sediment plume dispersion away from the site. Filling for seawall construction should be carried out behind the silt curtain	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	Dredging shall be carried out by closed grab dredger for the following works: • Seawall construction in all the reclamation areas; • Construction of the CWB Tunnel • Construction of the proposed WSD water mains; and • Construction of the proposed Wan Chai East sewage outfall pipelines.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Dredging for the Wan Chai East sewage outfall pipelines shall not be carried out concurrently with the following activities: • Dredging along the proposed cross-harbour water mains; • Dredging along the seawall in the Wan Chai Reclamation (WCR) zone (area between HKCEC Extension and PCWA).	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	The water body behind the temporary reclamations within the Causeway Bay typhoon shelter shall not be fully enclosed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8	As a mitigation measure, to avoid the accumulation of water borne pollutants within the temporary embayment between CRIII and HKCEC1, an impermeable barrier, suspended from a floating boom on the water surface and extending down to the seabed, will be erected by the contractor before the HKCEC1 commences. The barrier will channel the stormwater discharge flows from Culvert L to the outside of the embayment. The contractor will maintain this barrier until the reclamation works in HKCEC2W are carried out and the new Culvert L extension is constructed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	The total dredging rates in each of the marine works zones shall not be more than the maximum production rates stated in the table below. These are the production rates without considering the effect of silt curtain.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Reclamation Area		Maximum Dredging Rate		Maximum Dredging Rate (m^3 per week)
		m^3 per day	m^3 per hour (for 16 hrs per day)	
Dredging along seawall or breakwater				
North Point Shoreline Zone (NPR)		6,000	375	42,000
Causeway Bay Shoreline Zone	TBW	1,500	94	10,500
	TCBR	6,000	375	42,000
PCWA Zone		5,000	313	35,000

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<table><tr><td colspan="2">Wan Chai Shoreline Zone (WCR)</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td rowspan="2">HKCEC Shoreline Zone (HKCEC)</td><td>HKCEC Stage 1 & 3</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td>HKCEC Stage 2</td><td>6,000</td><td>375</td><td>42,000</td></tr><tr><td colspan="2">Cross Harbour Water Mains</td><td>1,500</td><td>94</td><td>10,500</td></tr><tr><td colspan="2">Wan Chai East Submarine Sewage Pipeline</td><td>1,500</td><td>94</td><td>10,500</td></tr></table> Note: 1,500 m^3 per day shall be applied for construction of the western seawall of WCR1.							
S5.8, Figure 5.3	Dredging along the seawall at WCR1 shall be undertaken initially at 1,500m^3 per day for construction of the western seawall (which is in close proximity of the WSD intake), followed by partial seawall construction at the western seawall (above high water mark) to protect the adjacent intakes as much as possible from further dredging activities.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	For dredging within the Causeway Bay typhoon shelter, seawall shall be partially constructed to protect the nearby seawater intakes from further dredging activities. For example, at TCBR1W, the southern and eastern seawalls shall be constructed first (above high water mark) so that the seawater intakes at the inner water would be protected from the impacts from the remaining dredging activities along the northern boundary.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Silt curtains shall be deployed around the closed grab dredgers during seawall dredging and seawall trench filling in the areas of HKCEC, WCR, TCBR and NP.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO
S5.8, Figure 5.3	Silt screens shall be applied to seawater intakes at interim construction stages as stated below: <table><tr><th>Interim Construction Stage</th><th>Location of Applications</th></tr><tr><td>**Scenario 2A** in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA, TBW, NP and Water Mains Zone</td><td>**WSD saltwater intakes** at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South **Cooling water intakes** for Hong Kong Convention and Exhibition Centre Extension, Hong Kong Convention and Exhibition Centre Phase I, Telecom House / HK Academy for Performing Arts / Shun On Centre, Wan Chai Tower / Revenue Tower / Immigration Tower and Sun Hung Kai Centre</td></tr><tr><td>**Scenario 2B** in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.</td><td>**WSD saltwater intakes** at Sheung Wan, Wan Chai **Cooling water intakes** for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.</td></tr><tr><td>**Scenario 2C** in 2011 with concurrent dredging activities at HKCEC and TCBR.</td><td>**WSD saltwater intakes** at Sheung Wan and Reprovisioned WSD Wan Chai saltwater intake. **Cooling water intakes** for MTR South, Excelsior Hotel & World Trade Centre and reprovisioned Windsor House.</td></tr></table>	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

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				Des	C	O	Dec	
S5.8	Other mitigation measures include: • mechanical grabs, if used, shall be designed and maintained to avoid spillage and sealed tightly while being lifted. For dredging of any contaminated mud, closed watertight grabs must be used; • all vessels shall be sized so that adequate clearance is maintained between vessels and the seabed in all tide conditions, to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash; • all hopper barges and dredgers shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • construction activities shall not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site or dumping grounds; • loading of barges and hoppers shall be controlled to prevent splashing of dredged material into the surrounding water. Barges or hoppers shall not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation; and	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	• before commencement of the reclamation works, the holder of Environmental Permit has to submit plans showing the phased construction of the reclamation, design and operation of the silt curtain.							
S5.8	Silt screens are recommended to be deployed at the seawater intakes during the reclamation works period. Installation of silt screens at the seawater intake points may cause a potential for accumulation and trapping of pollutants, floating debris and refuse behind the silt screens and may lead to potential water quality deterioration at the seawater intake points. Major sources of pollutants and floating refuse include the runoff and storm water discharges from the nearby coastal areas. As a mitigation measure to avoid the pollutant and refuse entrapment problems and to ensure that the impact monitoring results are representative, regular maintenance of the silt screens and refuse collection shall be performed at the monitoring stations at regular intervals on a daily basis. The Contractor shall be responsible for keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

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				Des	C	O	Dec	
S5.8	Dredging of contaminated mud is recommended as a mitigation measures for control of operational odour impact from the Causeway Bay typhoon shelter. In recognition of the potential impacts caused by dredging activities close to the seawater intakes, only 1 small close grab dredger shall be operated within the typhoon shelter (for the dredging to mitigate odour impact) at any time to minimize the potential impact. Double silt curtains shall be deployed to fully enclose the closed grab dredger during the dredging operation. In addition, an impermeable barrier, suspended from a floating boom on the water surface and extended down to the seabed, shall be erected to isolate the adjacent intakes as much as possible from dredging activities. For example, if dredging is to be carried out at the southwest corner of the typhoon shelter, physical barriers shall be erected to west of the cooling water intake for Excelsior Hotel so that the intake would be shielded from most of the SS generated from the dredging operation to the west of the intake. For area in close proximity of the cooling water intake point, the dredging rate shall be reduced as much as practicable. Site audit and water quality monitoring shall be carried out at the seawater intakes during the dredging operations. Daily monitoring of SS at the cooling water intake shall be carried out, and 24 hour monitoring of turbidity at the intakes shall be implemented during the dredging activities. If the monitoring results indicate that the dredging operation has caused significant changes in water quality conditions at the seawater intakes, appropriate actions shall be taken to stop the dredging and mitigation measures such as slowing down the dredging rate shall be implemented.	Causeway Bay typhoon shelter/Implementation of harbour-front enhancement.	CEDD[3]		√			WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
For the Whole Project								
S5.8	• Construction Runoff and Drainage • use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow; • Permanent drainage channels shall incorporate sediment basins or traps and baffles to enhance deposition rates. The design of efficient silt removal facilities shall be based on the guidelines in Appendix A1 of ProPECC PN 1/94; • a sediment tank constructed from pre-formed individual cells of approximately 6 - 8 m3 capacity can be used for settling ground water prior to disposal; • oil interceptors shall be provided in the drainage system for the tunnels and regularly cleaned to prevent the release of oils and grease into the storm water drainage system after accidental spillages. The interceptor shall have a bypass to prevent flushing during periods of heavy rain; • precautions and actions to be taken when a rainstorm is imminent or forecast, and during or after rainstorms. Particular attention shall be paid to the control of any silty surface runoff during storm events; • on-site drainage system shall be installed prior to the commencement of other construction activities. Sediment traps shall be installed in order to minimise the sediment loading of the effluent prior to discharge; • All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge shall be adequately designed for the controlled release of storm flows. All sediment control measures shall be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly following rain storms. The temporarily diverted drainage shall be reinstated to its original condition when the construction work is finished or the temporary diversion is no longer	• Work site / During the constructi on period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

[3] CEDD will identify an implementation agent.

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				Des	C	O	Dec	
	required. • All fuel tanks and store areas shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity.							
	• Minimum distances of 100 m shall be maintained between the storm water discharges and the existing or planned WSD flushing water intakes during construction phase.							
S5.8	*Sewage from Construction Work Force* Construction work force sewage discharges on site shall be connected to the existing trunk sewer or sewage treatment facilities. The construction sewage shall be handled by portable chemical toilets prior to the commission of the on-site sewer system. Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the large number of construction workers over the construction site. The Contractor shall also be responsible for waste disposal and maintenance practices.	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)
S5.8	*Floating Debris and Refuse* Collection and removal of floating refuse shall be performed at regular intervals on a daily basis. The contractor shall be responsible for keeping the water within the site boundary and the neighbouring water free from rubbish.	Work site and adjacent water / During the construction period.	Contractor		√			WPCO

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	*Storm Water Discharges* Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.	Work site and adjacent water / During the design and construction period.	Contractor	√	√			WPCO
Operation Phase								
DP1 – CWB (within the Project Boundary)								
S5.8	For the operation of CWB, a surface water drainage system would be provided to collect road runoff. The following operation stage mitigation measures are recommended to ensure road runoff would comply with the TM under the WPCO: • The drainage from tunnel sections shall be directed through petrol interceptors to remove oil and grease before being discharged to the nearby foul water manholes. • Petrol interceptors shall be regularly cleaned and maintained in good working condition. • Oily contents of the petrol interceptors shall be properly handled and disposed of, in compliance with the requirements of the Waste Disposal Ordinance. • Sewage arising from ancillary facilities of CWB (for examples, car park,	CWB/During design and operational period	HyD/TD[3]	√		√		WPCO

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				Des	C	O	Dec	
	control room, ventilation and administration buildings and tunnel portals) shall be connected to public sewerage system. Sufficient capacity in public sewerage shall be made available to the proposed facilities. • Road drainage shall also be provided with adequately designed silt trap to minimize discharge of silty runoff. • The design of the operational stage mitigation measures for CWB shall take into account the guidelines published in ProPECC PN 5/93 "Drainage Plans subject to Comment by the EPD." All operational discharges from the CWB into drainage or sewerage systems are required to be licensed by EPD under the WPCO.							

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

[3] if employ Management, Operation and Maintenance (MOM) Contract

Table A13.4 Implementation Schedule for Waste Management

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For DP3 – Reclamation Works								
S6.7.2	***Marine Sediments*** The dredged marine sediments would be loaded onto barges, transported to and disposed of at the designated disposal sites at South of Cheung Chau, East of Ninepin, East of Tung Lung Chau, South of Tsing Yi or East of Sha Chau to be allocated by the MFC depending on their level of contamination or at other disposal sites after consultation with the MFC and EPD. In accordance with the ETWB TCW No. 34/2002, the contaminated material must be dredged and transported with great care. The mitigation measures recommended in Section 5 of the EIA Report shall be incorporated. The dredged contaminated sediment must be effectively isolated from the environment upon final disposal and shall be disposed of at the Type 2 confined marine disposal contaminated mud pit.	Work site / During the construction period	Contractor		√			ETWB TCW No. 34/2002
S6.7.3	Based on the biological screening results, the Category H (>10xLCEL) sediment which failed the biological testing would require Type 3 special disposal. The volume of Category H sediment from the Causeway Bay typhoon shelter which would require special disposal arrangements is estimated to be approximately 0.05 Mm^3. A feasible containment method is proposed whereby the dredged sediments are sealed in geosynthetic containers and, at the disposal site, the containers would be dropped into the designated contaminated mud pit where they would be covered by further mud disposal and later by the mud pit capping, thereby meeting the requirements for fully confined mud disposal.							

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.5	It will be the responsibility of the Contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, at least 3 months prior to the dredging contract being tendered							
S6.7.6	During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimise potential impacts on water quality: • Bottom opening of barges shall be fitted with tight fitting seals to prevent leakage of material. Excess material shall be cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	• Monitoring of the barge loading shall be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels shall be equipped with automatic self-monitoring devices as specified by the DEP. • Barges or hopper barges shall not be filled to a level that would cause the overflow of materials or sediment laden water during loading or transportation.							
S6.6.12	***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 13.3.	Work site / During the construction period	Contractor		√			
For the Whole Project								

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.7	*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)

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.8	*Waste Reduction Measures* 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	√	√			

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.10	*General Refuse* 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)
S6.7.11	*Chemical Wastes* 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
S6.7.12	*Construction and Demolition Material* 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

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.13	In order to monitor the disposal of public fill and C&D waste at public filling 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
S6.7.14	*Bentonite Slurry* 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

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Table A13.5 Implementation Schedule for Land Contamination

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
S.12.6	• The contaminated site shall be cleaned up before commencement of site clearance and construction work at the concerned area which may disturb the ground.	A King Marine / Before commencement of construction activities at A King Marine.	Project proponent for the re-provisioned Tin Hau Temple	√				*"Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair/Dismantling Workshops"* published by EPD, HKSAR EPD ProPECC Note No. 3/94
S7.10	During soil remediation works, the Contractor for the excavation works shall take note of the following points for excavation: • Excavation profiles must be properly designed and executed; • In case the soil to be excavated is situated beneath the groundwater table, it may be necessary to lower the groundwater table by installing well points or similar means; • Quantities of soil to be excavated must be estimated; • It maybe necessary to split quantities of soil according to soil type, degree and nature of contamination. • Temporary storage of soil at intermediate depot or on-site	A King Marine / During soil remediation works	Contractor	√				Air Pollution Control Ordinance Noise Control Ordinance Waste Disposal Ordinance Waste Disposal (Chemical Waste) (General) Regulation

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	maybe required. The storage site shall include protection facilities for leaching into the ground. eg. Liner maybe required.							
	• Supply of suitable clean backfill materials is needed after excavation. • Care must be taken of existing buildings and utilities. • Precautions must be taken to control of ground settlement • Speed controls for vehicles shall be imposed on dusty site areas. • Vehicle wheel and body washing facilities at the site's exit points shall be established and used. The following environmental mitigation measures shall be strictly followed during the operation and/or maintenance of the CS/S facilities:							Water Pollution Control Ordinance

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EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	Air Quality Mitigation Measures • The loading, unloading, handling, transfer or storage of cement shall be carried out in an enclosed system. • The loading, unloading, handling, transfer or storage of other materials which may generate airborne dust emissions such as untreated soil and oversize materials sorted out from the screening plant and stabilized soil stockpiled in the designated handling area, shall be carried out in such a manner to prevent or minimise dust emissions. These materials shall be adequately wetted prior to and during the loading, unloading and handling operations. • All practicable measures, including speed controls for vehicles, shall be taken to prevent or minimize the dust emission caused by vehicle movement. • Tarpaulin or low permeable sheet shall be put on dusty vehicle loads transported between site locations.							
	Noise Mitigation Measures • The mixing facilities shall be sited as far as practicable to the nearby noise sensitive receivers. • Simultaneous operation of mixing facilities and other equipment shall be avoided. • Mixing process and other associated material handling activities shall be properly scheduled to minimise potential cumulative noise impact on the nearby noise sensitive receivers. • Construction Noise Permit shall be applied for the operation of powered mechanical equipment during restricted hours (if any).							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	Water Quality Mitigation Measures • Stockpile of untreated soil shall be covered as far as practicable to prevent the contaminated material from leaching out. The leachate shall be discharged following the requirements of WPCO. *Waste Mitigation Measures* • Treated oversize materials will be used as filling material for backfilling within the site. Sorted materials of size smaller than 5 cm will be collected and transferred to the mixing plant for further decontamination treatment. • Stabilized soils shall be broken into suitable size for backfilling or reuse on site. • A high standard of housekeeping shall be maintained within the mixing plant area. • If necessary, there shall be clear and separated areas for stockpiling of untreated and treated materials.							

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Table A13.6 Implementation Schedule for Marine Ecology

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project - Schedule 3 DP								
S.9.7.2	Alternative design of the Trunk Road constructed in tunnel shall be adopted to avoid permanent reclamation in CBTS and ex-PWCA Basin.	-	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
For DP3 – Reclamation Works								
S.9.7.3	Translocation of those potentially affected coral colonies to the nearby suitable habitats such as Junk Bay is recommended. A detailed translocation plan (including translocation methodology, monitoring of transplanted corals, etc.) should be drafted and approval by AFCD during the detailed design stage of the Project.	Ex-PCWA Basin and along seawall next to a public pier which is about 250 m away from the CBTS	CEDD/HyD	√				EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.4	During dredging and filling operations, a number of mitigation measures to control water quality shall be adopted to confine sediment plume within reclamation area and protect marine fauna in proximity to the reclamation. The mitigation measures include the following: • Installation of silt curtains during dredging activities • Use of tightly-closed grab dredger • Reduction of dredging rate • Control of grab descending speed • Construction of leading edges of seawall in the early stages of the reclamation works	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
	• Adoption of multiple-phase construction schedule							

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S.9.7.6	To minimize potential disturbance impacts on the foraging ardeid population in the CBTS, particularly in the area near the A King Shipyard, appropriate mitigation measures shall be adopted particularly during the construction phase. The following measures are recommended: • Use of Quiet Mechanical Plant during the construction phase shall be adopted wherever possible. • Adoption of multiple-phase construction schedule. • General measures to reduce noise generated during the construction phase (see noise impact assessment) shall be effectively implemented.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.7	Seawalls shall be constructed in advance around the reclamation areas within the area of the CBTS to screen adjacent feeding ground from construction phase activities, reduce noise disturbance to the associated seabirds and also to restrict access to this habitat adjacent to works areas by ship traffic.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
S.9.7.8	Loss of artificial seawall habitats shall be reinstated by the construction of about 1 km vertical wave absorbing seawall along the coastlines of the new reclamation around the HKCEC and at North Point. The new seawalls are expected to provide large area of hard substrata for settlement and recruitment of intertidal fauna similar to those previously recorded from existing intertidal habitats.	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.

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

Table A13.7 Implementation Schedule for Landscape and Visual

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Construction Phase								
For the Whole Project								
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
For DP1 – CWB (Within the Project Boundary)								
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

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP2 – WDII Major Roads (Road P2)								
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
For DP3 – Reclamation Works								
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
For DP5 – Wan Chai East Sewage Outfall								
Refer to EIA-058/2001 Table 10.13	CM2 Minimisation of works areas.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM3 Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		√			EIAO TM

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
Refer to EIA-058/2001 Table 10.13	CM4 Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM5 Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui								
Refer to EIA-058/2001 Table 10.13	CM2 Minimisation of works areas.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM3 Erection of decorative hoardings.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM4 Control night-time lighting.	Work site / During Construction Phase	Contractor		√			EIAO TM
Refer to EIA-058/2001 Table 10.13	CM5 Minimisation of disruption to public by effective programming of the works.	Work site / During Construction Phase	Contractor		√			EIAO TM
Operation Phase								
For the Whole Project - Schedule 3 DP								
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	CEDD/HyD	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM2 Shrub and Climbing Plants to soften proposed structures.	Work site / During Design Stage and Operation Phases	CEDD/HyD	√	√	√		ETWB TCW 2/2004

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
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	CEDD/HyD/	√	√	√		ETWB TCW 2/2004
Table 10.6, Figure 10.5.1-10.5.5	OM4 Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD[4]	√	√	√		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	CEDD/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	CEDD/HyD	√	√	√		ETWB TCW 2/2004
For DP1 – CWB (Within the Project Boundary)								
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	OM2 Shrub and Climbing Plants to soften proposed structures	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
For DP2 – WDII Major Roads (Road P2)								

[4] CEDD will identify an implementation agent

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
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	CEDD/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	CEDD/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	CEDD/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	CEDD/HyD		√	√		ETWB TCW 2/2004
For DP3 – Reclamation Works								
Table 10.6, Figure 10.5.1-10.5.5	OM4 Aesthetic design of proposed waterfront promenade.	Work site / During Design Stage and Operation Phases	CEDD[5]	√	√	√		ETWB TCW 2/2004

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

[5] CEDD will identify an implementation agent

Appendix 3.1

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)[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 Quality Monitoring

Monitoring Location	1-hour TSP Level in $\mu g/m^3$		24-hour TSP Level in $\mu g/m^3$	
	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
CMA6a	300.1	500	187.3	260

Action and Limit Level for Water Quality Monitoring

Parameters	Dry Season		Wet Season	
	Action	Limit	Action	Limit
WSD Salt Water Intake				
SS in mg L^{-1}	13.00	14.43	16.26	19.74
Turbidity in NTU	8.04	9.49	10.01	11.54
DO in mg/L	3.66	3.28	3.17	2.63
Cooling Water Intake				
SS in mg L^{-1}	15.00	22.13	18.42	27.54
Turbidity in NTU	9.10	10.25	11.35	12.71
DO in mg/L	3.36	2.73	3.02	2.44

Remarks:
- Action and Limit Level for the wet season are applied after the EPD approval of Updated EM&A Manual on 29 April 2011.

Action and Limit Level for Enhance DO Monitoring

Parameters	Depth	Dry Season		Wet Season	
		Action	Limit	Action	Limit
C6	Surface and Middle	3.13	2.00	2.60	2.00
	Bottom	4.14	3.33	2.91	2.34
C7	Surface and Middle	3.87	3.09	3.31	2.57
	Bottom	3.91	3.53	2.75	2.48
Ex-WPCWA SW	Surface and Middle	3.84	3.73	3.19	3.10
	Bottom	4.71	4.63	3.31	3.25
Ex-WPCWA SE	Surface and Middle	4.26	3.61	3.55	3.00
	Bottom	5.36	5.35	3.76	3.76

Action and Limit Levels for Odour Patrol

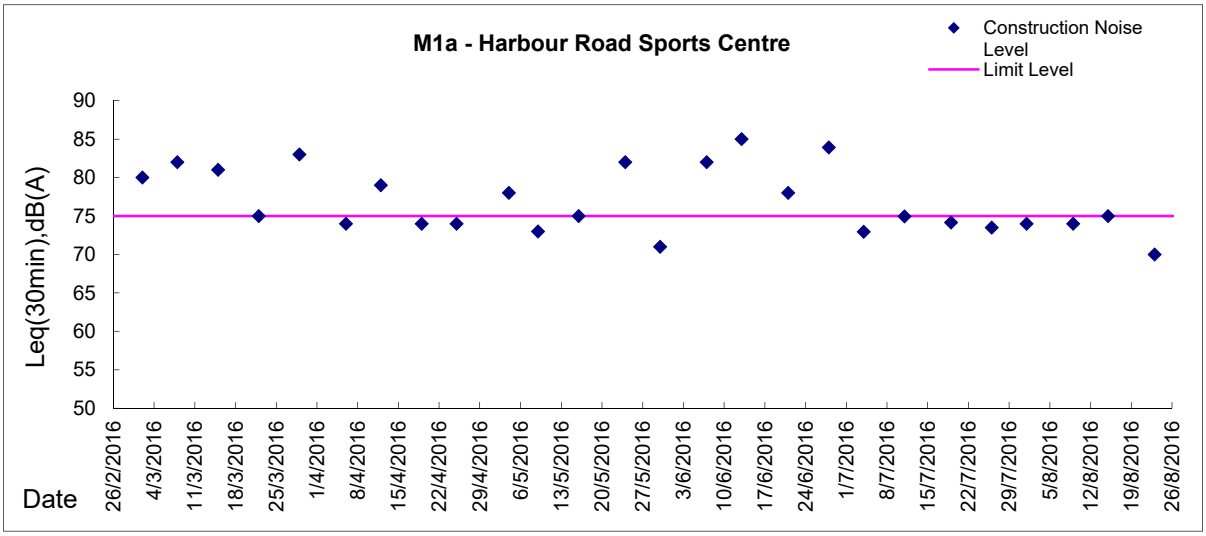
Parameters	Action	Limit
Odour Nuisance (from odour intensity analysis or odour patrol)	• When two documented complaint are received; or • Odour Intensity of 2 is measured from odour intensity analysis.	• Five or more consecutive genuine documented complaints within a week; or • Odour Intensity of 3 or above is measured from odour intensity analysis.

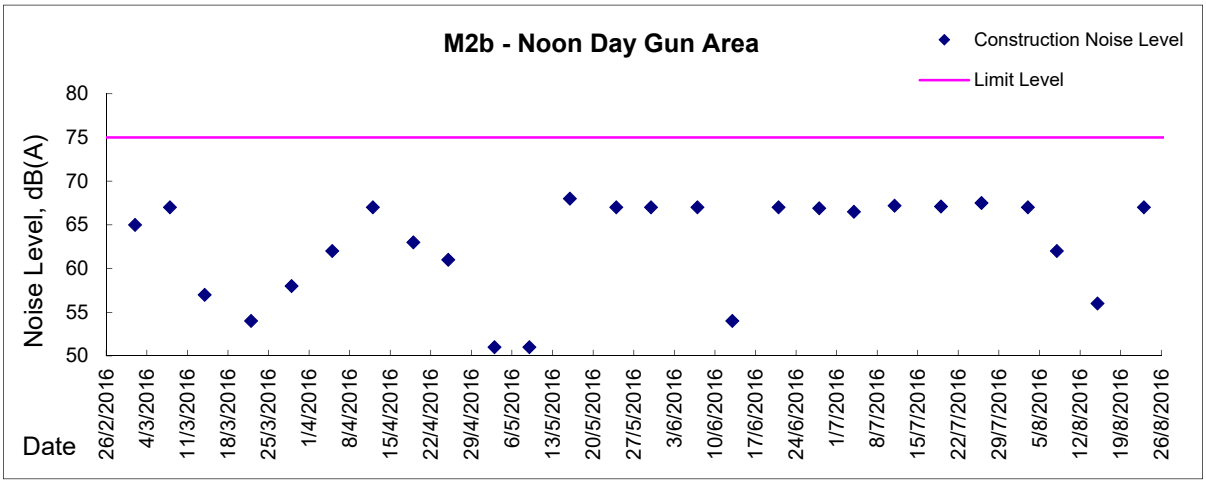
Appendix 4.1

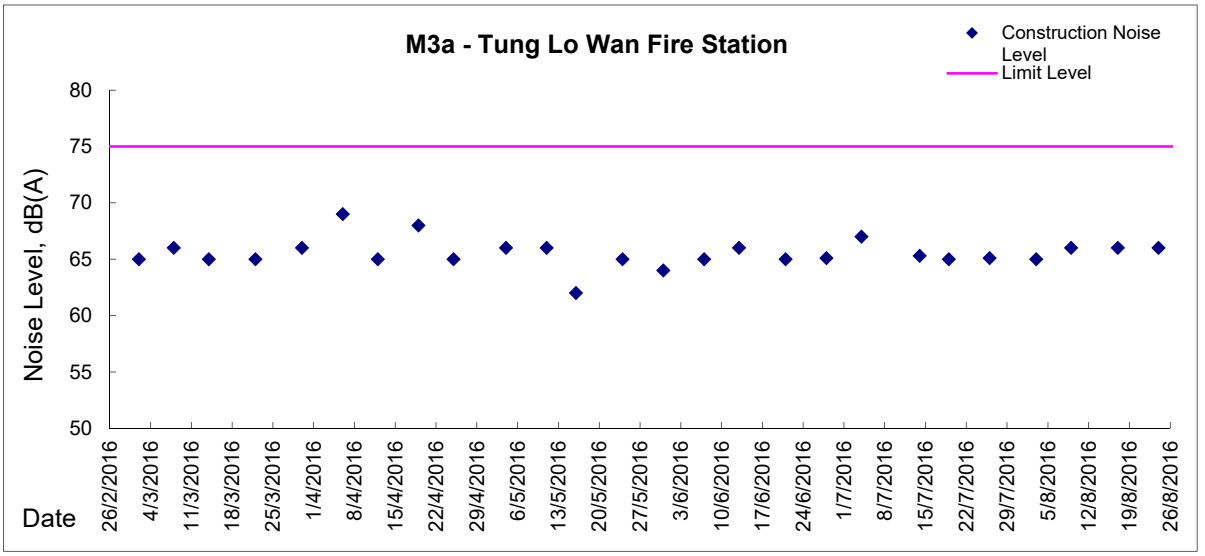
Noise Monitoring Graphical Presentations

Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

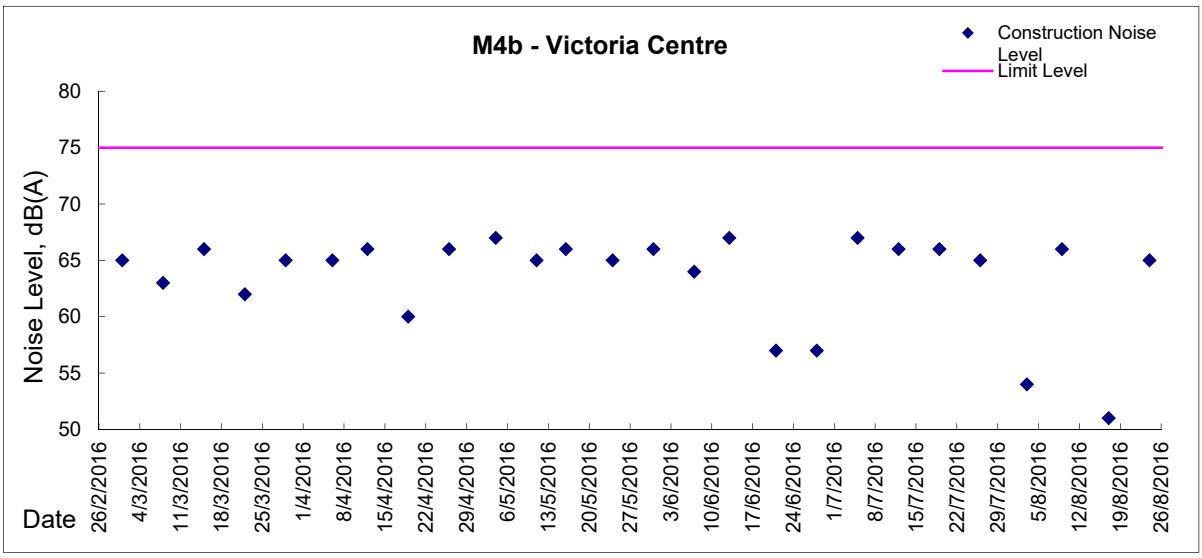


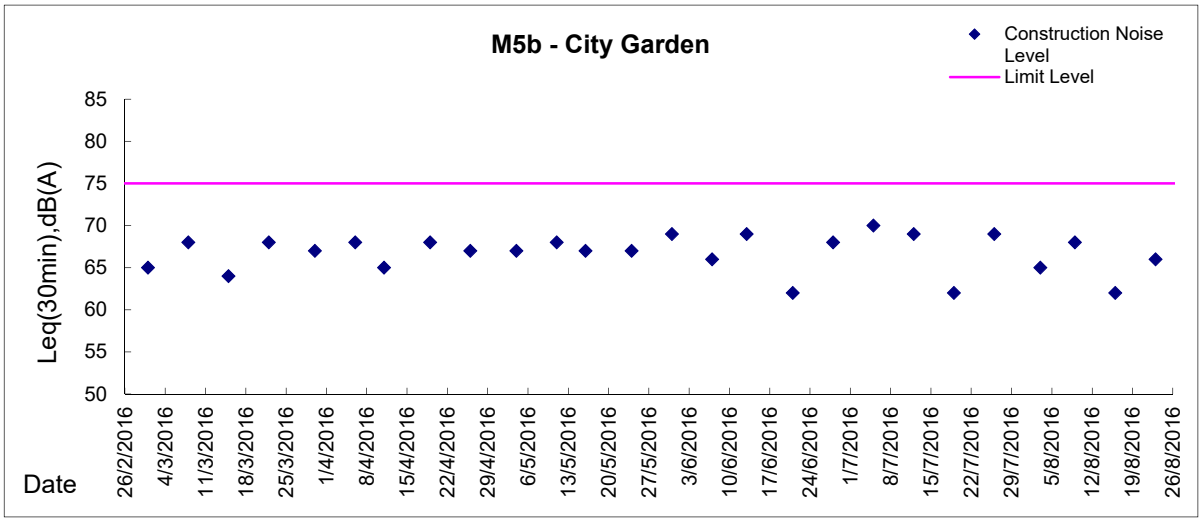


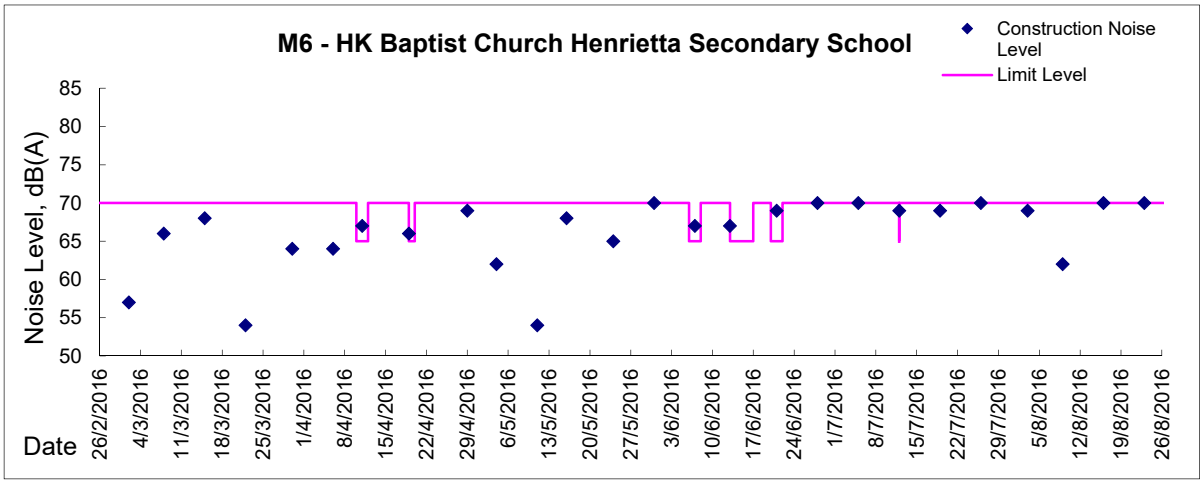


Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

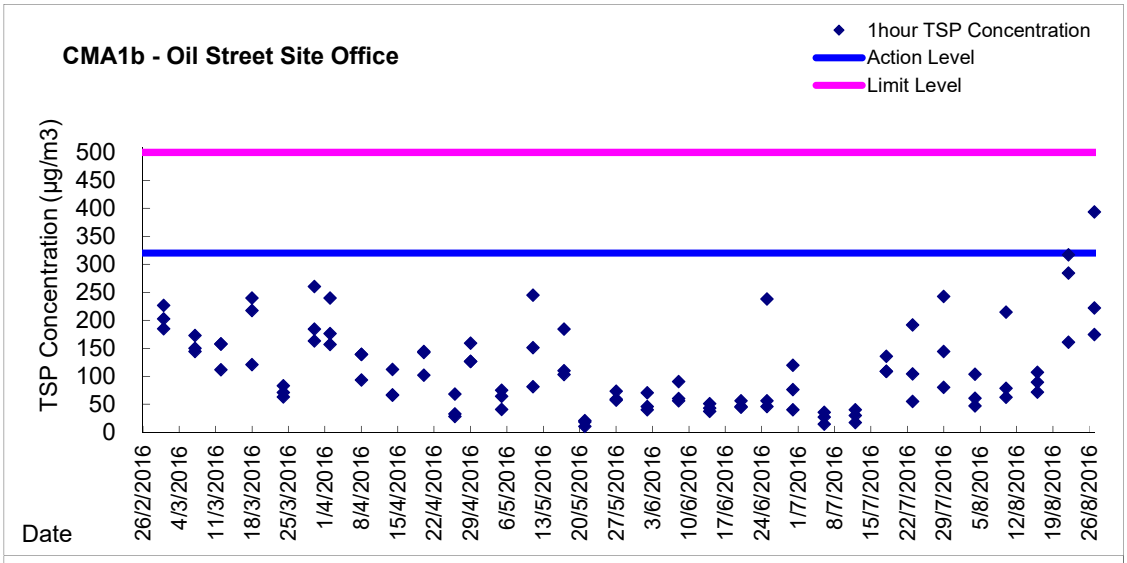


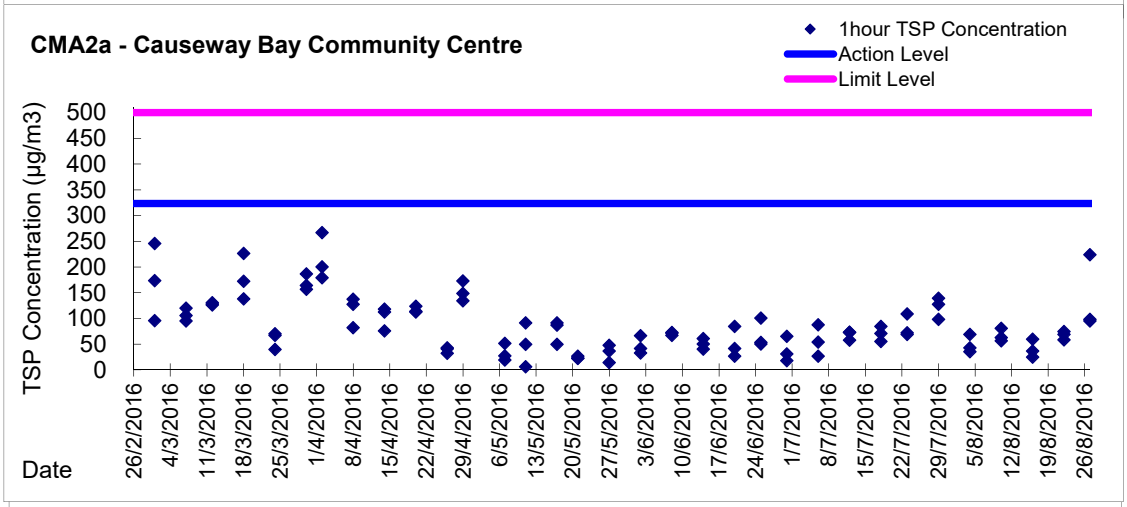


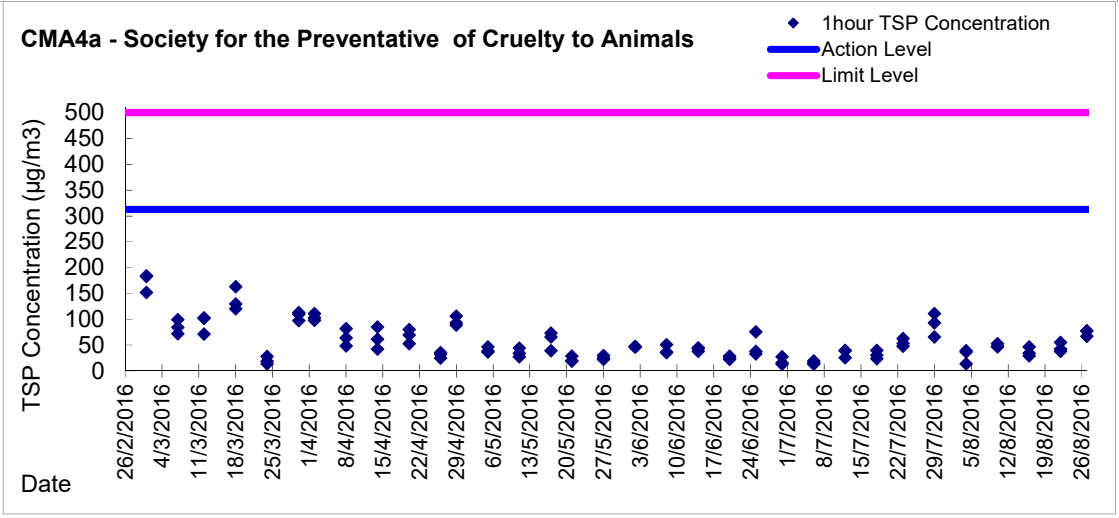


Appendix 4.2
Air Quality Monitoring Graphical Presentations

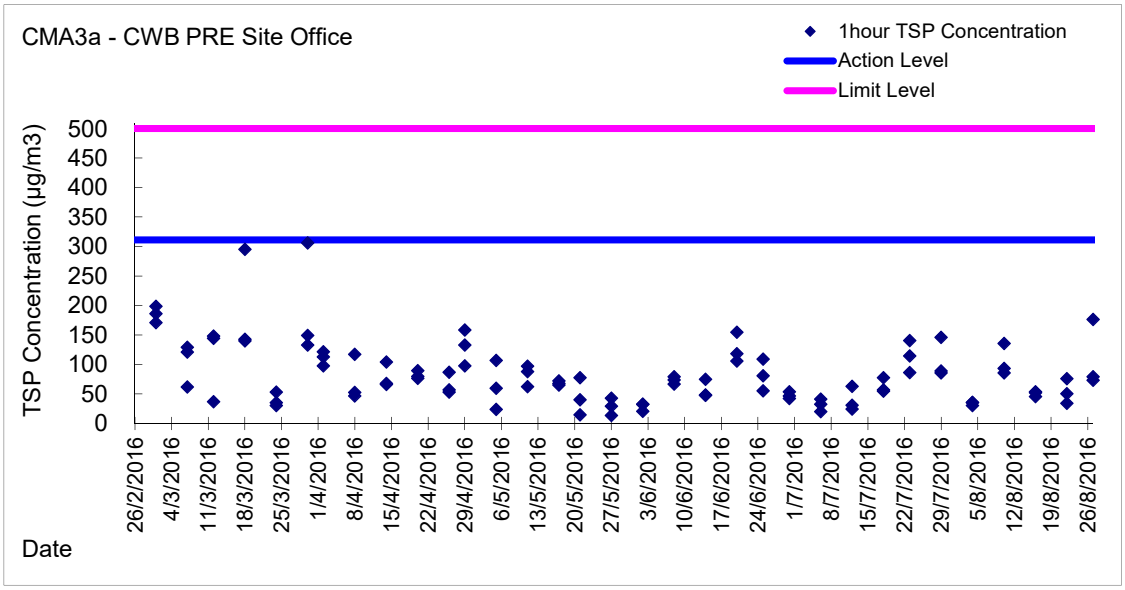
Graphic Presentation of 1 hour TSP Result

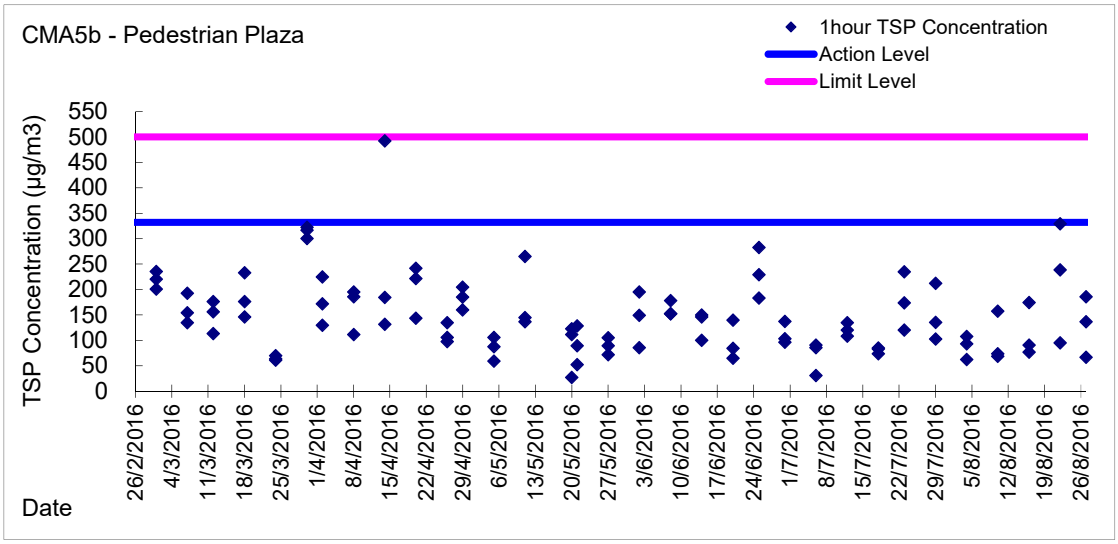


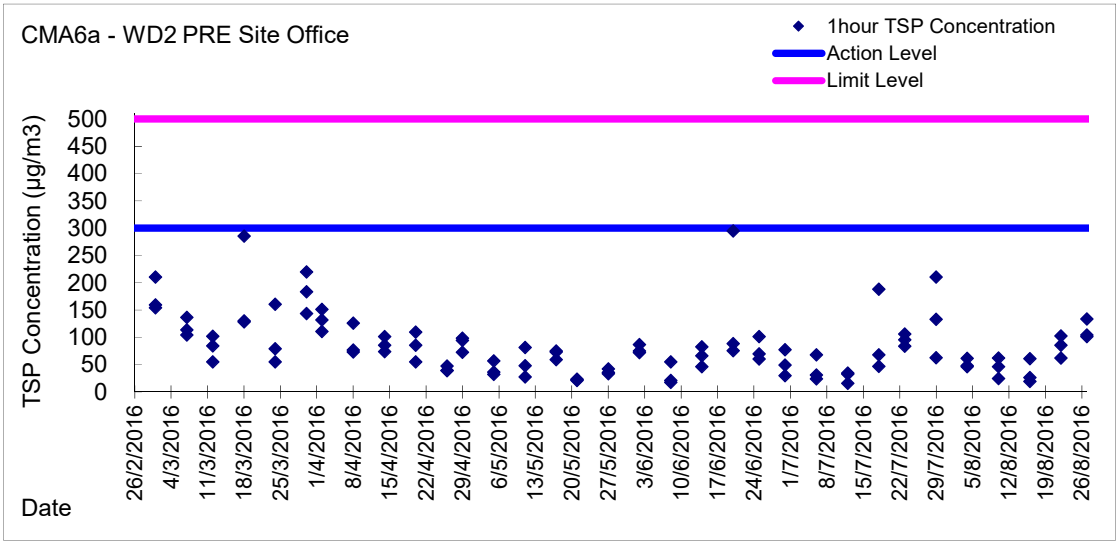




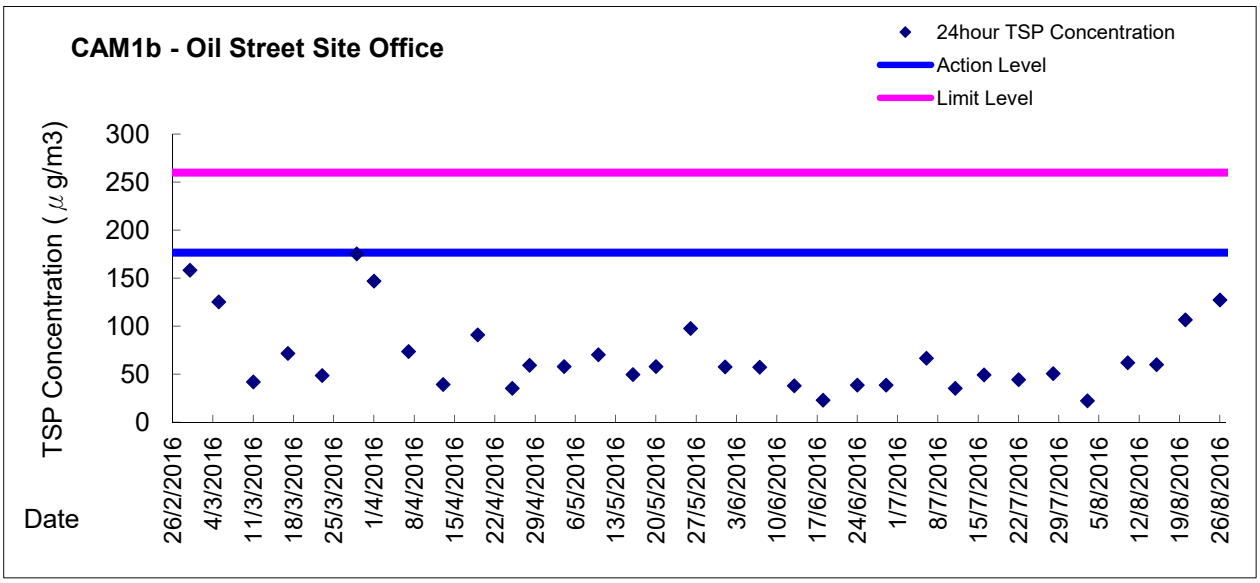
Graphic Presentation of 1 hour TSP Result

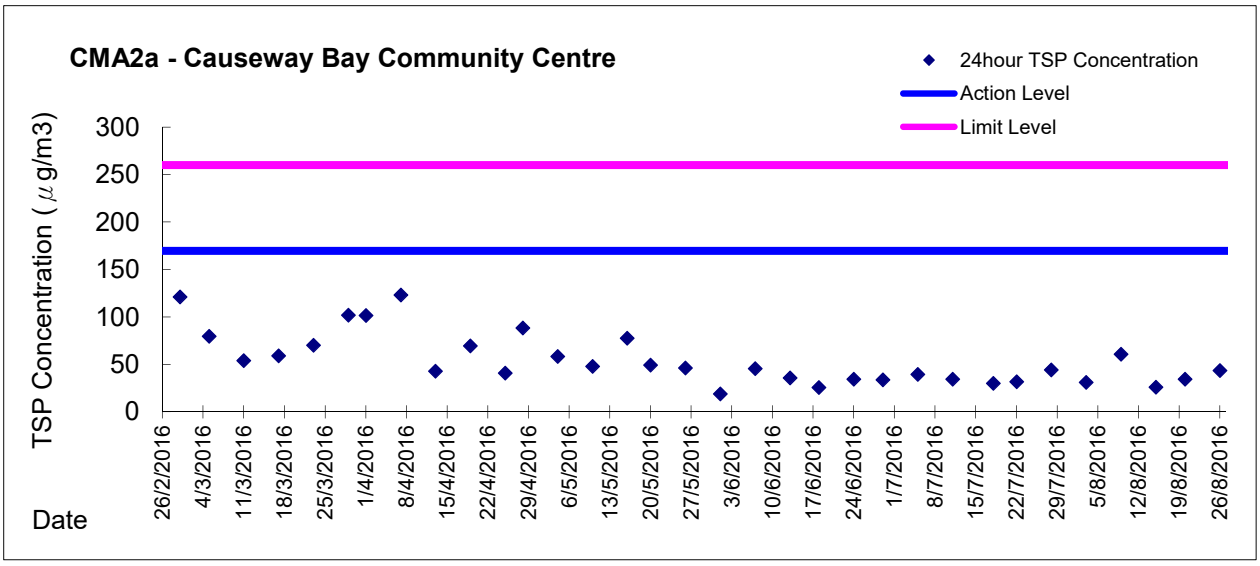


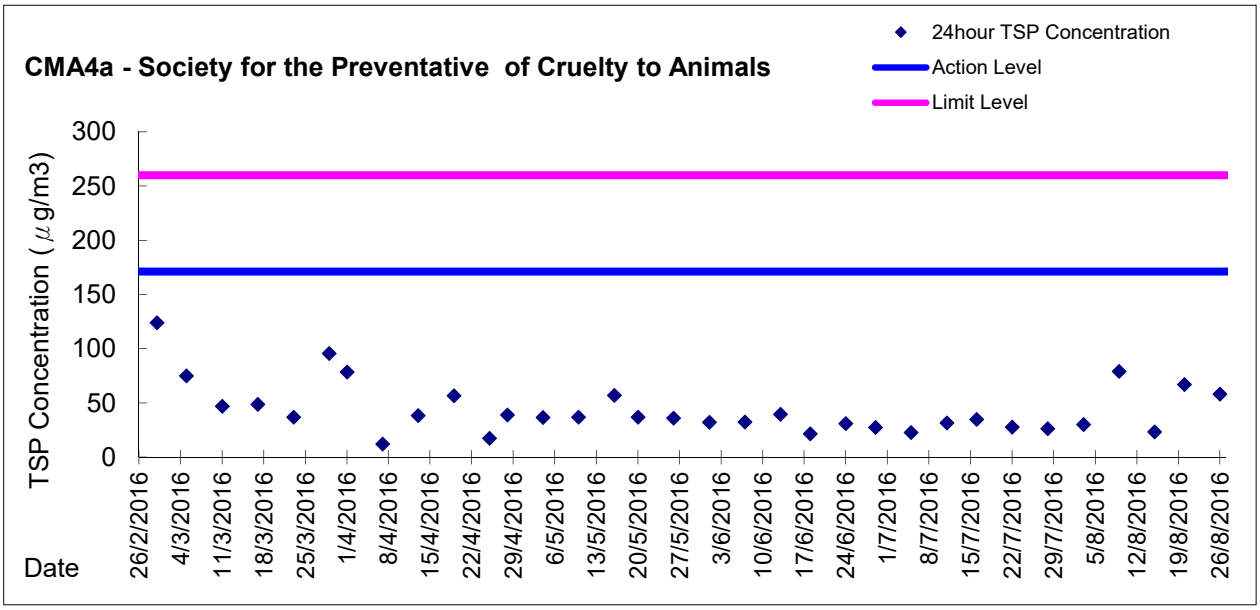




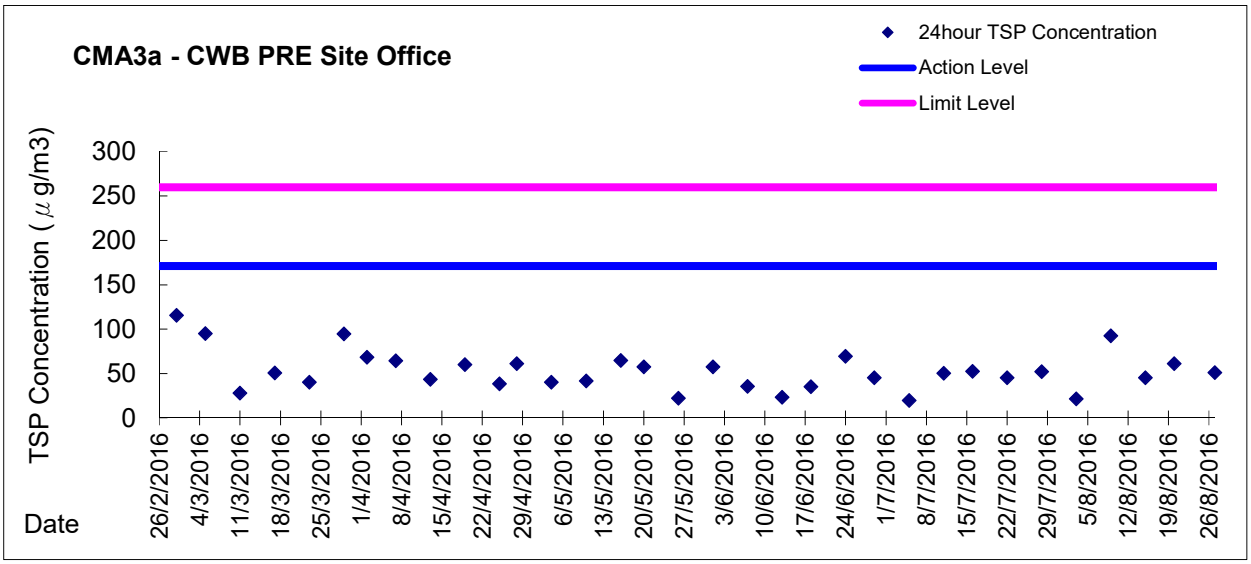
Graphic Presentation of 24 hour TSP Result

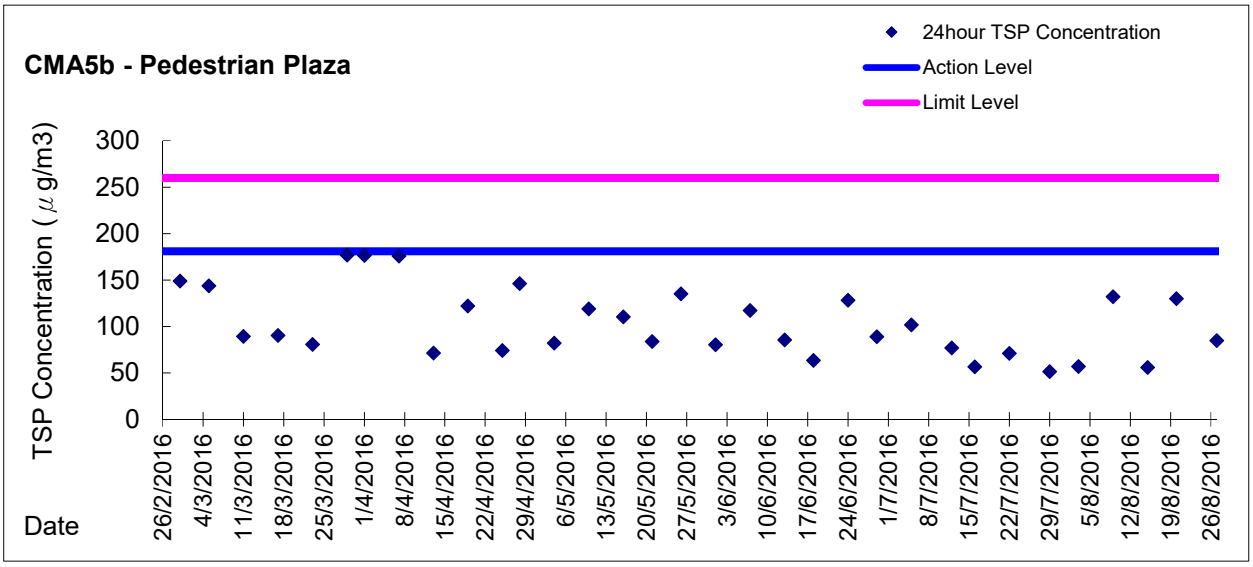


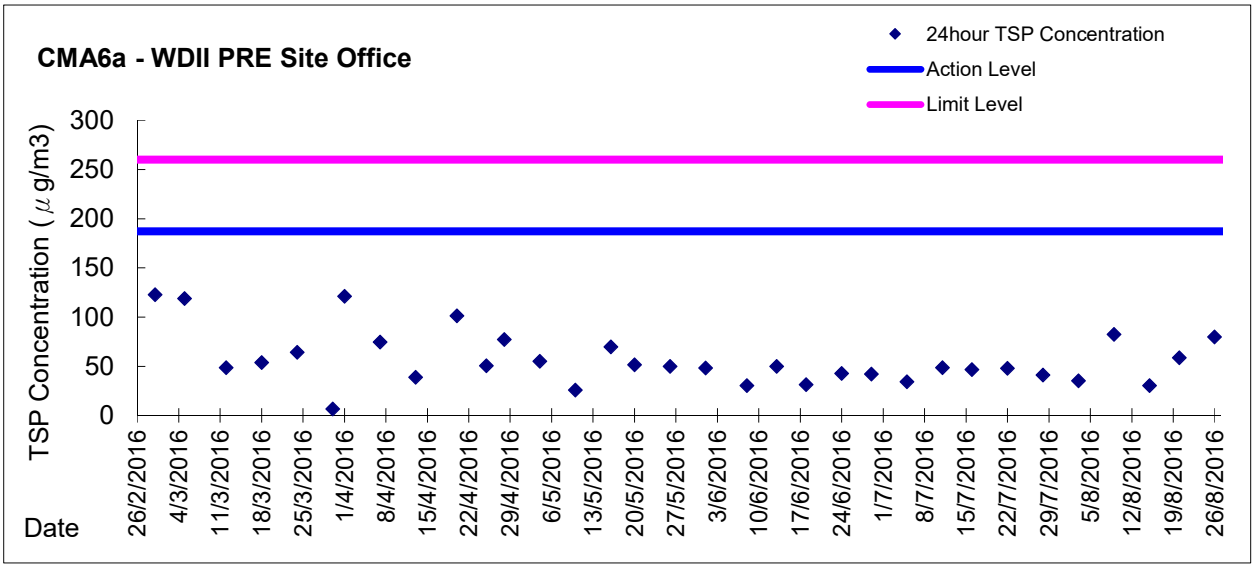




Graphic Presentation of 24 hour TSP Result







Field Data Record Sheet

Monitoring Date: 5 July 2016 **Weather Condition:** Cloudy / Drizzle **Tidal Condition:** Ebb

Temperature: 30.7^{0}C – 34.1^{0}C **Relative Humidity:** 70.2% - 84.3%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	14:09	34.1	72.9	0	/	/	/	0	/	
OP6	14:04	33.9	70.2	1	Seawater	Sea	Persistent	1.3	WSW	
OP5	13:56	33.9	74.3	0	/	/	/	0.7	S	
OP4	13:50	31.2	79.9	1	Mobile Exhaust	Generator & Vehicle	Persistent	0.9	NEN	
OP3	13:43	32.3	78.7	0	/	/	/	1.8	NE	
OP2	13:36	30.7	81.6	0-1	Seawater	Sea	Intermittent	2.2	E	
OP1	13:30	31.2	84.3	0	/	/	/	0.3	N	

Remarks for Odour Intensity: The perceived odour intensity is to be divided into 5 levels which are ranked in the descending order as follows:
0 – Not detected. No odour perceived or an odour so weak that it cannot be easily characterised or described;
1 – Slight Identifiable odour, and slight chance to have odour nuisance;
2 – Moderate Identifiable odour, and moderate chance to have odour nuisance
3 – Strong Identifiable, likely to have odour nuisance;
4 – Extreme Severe odour, and unacceptable level

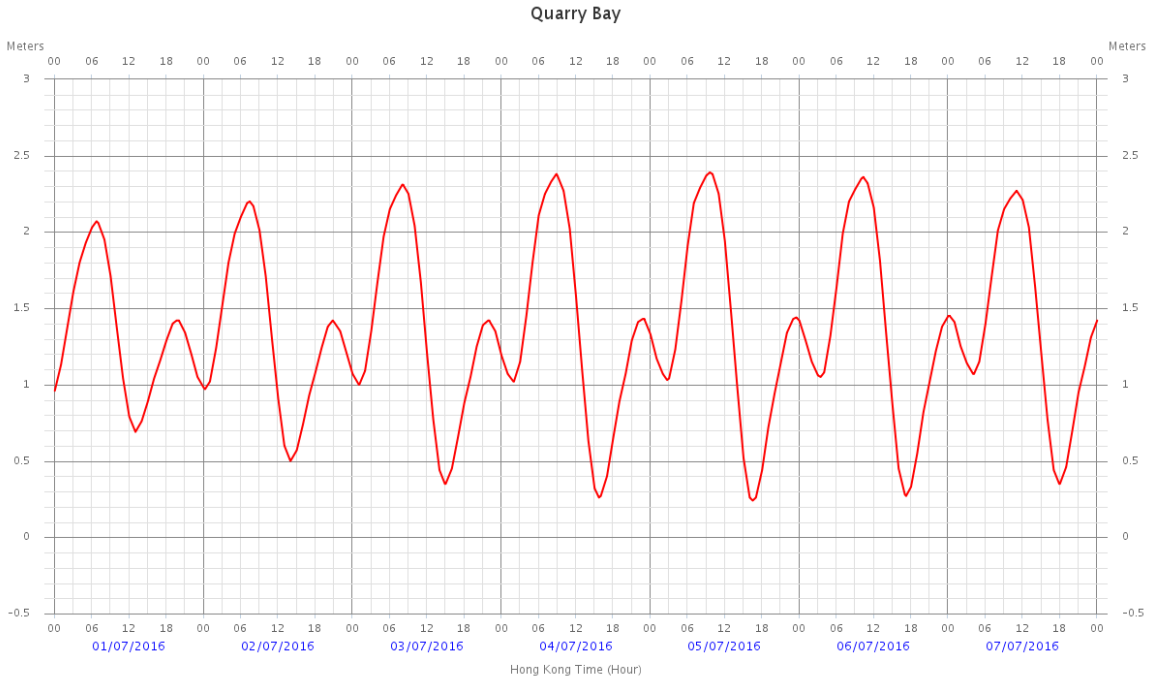
Meteorological Conditions on 5 July 2016

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **25.8 – 32.6** ℃ Relative humidity: **70 – 96%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **26.2 – 32.0** ℃

- **The tidal data at Quarry Bay Station**

Tide Time	Tide Height (m)
02:41	1.0
09:34	2.4
16:29	0.2
23:30	1.4



Field Data Record Sheet

Monitoring Date: 20 July 2016 **Weather Condition:** Fine **Tidal Condition:** Ebb

Temperature: 30.8°C – 35.7°C **Relative Humidity:** 51.1% - 69.3%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	13:30	34.9	51.1	0	/	/	/	2.0	E	
OP6	13:48	35.7	52.1	1	Seawater	Sea	Intermittent	0.5	NW	
OP5	13:42	35.1	58.4	0	/	/	/	0.6	W	
OP4	13:39	34.5	65.0	1	Seawater	Sea	Intermittent	0.5	SW	
OP3	13:29	34.8	65.7	0	/	/	/	0	/	
OP2	13:23	33.2	69.3	0	/	/	/	0	/	
OP1	13:21	30.8	65.6	1	Mobile Exhaust	Vehicle	Persistent	0.9	N	

Remarks for Odour Intensity: The perceived odour intensity is to be divided into 5 levels which are ranked in the descending order as follows:
0 – Not detected. No odour perceived or an odour so weak that it cannot be easily characterised or described;
1 – Slight Identifiable odour, and slight chance to have odour nuisance;
2 – Moderate Identifiable odour, and moderate chance to have odour nuisance
3 – Strong Identifiable, likely to have odour nuisance;
4 – Extreme Severe odour, and unacceptable level

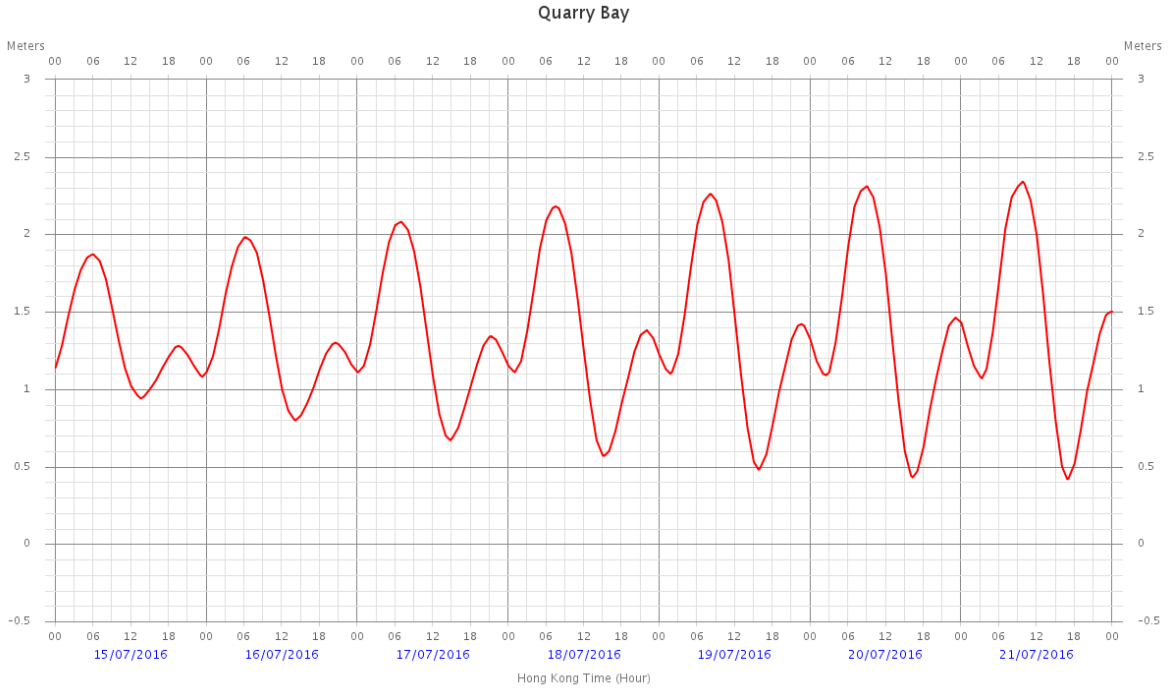
Meteorological Conditions on 20 July 2016

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **25.6 – 31.9** ℃ Relative humidity: **68 – 97%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **24.5 – 32.3** ℃

- **The tidal data at Quarry Bay Station**

Tide Time	Tide Height (m)
02:30	1.1
08:56	2.3
16:16	0.4
23:07	1.5



Field Data Record Sheet

Monitoring Date: 1 August 2016 **Weather Condition:** Cloudy **Tidal Condition:** Ebb

Temperature: 30.0^{0}C – 32.2^{0}C **Relative Humidity:** 68.2% - 78.8%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	14:05	30.5	68.5	0	/	/	/	1.0	NW	
OP6	14:00	31.8	71.6	0-1	Seawater	Sea	Intermittent	0.9	SW	
OP5	13:54	30.8	68.6	0-1	Sewage	Sea	Persistent	1.0	W	
OP4	13:50	32.2	68.2	0	/	/	/	1.9	SW	
OP3	13:44	31.0	72.8	0	/	/	/	0.4	SW	
OP2	13:38	30.2	78.7	1	Seawater	Sea	Intermittent	1.5	NW	
OP1	13:37	30.0	78.8	0-1	Mobile Exhaust	Vehicle	Persistent	0.8	NW	

Remarks for Odour Intensity: The perceived odour intensity is to be divided into 5 levels which are ranked in the descending order as follows:
0 – Not detected. No odour perceived or an odour so weak that it cannot be easily characterised or described;
1 – Slight Identifiable odour, and slight chance to have odour nuisance;
2 – Moderate Identifiable odour, and moderate chance to have odour nuisance
3 – Strong Identifiable, likely to have odour nuisance;
4 – Extreme Severe odour, and unacceptable level

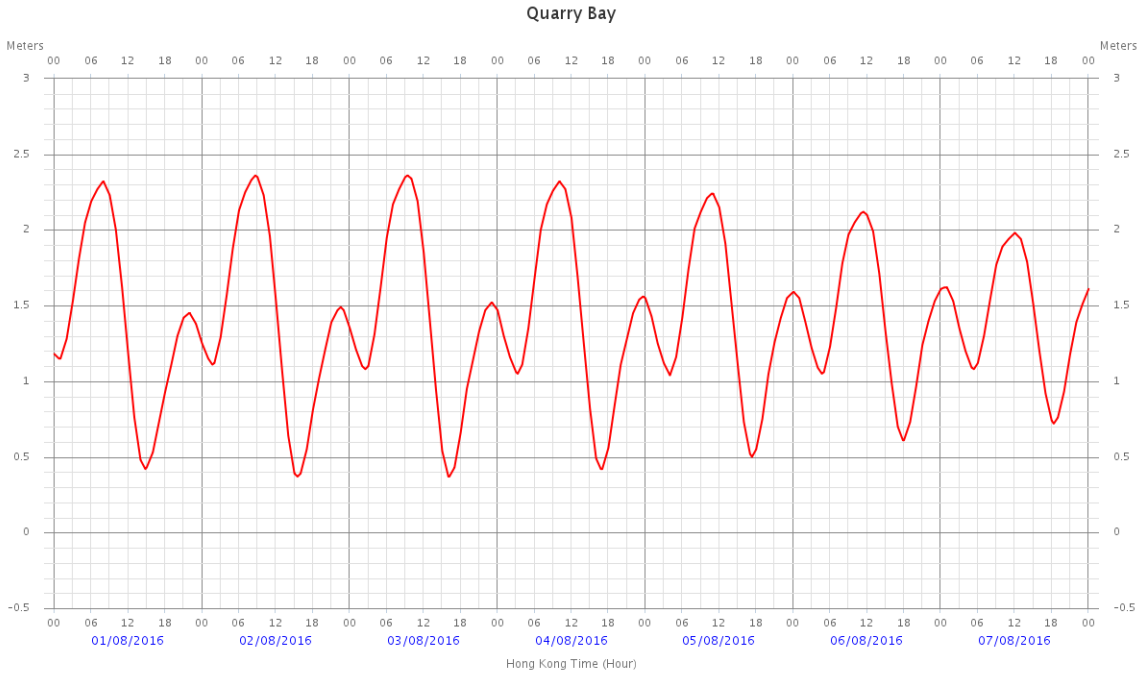
Meteorological Conditions on 1 August 2016

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **26.8 – 31.6** ℃ Relative humidity: **58 – 87%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **25.9 – 32.3** ℃

- **The tidal data at Quarry Bay Station**

Tide Time	Tide Height (m)
00:45	1.1
07:53	2.3
14:47	0.4
21:52	1.5



Field Data Record Sheet

Monitoring Date: 17 August 2016 **Weather Condition:** Cloudy **Tidal Condition:** Ebb

Temperature: 28.9^{0}C – 29.7^{0}C **Relative Humidity:** 76.7% - 85.5%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	14:27	29.7	76.7	0	/	/	/	0.9	E	
OP6	14:23	28.9	77.9	0	/	/	/	1.2	NE	
OP5	14:18	29.0	83.5	0-1	Sewage	Sea	Intermittent	2.0	SW	
OP4	14:13	29.4	81.9	0-1	Sewage	Sea	Intermittent	0.0	/	
OP3	14:06	29.5	82.3	0-1	Seawater	Sea	Persistent	1.5	NE	
OP2	14:02	29.5	83.3	0	/	/	/	1.2	S	
OP1	13:59	29.5	85.5	0	/	/	/	0.6	E	

Remarks for Odour Intensity: The perceived odour intensity is to be divided into 5 levels which are ranked in the descending order as follows:
0 – Not detected. No odour perceived or an odour so weak that it cannot be easily characterised or described;
1 – Slight Identifiable odour, and slight chance to have odour nuisance;
2 – Moderate Identifiable odour, and moderate chance to have odour nuisance
3 – Strong Identifiable, likely to have odour nuisance;
4 – Extreme Severe odour, and unacceptable level

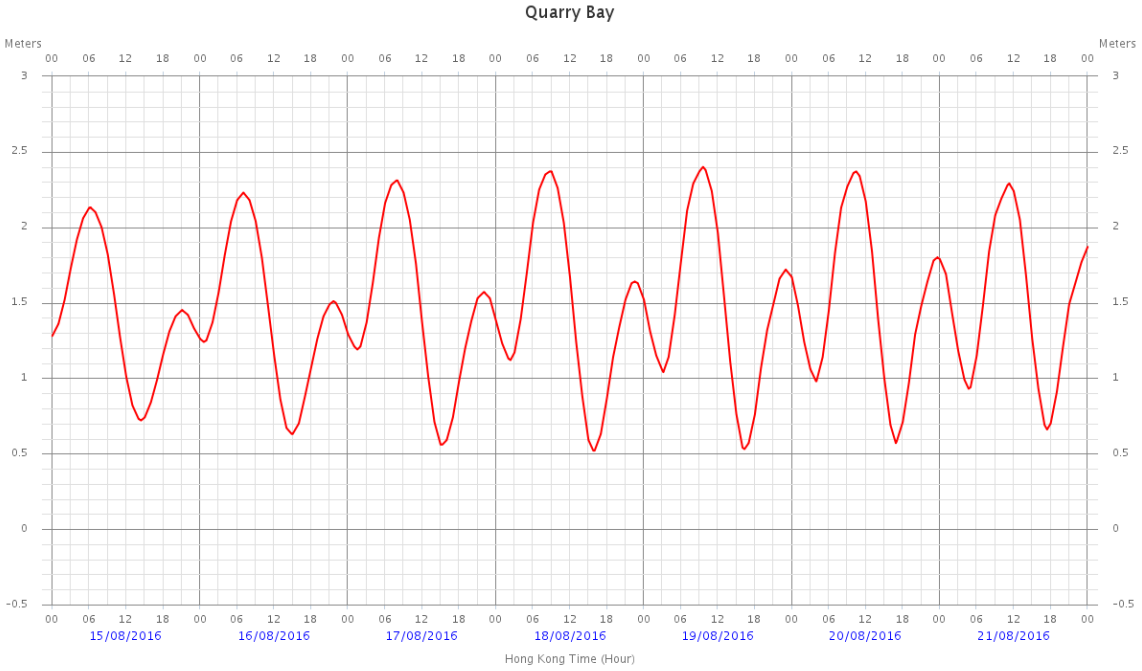
Meteorological Conditions on 17 August 2016

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **25.3 – 28.0** ℃ Relative humidity: **91 – 98%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **24.8 – 27.3** ℃

- **The tidal data at Quarry Bay Station**

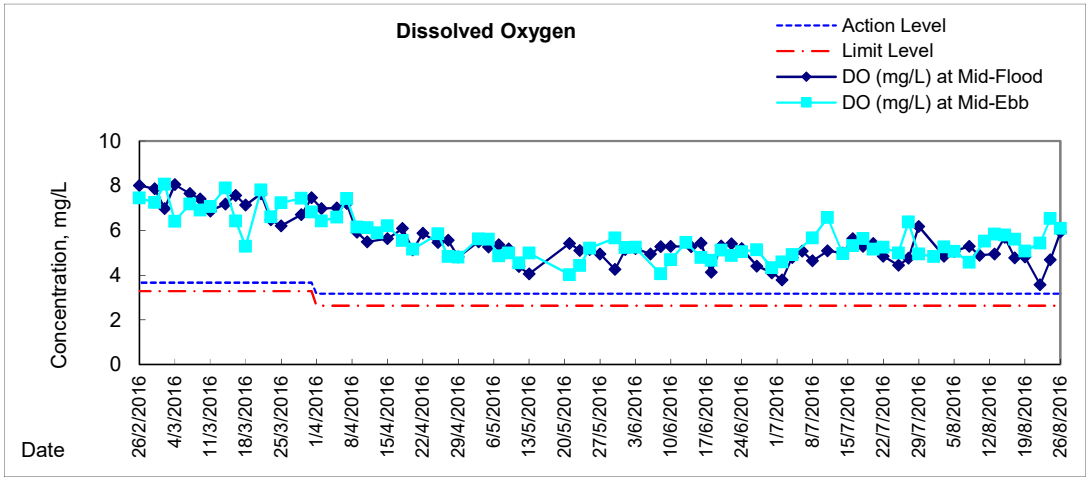
Tide Time	Tide Height (m)
01:30	1.2
07:51	2.3
15:18	0.6
22:04	1.6

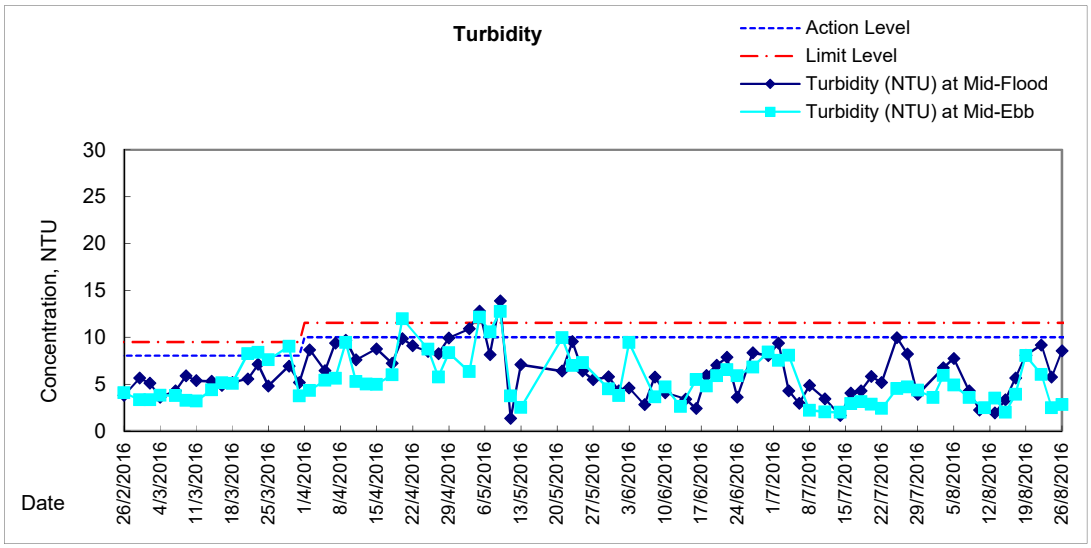


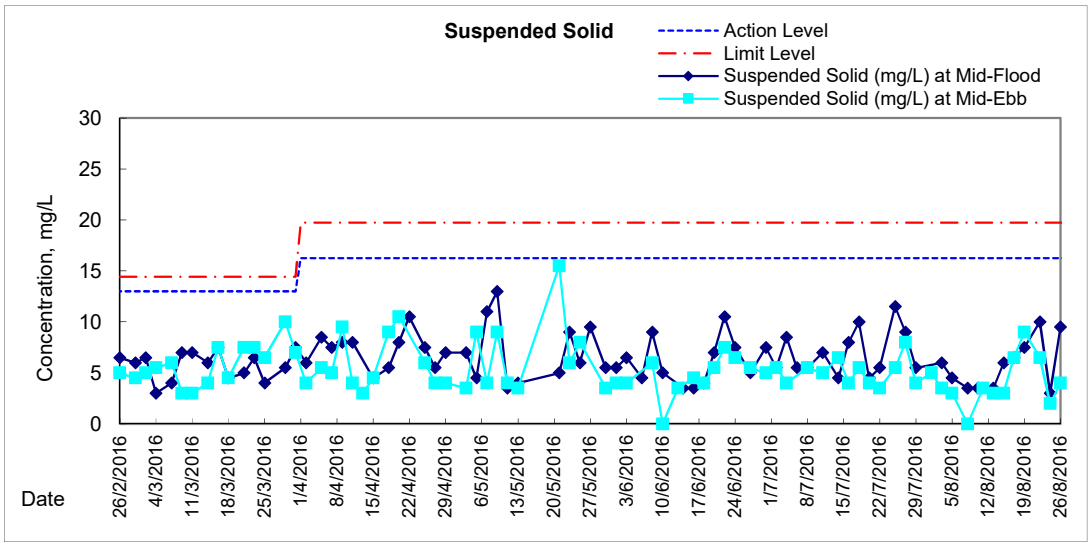
Appendix 4.3

Water Quality Monitoring Graphical Presentations

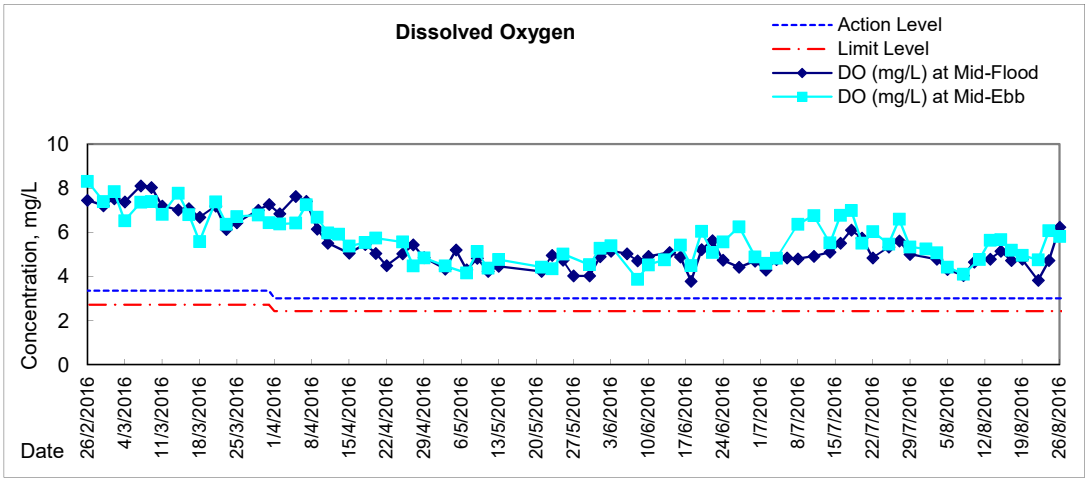
Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan

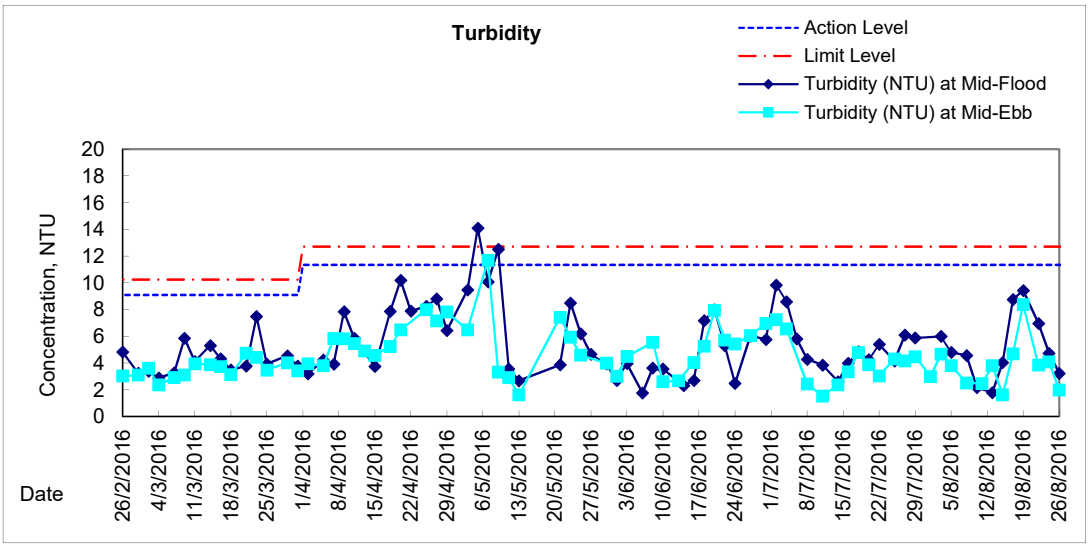


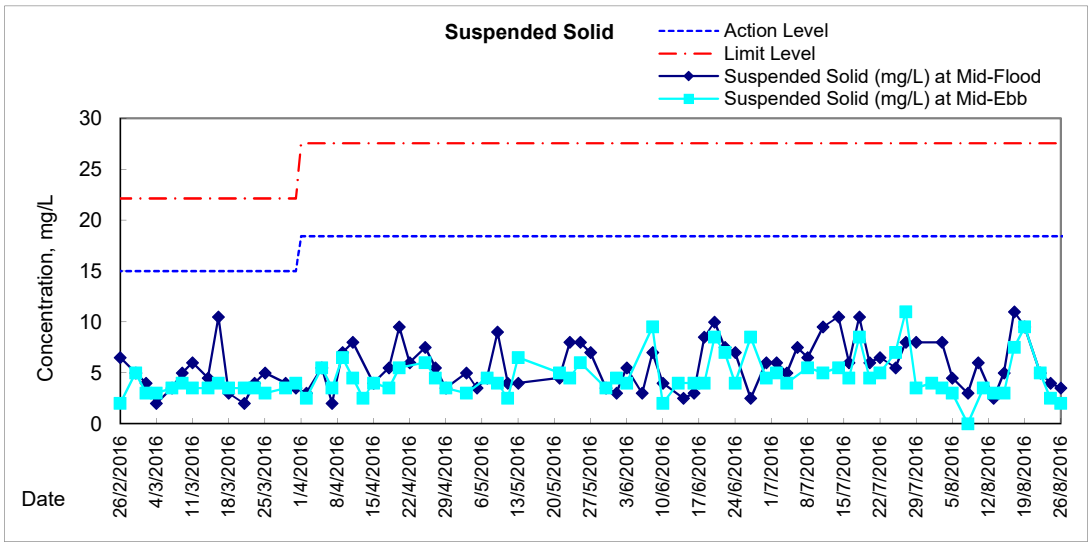




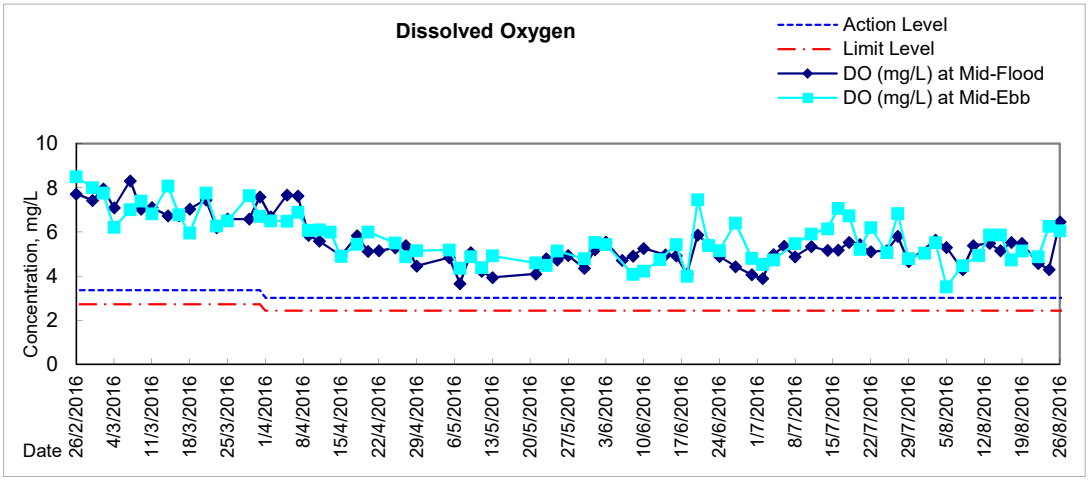
Graphic Presentation of Water Quality Result of C1 - HKCEC

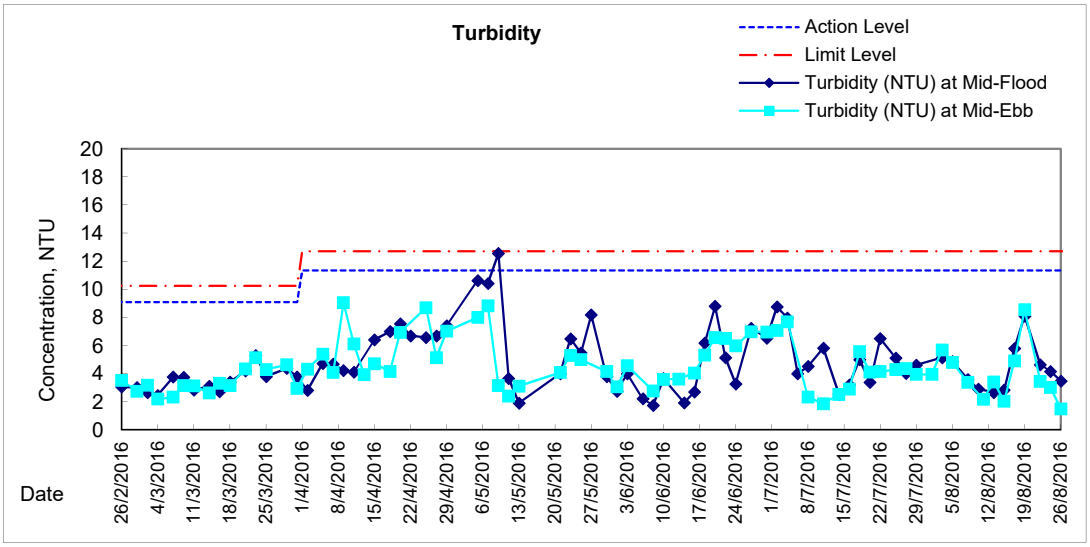


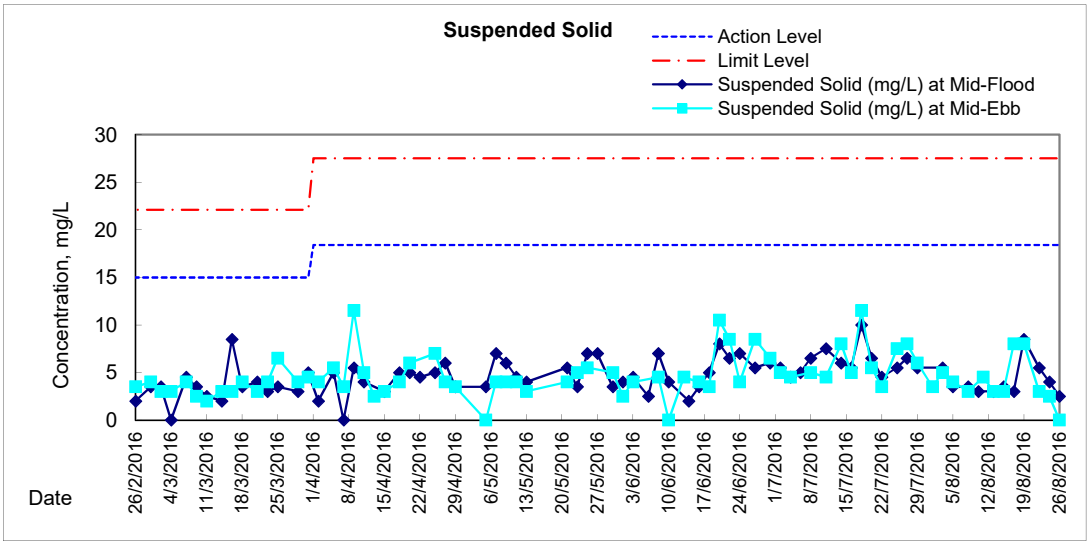




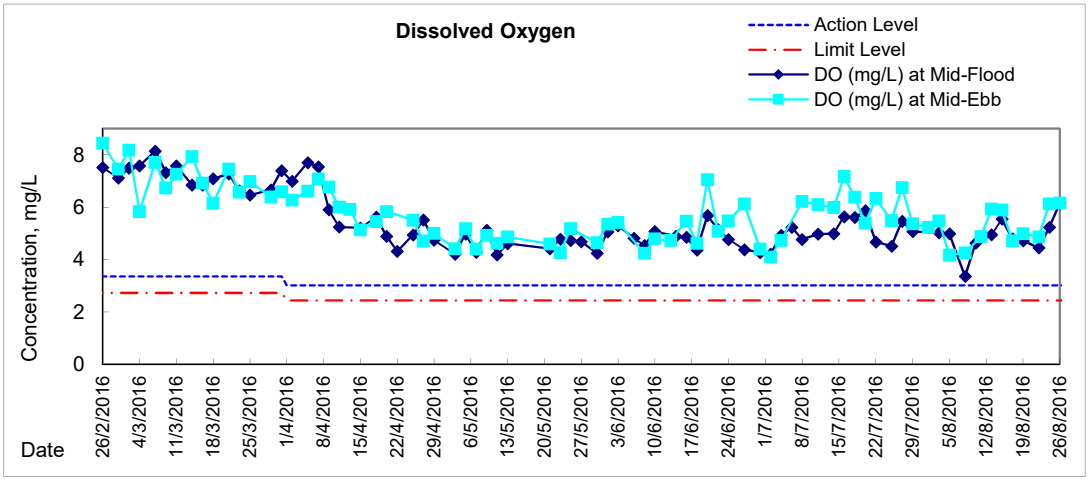
Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I

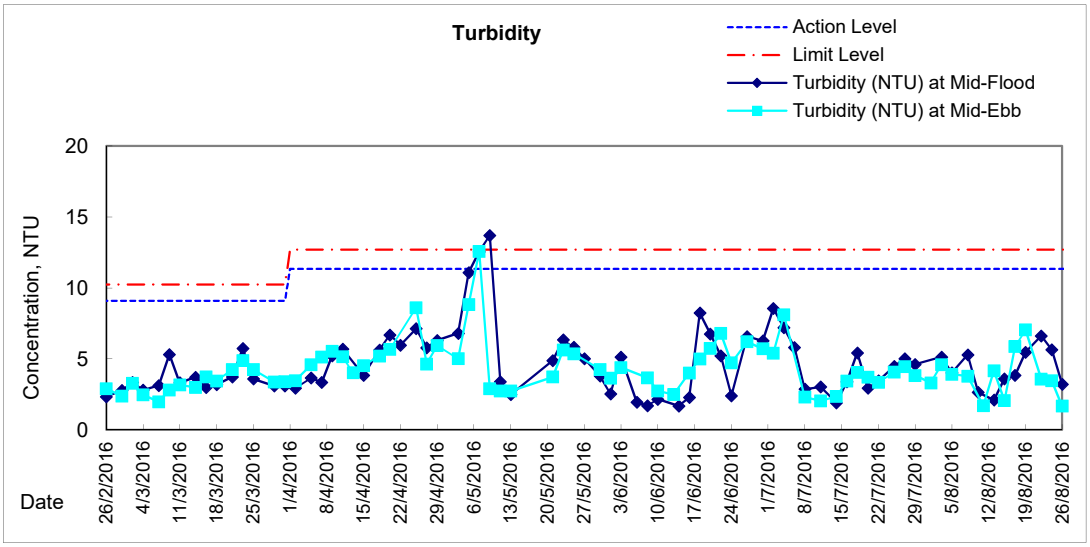


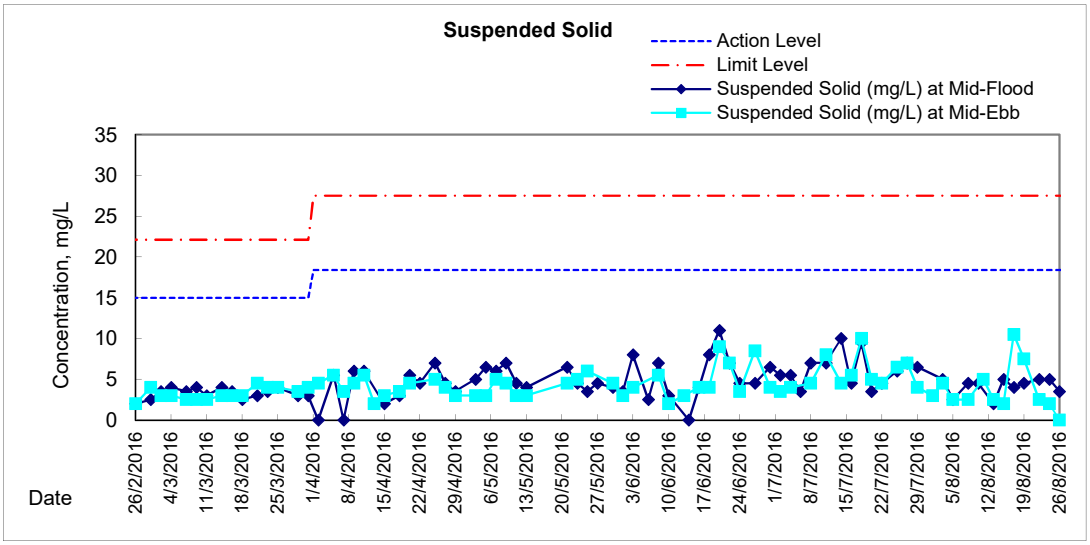




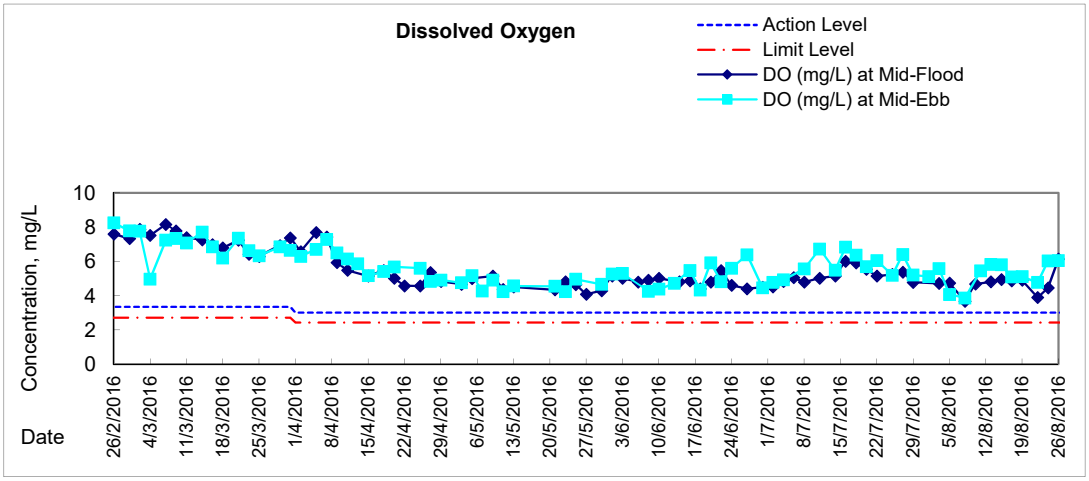
Graphic Presentation of Water Quality Result of P3 - APA

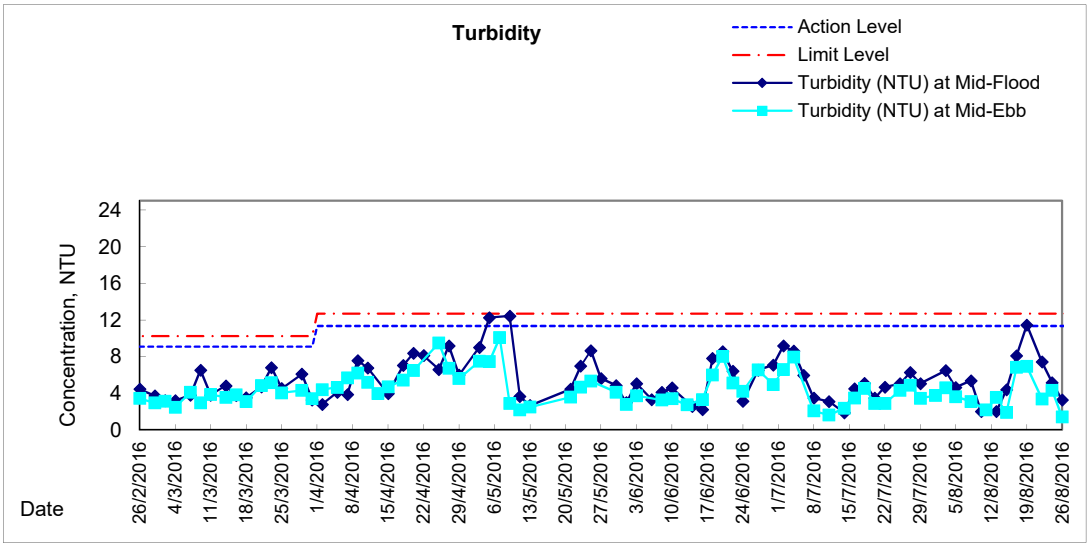


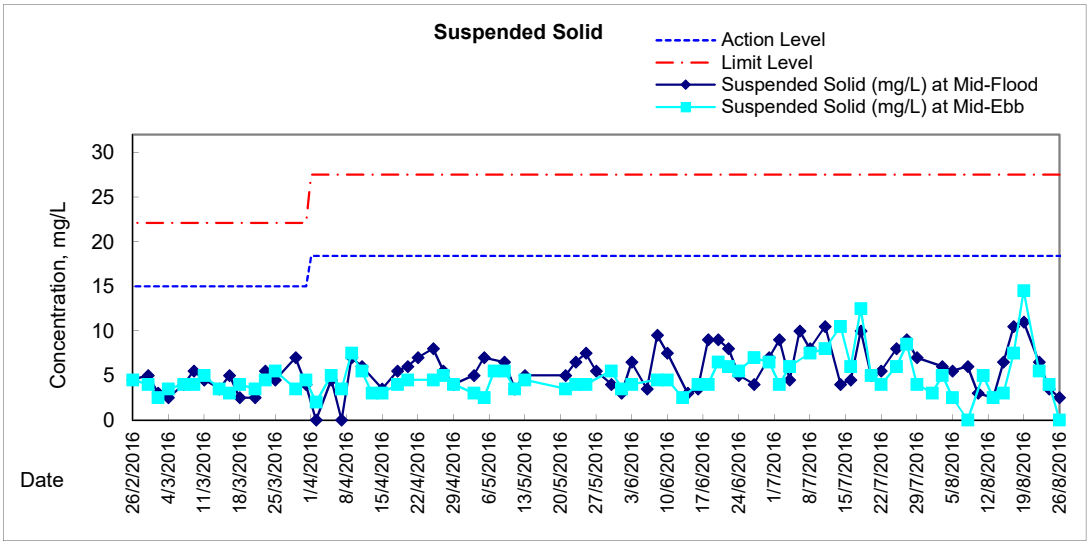




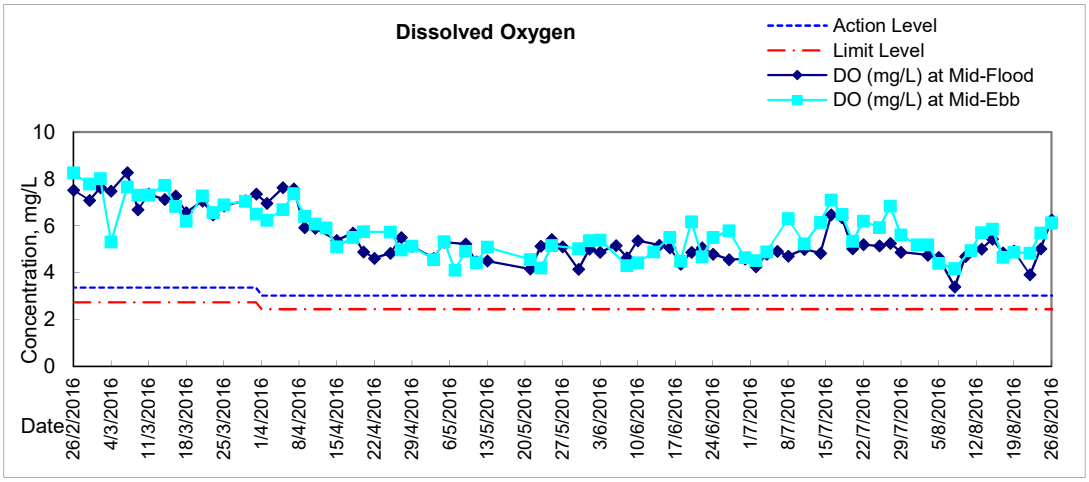
Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT

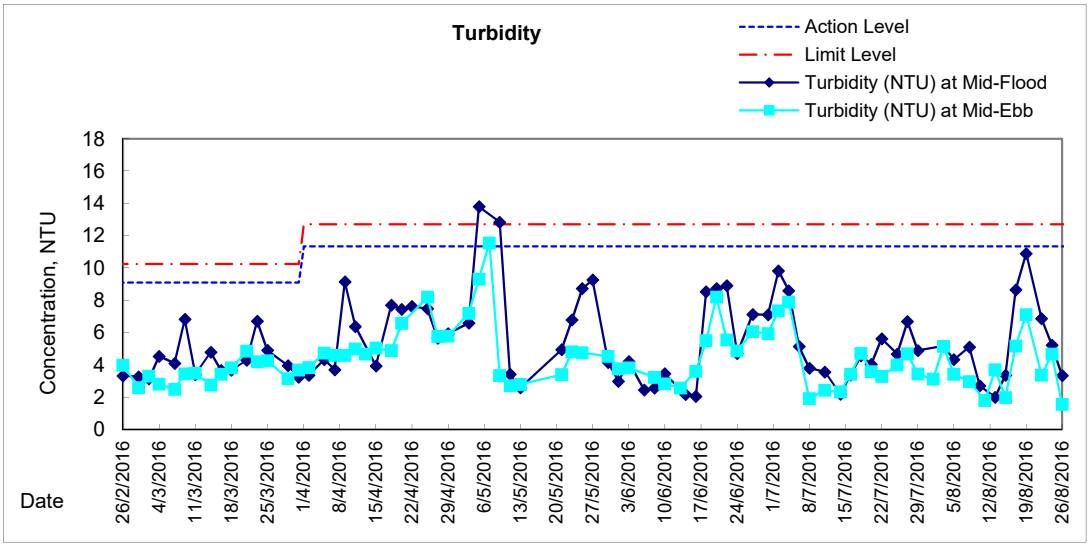


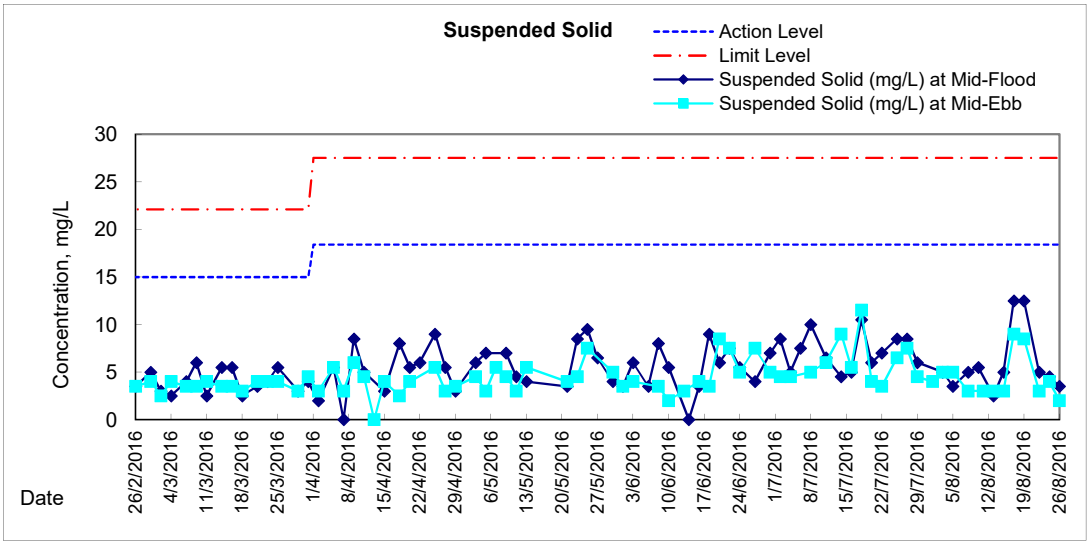




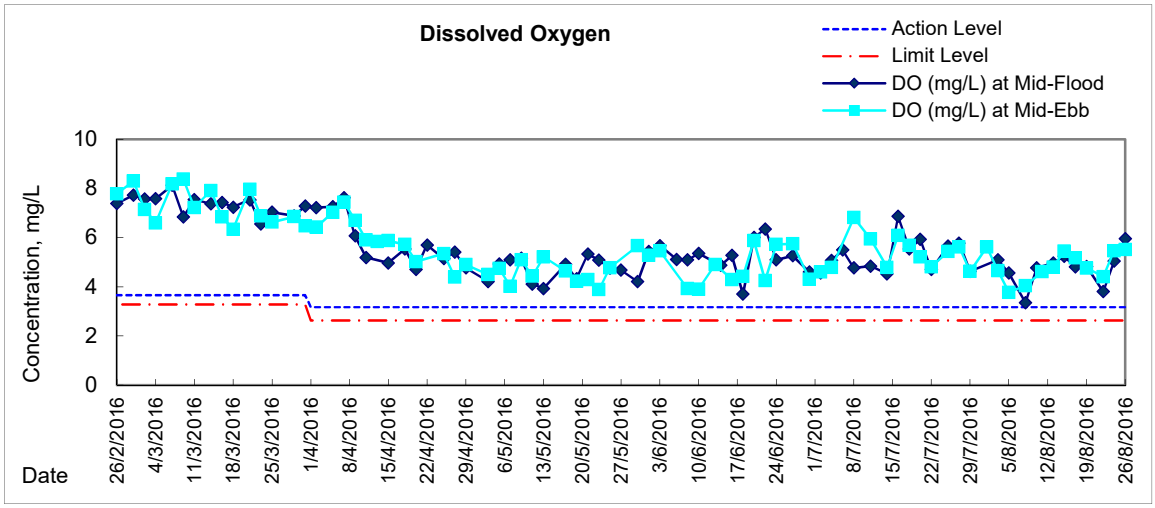
Graphic Presentation of Water Quality Result of P4 - SOC

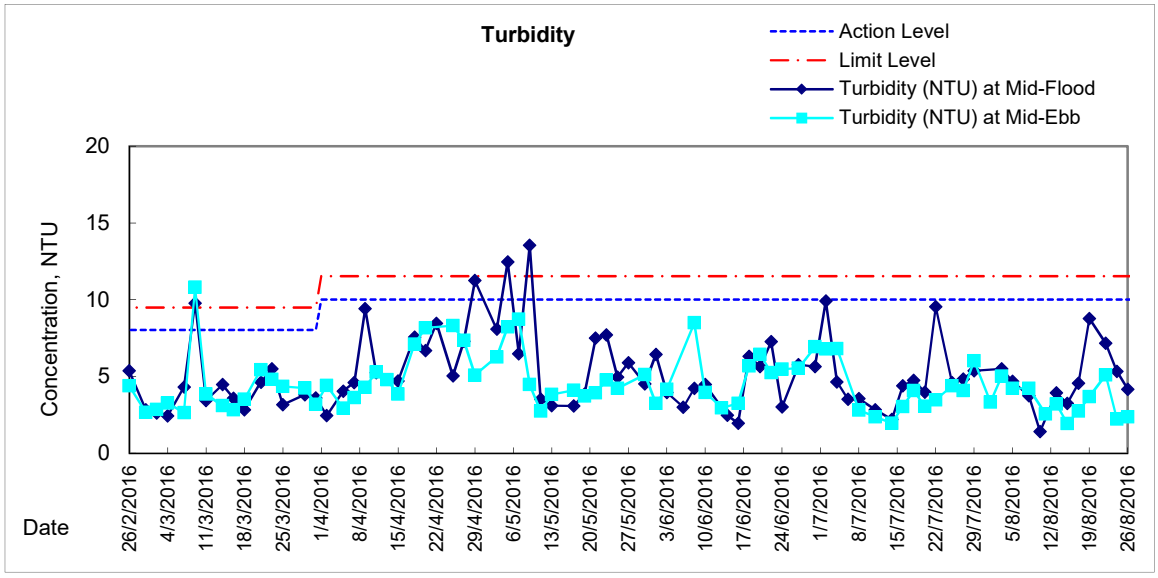


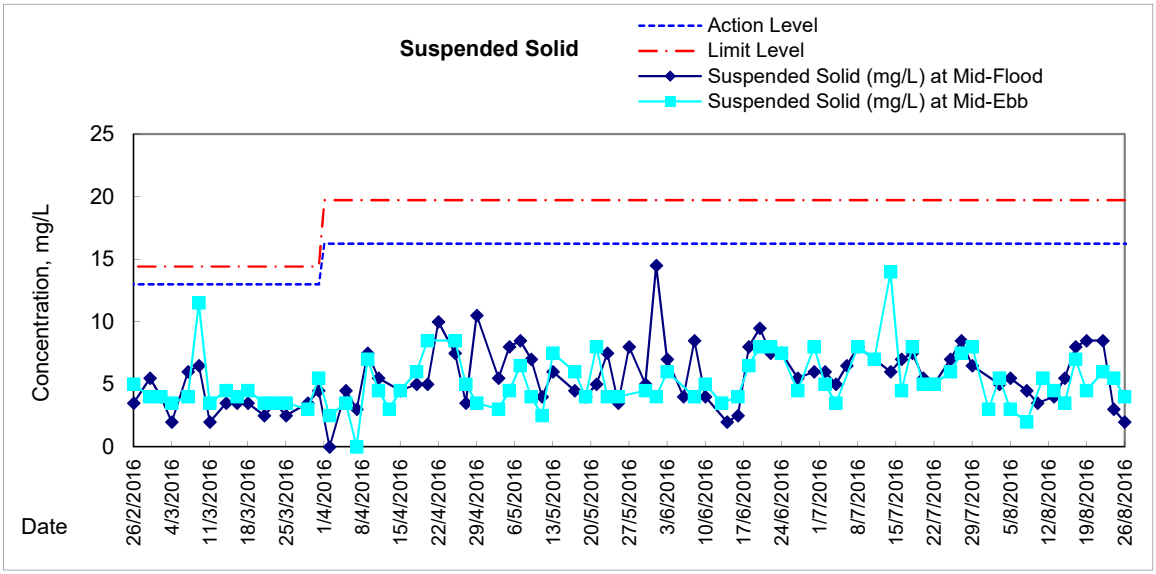




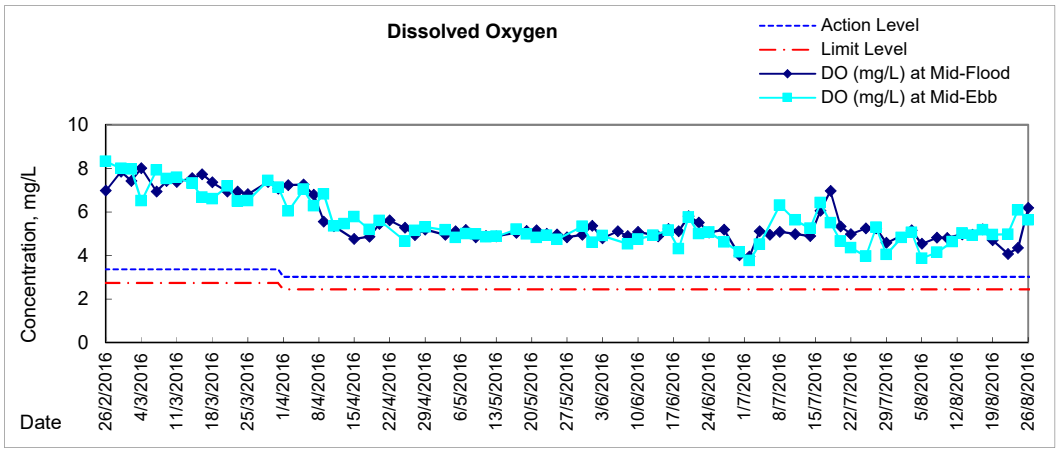
Graphic Presentation of Water Quality Result of RW21-P789 - GEC/CRC/SHK

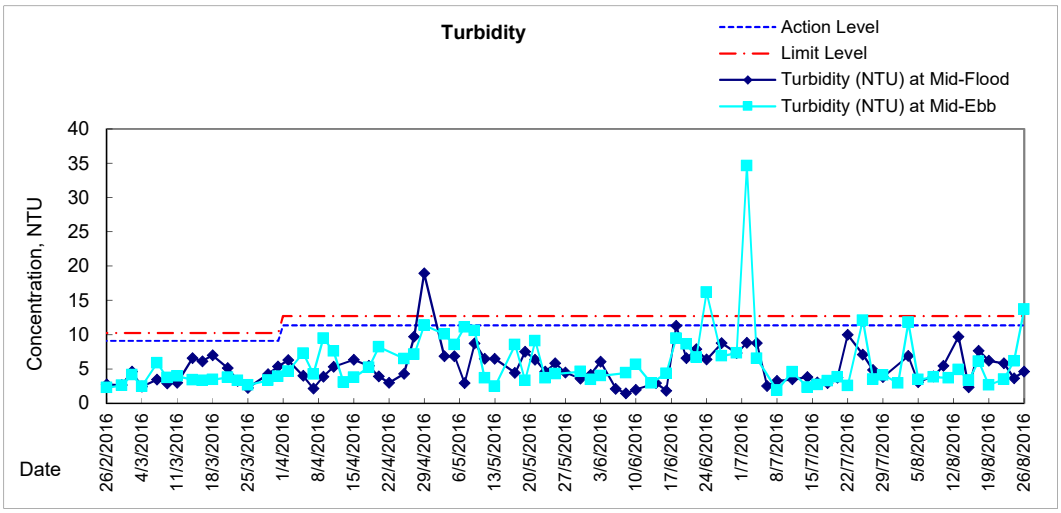


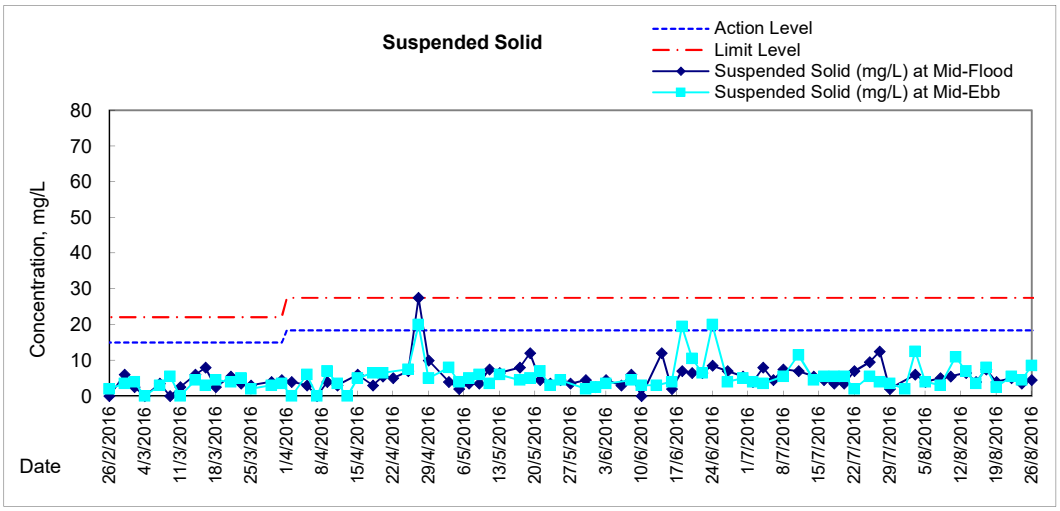




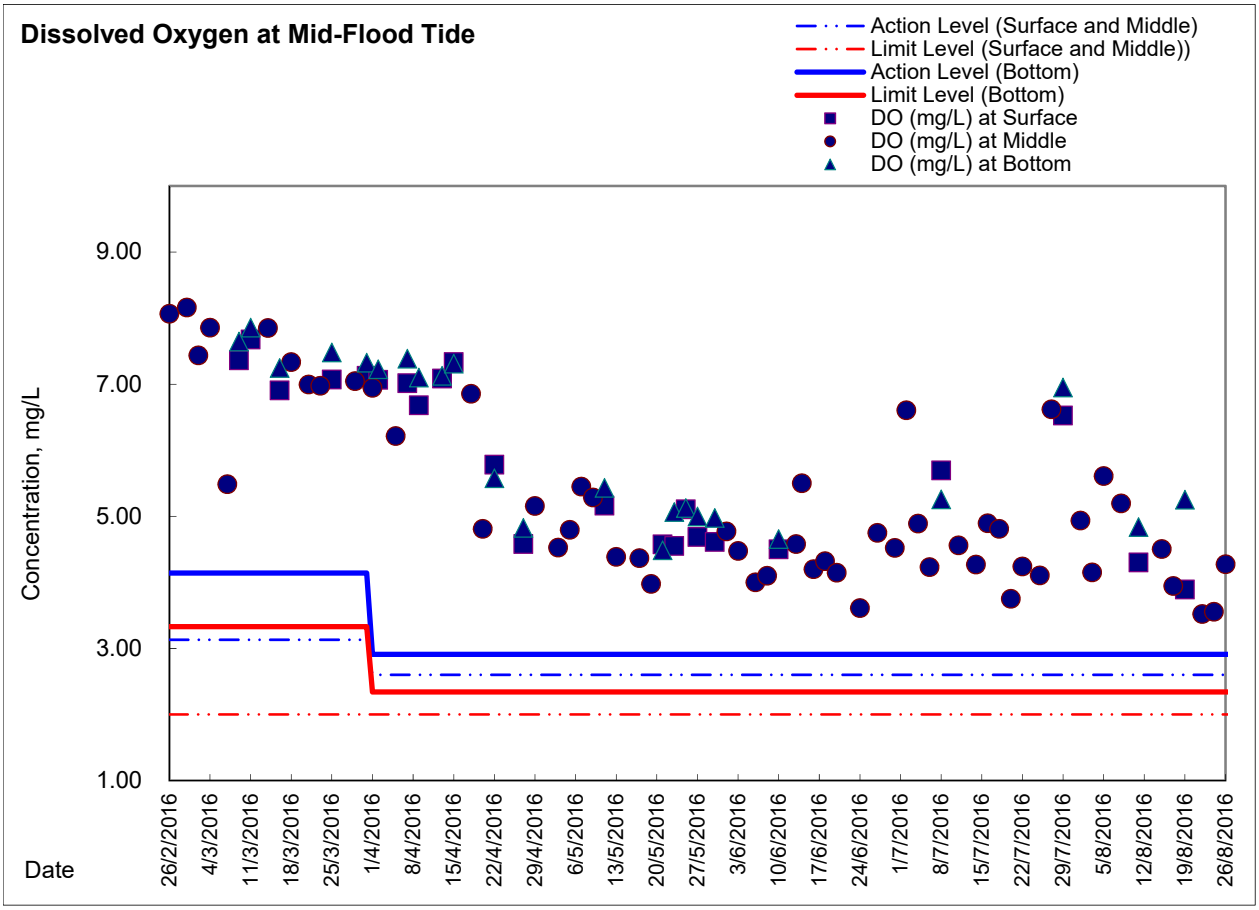
Graphic Presentation of Water Quality Result of C7 - Windsor House

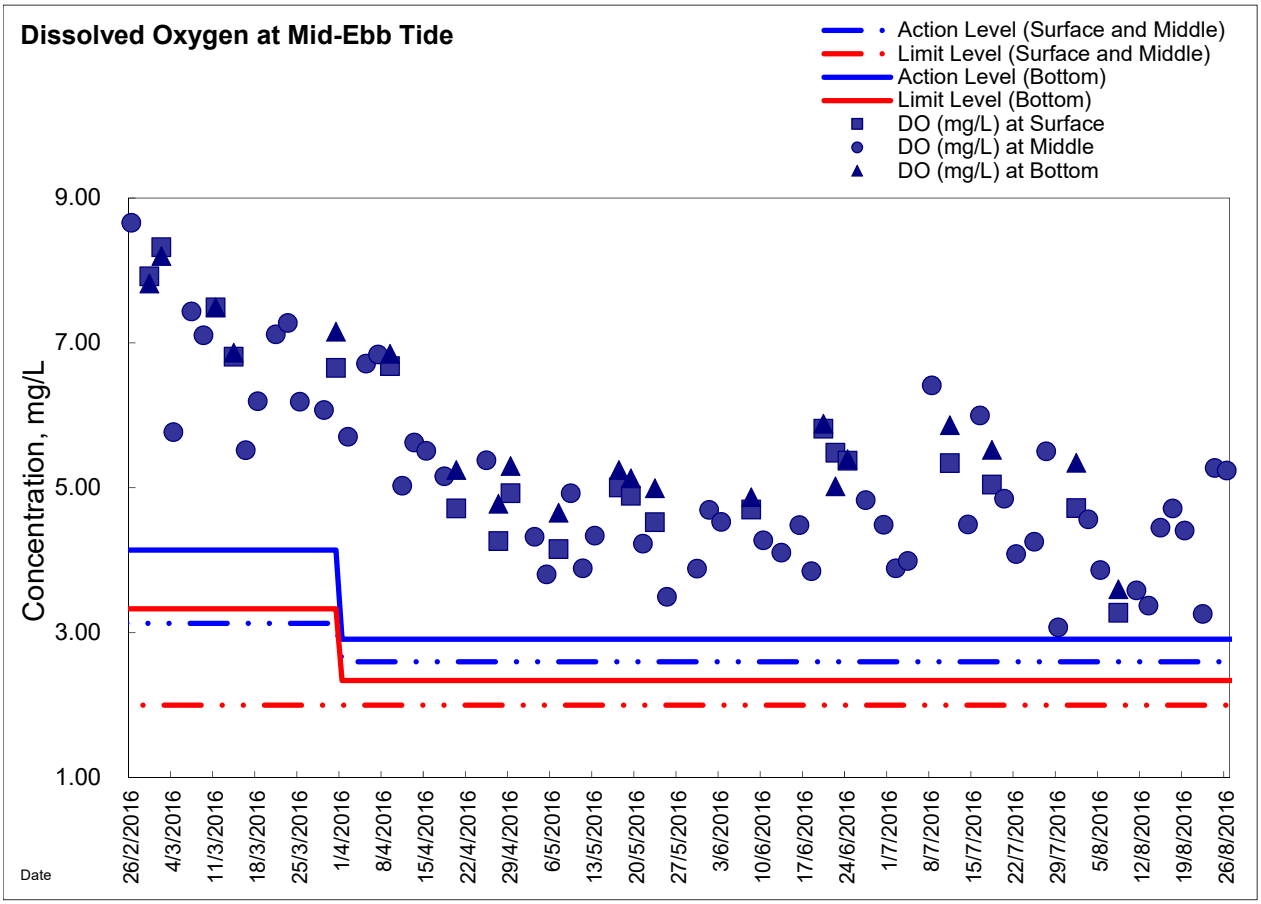




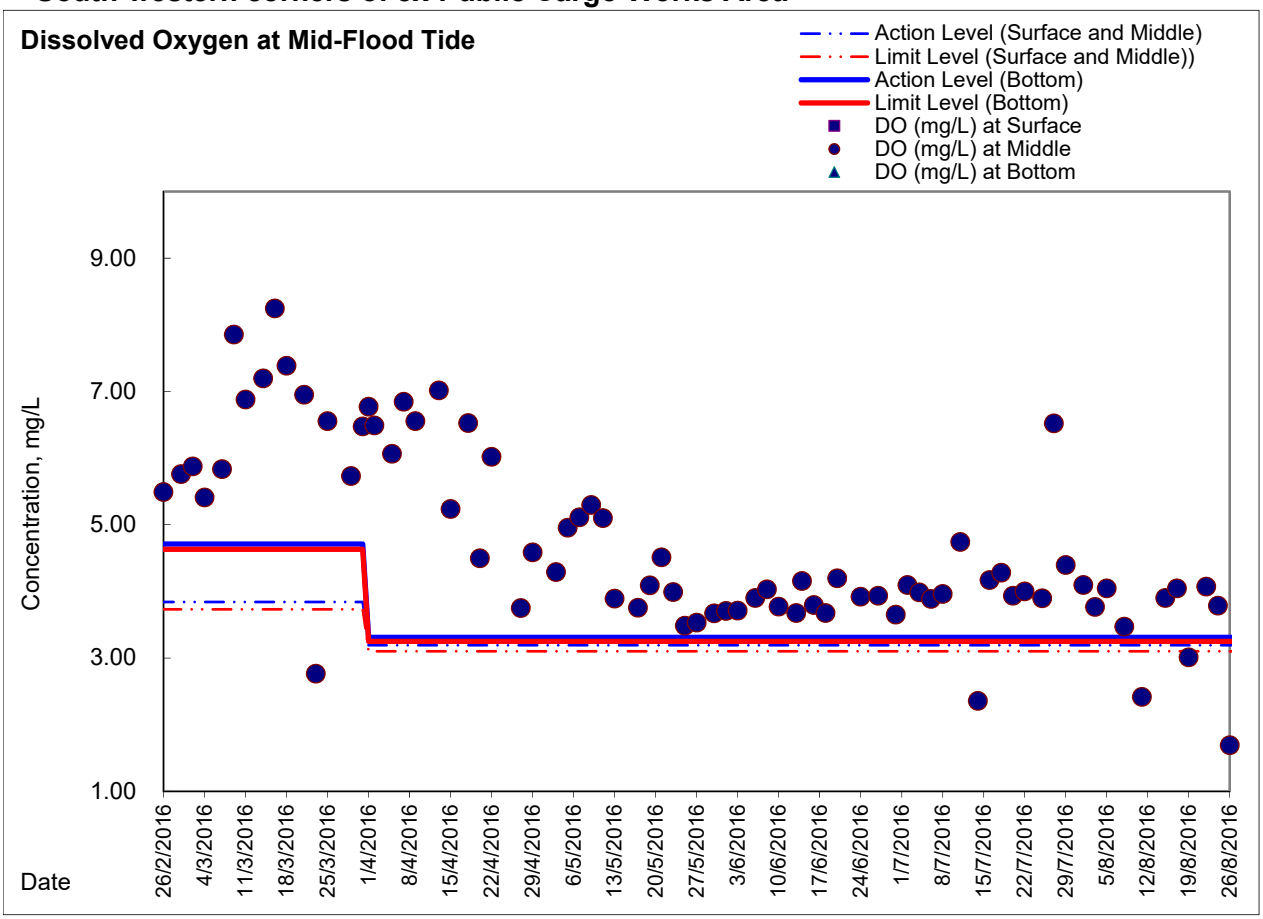


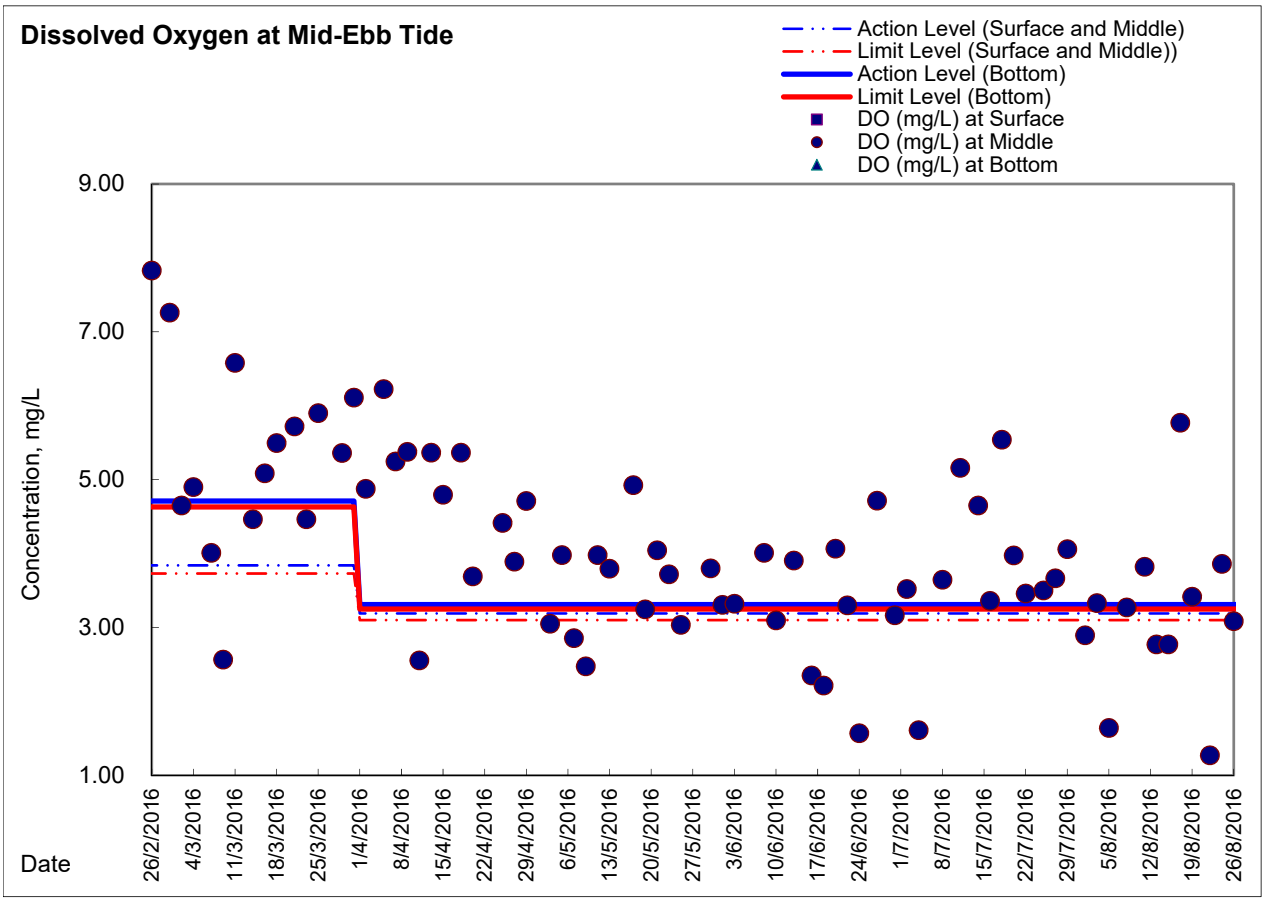
Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel



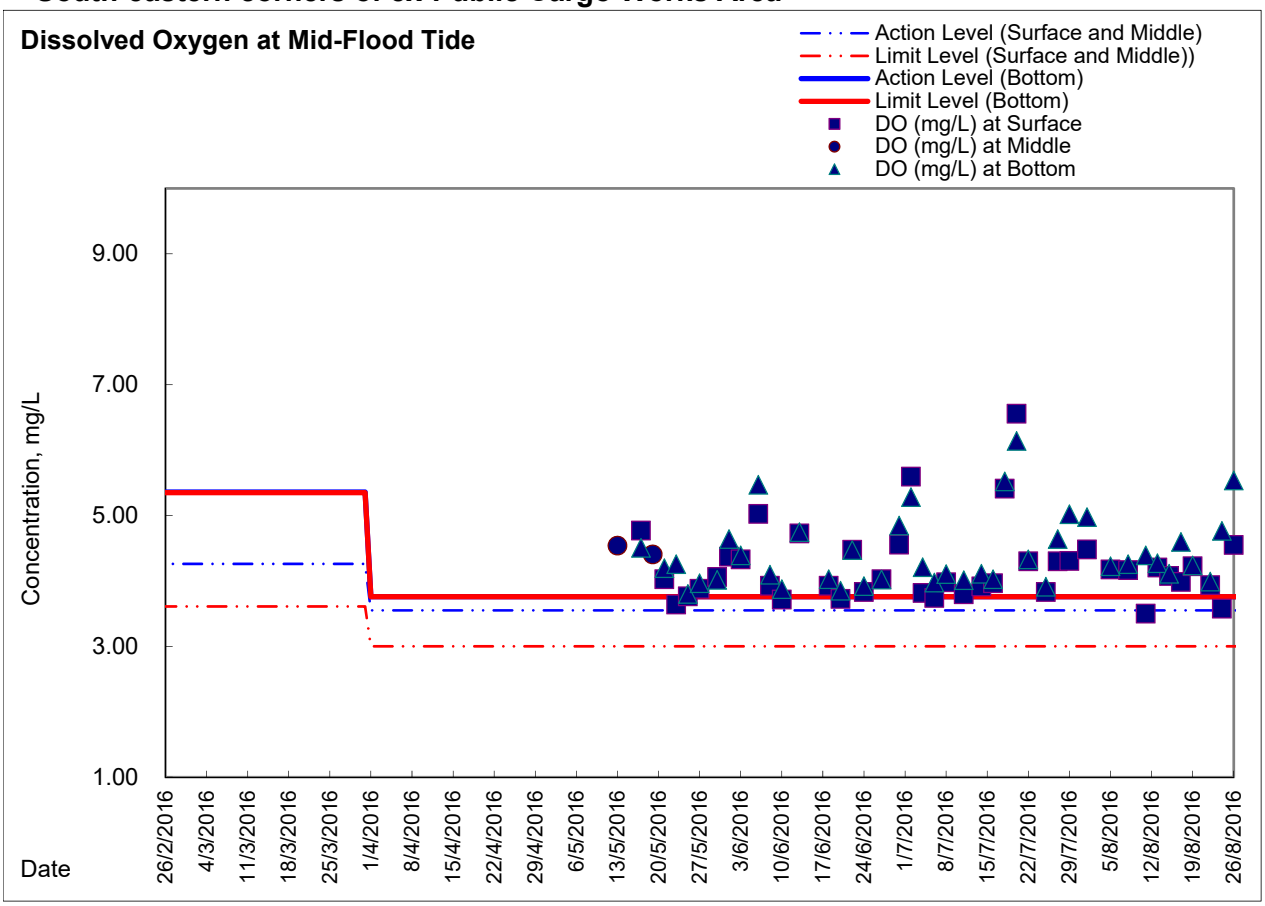


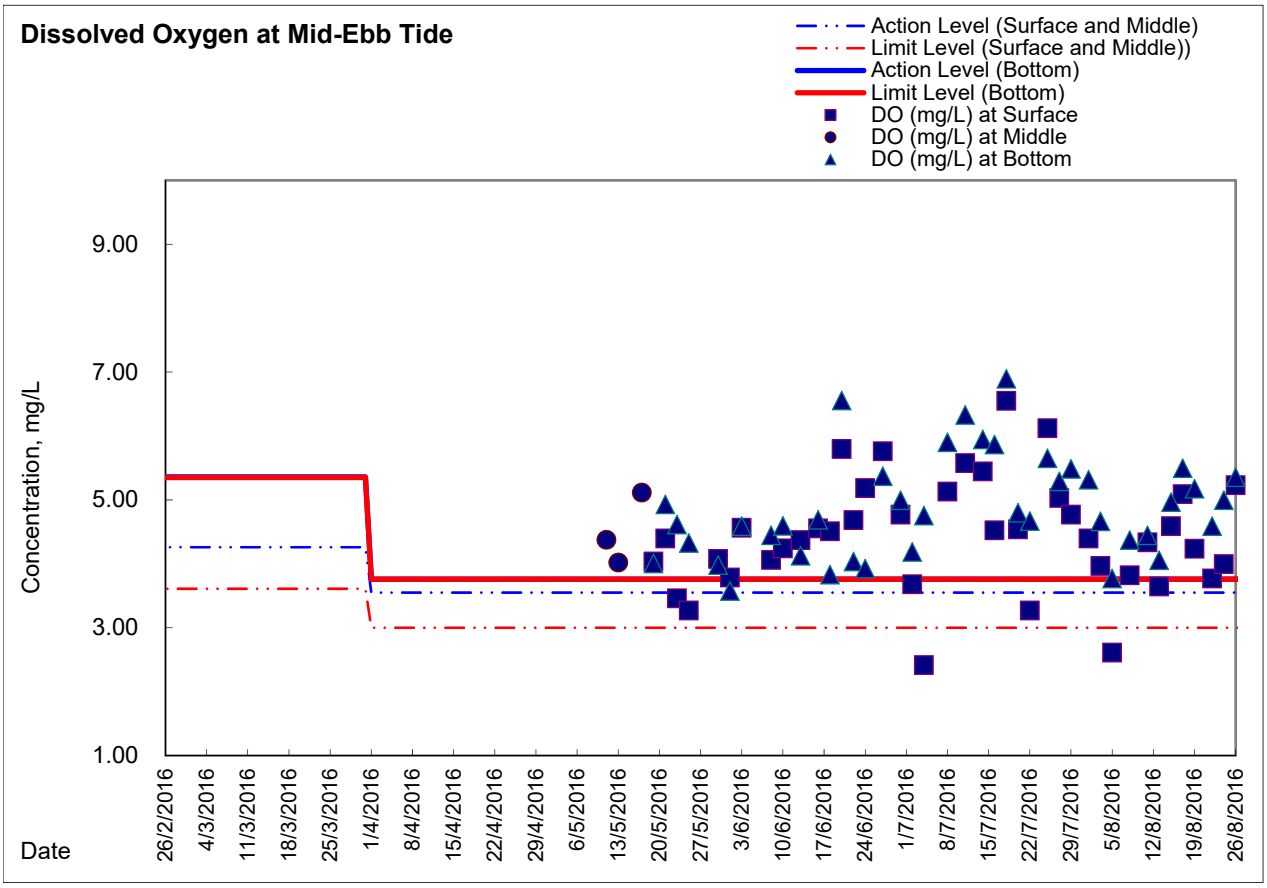
Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area





Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SE - South-eastern corners of ex-Public Cargo Works Area





Appendix 5.1

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. 4. Identify source and investigate the cause of exceedance; 5. 5. Carry out analysis of Contractor's working procedures; 6. 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; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. 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 ET 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; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. (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)

Event and Action Plan for Marine Water Quality

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next working day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Limit level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET , IEC and ER and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)
Limit level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3working days; Implement the agreed mitigation measures; As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after the exceedance is identified)

Event and Action Plan for Odour Patrol

Event	ACTION	
	Person-in-charge of Odour Monitoring	**Implementation Agent Identified by CEDD**
Action Level		
Exceedance of Action Level	1. Identify source/reason of exceedance; 2. Repeat odour patrol to confirm finding.	1. Carry out investigation to identify the source/reason of exceedance; 2. Rectify any unacceptable practice 3. Implement more mitigation measures if necessary; 4. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.
Limit Level		
Exceedance of Limit Level	1. Identify source / reason of exceedance; 2. Repeat odour patrol to confirm findings; 3. Increase odour patrol frequency; 4. If exceedance stops, cease additional odour patrol.	1. Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 2 weeks; 2. Rectify any unacceptable practice; 3. Formulate remedial actions; 4. Ensure remedial actions properly implemented; 5. If exceedance continues, consider what more/enhanced mitigation measures shall be implemented; 6. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.

Appendix 6.1

Complaints Log

Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100321a	21/3/2010	ICC Case no. 1-224618029, Ms. Tsang	Location near Tin Hau	Complaint regarding the loud noise and dark smoke in the course of dredging works on 21 March 2010 (Sunday).	1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works which carry out at area for North Point Reclamation. 2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation. 3) The Contractor (CHEC-CRBC JV) strictly comply all the conditions in CNP and take all mitigation measures in order to minimize the potential impacts to surrounding sensitive receivers. A formal letter was issued out by CHEC-CRBC JV and to explain the status of the recent construction activities. 4) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring. 5) No further complaints were received from Mr. Tsang in the reporting month. The complaint is considered closed.	Closed
100321b	21/3/2010	Unknown	Near the eastern breakwater of the Causeway Bay Typhoon Shelter	A public complaint and enquiry regarding loud noises emanated from dredging activities on 21/3/2010 (Sunday) until 2220 hours and between 1920-1946 hours in the evening of 22 March 2010(Monday).	1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18th Feb. 2010 for the dredging works at area for North Point Reclamation during general holidays including Sunday between 0700-2300 hours and any day not being a general holiday between 1900-2300hours. It is complied with the condition of CNP. 2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation. 3) No limit level exceedance was recorded on the noise measurement during day time and evening time noise measurement on 23 March 2010. Additional restrict hours noise monitoring at Causeway Bay Community and City Garden was conducted on 5 April 2010 (Public Holiday). No limit level exceedance was recorded in the monitoring. 4) No further complaints were received in the reporting month. The complaint is considered closed.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
100504	4/5/2010	Public complainant received by ICC (ICC case: 1-233384048)	Watson Road	Complaint on the noise nuisance due to the large scale of dredging machine (face to Island East Corridor) in particular the hours 1900 to 0800 and request to reduce the noise level.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0119-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) According to RSS 's record, no more daytime and night time dredging since the departure of the split hopper barge from the workplace on 29 April 2010 at 1900 hrs to 5 May 2010. 3) No further complaints were received in the reporting month. The complaint is considered closed.	Closed
100731	31/7/2010	Mr. Lee received by ICC (CC Case: 1-250702681)	Oil Street to Watson Road	Complaint on the noise nuisance due to the dredging works. Three construction plants were operated concurrently.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. 2) There was only 1 grab dredger operated by Contractor within NPR project site area for dredging works. 3) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 27 July and 3 August 2010 during daytime and evening time period. 4) It is considered as invalid from the EP and CNP point of view.	Closed
100812	12/8/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the dredging works at the marine works area adjacent to the Harbour Height during the period from 0700 to 2200.	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 10 and 17 August 2010 during daytime and evening time period. 3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
101108	8/11/2010	Mr. Nip received by ICC (CC Case)	Sai Wan Ho	Visual concern around the seaside silt screen outside the WSD freshwater intake pump at Sai Wan Ho (Monitoring station ref no.. WSD15)	1) Contractor for HY/2009/11has been regular checked of condition and removal of trapped rubbish before the dismantling of the floating silt screen to be replaced by wall mount silt screen. 2) Follow-up action had been immediately carried out to check and clear the floating refuse around the seaside silt screen after receipt of the complaint. 3) Removal of seaside silt screen outside the WSD freshwater intake (WSD15) by contractor HY/2009/11 was checked and confirmed dated 9 November 2010. Silt screen has been deployed into the existing steel frame at WSD15 for the protection of WSD salt water intake.	Closed
101110	10/11/2010	Mr. Wong, Harbour Heights (Management) Ltd.	Harbour Heights	Management office received their resident complained on the noise nuisance from the power mechanical equipment during the 0700 to 2200hrs	1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0870-10 for their dredging works during evening time. Contractor has implemented mitigation measures to reduce the working hour not later than 2230. 2) No noise exceedance was recorded at noise monitoring station at Victoria Centre on 4 and 10 November 2010 during daytime and evening time period. 3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.	Closed
101203	3/12/2010, 01:45a.m.	The resident of Block 11, City Garden by ICC referral from Marine Department	North Point	Bad odour was generated from the dredging plant off North Point	1) The first investigation was carried out by Marine Department patrol in the morning on 3 Dec 2010 at around 10:00 and revealed that a few working barges were anchoring in the vicinity without carrying out dredging work. 2) A further specific investigation inspection on contractor's backhoe barge in the vicinity of City Garden was jointly conducted with Engineer Representatives (AECOM/RSS), and ET on 8 Dec 2010 at 11:30. No bad odour was noted during the investigation. 3) Routine dredging operation of the backhoe barge was performed during the jointed investigation inspection and it was revealed that no bad odour was attributed by the dredged materials inspected.	Closed
101206	6/12/2010	Ms Lui, the resident of 27/F, Block 10, City	City Garden, North Point	Two barges were generating noise at 22:00 on 6 December 2010 in which the noise from	1) ET confirmed the following information with resident site staff on the complaint: • It was referred to the filling operation at North Point	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		Garden by ICC (ICC case: 1-266039336)		filling operation was louder than the traffic noise & visual impact was generated due to the spot-light pointing directly to the complainant flat, suspected the filling operation was part of Wanchai Development Phase II; Complainant also raised the same complaint to District Councillor, Mr. Hui on 7 Dec 2010 regarding the night-time noise and suspected earlier start of work at 06:30. Complaint also requested for limiting the plant operating hours from 09:00-21:00.	Reclamation of Central Wan Chai Bypass site area instead of part of Wanchai Development Phase II; • Two derrick barges were in operation at the time of complaint for placing 400 rockfill onto the excavation trench and for levelling the formation level to receive the pre-cast caisson seawall; • Flood light on the control mast of derrick barge have no lighting shields for the prevention of glare of flood lights; • No starting work on 7 Dec 2010 at 0630hours. 2) PME used in restricted hours were checked and confirmed compliant with valid CNP no. GW-RS0870-10. The noise level recorded on 6 Dec 2010 was complied with the noise criteria during restricted hour; 3) It was found that the occasional noise nuisance might be caused by the hitting or scratching onto the rock surface during loading down the grab onto the Grade 400 rockfill; 4) The absence of the lighting shields at flood light results in visual glare to the complainant at night-time. 5) Contractor was advised to minimize the finishing time of placing Grade 400 rockfill at 2100hrs and switch off all unnecessary flood lights apart from the light for the safety and security purpose; 6) No further complaint was received after implementation of proposed measures	
110415	15/04/2011	The resident, Mr Law at Victoria Centre by ICC (ICC#1-281451236)	North Point	A dust generation and a concern of mosquitoes breeding complaint in which suspected the filling operation was part of North Point Reclamation.	1) The concerned stockpile was a working stockpile under Contract HY/209/15 and was covered at night time after work. 2) Water spraying on the haul road and potential dust generating material at least 4 times a day was conducted by contractor that complies with the requirement. 3) It is considered invalid but preventive actions can be taken because the stockpile is relatively large and easily visible by complainant. 4) It was recommended that increasing the frequency of water spraying shall be conducted to all potential dust generating materials and activities. Besides, Contractor should consider to cover the idle part of the stockpile 5) The concern of mosquitoes breeding is out the scope of EM&A, the follow-up action is not reported in this monthly EM&A report.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
110419	19/04/2011	Ms Chiu at Victoria Centre at Victoria Centre by ICC (ICC# 1-272874759)	North Point	The episode of night noise on 19/4/11 and 20/4/11 at 2:50 am and the noise lasted for 30 minutes per night.	1) According to the RSS's record, there was no construction works undertaken under the EP-356/2009 during the concern time period. 2) There was no abnormal real-time noise monitoring data recorded in RTN1 - FEHD Hong Kong Transport Section Whitefield Depot which is next to the Victoria Centre. 3) It is considered as invalid complaint under this Project.	Closed
110617	9/06/2011	Mr. Law from Victoria Centre Management Office	North Point	An odour nuisance suspected generating from the discharge point – Channel T at Watson Road in part of the site area was related to CWB under Contract no. HY/2009/11	1) The complaint was received by ET on 13 Jun 2011. During the weekly site inspection on 7 and 17 June 2011, there was no any odour impact detected in the site area. 2) According to the site record, there was muddy water discharged from the unknown source at upstream of Channel T during heavy rainstorm. No any site surface runoff to the Channel T and out of site boundary was observed in the inspection. 3) In order to prevent muddy water washing out to the water body under heavy rainstorm, a silt curtain was installed at the outfall of the channel by Contractor. ET confirmed with the Resident Site Staff that a silt curtain was installed at the outfall of the channel to prevent muddy water washing out to the water body under heavy rainstorm. Besides, regular cleaning of refuse in the channel has been conducted by Contractor. 4) A further site investigation on 28 June 2011 revealed that no odour nuisance was detected at the upstream of the Channel T and no source of odour nuisance was identified at site. As such, it was concluded that the source of odour nuisance was not related to the Project works. 5) Although no source of odour nuisance was identified at site, the muddy water and dirt from the unknown source at upstream of Channel T may cause a potential smell during low tide and low water flow. Contractor was reminded to remove the silt curtain at the channel on non-rainy day so as to avoid the accumulation of the sediment and dirt in the water channel.	Closed

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
110709	09/07/2011	Mr. Au from City Garden Management Office	North Point	A complaint letter to Contractor HY/2009/11 was raised by Cayley Property Management Limit on 9 July 2011 regarding a series of pump breakdown events at seawater intake of City Garden on 4, 6, 7 and 8 July 2011. A lot of rubbish such as plastic bags, nylon bags, nylon-wire mesh was observed sucking from the seawater intake at the seawater front of Block 7 of City Garden affecting the operation of seawater pump plant.	1) Contractor conducted formation works for installation of caisson seawall at C27, C28, C29 and C30 on 4, 6, 7 and 8 July 2011 and no dredging work was conducted during this time period 2) Water mitigation measures of an 80m long silt curtain at the site boundary in front of City Garden Relocation of silt curtain and silt curtain at the outfall of the channel were provided and maintained to accommodate the site works. All vessels are equipped with rubbish collection facilities and disposed the rubbish regularly. Also, daily cleaning actions had been taken by contractor to minimize floating refuse within the site boundary. 3) Moreover, it has been reported several times that discharged from outfall pipeline outside the site boundary near the intake of the pump maybe considered as another source of rubbish generation. 4) Referring to the record provided by Cayley Property Management Limit, the trapped rubbish was unlikely generated from the construction works. It was considered that complaint is invalid and not related to project.	Closed
110710	09/07/2011	Complainant by ICC (ICC no. 1-301520309	North Point	It was received at 00:56 on 10 July 2011. There was complained a derrick barge unloading rockfill material off the shore facing the Harbour Grant HK Hotel causing noise nuisance.	1) ET confirmed with the Resident Site Staff that the complaint was referred to Contract HY/2009/15 for the loading and unloading of fill material at two barges operation in the sea at around 300m adjacent to Island Eastern Corridor (Oil Street Chainage) where is outside the Site of HY/2009/15 in the period of around 19:45 on 9 July to 1:00 on 10 July 2011. 2) The material loading and unloading operation processed in restricted hours was checked without a valid CNP. It was found that the operation was due to an unexpected water leakage of the hopper barge and considered an incident. 3) According to the incident report provided from RSS on 20 July 2011, around 7:30 pm the barge S22 was inclined slightly and slightly water leakage might occur. Due to marine safety concern, the hopper barge would open the hopper to release the contained materials in order to reduce the weight and stabilize the barge. In consider of slight water leakage, the operator decided to use the nearby Derrick Barge ST32 to help for unload the general fill materials first and the unloading operation was started at around 7:45pm, and end at around 1:00 am. Contractor was reminder to provide frequent check of vessel condition	Closed

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					so as to prevent recurrent by barge defect	
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's Management office to their resident and the advice was only given on the extension construction works (for Contract HY/2009/15) to 7am-9pm from 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 while breaking and excavation works were undertaken 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) With reference to the construction noise monitoring at Vitoria Centre, no exceedance was recorded on 19 and 25 July 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 and is expected to be completed by mid-August 2011. 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	Closed

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				Central-Wanchai Bypass at noon rather than in morning at 7am.	monitoring station at Victoria Centre on 25 July and 4 August 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. 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
	08/08/2011				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. *Remarks: There will be counted as two complaints in this complaint log.*	
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	Closed

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					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.	
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 reclamation area.	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 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.	Closed
110826A	26/08/2011	A complaint letter from Mr. Au of Cayley Property of City Garden	North Point	Harbor front adjacent to their cooling 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. Confirmed with the Resident Site Staff that the • construction works were referred to the Contractors HY/2009/11 and HY/2009/19. • The pump is located on the site area of HY/2009/19 • 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 excluse the outfall. • An ad hoc inspection of the effectiveness of garbage defender was conducted with RSS (CWB project	Closed

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					team), contractor of HY/200911 and HY/2009/19 and IECon 29 August 2011. Inspection report of it was submitted to RSS on 19 September 2011. • Daily cleaning near the water intake was conducted twice a day by contractor HY/2009/19. • 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 coming from the seabed 2) According to the complaint letter from Cayley Property, the outcomes of the preventive measures were not complying wih their expectation. 3) During on-site inspection, floating refuses observed occasionally outside the garbage defender. No conclusion could be made for the source of these floating refuses. On the other hand, some of the refuses were observed floating behind the garbage defender during investigation. 4) All daily cleaning actions had been taken by contractor to minimize floating refuse inside the construction site. 5) It was noted that the cooling water intake was accessible to the public. As such, fish breeding and fishing activities were observed 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. 6) 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. 7) 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	Closed

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					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.	
111104	04/11/2011	Mr. Liu from LCSD complained via Contractor Complaint Hotline	Wan Chai	Complain about a tree near the 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.	1) ET confirmed with the Resident Site Staff that • 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.	Closed
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	Closed

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					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 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. Futhermore, 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.	
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 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	Closed

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					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.	
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 March 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 miminize 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
140612	12/06/2014	EPD ref: EP/860/F2/24 Annex IV	Wan Chai	The complaint is regarding to the water quality of the waterfront outside the Hong Kong Academy for Performing Arts Theatre Block, where a large piece of muddy water was found.	1) WSII RSS team notified ET on 12 June 2014; Notification letter from EPD (ref: EP/860/F2/24 Annex IV) was received by ET on 13 June 2014. 2) ET confirmed with RSS that neither marine construction works nor barge operation was conducted at the concerned location during the time of complaint. With respect to the complaint case, muddy dispersion was observed at HKCEC2W works area on 12 June 2014, and	Closed

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					the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs. Immediate follow up action was requested. 3) It is considered that Contractor's mitigation measures would require further review on the effectiveness to avoid seepage of muddy dispersion such as regular diver inspection check and daily visual checking of silt curtains. Additional silt curtain at marine access zone was installed by Contractor on 12 June 2014 and the double layer silt curtain were generally in order. Follow-up inspection was further conducted on 16 June 2014. The Contractor's investigation report on the complaint case was submitted to EPA via email on 18 June 2014.	
140723	21/07/2014	ICC Case Ref: 2-341537112	Works area opposite to Ngan Tao Building	The complaint is regarding to construction noise impact to the complainant who could not sleep due to work and machine at the project site opposite to the Ngan Tao Building.	1) Construction noise impact referred by RSS was received by ET on 25 July 2014 2) ET confirmed with RSS that horizontal cutting and removal of D-wall at Eastern, Southern and Northern side of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter before 23:00hrs on 20 July 2014 that total 3 numbers of derrick lighter and 3 numbers of saw cut machine were in operation, and removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter around 00:25hrs to 00:56hrs on 21 July 2014 that total 1 number of derrick lighter was in operation. 3) According to the relevant site records under Contract HY/2009/15, before 23:00hrs on 20 July 2014, horizontal cutting and removal of Diaphragm Wall at Eastern, Southern and Northern side of TS2 was conducted under HY/2009/15 within Causeway Bay Typhoon Shelter. Total 3 nos. of derrick lighter and 3 nos. of saw cut machine were in operation at the above period. From around 00:25hrs to 00:56hrs on 21 July 2014, removal of D-wall at Panel S30A-1 of TS2 was undertaken by Contractor of HY/2009/15 within Causeway Bay Typhoon Shelter. Total 1 no. of derrick lighter was found operating at the above period 4) It was considered the condition of CNP GW-RS0592-14 was not fulfilled by the Contractor of HY/2009/15. "From 00:25hrs to 00:57hrs on 21 July 2014, the PME(s) (1 no. of Derrick Lighter) on-site could not follow with any given PME grouping requirement(s) as stated in condition 3.a. and condition 3.d. in no. GW-RS0592-14."	Final report (Issue1) issued on 31 July 2014. Further to complainant follow-up, Final report (Issue2) Issued on 12 Aug 2014.

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					Notwithstanding the above, according to the site recorded provided by the RSS, the derrick lighter was found malfunction at around 23:00hrs on 20 July 2014 while the diaphragm wall cutting procedure was incomplete. Under safety and navigation consideration, the completion of diaphragm wall removal was necessary and of imminent need. 5) The Contractor of HY/2009/15 was advised to review the construction sequence and emergency response procedure for construction activities during restricted hours and night time period to allow for sufficient buffer time for work completion such that the Construction Noise Permit would be followed. Furthermore, the Contractor of HY/2009/15 was suggested to conduct throughout checking of PME used on site prior to work commencement to minimize the potential malfunctioning of PME during the course of work which affect the duration of works.	
141016	14/10/2014	EPD Ref.: EP860/E2/24 Annex IV ICC complaint received by ET on 10 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. 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.	Interim investigation report submitted to EPD on 23 October 2014. Updated interim investigation with supplementary information submitted to EPD on 17 November 2014 EPD

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					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. 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.	advised no further comment on the updated interim report and case closed on 27 Nov 2014.

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141110	07/11/2014	EPD Ref.: H05/RS/00027815-14 EPD complaint 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. 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.	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.

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					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.	
141113	12/11/2014	EPD Ref.: H05/RS/00028253-14 EPD complaint 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 thatMalodour 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
141121	Not Specified	EPD Ref: H08/RS/28263-14 EPD complaint information and findings was received by ET via email on 21 Nov 2014	Causeway Bay Typhoon Shelter	Resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night.	EPD received a construction noise complaint from dredging works at Causeway Bay Typhoon Shelter and a resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night. EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14. EPD reminded the Contractor of HY/2011/08 to ensure the work strictly follow the permit conditions and endeavor to minimize the noise as so not to disturb the nearby residents.	Complaint case handled by EPD and relevant investigation findings was sent to ET on 21 November 2014
150127	21 Jan 2015	EPD complaint (EPD Ref.: H05/RS/00001725-15) 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	Interim report submitted to EPD on 9 February 2015, EPD advised no comment on 27 February 2016 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
					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. 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.	
150622	18 June 2015	EPD Ref.:H05/RS/ 00015054-15 dated 8 June	A mooring location near shore and at location outside Wan Chai Sports	Dark smoke and malodour emission was observed from a hopper barge moored near shore and	A public complaint regarding dark smoke and malodour concern referred by EPD was received by ET on 22 June 2015 (EPD Ref.: H05/RS/00015054-15 dated 22 June 2015). The complainant reported that dark smoke and malodour emission was observed from a hopper barge	Interim report submitted to EPD on 29 June 2015 and EPD

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		2015	Ground	other construction plants under operation from the reclamation construction site	moored near shore and other construction plants under operation from the reclamation construction site with Contract no. HK/2009/02 at location outside Wan Chai Sports Ground caused air pollution. The complainant alleged that the said situation had been observed for a prolonged period. ET confirmed with the Resident Site Staff that reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 from 15 June 2015 to 19 June 2015. Total 3 nos. of mobile crane were in operation. On 17 June 2015, one no. of concrete pump truck and two nos. of concrete mixer were in operation.Excavation and Lateral Support was conducted at Portions 3 & 4 from 15 June 2015 to 19 June 2015. Total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. In addition, on 15 June 2015, 17 June 2015 and 19 June 2015, 1 no. of derrick barge was moored near Portions 3 & 4 for transportation of the excavated material away from site. According to the relevant site records under Contract HK/2009/02, from 15 June 2015 to 19 June 2015, reinforced bar fixing and concreting work (on 17 June 2015 only) were conducted at Portion 2 and total 3 nos. of mobile crane, one no. of concrete pump truck (on 17 June 2015 only) and two nos. of concrete mixer (on 17 June 2015 only) were in operation; excavation and lateral support was conducted at Portions 3 & 4 and total 4 nos. of excavator, 2 nos. of truck and 2 nos. of crawler crane were in operation. Based on relevant site record, no hopper barge was moored under Contract HK/2009/02 around the concerned location while 1 no. of derrick barge was moored under Contract HK/2009/02 near Portions 3 & 4 for transportation of the excavated material from Portions 3 & 4 away from site on 15 June 2015,17 June 2015 and 19 June 2015 respectively. Follow-up inspection was conducted during weekly	advised no comment on 20 July 2016 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
					environmental inspection on 25 June 2015, no dark smoke and malodour emission was observed from the PMEs operating on-site. A derrick barge was observed moored near Portions 3 & 4 and excavated material was transferred to the derrick barge by the excavators on land without barge operation and no particular dark smoke and malodour emission was observed. Nevertheless, the Contractor was reminded to conduct regular checking on the condition of the derrick barge and other PMEs deployed on site to ensure only well maintained PMEs are used to avoid potential dark smoke and maldour emission affecting nearby public.	
150723	20 July 2015	EPD Ref.:H05/RS/ 00018040-15 dated 23 July 2015	Ex-Wanchai Ferry Pier near 720 & & 722 Bus stop	Malodour from marine sediment	A public complaint regarding malodour referred by EPD was received by ET on 23 July 2015 (EPD Ref.: H05/RS/00018040-15 dated 23 July 2015). The complainant reported that malodour from marine sediment was scented at ex-Wanchai ferry pier near route 720 & 722 bus stop. (Contract HK/2009/02). ET confirmed with the Resident Site Staff that Rockfill placing works was conducted by one derrick barge at the concerned location (WCR3) under Contract HK/2009/02 on 20 July 2015. No marine sediment was stored or placed on site at the concerned location under Contract HK/2009/02 on 20 July 2015. According to the relevant site records under Contract HK/2009/02, rockfill placing works was conducted by one derrick barge at WCR3 area on 20 July 2015 and no marine sediment was stored or placed on site at the concerned location on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 29 July 2015. No marine sediment was observed stored or placed at the concerned location while it was noted that a culvert outfall with potential odour concern is located adjacent to the concerned location.	Interim report submitted to EPD on 30 July 2015. EPD advised no comment on 17 August 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
					Nevertheless, the Contractor was reminded to review the handling procedures in case of any future marine sediment handling at the concerned location and to consider the implementation of mitigation measures as appropriate to minimize potential malodour impact to nearby public.	
150904	01 Sept 2015	EPD Ref.: H05/RS/00022241-15 dated 04 September 2015 received by ET on 4 September 2015	East of New WanChai Ferry Pier	Dropping of excavated material from land to sea during laoding of material	A public complaint regarding dropping of excavated material from land to sea referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H05/RS/00022241-15 dated 04 September 2015). The complainant reported that dropping of excavated materials from land to sea during loading of materials by excavator at the construction site to work boat. (Contract HK/2009/02) ET confirmed with the Resident Site Staff that transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was undertaken by Contract HK/2009/02 on 01 September 2015. Mitigation measure including providing tarpaulin sheet to cover the gap between seawall and the hopper barge to prevent dropping of material to the sea was implemented by the Contractor. According to the relevant site records under Contract HK/2009/02, transferring of C&D materials from land to hopper barge by excavator at seaside along CWB Tunnel Portions 3 and 4 was carried out on 01 September 2015 and mitigation measures including provision of tarpaulin sheet between seawall and the hopper barge was implemented by the Contractor of HK/2009/02 on the concerned date. Follow-up inspection was conducted during weekly environmental inspection on 10 September 2015. Transferring of C&D materials from land to barge by excavator was observed at the concerned location and mitigation measures including provision of tarpaulin sheet between seawall and hopper	Interim report submitted to EPD on 14 September 2015. EPD advised no comment on 5 October 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
					barge and the material transfer works was generally in order. Nevertheless, the Contractor of HK/2009/02 was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge. The Contractor was reminded to maintain the handling procedure for C&D materials transfer from land to hopper barge and regularly inspect the condition of the tarpaulin sheet provided to ensure the nearby water quality are not affected by the loading and unloading of material from land side to hopper barge.	
150904	02 Sept 2015	EPD Ref.: H04/RS/00022385-15 dated 04 September 2015 received by ET on 04 September 2015	Location outside Fleet Arcade	Construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site.	A public complaint regarding construction noise and dust and exhaust emission referred by EPD was received by ET on 04 September 2015 (EPD Ref.: H04/RS/00022385-15 dated 04 September 2015). The complainant reported that construction noise was generated from the construction site of HK/2012/08 at location outside Fleet Arcade during night time on weekdays and daytime during General Holidays. The complainant also concerned construction dust and exhaust emission from derrick barges during transporting C&D material at the site. (Contract HK/2012/08) ET confirmed with the Resident Site Staff that from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation. From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location.	Interim report submitted to EPD on 14 September 2015. 2nd interim report submitted to EPD on 17 Dec 2015 3rd interim report submitted to EPD on 31 Dec 2015

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					From 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation. From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. One derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location. Based on the relevant site records, from 0800 hrs to 1800 hrs on 30 August 2015, removal of scaffold and timber and installation of bulkhead was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one generator and one circular saw were in operation and the relevant Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place. From 1900hrs on 30 August 2015 to 0700 on 31 August 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location and from 1900hrs on 31 August 2015 to 0700hrs on 01 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. From 1900hrs to 2115 hrs on 01 September 2015, unloading of soil was undertaken by the Contractor of HK/2012/08 at the concerned location. Total one derrick barge was in operation and the Construction Noise Permit GW-RS0296-15 for the concerned operation was confirmed in place.	

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					From 2300hrs on 01 September 2015 to 0700hrs on 02 September 2015, no construction works was undertaken by the Contractor of HK/2012/08 at the concerned location. In view of the above, the construction activities conducted under Contract HK/2012/08 during the concerned period was in compliance with the statutory requirement. In addition, one derrick barge was deployed for unloading of soil on 02 September 2015 during daytime under Contract HK/2012/08 at the concerned location. Follow-up inspection was conducted during weekly environmental inspection on 08 September 2015 and no dark smoke emission was observed from the derrick barge moored outside the concerned location. Nevertheless, the Contractor of HK/2012/08 was reminded to conduct regular checking on the condition of the all derrick barges deployed on site to ensure only well maintained equipment are used to avoid potential dark smoke emission affecting nearby public and the Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance. The Contractor was reminded to conduct regular checking on the condition of derrick barges deployed on site to ensure only well maintained equipments are used on site to avoid potential dark smoke emission affecting nearby public. The Contractor of HK/2012/08 was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance.	
150917	17 Sep 2015	A public complaint regarding water quality referred by EPD was	Central and Wan Chai Reclamation coastline (between LUNG WUI ROAD to LUNG WO ROAD,	Silt from Central and Wan Chai Reclamation was spotted along the coastline (between LUNG WUI ROAD to LUNG WO ROAD, Central & Wan	Based on the site records confirmed by RSS, removal of seawall blocks by derrick barge was undertaken by Contract HK/2012/08 at Central Reclamation Phase III works area while mitigation measures including provision of silt curtain implemented by the Contractor of HK/2012/08 during the	Interim investigation report submitted to EPD on 25

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		received by ET on 17 September 2015	Central & Wan Chai, Hong Kong)	Chai, Hong Kong)	seawall block removal works. According to relevant record, muddy dispersion at HKCEC2W (area opposite to Lung King Street) was observed by the Environmental Team on 14 September 2015 afternoon. The muddy patch was observed dispersing outside the outer layer silt curtain deployed by the Contractor of HK/2012/08 towards the Central Reclamation Phase III area while the outer layer silt curtain was observed partially opened. In view of the above observations, the Contractor was advised to rectify any environmental deficiencies such that adequate protection such as silt curtain shall be provided for exposed soil slope to mitigate for potential runoff related water quality impact to the surrounding waters; outer layer silt curtain deployed shall be entirely closed during works to safeguard the surrounding water quality. Any opening for marine vessel shall be closed promptly after passage and localized silt curtain deployed on site shall be properly maintained to avoid any gap or opening to effectively safeguard the nearby waters.	September 2015. EPD advised no comment on 14 October 2015 and case closed.
151015	11 Oct 2015	A public complaint regarding direct discharge of muddy effluent referred by RSS was received by ET on 14 October 2015	Seafront opposite to Watson Road adjacent to Eastern Breakwater	Pink fluid was observed discharged into marine waters at seafront opposite to Watson Road adjacent to the Eastern Breakwater on 11 October 2015.	Based on the site records confirmed by RSS, no construction activity near the seaside between Eastern Breakwater and the Dumping Jetty was undertaken by Contract HY/2009/19 while at site area away from the seawall, construction of EVB substructure, EVB and APS structure was undertaken on 11 October 2015. In addition, no works involving the use of paint was carried out at the concerned site area (Site Portion between Eastern Breakwater and the Dumping Jetty) and along the alignment of the Culvert T1 under Contract HY/2009/19 and no temporary storage of paint was located at the concerned site area and along the alignment of the Culvert T1 under HY/2009/19 on 11 October 2015. Follow-up inspection was conducted during weekly environmental inspection on 14 October 2015. No construction works involving the use of paint was observed undertaken at the concerned location while a few number of small containers of paint was observed placed around the concerned location and the paint containers were sealed and no sign of leakage was observed. The few containers were further checked and was found not matching the pink fluid observed on the complaint date. On the other hand, a culvert discharge outfall was found located within the concerned area where the pink fluid was observed. Based on the above, no direct information indicating the pink	HyD will consolidate all input from relevant parties to form a reply to ICC.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					fluid was originated from the worksarea under HY/2009/19 was considered available. Nevertheless, the Contractor was reminded that paints stored on site shall be properly labelled and stored in sealed container at weather proof location to avoid potential spillage.	
151028	26 Oct 2015	A public complaint regarding construction noise impact referred by EPD was received by ET on 28 October 2015 (EPD Ref:H05/RS/00027330-15 Dated 28 October 2015)	Construction Site next to ex-Wan Chai Ferry Pier	Operation of grab dredger at construction site near the ex-Wan Chai Ferry Pier from around 0100 to 0400 hours on 26 October 2015 caused noise nuisance.	According to the relevant site records under Contract HK/2009/02, from 01:00hrs to 04:00hrs on 26 October 2015, rock filling 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 and the relevant Construction Noise Permit GW-RS1121-15 for the concerned construction works was in place. The construction activity conducted under Contract HK/2009/02 during the concerned period was in compliance with the statutory requirement. Nevertheless, the Contractor was reminded to upkeep the site control system for construction works carrying out at restricted hours and night time for Construction Noise Permit compliance in view of the nearby public concern.	The interim report would be submitted to EPD on 05 November 2015 and EPD advised no comment on 16 November 2016 and case closed.
151116	13 November 2015	A public complaint regarding water quality referred by EPD was received by ET on 16 November 2015 (EPD Ref: H05/RS/00029126-15)	Construction Site at HKCEC and seafront outside Lung Wo Road	Muddy water was discharged from the construction site at HKCEC and dispersed to seafront outside Lung Wo Road on 13 November 2015 afternoon. The complainant also alleged that the deployment of the silt curtain did not follow the design requirement under the environmental permit that the curtain should be hanged to seabed level	Based on the site records, rock mound trimming works was conducted under Contract HK/2012/08 at HKECE2 area on 13 November 2015 and mitigation measures including provision of localized silt curtain around the works area was implemented by the Contractor. Follow-up inspection was conducted during weekly environmental inspection on 17 November 2015, both outer layer silt curtain and localized layer of silt curtain around the active works area were observed deployed while the localized silt curtain deployed around the marine works area was observed partially opened for marine access. Despite no muddy dispersion was generated around the localized silt curtain enclosed area, the Contractor was advised to promptly improve the condition of the silt curtain to ensure the effectiveness of the mitigation measure deployed and to ensure the silt curtain is closed after marine vessel movement. Based on further review on the current construction stage at HKECE2, the dredging works and trench filling works were completed and filling works were conducted behind seawall or temporarily seawall in form of rockbund, the outer layer of silt curtain currently serves as the additional mitigation measure to	The interim investigation report would be submitted to EPD on 1 December 2015 and record of diving inspection conducted on 27 November 2016 was forwarded to EPD on 4 Dec 2016. EPD advised no further comment on 14 Dec 2015 and case closed.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					the required silt curtain deployment for safeguarding the water quality in the area. To clarify for the current silt curtain arrangement, the Contractor was advised to submit an updated silt curtain deployment plan with respect to the latest silt curtain arrangement for the current construction stage. In addition, contaminated discharge at Culvert L originating from upstream locations was intermittently observed based on previous site records. Nevertheless, in view of the public concern, the Contractor was reminded to conduct regular checking on the condition and maintenance for the silt curtain deployed on site to ensure the effectiveness of the mitigation measure. A joint meeting for the complaint was held amongst the EPD, WDII RSS team, the ET and the Contractor of HK/2012/08 on 24 November 2015 and a joint silt curtain diver inspection check amongst EPD, ET, IEC, WDII RSS and the Contractor was conducted on 27 November 2015 to confirm the silt curtain condition and the silt curtain deployed at the HKCEC2 water channel was found generally in order.	
160413 (HK201208)	13 April 2016	A public complaint referred by EPD was received by ET on 13 April 2016 (EPD Ref.: H05/RS/00008367-16 dated 13 April 2016)	Outside the Hong Kong Academy for Performing Arts	Muddy water discharge from construction site	A public complaint regarding muddy water discharge referred by EPD was received by ET on 13 April 2016 (EPD Ref.: H05/RS/00008367-16 dated 13 April 2016). The complainant reported that muddy water was discharged from the construction work of Contract HK/2012/08 to the sea outside the Hong Kong Academy for Performing Arts on 13 April 2016 morning. ET confirmed with the Resident Site Staff that internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13 April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation. Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08. According to the relevant site records provided by RSS, internal transport of soil to the hopper barge for storage via landing barge was conducted by Contractor of HK/2012/08 during 0800 hours to 1000 hours on 13	Interim investigation report was submitted to the EPD on 21 April 2016. EPD advised no further comment on 6 June 2016 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
					April 2016 at the sea outside the concerned location and 3 nos. of dump trucks were deployed for the operation. Protection measure including provision of sandbag bunding along the side of the landing barge was implemented by the Contractor of HK/2012/08. In addition, amber rainstorm warning signal was hoisted from 0630 hours to 1200 hours on 13 April 2016 and during the above time period, muddy water was observed from the upstream of culvert L outside the HK/2012/08 site. Follow up inspection was conducted on 19 April 2016, protection measures including provision of sandbag bunding along the side of the landing barge was implemented and no mud or soil deposition was observed along the seawall and no discharge point was located within the temporary water channel connecting the Culvert L outfall location to the Victoria Harbour. In addition, piling works was observed at the north side of Zone A1 on 19 April 2016 and construction effluent collection from piling work via sedimentation tank to wastewater treatment facility was implemented and steel barrier was installed around the piling works area to mitigate against potential surface runoff related impact. Nevertheless, in view of the public concern, the Contractor was reminded to maintain adequate perimeter embankment protection along the seawall boundary and maintain proper construction effluent collection system to avoid potential runoff related impact to nearby waters.	
160706	30 June 2016	A public complaint referred by EPD was received by ET on 06 July	Construction area near Royal Hong Kong Yacht Club	Derrick barge moored near Royal Hong Kong Yacht Club emitted dark smoke since mid of June 2016.	A public complaint referred by EPD was received by ET on 06 July 2016 (Case Ref.: H05/RS/0016226-16). The complainant reported that a derrick barge in green colour under Contract HY/2009/15 moored near Royal Hong Kong Yacht Club emitted dark smoke since mid of June 2016.	Interim report was submitted to EPD on 14 July 2016.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
		2016 (Case Ref:. H05/RS/00016 226-16),			ET confirmed with Resident Site Staff that the concerned green derrick barge was identified as Yue Fat 206 (YF 206) and the concerned green derrick barge was operated within the Ex-PCWA area for excavation works intermittently across the period from 15 June 2016 to 30 June 2016. The concerned green derrick barge YF206 within Ex-PCWA area was no longer deployed under Contract HY/2009/15 after 02 July 2016. Follow-up inspection was conducted on 11 July 2016, the concerned derrick barge YF206 was not deployed at the concerned location and no dark smoke was observed from other derrick barge operating on-site. Nevertheless, in view of the public concern, the Contractor of HY/2009/15 was reminded to conduct regular checking and maintenance of all derrick barges deployed on site to ensure only well maintained equipment is used to avoid potential dark smoke emission affect nearby surroundings.	

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
160825	25 May 2016	A public complaint referred by EPD was received by ET on 25 August 2016 (Case Ref.: H08/RS/00012592-16)	East of Temporary Reclamation Zone TS3, Causeway Bay Typhoon Shelter	Muddy water was observed at Causeway Bay Typhoon Shelter	A public complaint referred by EPD was received on 25 August 2016 (Case Ref.: H08/RS/00012592-16). The complainant reported that muddy water was observed at Causeway Bay Typhoon Shelter. ET confirmed with the Resident Site Staff that no marine construction activities were undertaken at the concerned location at East of Temporary Reclamation Zone TS3 within Causeway Bay Typhoon Shelther from 14:00hrs to 17:00hrs on 25 May 2016. Site control measures including the following were implemented by the Contractor of HY/2010/08 around the concerned location. Site control measures including i) Wastewater treatment facilities (AquaSed) were installed at TS3 for treatment of wastewater generated during construction activities. Sampling of effluent from AquaSed was conducted by the Contractor of HY/2010/08 and all results complied with the requirements in the Discharge Licence. Visual inspection and pH measurement of effluent were conducted daily by Environmental Supervisors and all results passed. ii) Brick/ earth/ sandbag bunds were installed alongside the site perimeter of TS3 to prevent muddy runoff into the sea. iii) Piping with idled ends were removed to prevent accidental discharge of untreated wastewater. iv) Diver inspection for silt curtains and/ or impermeable barriers was conducted on an ad-hoc basis. vii) Temporary cut slopes were shotcreted or properly covered with tarpaulin sheets. viii) Regular inspections were conducted by the RSS and Contractor's environmental representatives on regular basis on the conditions of mitigation measures implemented on site. Based on the complainant photo information, the exposed soil slope at Temporary Reclamation Zone TS3 were observed protected by covering and enclosed by double layer of impermeable barrier/ silt curtain and no contaminated discharge was identified. In addition, based on information from Hong Kong Observatory, the tidal condition on 25 May 2016 afternoon was found to	The Interim investigation report was submitted to EPD on 2 September 2016.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					be ebb-tide while non construction works marine vessel movements around the identified muddy plume within Causeway Bay Typhoon Shelter was observed in the complainant photo information. Based on review on relevant records, no contaminated surface runoff and no contaminated discharge was identified at the concerned location during the environmental site inspection conducted on 25 May 2016. Follow up inspection was conducted on 31 August 2016 and seawall construction and filing works at the Temporary Reclamation Zone TS3 was observed completed. No contaminated discharge and no contaminated surface runoff was found. Nevertheless, the contractor of HY/2010/08 was reminded to maintain appropriate bunding at seawall boundary for protection against potential surface runoff related impact. Also, the Contractor of HY/2010/08 was reminded to maintain proper site drainage for effluent collection and treatment system to ensure the compliance with relevant discharge license.	

Appendix 7.1

Construction Programme of Individual Contracts

CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

Activity ID	Activity Name	OD	Start	Finish
HK/2009/01 - Revised Works Progress Rev. 6H (Data Date: 22 Apr 16)				
Section 3 of the Works - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8				
CWB Tunnelling Works (Stage 3 : Ch3129 - Ch3245)				
Stage 3 - Tunnel Structure Works (Bay 11 to Bay 20 : Ch3129 - Ch3245)				
Tunnel Structure at Stage 3A & 3B (CH3129 - CH3245)				
S3C-TS-2030K	Backfilling to Road formation level from Bay 10 to Bay 14	30d	12/01/16 A	01/04/16 A
S3C-TS-2090D1	Bay 15,16 & 17 Slip Road 2 Road Barrier	14d	17/03/16 A	23/03/16 A
S3C-TS-2110F	Bay 18, 19 & 20 CWB, Slip Road 3 and Slip Road 2 Road Barrier	9d	15/02/16 A	23/03/16 A
S3C-TS-2150	Backfilling up to Future Road Formation for Bay 19 - Bay20	32d	22/04/16	30/04/16
Section 8 of the Works - Works in Area 6 (Utilities other than Watermains in Fenwick Pier Street)				
Sewerage Works				
S8-3010	Planter Reinstatement	30d	29/07/15 A	16/05/16
S8-3020	Road Reinstatement	21d	25/09/15 A	16/05/16
Section 9 of the Works - Remaindar of the Works				
Reprovision of Expo Drive East				
S9-2040	Completion of Area 9 Formation Works	0d		08/05/16
S9-2060	Construction of Retaining Wall Extension to Top of Box Culvert Bay 7	30d	22/04/16*	21/05/16
Variation Order No.153 - Design and Construct CWB Bypass Tunnel from CH3246 to CH3278				
Works at Area 8 - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8				
CWB Tunnelling Works (Stage 4: Ch3246 - Ch3278)				
Stage 4 - Tunnel Structure Works (Bay 21 to Bay 22 : CH3246 - CH3278)				
S4-TS-0040	Bay 21a, 21b 22 and 23 Wall	15d	15/02/16 A	03/05/16
S4-TS-0050	Bay 21a, 21b 22 and 23 Wall & OHVD Base Slab	15d	04/05/16	22/05/16
S4-TS-0060	Bay 21a, 21b 22a and 22b OHVD Wall Stem and Top Slab	15d	23/05/16	29/05/16

Remaining Work
Actual Work
Summary Bar
Critical Remaining Work
Milestone
Summa...

CEDD CONTRACT NO. HK/2009/01

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

WORKS PROGRAMME Rev.4 - 3 Month Programme starting from 22/04/16

Date	Revision	Checked	Appro...
15-Sep-15	Master Programme 6H		
22/04/16	Progress Updated on 22 Apr 2016		

執ASK filters: 3-Month (Works), 3-Month Rolling Prog.

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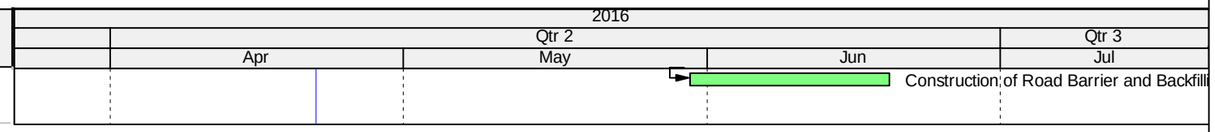
CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

Activity ID	Activity Name	OD	Start	Finish
S4-TS-0070	Construction of Road Barrier and Backfilling to Formation Level from approx. -4.0mPD to +2.5mPD (approx. 23,975cu.m)	20d	30/05/16	19/06/16



Remaining Work
Actual Work
Summary Bar
Critical Remaining Work
Milestone
Summa...

CEDD CONTRACT NO. HK/2009/01

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

WORKS PROGRAMME Rev.4 - 3 Month Programme starting from 22/04/16

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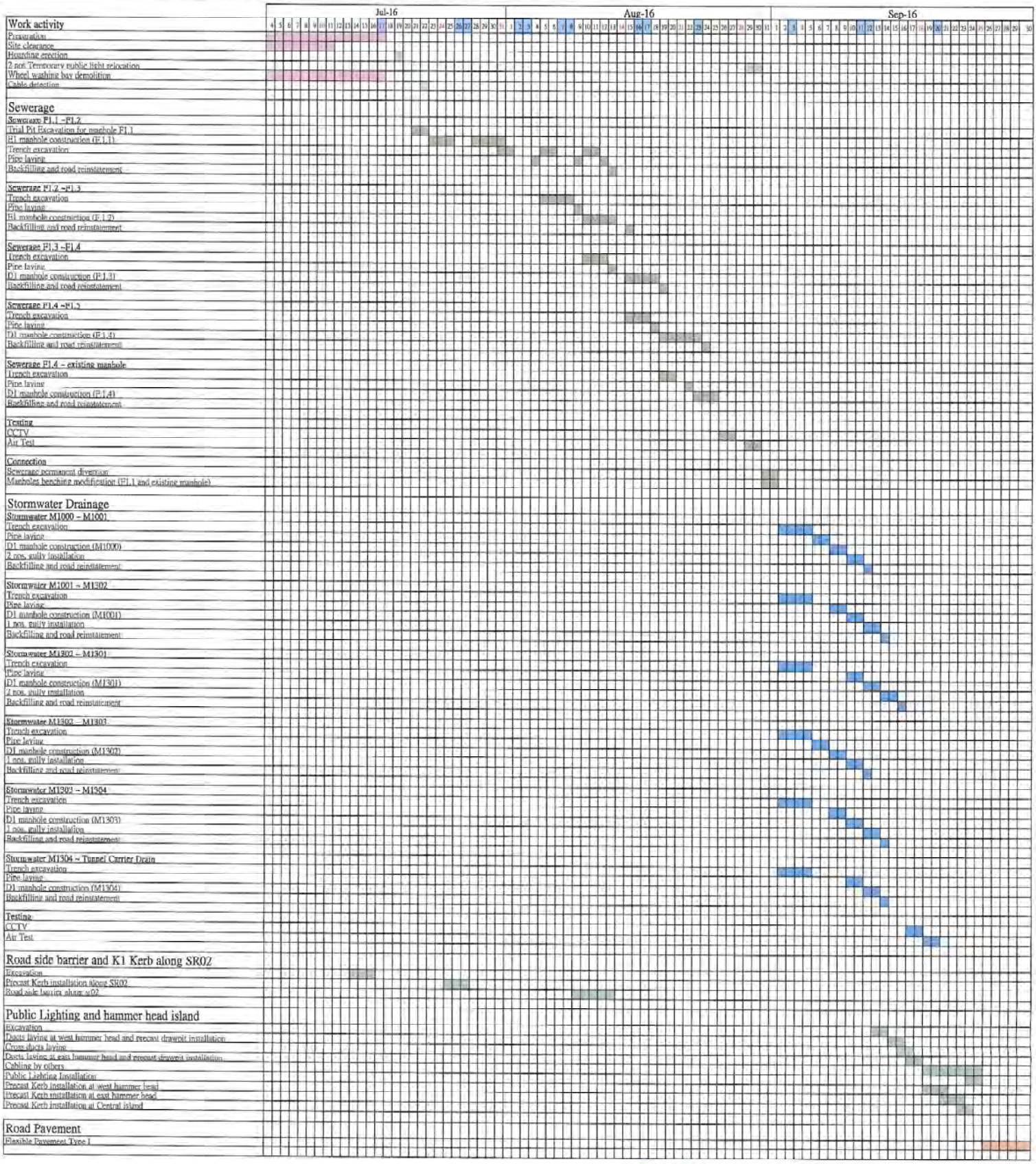
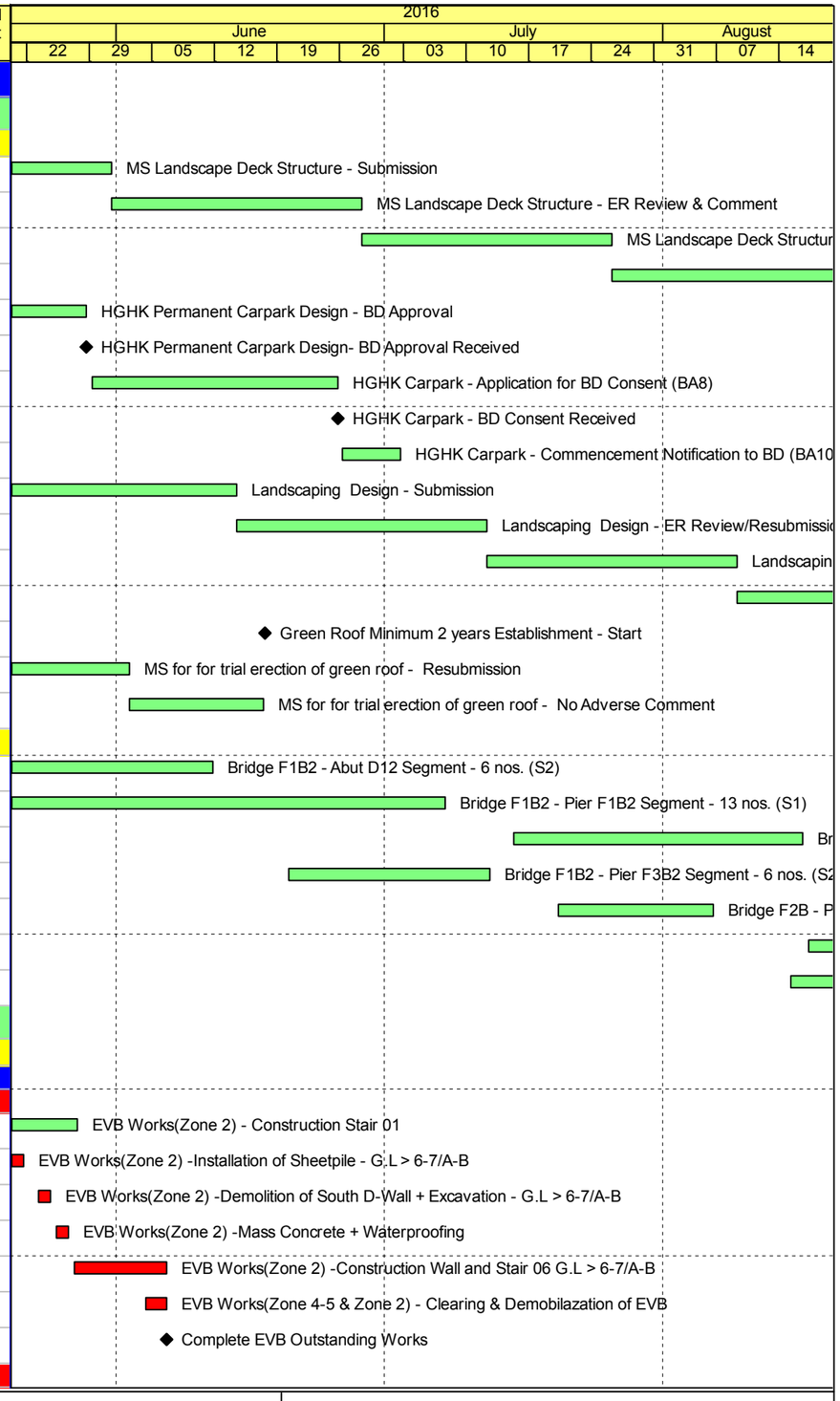
HK/2009/01 Roadworks, Drainage and Sewerage Works at Junction of Expo Drive and Expo Drive Central



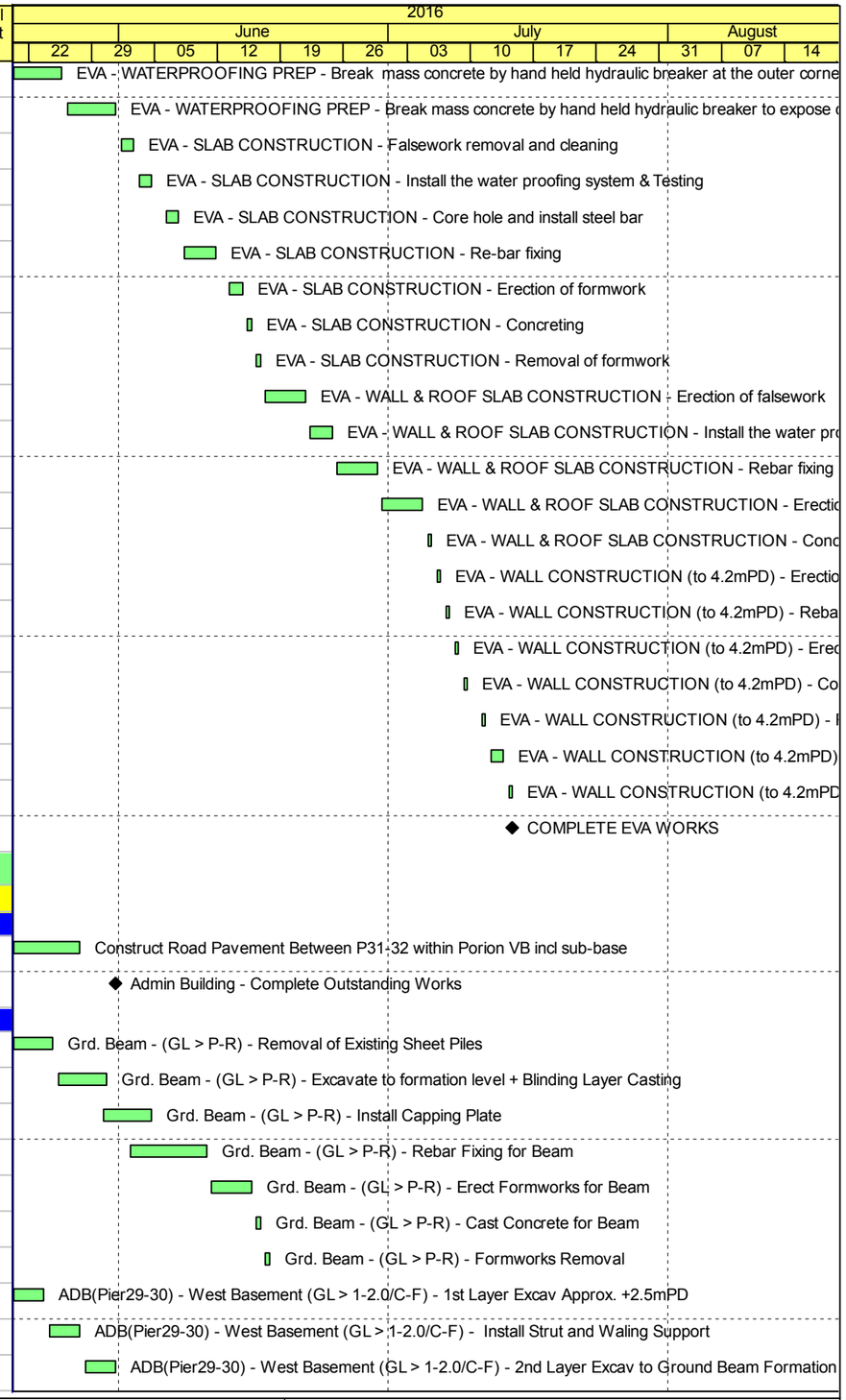
Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
3MRP - May 2016 to Aug 2016		111	01-Jun-15 A	30-Sep-16	353
02 - PRE-CONSTRUCTION WORKS		106	20-Jun-15 A	23-Sep-16	358
02.3 - Method Statement / Shop Drawings		91	20-Jun-15 A	06-Sep-16	373
0230-1380	MS Landscape Deck Structure - Submission	11	20-Jun-15 A	31-May-16	371
0230-1390	MS Landscape Deck Structure - ER Review & Comment	28	31-May-16	28-Jun-16	371
0230-1400	MS Landscape Deck Structure - Resubmission	28	28-Jun-16	26-Jul-16	371
0230-1410	MS Landscape Deck Structure - ER Approval	28	26-Jul-16	23-Aug-16	371
0240-1210	HGHK Permanent Carpark Design - BD Approval	9	21-Mar-16 A	28-May-16	62
0240-1220	HGHK Permanent Carpark Design- BD Approval Received	0		28-May-16	62
0240-1230	HGHK Carpark - Application for BD Consent (BA8)	28	29-May-16	25-Jun-16	62
0240-1240	HGHK Carpark - BD Consent Received	0		25-Jun-16	62
0240-1250	HGHK Carpark - Commencement Notification to BD (BA10)	7	26-Jun-16	02-Jul-16	62
0240-1270	Landscaping Design - Submission	25	20-Apr-16 A	14-Jun-16	451
0240-1280	Landscaping Design - ER Review/Resubmission	28	14-Jun-16	12-Jul-16	451
0240-1290	Landscaping Design - ER Approval	28	12-Jul-16	09-Aug-16	451
0240-1295	Landscaping Design - Fabrication & Delivery	28	09-Aug-16	06-Sep-16	451
0240-1298	Green Roof Minimum 2 years Establishment - Start	0	17-Jun-16		65
0240-2460	MS for for trial erection of green roof - Resubmission	14	04-Apr-16 A	02-Jun-16	77
0240-2470	MS for for trial erection of green roof - No Adverse Comment	15	02-Jun-16	17-Jun-16	77
02.5 - Bridge Segment/Beam Off-site Precasting		106	20-May-16	23-Sep-16	58
0250-3860	Bridge F1B2 - Abut D12 Segment - 6 nos. (S2)	19	20-May-16	11-Jun-16	33
0250-3880	Bridge F1B2 - Pier F1B2 Segment - 13 nos. (S1)	40	20-May-16	07-Jul-16	58
0250-3900	Bridge F1B2 - Pier F2B2 Segment - 11 nos. (S1)	28	15-Jul-16	16-Aug-16	58
0250-3920	Bridge F1B2 - Pier F3B2 Segment - 6 nos. (S2)	19	20-Jun-16	12-Jul-16	33
0250-3940	Bridge F2B - Pier F3B2 Segment - 5 nos. (S2)	16	20-Jul-16	06-Aug-16	33
0250-3960	Bridge F2B - Pier F4B Segment - 13 nos. (S1)	32	17-Aug-16	23-Sep-16	58
0250-3980	Bridge F2B - Pier F5B Segment - 6 nos. (S2)	19	15-Aug-16	05-Sep-16	33
05 - SECTION 2 & 2A OF THE WORKS		46	20-May-16	14-Jul-16	20
05.1 - Cut & Cover Tunnel Ch 4855-4932 (APS Footprint)		46	20-May-16	14-Jul-16	20
05.1.6 - EVB Sub-structure & Tunnel		46	20-May-16	14-Jul-16	20
05.1.6 - EVB Outstanding Works		15	20-May-16	06-Jun-16	0
0515-3091	EVB Works(Zone 2) - Construction Stair 01	7	20-May-16	27-May-16	8
0515-3093	EVB Works(Zone 2) -Installation of Sheetpile - G.L > 6-7/A-B	2	20-May-16	21-May-16	0
0515-3094	EVB Works(Zone 2) -Demolition of South D-Wall + Excavation - G.L > 6-7/A-B	2	23-May-16	24-May-16	0
0515-3095	EVB Works(Zone 2) -Mass Concrete + Waterproofing	2	25-May-16	26-May-16	0
0515-3096	EVB Works(Zone 2) -Construction Wall and Stair 06 G.L > 6-7/A-B	9	27-May-16	06-Jun-16	0
0515-3098	EVB Works(Zone 4-5 & Zone 2) - Clearing & Demobilazation of EVB	2	04-Jun-16	06-Jun-16	0
0515-3099	Complete EVB Outstanding Works	0		06-Jun-16	0
05.1.7 - Connection to EVA		46	20-May-16	14-Jul-16	20



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 May to 19 Aug 2016)

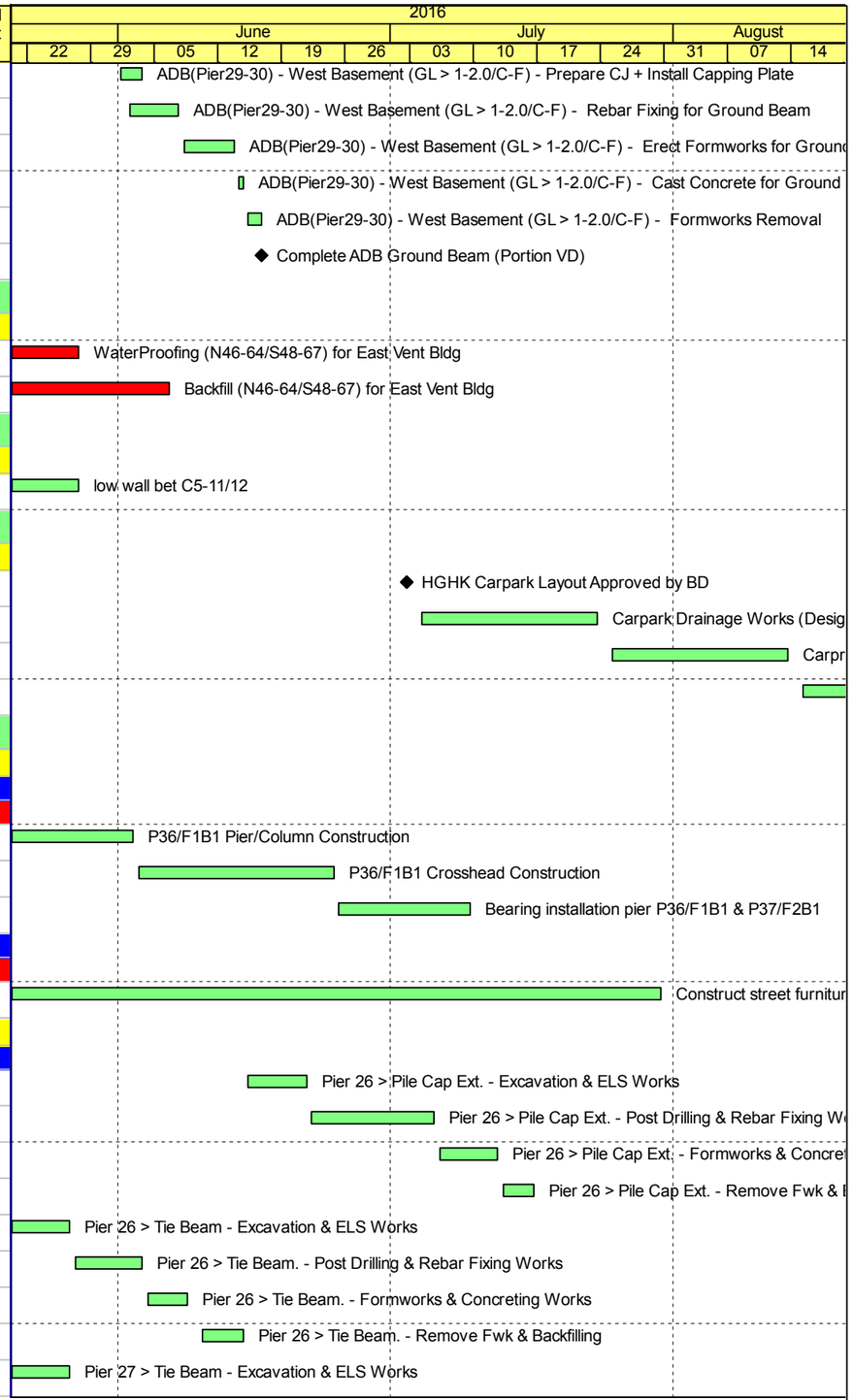
Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
0515-3360	EVA - WATERPROOFING PREP - Break mass concrete by hand held hydraulic breaker at the outer corner of D-wall and EVA	5	20-May-16	25-May-16	20
0515-3370	EVA - WATERPROOFING PREP - Break mass concrete by hand held hydraulic breaker to expose couplers	5	26-May-16	31-May-16	20
0515-3380	EVA - SLAB CONSTRUCTION - Falsework removal and cleaning	2	01-Jun-16	02-Jun-16	20
0515-3390	EVA - SLAB CONSTRUCTION - Install the water proofing system & Testing	2	03-Jun-16	04-Jun-16	20
0515-3400	EVA - SLAB CONSTRUCTION - Core hole and install steel bar	2	06-Jun-16	07-Jun-16	20
0515-3410	EVA - SLAB CONSTRUCTION - Re-bar fixing	3	08-Jun-16	11-Jun-16	20
0515-3420	EVA - SLAB CONSTRUCTION - Erection of formwork	2	13-Jun-16	14-Jun-16	20
0515-3430	EVA - SLAB CONSTRUCTION - Concreting	1	15-Jun-16	15-Jun-16	20
0515-3440	EVA - SLAB CONSTRUCTION - Removal of formwork	1	16-Jun-16	16-Jun-16	20
0515-3450	EVA - WALL & ROOF SLAB CONSTRUCTION - Erection of falsework	4	17-Jun-16	21-Jun-16	20
0515-3460	EVA - WALL & ROOF SLAB CONSTRUCTION - Install the water proofing system	3	22-Jun-16	24-Jun-16	20
0515-3470	EVA - WALL & ROOF SLAB CONSTRUCTION - Rebar fixing	4	25-Jun-16	29-Jun-16	20
0515-3480	EVA - WALL & ROOF SLAB CONSTRUCTION - Erection of formwork	3	30-Jun-16	04-Jul-16	20
0515-3490	EVA - WALL & ROOF SLAB CONSTRUCTION - Concreting	1	05-Jul-16	05-Jul-16	20
0515-3510	EVA - WALL CONSTRUCTION (to 4.2mPD) - Erection of falsework	1	06-Jul-16	06-Jul-16	20
0515-3530	EVA - WALL CONSTRUCTION (to 4.2mPD) - Rebar fixing	1	07-Jul-16	07-Jul-16	20
0515-3540	EVA - WALL CONSTRUCTION (to 4.2mPD) - Erection of formwork	1	08-Jul-16	08-Jul-16	20
0515-3550	EVA - WALL CONSTRUCTION (to 4.2mPD) - Concreting	1	09-Jul-16	09-Jul-16	20
0515-3560	EVA - WALL CONSTRUCTION (to 4.2mPD) - Removal of formwork	1	11-Jul-16	11-Jul-16	20
0515-3570	EVA - WALL CONSTRUCTION (to 4.2mPD) - Install the water proofing system & Testing	2	12-Jul-16	13-Jul-16	20
0515-3580	EVA - WALL CONSTRUCTION (to 4.2mPD) - Place concrete screeding	1	14-Jul-16	14-Jul-16	20
0515-3590	COMPLETE EVA WORKS	0		14-Jul-16*	20
06 - SECTION 3 OF THE WORKS		24	20-May-16	17-Jun-16	10
06.3 - Admin Building		24	20-May-16	17-Jun-16	10
Admin Building - Outstanding Works After Hanover to CC		10	20-May-16	31-May-16	0
0630-2705	Construct Road Pavement Between P31-32 within Porion VB incl sub-base	7	20-May-16	27-May-16	3
0630-2770	Admin Building - Complete Outstanding Works	0		31-May-16*	0
Admin Building - Ground Beams to be Completed after CC Basement (Timing to be Confirmed)		24	20-May-16	17-Jun-16	10
0630-1880	Grd. Beam - (GL > P-R) - Removal of Existing Sheet Piles	4	20-May-16	24-May-16	10
0630-1900	Grd. Beam - (GL > P-R) - Excavate to formation level + Blinding Layer Casting	5	25-May-16	30-May-16	10
0630-1920	Grd. Beam - (GL > P-R) - Install Capping Plate	6	30-May-16	04-Jun-16	10
0630-1940	Grd. Beam - (GL > P-R) - Rebar Fixing for Beam	7	02-Jun-16	10-Jun-16	10
0630-1960	Grd. Beam - (GL > P-R) - Erect Formworks for Beam	4	11-Jun-16	15-Jun-16	10
0630-1980	Grd. Beam - (GL > P-R) - Cast Concrete for Beam	1	16-Jun-16	16-Jun-16	10
0630-2000	Grd. Beam - (GL > P-R) - Formworks Removal	1	17-Jun-16	17-Jun-16	10
0630-2036	ADB(Pier29-30) - West Basement (GL > 1-2.0/C-F) - 1st Layer Excav Approx. +2.5mPD	3	20-May-16	23-May-16	11
0630-2037	ADB(Pier29-30) - West Basement (GL > 1-2.0/C-F) - Install Strut and Waling Support	4	24-May-16	27-May-16	11
0630-2038	ADB(Pier29-30) - West Basement (GL > 1-2.0/C-F) - 2nd Layer Excav to Ground Beam Formation level + blinding	3	28-May-16	31-May-16	11



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 May to 19 Aug 2016)

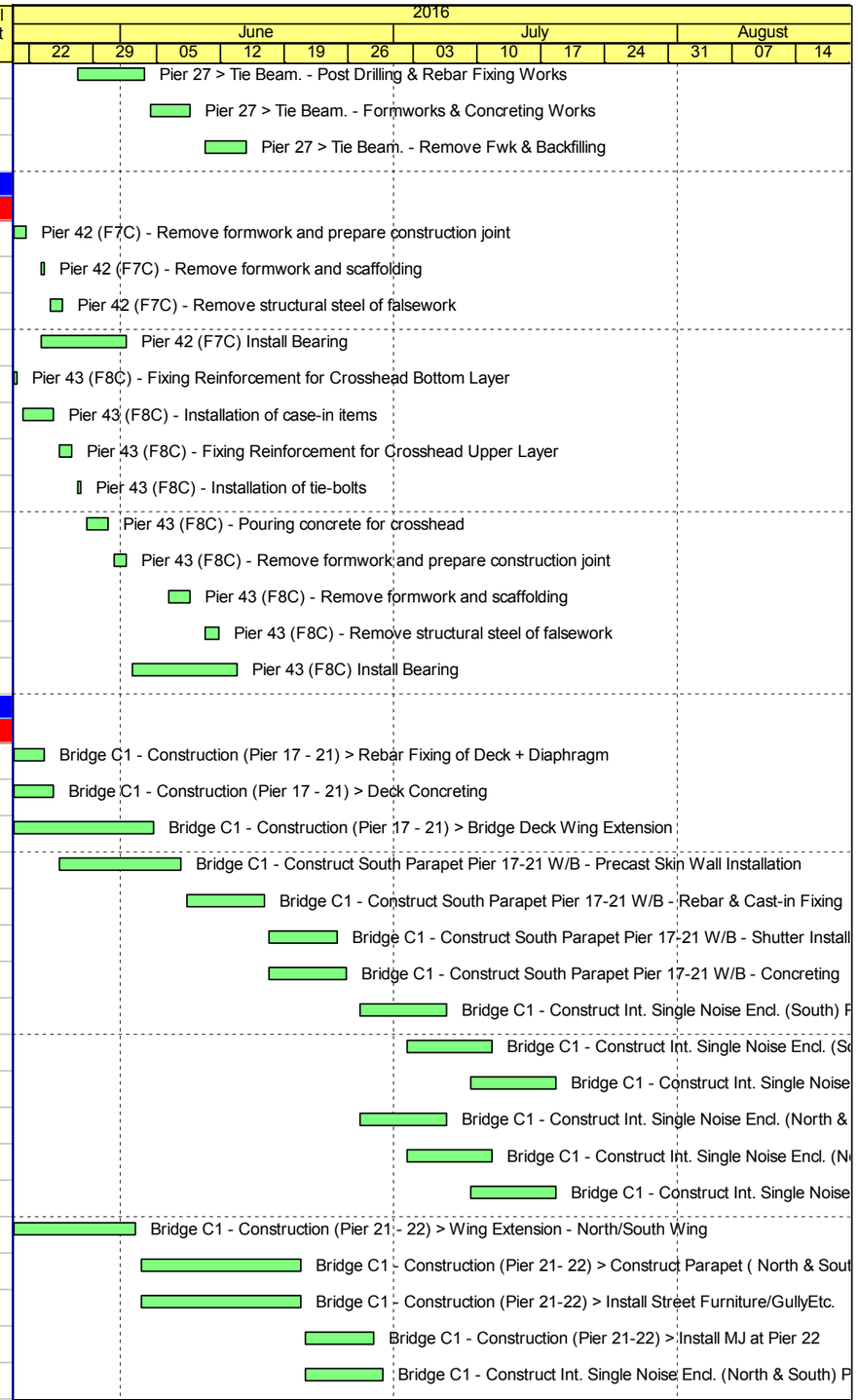
Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
0630-2040	ADB(Pier29-30) - West Basement (GL > 1-2.0/C-F) - Prepare CJ + Install Capping Plate	3	01-Jun-16	03-Jun-16	11
0630-2080	ADB(Pier29-30) - West Basement (GL > 1-2.0/C-F) - Rebar Fixing for Ground Beam	5	02-Jun-16	07-Jun-16	11
0630-2100	ADB(Pier29-30) - West Basement (GL > 1-2.0/C-F) - Erect Formworks for Ground Beam	4	08-Jun-16	13-Jun-16	11
0630-2120	ADB(Pier29-30) - West Basement (GL > 1-2.0/C-F) - Cast Concrete for Ground Beam	1	14-Jun-16	14-Jun-16	11
0630-2140	ADB(Pier29-30) - West Basement (GL > 1-2.0/C-F) - Formworks Removal	2	15-Jun-16	16-Jun-16	11
0630-2160	Complete ADB Ground Beam (Portion VD)	0		16-Jun-16	11
07 - SECTION 4 & 4A OF THE WORKS		15	12-May-16 A	06-Jun-16	0
07.1 EBV Ground Level		15	12-May-16 A	06-Jun-16	0
0710-0900	WaterProofing (N46-64/S48-67) for East Vent Bldg	7	12-May-16 A	27-May-16	0
0710-1000	Backfill (N46-64/S48-67) for East Vent Bldg	15	20-May-16	06-Jun-16	0
08 - SECTION 5 WORK		7	21-Mar-16 A	27-May-16	27
08.1 - Retaining Wall 'F' Substructure		7	21-Mar-16 A	27-May-16	27
0820-1010	low wall bet C5-11/12	7	21-Mar-16 A	27-May-16	27
09 - SECTION 6 OF THE WORKS		48	02-Jul-16	27-Aug-16	53
09.1 - Carparks for Harbour Grand Hong Kong		48	02-Jul-16	27-Aug-16	53
0910-1003	HGHK Carpark Layout Approved by BD	0		02-Jul-16	53
0910-1007	Carpark Drainage Works (Design by Others)(Partial - Portion IVB)	18	04-Jul-16	23-Jul-16	53
0910-1010	Carprk Base Slab Works (Partial - Portion IVB)	18	25-Jul-16	13-Aug-16	53
0910-1013	Carpark Finishing Works ie; Tiling, Markings & E&M (Partial - Portion IVB)	12	15-Aug-16	27-Aug-16	53
10 - SECTION X OF THE WORKS		111	01-Jun-15 A	30-Sep-16	353
10.1 - E/B Bridges (Bridge D, E and F)		60	20-May-16	30-Jul-16	404
10.1.1 - Marine Pier Construction		42	20-May-16	09-Jul-16	301
Pier F01 to F02		42	20-May-16	09-Jul-16	301
1011-8600	P36/F1B1 Pier/Column Construction	12	20-May-16	02-Jun-16	301
1011-8620	P36/F1B1 Crosshead Construction	18	03-Jun-16	24-Jun-16	301
1011-8640	Bearing installation pier P36/F1B1 & P37/F2B1	12	25-Jun-16	09-Jul-16	301
10.1.4 - Bridge E / Hing Fat Slip Road		60	20-May-16	30-Jul-16	404
Bridge Construction		60	20-May-16	30-Jul-16	404
1014-1480	Construct street furniture on bridge deck at Portion XIIC	60	20-May-16	30-Jul-16	404
10.2 - W/B Bridges (Bridge C and F)		91	07-Apr-16 A	05-Sep-16	21
10.2.1 - Tie Beam & Pile Caps Extension		48	16-May-16 A	16-Jul-16	64
1021-2300	Pier 26 > Pile Cap Ext. - Excavation & ELS Works	6	15-Jun-16	21-Jun-16	64
1021-2320	Pier 26 > Pile Cap Ext. - Post Drilling & Rebar Fixing Works	11	22-Jun-16	05-Jul-16	64
1021-2330	Pier 26 > Pile Cap Ext. - Formworks & Concreting Works	6	06-Jul-16	12-Jul-16	64
1021-2340	Pier 26 > Pile Cap Ext. - Remove Fwk & Backfilling	4	13-Jul-16	16-Jul-16	64
1021-2350	Pier 26 > Tie Beam - Excavation & ELS Works	6	18-May-16 A	26-May-16	64
1021-2360	Pier 26 > Tie Beam. - Post Drilling & Rebar Fixing Works	7	27-May-16	03-Jun-16	64
1021-2370	Pier 26 > Tie Beam. - Formworks & Concreting Works	4	04-Jun-16	08-Jun-16	64
1021-2380	Pier 26 > Tie Beam. - Remove Fwk & Backfilling	4	10-Jun-16	14-Jun-16	64
1021-2390	Pier 27 > Tie Beam - Excavation & ELS Works	6	16-May-16 A	26-May-16	64



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 May to 19 Aug 2016)

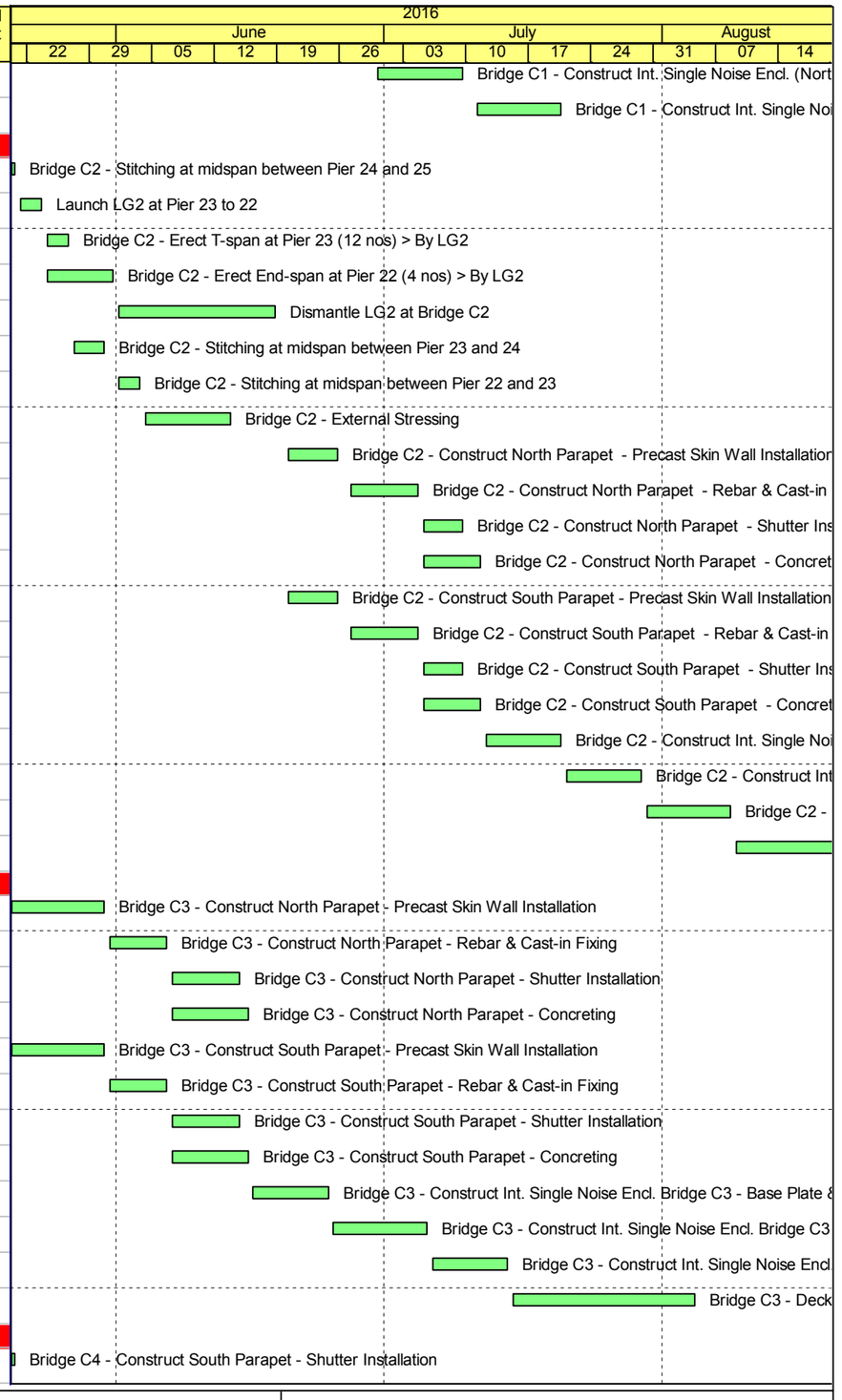
Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
1021-2400	Pier 27 > Tie Beam. - Post Drilling & Rebar Fixing Works	7	27-May-16	03-Jun-16	68
1021-2410	Pier 27 > Tie Beam. - Formworks & Concreting Works	4	04-Jun-16	08-Jun-16	68
1021-2420	Pier 27 > Tie Beam. - Remove Fwk & Backfilling	4	10-Jun-16	14-Jun-16	68
10.2.2 - Pier Construction		20	20-May-16	13-Jun-16	42
Pier 38 to 43		20	20-May-16	13-Jun-16	42
1021-2171	Pier 42 (F7C) - Remove formwork and prepare construction joint	2	20-May-16	21-May-16	8
1021-2172	Pier 42 (F7C) - Remove formwork and scaffolding	1	23-May-16	23-May-16	14
1021-2173	Pier 42 (F7C) - Remove structural steel of falsework	2	24-May-16	25-May-16	14
1021-2200	Pier 42 (F7C) Install Bearing	9	23-May-16	01-Jun-16	8
1021-2246	Pier 43 (F8C) - Fixing Reinforcement for Crosshead Bottom Layer	1	20-May-16	20-May-16	42
1021-2247	Pier 43 (F8C) - Installation of case-in items	3	21-May-16	24-May-16	42
1021-2248	Pier 43 (F8C) - Fixing Reinforcement for Crosshead Upper Layer	2	25-May-16	26-May-16	42
1021-2249	Pier 43 (F8C) - Installation of tie-bolts	1	27-May-16	27-May-16	42
1021-2250	Pier 43 (F8C) - Pouring concrete for crosshead	2	28-May-16	30-May-16	42
1021-2251	Pier 43 (F8C) - Remove formwork and prepare construction joint	2	31-May-16	01-Jun-16	42
1021-2252	Pier 43 (F8C) - Remove formwork and scaffolding	3	06-Jun-16	08-Jun-16	43
1021-2253	Pier 43 (F8C) - Remove structural steel of falsework	2	10-Jun-16	11-Jun-16	43
1021-2290	Pier 43 (F8C) Install Bearing	9	02-Jun-16	13-Jun-16	42
10.2.3 - Bridge Construction		91	07-Apr-16 A	05-Sep-16	20
Bridge C1		51	07-Apr-16 A	20-Jul-16	42
1022-1002.1	Bridge C1 - Construction (Pier 17 - 21) > Rebar Fixing of Deck + Diaphragm	3	30-Apr-16 A	23-May-16	44
1022-1002.2	Bridge C1 - Construction (Pier 17 - 21) > Deck Concreting	4	07-May-16 A	24-May-16	44
1022-1002.3	Bridge C1 - Construction (Pier 17 - 21) > Bridge Deck Wing Extension	14	07-May-16 A	04-Jun-16	48
1022-1003	Bridge C1 - Construct South Parapet Pier 17-21 W/B - Precast Skin Wall Installation	12	25-May-16	07-Jun-16	44
1022-1003.1	Bridge C1 - Construct South Parapet Pier 17-21 W/B - Rebar & Cast-in Fixing	7	08-Jun-16	16-Jun-16	44
1022-1003.2	Bridge C1 - Construct South Parapet Pier 17-21 W/B - Shutter Installation	7	17-Jun-16	24-Jun-16	44
1022-1003.3	Bridge C1 - Construct South Parapet Pier 17-21 W/B - Concreting	8	17-Jun-16	25-Jun-16	44
1022-1004	Bridge C1 - Construct Int. Single Noise Encl. (South) Pier 17-20 Stage 1 - Base Plate & Main Post	8	27-Jun-16	06-Jul-16	44
1022-1004.1	Bridge C1 - Construct Int. Single Noise Encl. (South) Pier 17-20 Stage 1 - Main Frames	8	02-Jul-16	11-Jul-16	44
1022-1004.2	Bridge C1 - Construct Int. Single Noise Encl. (South) Pier 17-20 Stage 1 - Secondary Farmes & Panels	8	09-Jul-16	18-Jul-16	44
1022-1005	Bridge C1 - Construct Int. Single Noise Encl. (North & South) Pier 20-21 - Base Plate & Main Post	8	27-Jun-16	06-Jul-16	44
1022-1005.1	Bridge C1 - Construct Int. Single Noise Encl. (North & South) Pier 20-21 - Main Frames	8	02-Jul-16	11-Jul-16	44
1022-1005.2	Bridge C1 - Construct Int. Single Noise Encl. (North & South) Pier 20-21 - Secondary Farmes & Panels	8	09-Jul-16	18-Jul-16	44
1022-2753	Bridge C1 - Construction (Pier 21 - 22) > Wing Extension - North/South Wing	12	07-Apr-16 A	02-Jun-16	42
1022-2754	Bridge C1 - Construction (Pier 21- 22) > Construct Parapet (North & South)	14	03-Jun-16	20-Jun-16	42
1022-2755	Bridge C1 - Construction (Pier 21-22) > Install Street Furniture/GullyEtc.	14	03-Jun-16	20-Jun-16	67
1022-2756	Bridge C1 - Construction (Pier 21-22) > Install MJ at Pier 22	7	21-Jun-16	28-Jun-16	60
1022-2763	Bridge C1 - Construct Int. Single Noise Encl. (North & South) Pier 21-22 - Base Plate & Main Post	8	21-Jun-16	29-Jun-16	42



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 May to 19 Aug 2016)

Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
1022-2763.1	Bridge C1 - Construct Int. Single Noise Encl. (North & South) Pier 21-22 - Main Frames	8	30-Jun-16	09-Jul-16	42
1022-2763.2	Bridge C1 - Construct Int. Single Noise Encl. (North & South) Pier 21-22 - Secondary Farmes & Panels	9	11-Jul-16	20-Jul-16	42
Bridge C2		85	17-May-16 A	29-Aug-16	26
1022-2822	Bridge C2 - Stitching at midspan between Pier 24 and 25	1	17-May-16 A	20-May-16	26
1022-2824	Launch LG2 at Pier 23 to 22	2	21-May-16	23-May-16	26
1022-2826	Bridge C2 - Erect T-span at Pier 23 (12 nos) > By LG2	3	24-May-16	26-May-16	26
1022-2828	Bridge C2 - Erect End-span at Pier 22 (4 nos) > By LG2	7	24-May-16	31-May-16	26
1022-2829	Dismantle LG2 at Bridge C2	15	01-Jun-16	18-Jun-16	26
1022-2920	Bridge C2 - Stitching at midspan between Pier 23 and 24	3	27-May-16	30-May-16	35
1022-2980	Bridge C2 - Stitching at midspan between Pier 22 and 23	3	01-Jun-16	03-Jun-16	31
1022-3020	Bridge C2 - External Stressing	7	04-Jun-16	13-Jun-16	31
1022-3040	Bridge C2 - Construct North Parapet - Precast Skin Wall Installation	6	20-Jun-16	25-Jun-16	26
1022-3040.2	Bridge C2 - Construct North Parapet - Rebar & Cast-in Fixing	6	27-Jun-16	04-Jul-16	26
1022-3040.4	Bridge C2 - Construct North Parapet - Shutter Installation	5	05-Jul-16	09-Jul-16	26
1022-3040.6	Bridge C2 - Construct North Parapet - Concreting	6	05-Jul-16	11-Jul-16	26
1022-3180	Bridge C2 - Construct South Parapet - Precast Skin Wall Installation	6	20-Jun-16	25-Jun-16	26
1022-3180.2	Bridge C2 - Construct South Parapet - Rebar & Cast-in Fixing	6	27-Jun-16	04-Jul-16	26
1022-3180.4	Bridge C2 - Construct South Parapet - Shutter Installation	5	05-Jul-16	09-Jul-16	26
1022-3180.6	Bridge C2 - Construct South Parapet - Concreting	6	05-Jul-16	11-Jul-16	26
1022-4120	Bridge C2 - Construct Int. Single Noise Encl. Bridge C2 - Excl. Pier 21-22 - Base Plate & Main Post	8	12-Jul-16	20-Jul-16	26
1022-4120.1	Bridge C2 - Construct Int. Single Noise Encl. Bridge C2 - Excl. Pier 21-22 - Main Frames	8	21-Jul-16	29-Jul-16	26
1022-4120.2	Bridge C2 - Construct Int. Single Noise Encl. Bridge C2 - Excl. Pier 21-22 - Secondary Farmes & Panels	8	30-Jul-16	08-Aug-16	26
1022-4140	Bridge C2 + C1 Deck Road Waterproofing, Surfacing & Marking	18	09-Aug-16	29-Aug-16	26
Bridge C3		64	20-May-16	04-Aug-16	47
1022-2760	Bridge C3 - Construct North Parapet - Precast Skin Wall Installation	9	20-May-16	30-May-16	29
1022-2760.2	Bridge C3 - Construct North Parapet - Rebar & Cast-in Fixing	6	31-May-16	06-Jun-16	29
1022-2760.4	Bridge C3 - Construct North Parapet - Shutter Installation	6	07-Jun-16	14-Jun-16	29
1022-2760.6	Bridge C3 - Construct North Parapet - Concreting	7	07-Jun-16	15-Jun-16	29
1022-2780	Bridge C3 - Construct South Parapet - Precast Skin Wall Installation	9	20-May-16	30-May-16	47
1022-2780.2	Bridge C3 - Construct South Parapet - Rebar & Cast-in Fixing	6	31-May-16	06-Jun-16	47
1022-2780.4	Bridge C3 - Construct South Parapet - Shutter Installation	6	07-Jun-16	14-Jun-16	47
1022-2780.6	Bridge C3 - Construct South Parapet - Concreting	7	07-Jun-16	15-Jun-16	47
1022-4110	Bridge C3 - Construct Int. Single Noise Encl. Bridge C3 - Base Plate & Main Post	8	16-Jun-16	24-Jun-16	47
1022-4110.1	Bridge C3 - Construct Int. Single Noise Encl. Bridge C3 - Main Frames	8	25-Jun-16	05-Jul-16	47
1022-4110.2	Bridge C3 - Construct Int. Single Noise Encl. Bridge C3 - Secondary Farmes & Panels	8	06-Jul-16	14-Jul-16	47
1022-4111	Bridge C3 - Deck Road Waterproofing, Surfacing & Marking	18	15-Jul-16	04-Aug-16	47
Bridge C4		31	07-May-16 A	25-Jun-16	80
1022-1552.2	Bridge C4 - Construct South Parapet - Shutter Installation	1	07-May-16 A	20-May-16	80



Remaining Level of Effort ◆ Milestone
Actual Level of Effort
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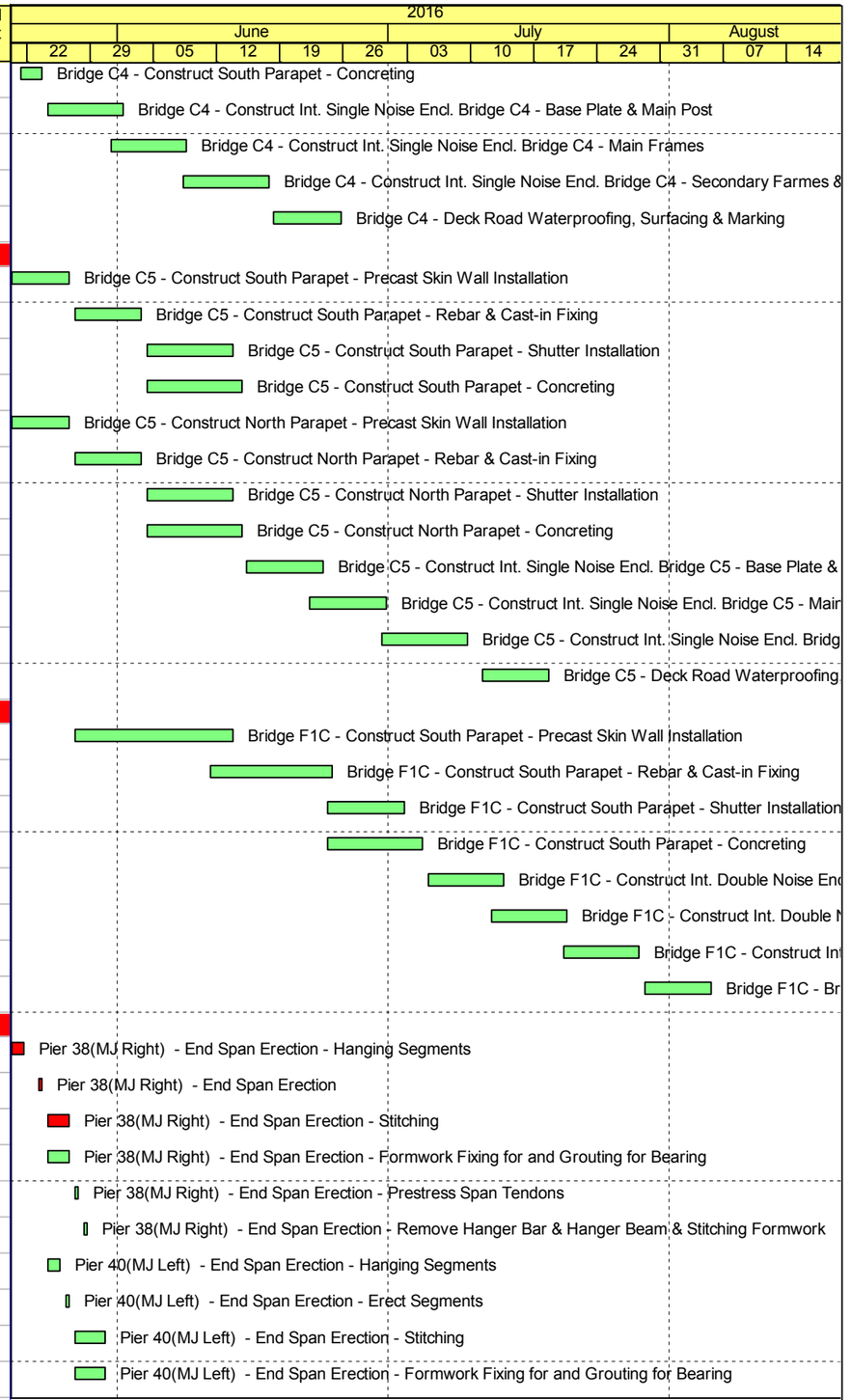
Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
1022-1552.3	Bridge C4 - Construct South Parapet - Concreting	2	13-May-16 A	23-May-16	80
1022-1558	Bridge C4 - Construct Int. Single Noise Encl. Bridge C4 - Base Plate & Main Post	8	24-May-16	01-Jun-16	80
1022-1558.1	Bridge C4 - Construct Int. Single Noise Encl. Bridge C4 - Main Frames	8	31-May-16	08-Jun-16	80
1022-1558.2	Bridge C4 - Construct Int. Single Noise Encl. Bridge C4 - Secondary Farmes & Panels	8	08-Jun-16	17-Jun-16	80
1022-1564	Bridge C4 - Deck Road Waterproofing, Surfacing & Marking	7	18-Jun-16	25-Jun-16	80
Bridge C5		49	12-May-16 A	18-Jul-16	62
1022-3942.1	Bridge C5 - Construct South Parapet - Precast Skin Wall Installation	6	12-May-16 A	26-May-16	5
1022-3942.2	Bridge C5 - Construct South Parapet - Rebar & Cast-in Fixing	7	27-May-16	03-Jun-16	5
1022-3942.3	Bridge C5 - Construct South Parapet - Shutter Installation	7	04-Jun-16	13-Jun-16	5
1022-3942.4	Bridge C5 - Construct South Parapet - Concreting	8	04-Jun-16	14-Jun-16	5
1022-3942.5	Bridge C5 - Construct North Parapet - Precast Skin Wall Installation	6	12-May-16 A	26-May-16	5
1022-3942.6	Bridge C5 - Construct North Parapet - Rebar & Cast-in Fixing	7	27-May-16	03-Jun-16	5
1022-3942.7	Bridge C5 - Construct North Parapet - Shutter Installation	7	04-Jun-16	13-Jun-16	5
1022-3942.8	Bridge C5 - Construct North Parapet - Concreting	8	04-Jun-16	14-Jun-16	5
1022-3953	Bridge C5 - Construct Int. Single Noise Encl. Bridge C5 - Base Plate & Main Post	8	15-Jun-16	23-Jun-16	5
1022-3953.1	Bridge C5 - Construct Int. Single Noise Encl. Bridge C5 - Main Frames	8	22-Jun-16	30-Jun-16	62
1022-3953.2	Bridge C5 - Construct Int. Single Noise Encl. Bridge C5 - Secondary Farmes & Panels	8	30-Jun-16	09-Jul-16	62
1022-3954	Bridge C5 - Deck Road Waterproofing, Surfacing & Marking	7	11-Jul-16	18-Jul-16	62
Bridge F1C		59	27-May-16	05-Aug-16	46
1022.1-4245	Bridge F1C - Construct South Parapet - Precast Skin Wall Installation	14	27-May-16	13-Jun-16	32
1022.1-4245.1	Bridge F1C - Construct South Parapet - Rebar & Cast-in Fixing	12	11-Jun-16	24-Jun-16	46
1022.1-4245.2	Bridge F1C - Construct South Parapet - Shutter Installation	7	24-Jun-16	02-Jul-16	46
1022.1-4245.3	Bridge F1C - Construct South Parapet - Concreting	8	24-Jun-16	04-Jul-16	46
1022.1-4247	Bridge F1C - Construct Int. Double Noise Encl. Bridge F1C - Base Plate & Main Post	8	05-Jul-16	13-Jul-16	46
1022.1-4248	Bridge F1C - Construct Int. Double Noise Encl. Bridge F1C - Main Frames	8	12-Jul-16	20-Jul-16	46
1022.1-4249	Bridge F1C - Construct Int. Double Noise Encl. Bridge F1C - Secondary Farmes & Panels	8	20-Jul-16	28-Jul-16	46
1022.1-4251	Bridge F1C - Bridge F1C Deck Road Waterproofing, Surfacing & Marking	7	29-Jul-16	05-Aug-16	46
Bridge F2C		81	20-May-16	24-Aug-16	30
1022.1-4318	Pier 38(MJ Right) - End Span Erection - Hanging Segments	2	20-May-16	21-May-16	0
1022.1-4321	Pier 38(MJ Right) - End Span Erection	1	23-May-16	23-May-16	0
1022.1-4324	Pier 38(MJ Right) - End Span Erection - Stitching	3	24-May-16	26-May-16	0
1022.1-4327	Pier 38(MJ Right) - End Span Erection - Formwork Fixing for and Grouting for Bearing	3	24-May-16	26-May-16	32
1022.1-4330	Pier 38(MJ Right) - End Span Erection - Prestress Span Tendons	1	27-May-16	27-May-16	32
1022.1-4333	Pier 38(MJ Right) - End Span Erection - Remove Hanger Bar & Hanger Beam & Stitching Formwork	1	28-May-16	28-May-16	32
1022.1-4336	Pier 40(MJ Left) - End Span Erection - Hanging Segments	2	24-May-16	25-May-16	4
1022.1-4339	Pier 40(MJ Left) - End Span Erection - Erect Segments	1	26-May-16	26-May-16	4
1022.1-4342	Pier 40(MJ Left) - End Span Erection - Stitching	3	27-May-16	30-May-16	4
1022.1-4345	Pier 40(MJ Left) - End Span Erection - Formwork Fixing for and Grouting for Bearing	3	27-May-16	30-May-16	4



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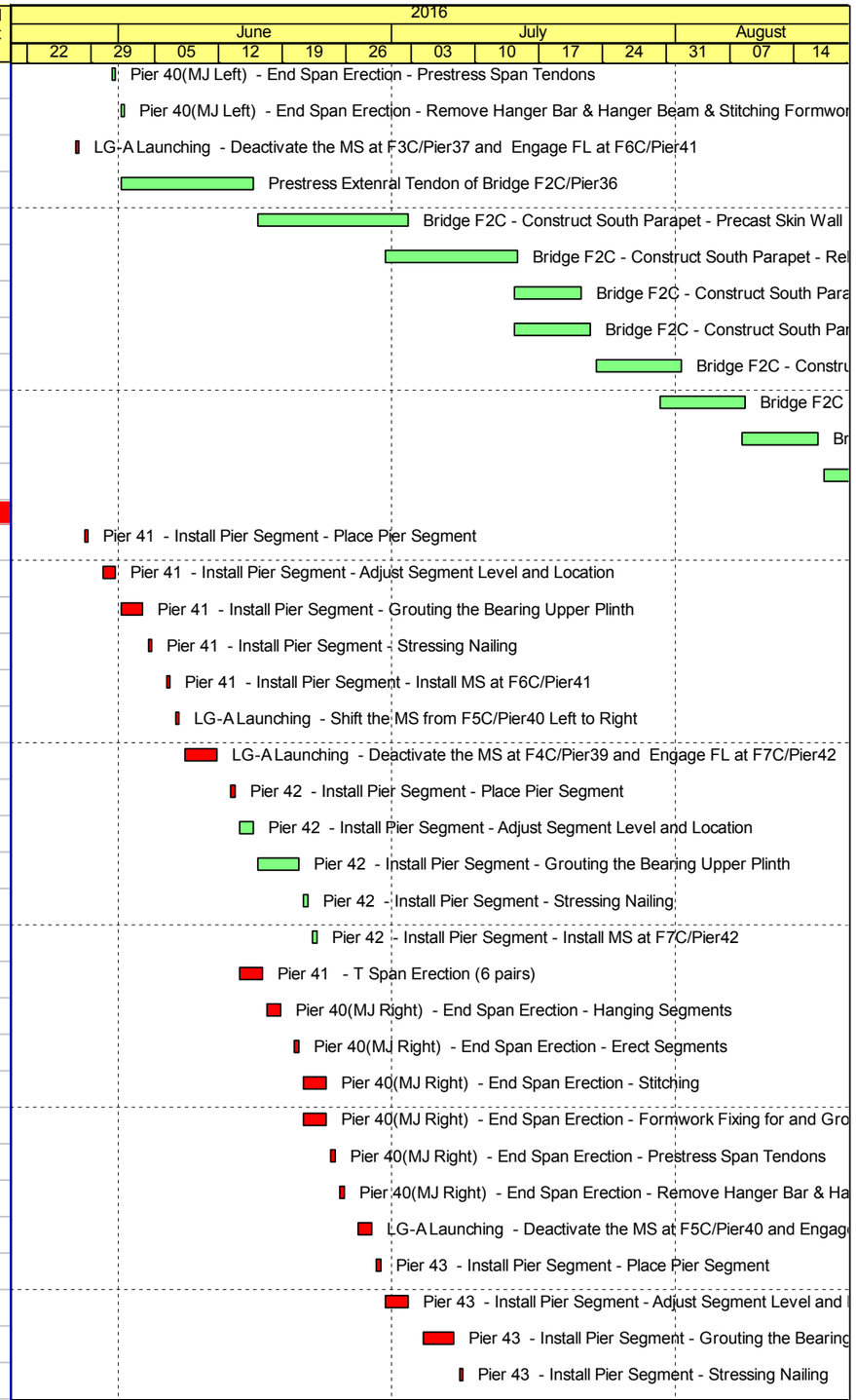
Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
1022.1-4348	Pier 40(MJ Left) - End Span Erection - Prestress Span Tendons	1	31-May-16	31-May-16	4
1022.1-4351	Pier 40(MJ Left) - End Span Erection - Remove Hanger Bar & Hanger Beam & Stitching Formwork	1	01-Jun-16	01-Jun-16	4
1022.1-4354	LG-A Launching - Deactivate the MS at F3C/Pier37 and Engage FL at F6C/Pier41	1	27-May-16	27-May-16	0
1022.1-4355	Prestress Extenral Tendon of Bridge F2C/Pier36	12	01-Jun-16	15-Jun-16	30
1022.1-4356	Bridge F2C - Construct South Parapet - Precast Skin Wall Installation	14	16-Jun-16	02-Jul-16	30
1022.1-4357	Bridge F2C - Construct South Parapet - Rebar & Cast-in Fixing	12	30-Jun-16	14-Jul-16	30
1022.1-4358	Bridge F2C - Construct South Parapet - Shutter Installation	7	14-Jul-16	21-Jul-16	30
1022.1-4359	Bridge F2C - Construct South Parapet - Concreting	8	14-Jul-16	22-Jul-16	30
1022.1-4363.1	Bridge F2C - Construct Int. Double Noise Encl. (54m) - Base Plate & Main Post	8	23-Jul-16	01-Aug-16	30
1022.1-4363.2	Bridge F2C - Construct Int. Double Noise Encl. (54m) - Main Frames	8	30-Jul-16	08-Aug-16	30
1022.1-4363.3	Bridge F2C - Construct Int. Double Noise Encl. (54m) - Secondary Farmes & Panels	8	08-Aug-16	16-Aug-16	30
1022.1-4369	Bridge F2C - Deck Road Waterproofing, Surfacing & Marking	7	17-Aug-16	24-Aug-16	30
Bridge F3C		84	28-May-16	05-Sep-16	14
1022.1-4370	Pier 41 - Install Pier Segment - Place Pier Segment	1	28-May-16	28-May-16	0
1022.1-4375	Pier 41 - Install Pier Segment - Adjust Segment Level and Location	2	30-May-16	31-May-16	0
1022.1-4380	Pier 41 - Install Pier Segment - Grouting the Bearing Upper Plinth	3	01-Jun-16	03-Jun-16	0
1022.1-4385	Pier 41 - Install Pier Segment - Stressing Nailing	1	04-Jun-16	04-Jun-16	0
1022.1-4390	Pier 41 - Install Pier Segment - Install MS at F6C/Pier41	1	06-Jun-16	06-Jun-16	0
1022.1-4395	LG-A Launching - Shift the MS from F5C/Pier40 Left to Right	1	07-Jun-16	07-Jun-16	0
1022.1-4400	LG-A Launching - Deactivate the MS at F4C/Pier39 and Engage FL at F7C/Pier42	3	08-Jun-16	11-Jun-16	0
1022.1-4405	Pier 42 - Install Pier Segment - Place Pier Segment	1	13-Jun-16	13-Jun-16	0
1022.1-4410	Pier 42 - Install Pier Segment - Adjust Segment Level and Location	2	14-Jun-16	15-Jun-16	3
1022.1-4415	Pier 42 - Install Pier Segment - Grouting the Bearing Upper Plinth	4	16-Jun-16	20-Jun-16	3
1022.1-4420	Pier 42 - Install Pier Segment - Stressing Nailing	1	21-Jun-16	21-Jun-16	3
1022.1-4425	Pier 42 - Install Pier Segment - Install MS at F7C/Pier42	1	22-Jun-16	22-Jun-16	3
1022.1-4430	Pier 41 - T Span Erection (6 pairs)	3	14-Jun-16	16-Jun-16	0
1022.1-4435	Pier 40(MJ Right) - End Span Erection - Hanging Segments	2	17-Jun-16	18-Jun-16	0
1022.1-4440	Pier 40(MJ Right) - End Span Erection - Erect Segments	1	20-Jun-16	20-Jun-16	0
1022.1-4445	Pier 40(MJ Right) - End Span Erection - Stitching	3	21-Jun-16	23-Jun-16	0
1022.1-4450	Pier 40(MJ Right) - End Span Erection - Formwork Fixing for and Grouting for Bearing	3	21-Jun-16	23-Jun-16	0
1022.1-4455	Pier 40(MJ Right) - End Span Erection - Prestress Span Tendons	1	24-Jun-16	24-Jun-16	0
1022.1-4460	Pier 40(MJ Right) - End Span Erection - Remove Hanger Bar & Hanger Beam & Stitching Formwork	1	25-Jun-16	25-Jun-16	0
1022.1-4465	LG-A Launching - Deactivate the MS at F5C/Pier40 and Engage FL at F8C/Pier43 Right	2	27-Jun-16	28-Jun-16	0
1022.1-4466	Pier 43 - Install Pier Segment - Place Pier Segment	1	29-Jun-16	29-Jun-16	0
1022.1-4467	Pier 43 - Install Pier Segment - Adjust Segment Level and Location	2	30-Jun-16	02-Jul-16	0
1022.1-4468	Pier 43 - Install Pier Segment - Grouting the Bearing Upper Plinth	4	04-Jul-16	07-Jul-16	0
1022.1-4469	Pier 43 - Install Pier Segment - Stressing Nailing	1	08-Jul-16	08-Jul-16	0



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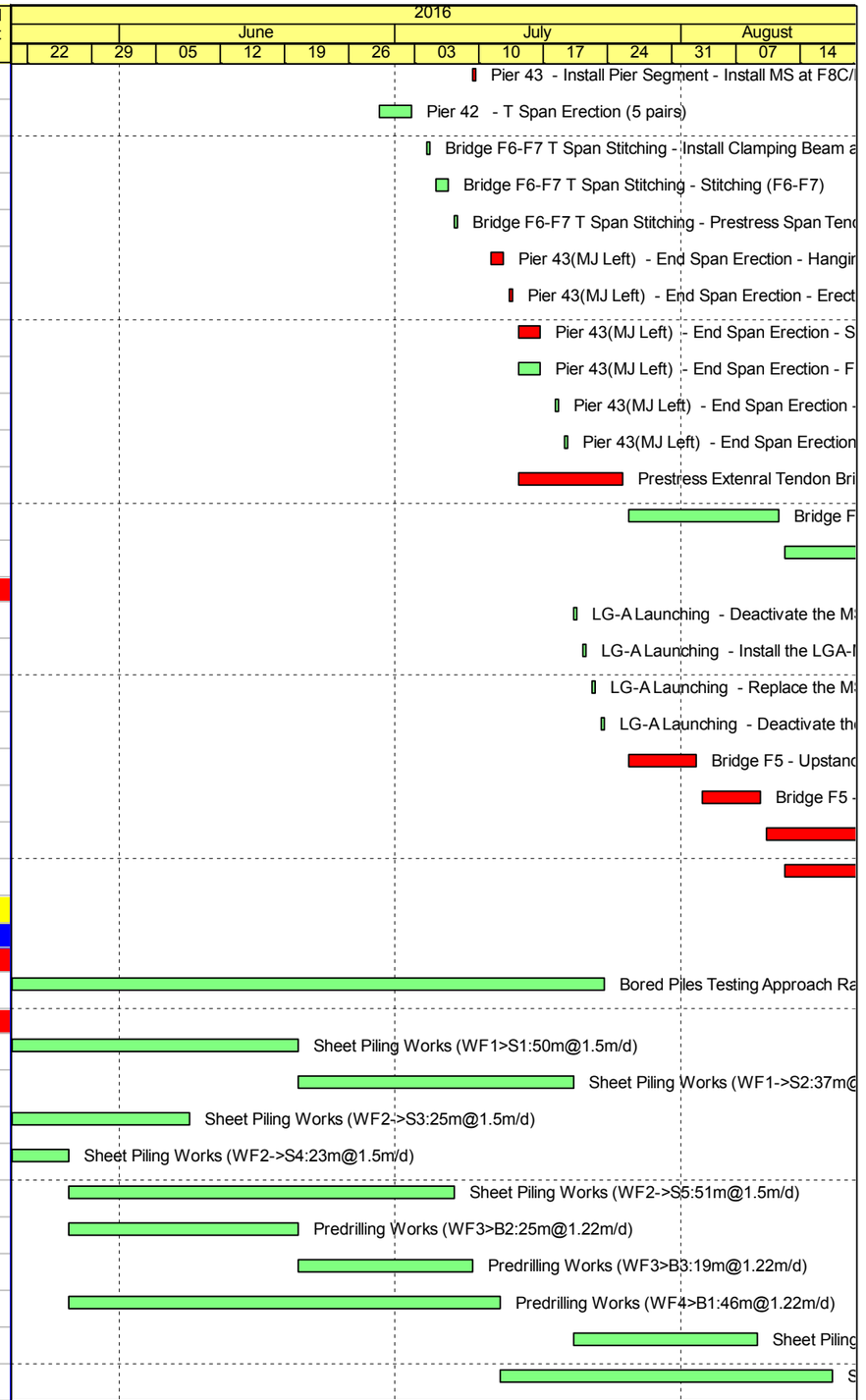
Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
1022.1-4470	Pier 43 - Install Pier Segment - Install MS at F8C/Pier43	1	09-Jul-16	09-Jul-16	0
1022.1-4481	Pier 42 - T Span Erection (5 pairs)	3	29-Jun-16	02-Jul-16	5
1022.1-4482	Bridge F6-F7 T Span Stitching - Install Clamping Beam and Adjust T span (F6-F7)	1	04-Jul-16	04-Jul-16	5
1022.1-4483	Bridge F6-F7 T Span Stitching - Stitching (F6-F7)	2	05-Jul-16	06-Jul-16	5
1022.1-4484	Bridge F6-F7 T Span Stitching - Prestress Span Tendons (F6-F7)	1	07-Jul-16	07-Jul-16	5
1022.1-4485	Pier 43(MJ Left) - End Span Erection - Hanging Segments	2	11-Jul-16	12-Jul-16	0
1022.1-4486	Pier 43(MJ Left) - End Span Erection - Erect Segments	1	13-Jul-16	13-Jul-16	0
1022.1-4487	Pier 43(MJ Left) - End Span Erection - Stitching	3	14-Jul-16	16-Jul-16	0
1022.1-4488	Pier 43(MJ Left) - End Span Erection - Formwork Fixing for and Grouting for Bearing	3	14-Jul-16	16-Jul-16	5
1022.1-4489	Pier 43(MJ Left) - End Span Erection - Prestress Span Tendons	1	18-Jul-16	18-Jul-16	5
1022.1-4490	Pier 43(MJ Left) - End Span Erection - Remove Hanger Bar & Hanger Beam & Stitching Formwork	1	19-Jul-16	19-Jul-16	5
1022.1-4520	Prestress Extenral Tendon Bridge F3C	10	14-Jul-16	25-Jul-16	0
1022.1-4525	Bridge F3C - Construct South Parapet (83m)	15	26-Jul-16	11-Aug-16	14
1022.1-4530	Bridge F3C - Construct Int. Double Noise Encl. Bridge F3C (83m)	21	12-Aug-16	05-Sep-16	14
Bridge F5		35	20-Jul-16	29-Aug-16	0
1022.1-4540	LG-A Launching - Deactivate the MS at F6C	1	20-Jul-16	20-Jul-16	8
1022.1-4545	LG-A Launching - Install the LGA-MS-Modified at F9	1	21-Jul-16	21-Jul-16	8
1022.1-4550	LG-A Launching - Replace the MS at F8 to LGA-M MS	1	22-Jul-16	22-Jul-16	8
1022.1-4555	LG-A Launching - Deactivate the MS at F7C	1	23-Jul-16	23-Jul-16	8
1022.1-5000	Bridge F5 - Upstand Wall & Bearing Installation at Pier 43 after Tendon Stressing of F3C	7	26-Jul-16	02-Aug-16	0
1022.1-5005	Bridge F5 - W/B precast beams at Pier 43 to 44 (6 nos)	6	03-Aug-16	09-Aug-16	0
1022.1-5010	Dismantle LG1	15	10-Aug-16	26-Aug-16	0
1022.1-5015	Bridge F5 - W/B Construct R.C. Deck	15	12-Aug-16	29-Aug-16	0
10.6 - Tunnel Approach Ramp		80	01-Jun-15 A	24-Aug-16	177
10.6.1 - Approach Ramp (Excluding Portion IIB)		80	01-Jun-15 A	24-Aug-16	177
Bored Piles		54	01-Jun-15 A	23-Jul-16	203
1061-1120	Bored Piles Testing Approach Ramp (112 nos)	54	01-Jun-15 A	23-Jul-16	203
Excavation & ELS Works		80	21-Mar-16 A	24-Aug-16	30
1061-4900.1	Sheet Piling Works (WF1>S1:50m@1.5m/d)	25	11-Apr-16 A	20-Jun-16	30
1061-4900.2	Sheet Piling Works (WF1->S2:37m@1.5m/d)	25	20-Jun-16	20-Jul-16	30
1061-4900.3	Sheet Piling Works (WF2->S3:25m@1.5m/d)	17	11-Apr-16 A	08-Jun-16	36
1061-4900.4	Sheet Piling Works (WF2->S4:23m@1.5m/d)	5	25-Apr-16 A	26-May-16	36
1061-4900.5	Sheet Piling Works (WF2->S5:51m@1.5m/d)	34	26-May-16	07-Jul-16	40
1061-4900.6	Predrilling Works (WF3>B2:25m@1.22m/d)	20	26-May-16	20-Jun-16	36
1061-4900.7	Predrilling Works (WF3>B3:19m@1.22m/d)	16	20-Jun-16	09-Jul-16	56
1061-4900.8	Predrilling Works (WF4>B1:46m@1.22m/d)	38	26-May-16	12-Jul-16	36
1061-4900.9	Sheet Piling Works (WF1>B2:25m@1.5m/d)	17	20-Jul-16	09-Aug-16	30
1061-4901.1	Sheet Piling Works (WF2>B1:46m@1.5m/d)	31	12-Jul-16	17-Aug-16	36



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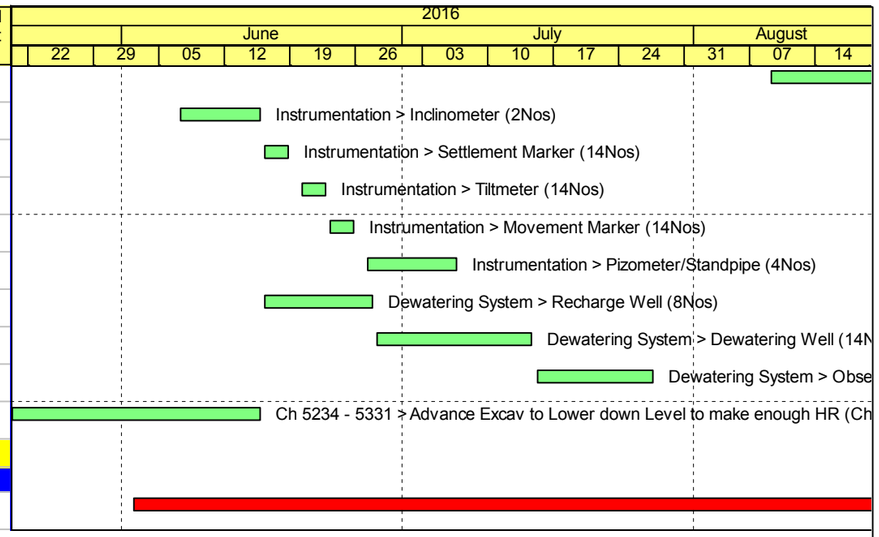
Three Months Rolling Programme (20 May to 19 Aug 2016)

Activity ID	Activity Name	Rem Dur	Start	Finish	Total Float
1061-4901.2	Sheet Piling Works (WF1>B2:19m@1.5m/d)	13	09-Aug-16	24-Aug-16	30
1061-4940	Instrumentation > Inclinometer (2Nos)	7	07-Jun-16	15-Jun-16	53
1061-4960	Instrumentation > Settlement Marker (14Nos)	3	16-Jun-16	18-Jun-16	60
1061-4980	Instrumentation > Tiltmeter (14Nos)	3	20-Jun-16	22-Jun-16	60
1061-5000	Instrumentation > Movement Marker (14Nos)	3	23-Jun-16	25-Jun-16	60
1061-5020	Instrumentation > Pizometer/Standpipe (4Nos)	8	27-Jun-16	06-Jul-16	60
1061-5040	Dewatering System > Recharge Well (8Nos)	10	16-Jun-16	27-Jun-16	53
1061-5060	Dewatering System > Dewatering Well (14Nos)	14	28-Jun-16	14-Jul-16	53
1061-5080	Dewatering System > Observation Well (10Nos)	11	15-Jul-16	27-Jul-16	53
1061-5130	Ch 5234 - 5331 > Advance Excav to Lower down Level to make enough HR (Ch 5285 - 5331 w/ open cut)	22	21-Mar-16 A	15-Jun-16	33
10.7 - Section X - Miscellaneous Works		120	02-Jun-16	30-Sep-16	1
10.7.1 - TTM Stages		120	02-Jun-16	30-Sep-16	1
1071-1300	TTM Stage 6 - TMLG Consultation and Endorsement	120	02-Jun-16	30-Sep-16	1



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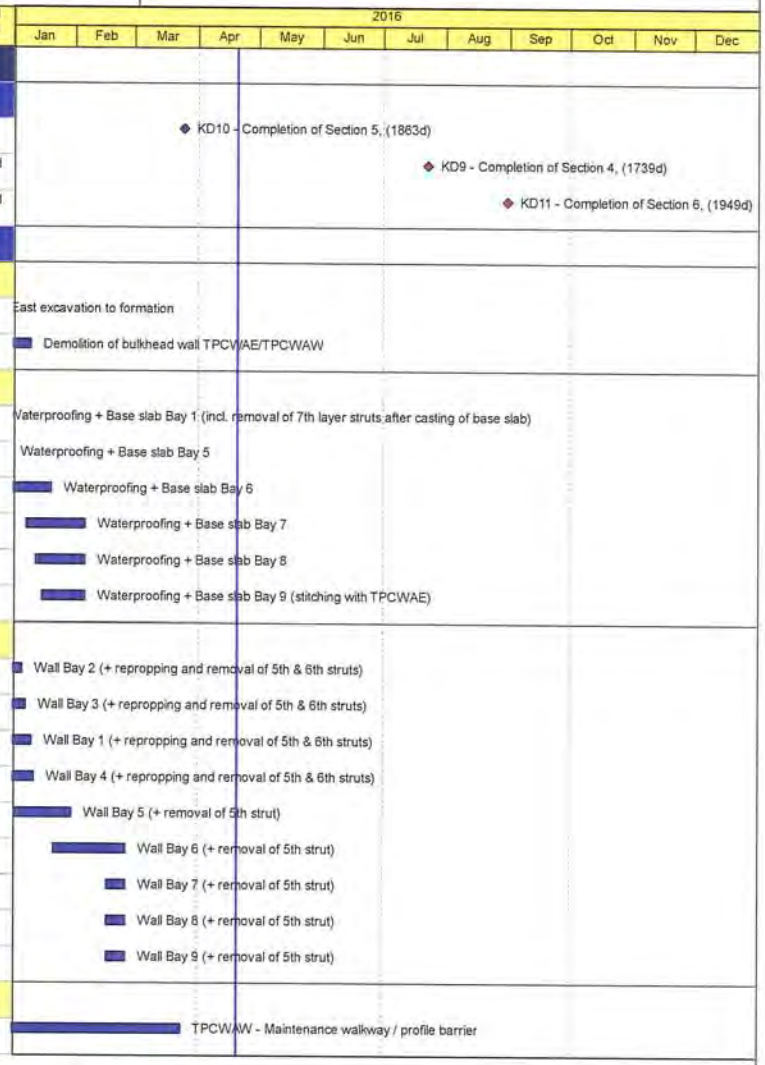
Three Months Rolling Programme (20 May to 19 Aug 2016)

Activity ID	Activity Name	Physical % Complete	Original Duration	Start	Finish	Total Float
HY/2009/15 - Works Programme Update 20 April 2016						
Stage and Section Completion						
KD_5745	KD10 - Completion of Section 5, (1863d)	100%	0d		25-Mar-16 A	
KD_5740	KD9 - Completion of Section 4, (1739d)	0%	0d		22-Jul-16*	-385d
KD_5750	KD11 - Completion of Section 6, (1949d)	0%	0d		30-Aug-16*	-214d
TPCWAW						
TPCWAW ELS Works - East Section						
S6_6180	East excavation to formation	100%	85d	18-Sep-15 A	24-Dec-15 A	
S5_61070	Demolition of bulkhead wall TPCWAE/TPCWAW	100%	34d	06-Dec-15 A	09-Jan-16 A	
TPCWAW- CCT RC Structure, Base Slab						
S5_60600	Waterproofing + Base slab Bay 1 (incl. removal of 7th layer struts after casting of base slab)	100%	15d	03-Dec-15 A	23-Dec-15 A	
S5_60620	Waterproofing + Base slab Bay 5	100%	11d	05-Dec-15 A	29-Dec-15 A	
S5_60625	Waterproofing + Base slab Bay 6	100%	11d	16-Dec-15 A	19-Jan-16 A	
S5_60630	Waterproofing + Base slab Bay 7	100%	7d	07-Jan-16 A	05-Feb-16 A	
S5_60635	Waterproofing + Base slab Bay 8	100%	6d	12-Jan-16 A	05-Feb-16 A	
S5_61065	Waterproofing + Base slab Bay 9 (stitching with TPCWAE)	100%	6d	15-Jan-16 A	05-Feb-16 A	
TPCWAW- CCT RC Structure, Wall						
S5_60675	Wall Bay 2 (+ repropping and removal of 5th & 6th struts)	100%	10d	10-Dec-15 A	05-Jan-16 A	
S5_60680	Wall Bay 3 (+ repropping and removal of 5th & 6th struts)	100%	21d	10-Dec-15 A	07-Jan-16 A	
S5_60670	Wall Bay 1 (+ repropping and removal of 5th & 6th struts)	100%	21d	15-Dec-15 A	10-Jan-16 A	
S5_60685	Wall Bay 4 (+ repropping and removal of 5th & 6th struts)	100%	22d	20-Dec-15 A	11-Jan-16 A	
S5_60690	Wall Bay 5 (+ removal of 5th strut)	100%	10d	02-Jan-16 A	29-Jan-16 A	
S5_60695	Wall Bay 6 (+ removal of 5th strut)	100%	7d	21-Jan-16 A	25-Feb-16 A	
S5_60700	Wall Bay 7 (+ removal of 5th strut)	100%	8d	16-Feb-16 A	25-Feb-16 A	
S5_60705	Wall Bay 8 (+ removal of 5th strut)	100%	9d	16-Feb-16 A	25-Feb-16 A	
S5_61075	Wall Bay 9 (+ removal of 5th strut)	100%	8d	16-Feb-16 A	25-Feb-16 A	
TPCWAW -Maintenance Walkway						
S6_9085	TPCWAW - Maintenance walkway / profile barrier	100%	23d	20-Dec-15 A	23-Mar-16 A	



Remaining Work
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary
Actual Work

China State Construction Engineering (Hong Kong) Ltd.

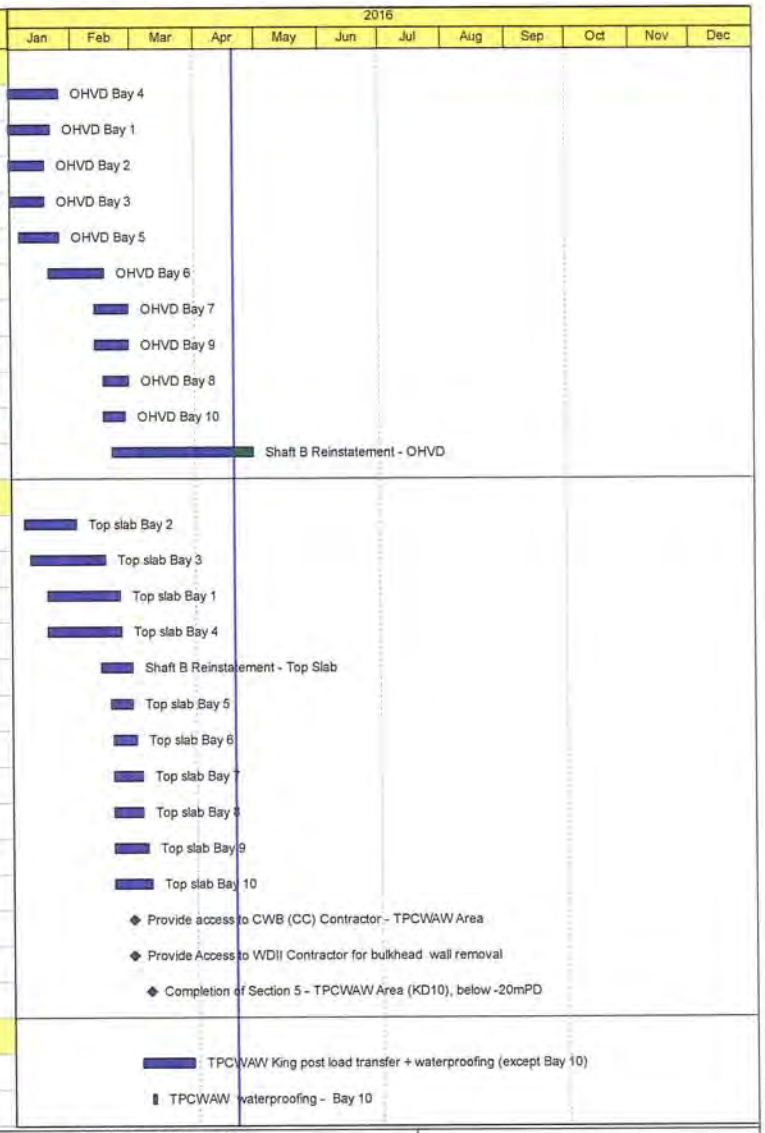
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)

WORKS PROGRAMME UPDATE

Prepared by Quartz Jequinto

Date	Revision	Checked	Approved
20-Apr-16	Progress Update	WC	WSL
	(based on WP Rev. N-3rd Submission)		

Activity ID	Activity Name	Physical % Complete	Original Duration	Start	Finish	Total Float
TPCWAW- CCT RC Structure, OHVD						
S5_60755	OHVD Bay 4	100%	12d	24-Dec-15 A	25-Jan-16 A	
S5_60740	OHVD Bay 1	100%	12d	29-Dec-15 A	21-Jan-16 A	
S5_60745	OHVD Bay 2	100%	12d	31-Dec-15 A	18-Jan-16 A	
S5_60750	OHVD Bay 3	100%	12d	02-Jan-16 A	18-Jan-16 A	
S5_60760	OHVD Bay 5	100%	12d	06-Jan-16 A	25-Jan-16 A	
S5_61080	OHVD Bay 6	100%	9d	20-Jan-16 A	16-Feb-16 A	
S5_61085	OHVD Bay 7	100%	9d	12-Feb-16 A	28-Feb-16 A	
S5_61095	OHVD Bay 9	100%	9d	12-Feb-16 A	28-Feb-16 A	
S5_61090	OHVD Bay 8	100%	9d	16-Feb-16 A	28-Feb-16 A	
S5_61100	OHVD Bay 10	100%	7d	16-Feb-16 A	26-Feb-16 A	
S5_61110	Shaft B Reinstatement - OHVD	40%	20d	20-Feb-16 A	29-Apr-16	122d
TPCWAW- CCT RC Structure, Top Slab + Waterproofing						
S5_60815	Top slab Bay 2	100%	10d	08-Jan-16 A	02-Feb-16 A	
S5_60820	Top slab Bay 3	100%	10d	11-Jan-16 A	16-Feb-16 A	
S5_60810	Top slab Bay 1	100%	11d	19-Jan-16 A	23-Feb-16 A	
S5_60825	Top slab Bay 4	100%	11d	19-Jan-16 A	24-Feb-16 A	
S5_61105	Shaft B Reinstatement - Top Slab	100%	15d	14-Feb-16 A	29-Feb-16 A	
S5_60830	Top slab Bay 5	100%	10d	19-Feb-16 A	29-Feb-16 A	
S5_60835	Top slab Bay 6	100%	12d	20-Feb-16 A	02-Mar-16 A	
S5_60840	Top slab Bay 7	100%	7d	20-Feb-16 A	05-Mar-16 A	
S5_60845	Top slab Bay 8	100%	16d	20-Feb-16 A	05-Mar-16 A	
S5_60865	Top slab Bay 9	100%	15d	20-Feb-16 A	07-Mar-16 A	
S5_60875	Top slab Bay 10	100%	5d	20-Feb-16 A	09-Mar-16 A	
S5_61120	Provide access to CWB (CC) Contractor - TPCWAW Area	100%	0d		29-Feb-16 A	
S6_9055	Provide Access to WDII Contractor for bulkhead wall removal	100%	0d		29-Feb-16 A	
S6_9135	Completion of Section 5 - TPCWAW Area (KD10), below -20mPD	100%	0d		09-Mar-16 A	
TPCWAW - King Post Load Transfer / Waterproofing on Top Slab						
S6_9076	TPCWAW King post load transfer + waterproofing (except Bay 10)	100%	26d	04-Mar-16 A	29-Mar-16 A	
S5_61115	TPCWAW waterproofing - Bay 10	100%	2d	09-Mar-16 A	10-Mar-16 A	



Remaining Work
Actual Work
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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 UPDATE

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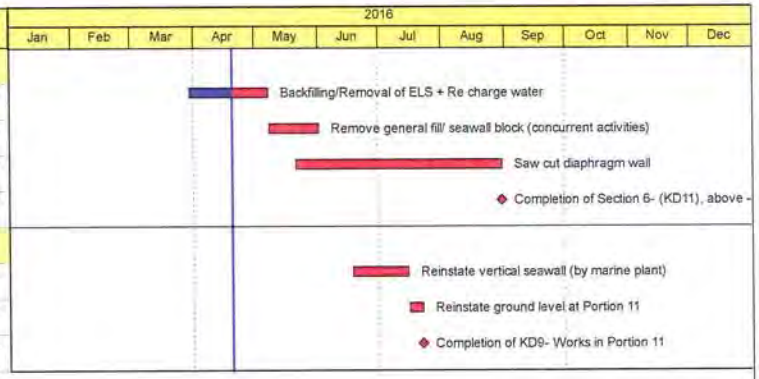
20-Apr-16	Progress Update	WC	WSL
	(based on WP Rev. N-3rd Submission)		

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

Activity ID	Activity Name	Physical % Complete	Original Duration	Start	Finish	Total Float
TPCWAW Removal of Temporary Reclamation						
S6_9140	Backfilling/Removal of ELS + Re charge water	0%	25d	30-Mar-16 A	07-May-16	-379d
S6_9105	Remove general fill/ seawall block (concurrent activities)	0%	25d	08-May-16	01-Jun-16	-379d
S6_9120	Saw cut diaphragm wall	0%	102d	21-May-16	30-Aug-16*	-379d
S6_7550	Completion of Section 6- (KD11), above - 20mPD	0%	0d		30-Aug-16	-214d
Works in Portion 11 under KD9 (incl. Reinstatement of Vertical Seawall)						
S6_9144	Reinstate vertical seawall (by marine plant)	0%	24d	18-Jun-16	15-Jul-16	-325d
S6_9147	Reinstate ground level at Portion 11	0%	6d	16-Jul-16	22-Jul-16	-325d
S6_9148	Completion of KD9- Works in Portion 11	0%	0d		22-Jul-16	-385d



Remaining Work
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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 UPDATE

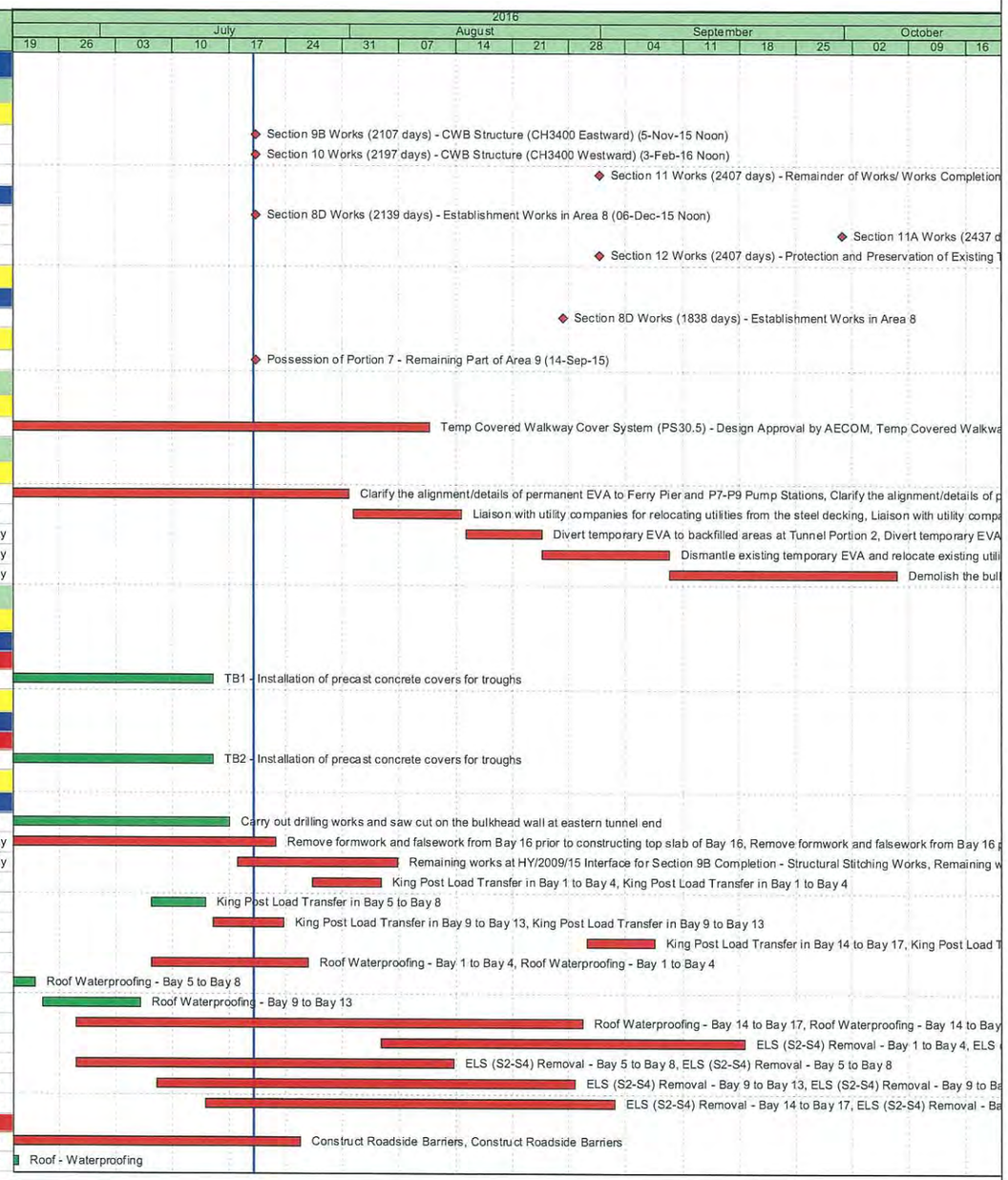
Prepared by Quartz Jequinto

Date	Revision	Checked	Approved
20-Apr-16	Progress Update	WC	WSL
	(based on WP Rev. N-3rd Submission)		

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

CEDD CONTRACT HK/2009/02

Activity ID	Activity Name	Orl Dur	Rem Dur	Scheduled/ Actual Start	Scheduled/ Actual Finish	Total Float	Calendar
Three Months Rolling Programme 2016-07-20 (dd 20-Jul-16)							
Programme Milestones (Revised up to EOTO No.16 issued on 01-Dec-15)							
Contractual Completion Dates							
KDC0170	Section 9B Works (2107 days) - CWB Structure (CH3400 Eastward) (5-Nov-15 Noon)	0	0		20-Jul-16*	-257	Calendar Day
KDC0180	Section 10 Works (2197 days) - CWB Structure (CH3400 Westward) (3-Feb-16 Noon)	0	0		20-Jul-16*	-167	Calendar Day
KDC0190	Section 11 Works (2407 days) - Remainder of Works/ Works Completion Date (31-Aug-16 Noon)	0	0		31-Aug-16*	0	Calendar Day
Soft Landscaping & Establishment Key Dates							
KDC0150	Section 8D Works (2139 days) - Establishment Works in Area 8 (06-Dec-15 Noon)	0	0		20-Jul-16*	-226	Calendar Day
KDC0200	Section 11A Works (2437 days) - Remaining Landscape Softworks (30-Sep-16 Noon)	0	0		30-Sep-16*	0	Calendar Day
KDC0220	Section 12 Works (2407 days) - Protection and Preservation of Existing Trees (31-Aug-16 Noon)	0	0		31-Aug-16*	0	Calendar Day
Forecast Completion Dates							
Soft Landscaping & Establishment Key Dates							
KDF0150	Section 8D Works (1838 days) - Establishment Works in Area 8	0	0		27-Aug-16*	-264	Calendar Day
Possession of Site							
PS0070a	Possession of Portion 7 - Remaining Part of Area 9 (14-Sep-15)	0	0	20-Jul-16*		-310	Calendar Day
Preliminaries							
Critical Submission & Approval							
PRE-SUB-1010B	Temp Covered Walkway Cover System (PS30.5) - Design Approval by AECOM	30	22	29-Jan-15 A	10-Aug-16*	-713	Calendar Day
Section 8A of the Works - Reprovisioning of Wan Chai Ferry Pier in Area 8							
Outstanding Works							
S8A-OUT-1005	Clarify the alignment/details of permanent EVA to Ferry Pier and P7-P9 Pump Stations	90	12	29-Feb-16 A	31-Jul-16	-134	Calendar Day
S8A-OUT-1007	Liaison with utility companies for relocating utilities from the steel decking	14	14	01-Aug-16	14-Aug-16	-134	Calendar Day
S8A-OUT-1010	Divert temporary EVA to backfilled areas at Tunnel Portion 2	10	10	15-Aug-16	24-Aug-16	-123	HK Working Day
S8A-OUT-1020	Dismantle existing temporary EVA and relocate existing utilities	15	15	24-Aug-16	09-Sep-16	-123	HK Working Day
S8A-OUT-1030	Demolish the bulkhead wall underneath the temporary EVA	25	25	09-Sep-16	07-Oct-16	-123	HK Working Day
Section 9B of the Works - CWB Tunnel Structure (CH3400 - CH3796)							
Tunnel Portion 1 (CH3500-CH3630)							
CWB Structural Works							
Outstanding Works							
S9B-T1-OUT-1000	TB1 - Installation of precast concrete covers for troughs	15	0	20-Jun-16 A	15-Jul-16 A		Calendar Day
Tunnel Portion 2 (CH3425-CH3500)							
CWB Structural Works							
Outstanding Works							
S9B-T2-OUT-1000	TB2 - Installation of precast concrete covers for troughs	15	0	20-Jun-16 A	15-Jul-16 A		Calendar Day
Tunnel Portion 3 & Tunnel Portion 4 (CH3630-CH3790)							
CWB Structural Works							
S9B-T34-3104	Carry out drilling works and saw cut on the bulkhead wall at eastern tunnel end	71	0	15-Mar-16 A	17-Jul-16 A		Calendar Day
S9B-T34-3105	Remove formwork and falsework from Bay 16 prior to constructing top slab of Bay 16	15	3	07-Jun-16 A	22-Jul-16	-482	HK Working Day
S9B-T34-3200	Remaining works at HY/2009/15 Interface for Section 9B Completion - Structural Stitching Works	20	18	18-Jul-16 A	06-Aug-16	-246	HK Working Day
S9B-T34-5600	King Post Load Transfer in Bay 1 to Bay 4	9	9	27-Jul-16	04-Aug-16	-535	Calendar Day
S9B-T34-5700	King Post Load Transfer in Bay 5 to Bay 8	9	0	07-Jul-16 A	14-Jul-16 A		Calendar Day
S9B-T34-5800	King Post Load Transfer in Bay 9 to Bay 13	9	4	15-Jul-16 A	23-Jul-16	-532	Calendar Day
S9B-T34-5900	King Post Load Transfer in Bay 14 to Bay 17	9	9	30-Aug-16	07-Sep-16	-534	Calendar Day
S9B-T34-6000	Roof Waterproofing - Bay 1 to Bay 4	7	7	07-Jul-16 A	26-Jul-16	-535	Calendar Day
S9B-T34-6100	Roof Waterproofing - Bay 5 to Bay 8	7	0	15-Jun-16 A	23-Jun-16 A		Calendar Day
S9B-T34-6200	Roof Waterproofing - Bay 9 to Bay 13	7	0	24-Jun-16 A	06-Jul-16 A		Calendar Day
S9B-T34-6300	Roof Waterproofing - Bay 14 to Bay 17	7	41	28-Jun-16 A	29-Aug-16	-534	Calendar Day
S9B-T34-7000	ELS (S2-S4) Removal - Bay 1 to Bay 4	45	45	04-Aug-16	18-Sep-16	-535	Calendar Day
S9B-T34-7100	ELS (S2-S4) Removal - Bay 5 to Bay 8	45	25	28-Jun-16 A	13-Aug-16	-499	Calendar Day
S9B-T34-7200	ELS (S2-S4) Removal - Bay 9 to Bay 13	45	40	08-Jul-16 A	28-Aug-16	-514	Calendar Day
S9B-T34-7300	ELS (S2-S4) Removal - Bay 14 to Bay 17	45	45	14-Jul-16 A	02-Sep-16	-495	Calendar Day
Bay 1							
S9B-T34-B1-1185	Construct Roadside Barriers	7	6	13-May-16 A	25-Jul-16	-263	Calendar Day
S9B-T34-B1-1270	Roof - Waterproofing	7	0	15-Jun-16 A	21-Jun-16 A		Calendar Day



◆ Milestone
◆ Critical Milestones
Current Works
Critical Works
Remaining Level of Effort

CHUN WO - CRGL

JOINT VENTURE

CEDD CONTRACT NO. HK/2009/02

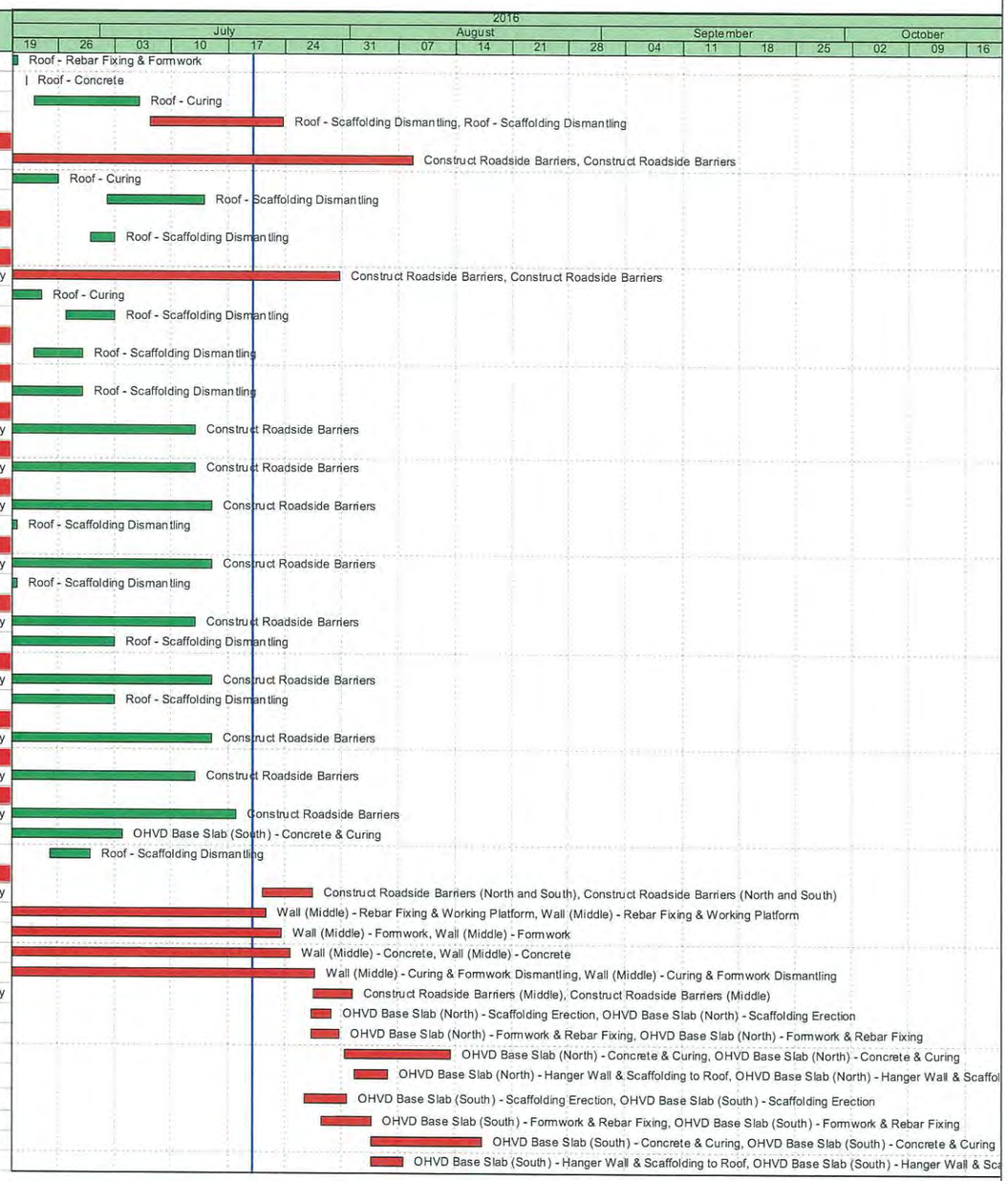
WD II - Central Wanchai Bypass at Wan Chai East (Contract 2)

3-MONTH ROLLING PROGRAMME (dd 20-Jul-16)

Date	Revision	Checked	Approved
20-Jul-16	Rev. 18		

CEDD CONTRACT HK/2009/02

Activity ID	Activity Name	Orl Dur	Rem Dur	Scheduled/ Actual Start	Scheduled/ Actual Finish	Total Float	Calendar
S9B-T34-B1-1280	Roof - Rebar Fixing & Formwork	12	0	17-Jun-16 A	21-Jun-16 A		Calendar Day
S9B-T34-B1-1290	Roof - Concrete	1	0	22-Jun-16 A	22-Jun-16 A		Calendar Day
S9B-T34-B1-1300	Roof - Curing	14	0	23-Jun-16 A	06-Jul-16 A		Calendar Day
S9B-T34-B1-1310	Roof - Scaffolding Dismantling	11	4	07-Jul-16 A	23-Jul-16	-261	Calendar Day
Bay 2							
S9B-T34-B2-1185	Construct Roadside Barriers	7	20	09-May-16 A	08-Aug-16	-277	Calendar Day
S9B-T34-B2-1300	Roof - Curing	14	0	13-Jun-16 A	26-Jun-16 A		Calendar Day
S9B-T34-B2-1310	Roof - Scaffolding Dismantling	7	0	02-Jul-16 A	14-Jul-16 A		Calendar Day
Bay 3							
S9B-T34-B3-1310	Roof - Scaffolding Dismantling	7	0	30-Jun-16 A	03-Jul-16 A		Calendar Day
Bay 4							
S9B-T34-B4-1185	Construct Roadside Barriers	8	11	03-May-16 A	30-Jul-16	-240	HK Working Day
S9B-T34-B4-1300	Roof - Curing	14	0	10-Jun-16 A	24-Jun-16 A		Calendar Day
S9B-T34-B4-1310	Roof - Scaffolding Dismantling	7	0	27-Jun-16 A	03-Jul-16 A		Calendar Day
Bay 5							
S9B-T34-B5-1310	Roof - Scaffolding Dismantling	7	0	23-Jun-16 A	29-Jun-16 A		Calendar Day
Bay 6							
S9B-T34-B6-1310	Roof - Scaffolding Dismantling	7	0	10-Jun-16 A	29-Jun-16 A		Calendar Day
Bay 7							
S9B-T34-B7-1185	Construct Roadside Barriers	8	0	25-Mar-16 A	13-Jul-16 A		HK Working Day
Bay 8							
S9B-T34-B8-1185	Construct Roadside Barriers	8	0	25-Mar-16 A	13-Jul-16 A		HK Working Day
Bay 9							
S9B-T34-B9-1185	Construct Roadside Barriers	8	0	27-Mar-16 A	15-Jul-16 A		HK Working Day
S9B-T34-B9-1310	Roof - Scaffolding Dismantling	7	0	16-Jun-16 A	21-Jun-16 A		Calendar Day
Bay 10							
S9B-T34-B10-1185	Construct Roadside Barriers	8	0	29-Mar-16 A	15-Jul-16 A		HK Working Day
S9B-T34-B10-1310	Roof - Scaffolding Dismantling	7	0	16-Jun-16 A	21-Jun-16 A		Calendar Day
Bay 11							
S9B-T34-B11-1185	Construct Roadside Barriers	8	0	20-Apr-16 A	13-Jul-16 A		HK Working Day
S9B-T34-B11-1310	Roof - Scaffolding Dismantling	7	0	19-Jun-16 A	03-Jul-16 A		Calendar Day
Bay 12							
S9B-T34-B12-1185	Construct Roadside Barriers	8	0	22-Apr-16 A	15-Jul-16 A		HK Working Day
S9B-T34-B12-1310	Roof - Scaffolding Dismantling	7	0	19-Jun-16 A	03-Jul-16 A		Calendar Day
Bay 13							
S9B-T34-B13-1185	Construct Roadside Barriers	8	0	18-Apr-16 A	15-Jul-16 A		HK Working Day
Bay 14							
S9B-T34-B14-1185	Construct Roadside Barriers	8	0	22-Apr-16 A	13-Jul-16 A		HK Working Day
Bay 15							
S9B-T34-B15-1175	Construct Roadside Barriers	8	0	21-Apr-16 A	18-Jul-16 A		HK Working Day
S9B-T34-B15-1240	OHVD Base Slab (South) - Concrete & Curing	14	0	19-May-16 A	04-Jul-16 A		Calendar Day
S9B-T34-B15-1300	Roof - Scaffolding Dismantling	7	0	25-Jun-16 A	30-Jun-16 A		Calendar Day
Bay 16							
S9B-T34-B16-1135	Construct Roadside Barriers (North and South)	6	6	21-Jul-16	27-Jul-16	-485	HK Working Day
S9B-T34-B16-1140	Wall (Middle) - Rebar Fixing & Working Platform	3	2	17-Apr-16 A	21-Jul-16	-543	Calendar Day
S9B-T34-B16-1150	Wall (Middle) - Formwork	2	0	20-Apr-16 A	23-Jul-16	-543	Calendar Day
S9B-T34-B16-1160	Wall (Middle) - Concrete	1	0	22-Apr-16 A	24-Jul-16	-543	Calendar Day
S9B-T34-B16-1170	Wall (Middle) - Curing & Formwork Dismantling	3	0	23-Apr-16 A	27-Jul-16	-543	Calendar Day
S9B-T34-B16-1175	Construct Roadside Barriers (Middle)	4	4	27-Jul-16	01-Aug-16	-240	HK Working Day
S9B-T34-B16-1180	OHVD Base Slab (North) - Scaffolding Erection	3	3	27-Jul-16	29-Jul-16	-543	Calendar Day
S9B-T34-B16-1190	OHVD Base Slab (North) - Formwork & Rebar Fixing	4	4	27-Jul-16	30-Jul-16	-543	Calendar Day
S9B-T34-B16-1200	OHVD Base Slab (North) - Concrete & Curing	13	13	31-Jul-16	13-Aug-16	-543	Calendar Day
S9B-T34-B16-1210	OHVD Base Slab (North) - Hanger Wall & Scaffolding to Roof	4	4	01-Aug-16	05-Aug-16	-543	Calendar Day
S9B-T34-B16-1220	OHVD Base Slab (South) - Scaffolding Erection	5	5	26-Jul-16	31-Jul-16	-544	Calendar Day
S9B-T34-B16-1230	OHVD Base Slab (South) - Formwork & Rebar Fixing	6	6	28-Jul-16	03-Aug-16	-544	Calendar Day
S9B-T34-B16-1240	OHVD Base Slab (South) - Concrete & Curing	13	13	03-Aug-16	17-Aug-16	-544	Calendar Day
S9B-T34-B16-1250	OHVD Base Slab (South) - Hanger Wall & Scaffolding to Roof	4	4	03-Aug-16	07-Aug-16	-544	Calendar Day



- Milestone
- Critical Milestones
- Current Works
- Critical Works
- Remaining Level of Effort

CHUN WO - CRGL

JOINT VENTURE

CEDD CONTRACT NO. HK/2009/02

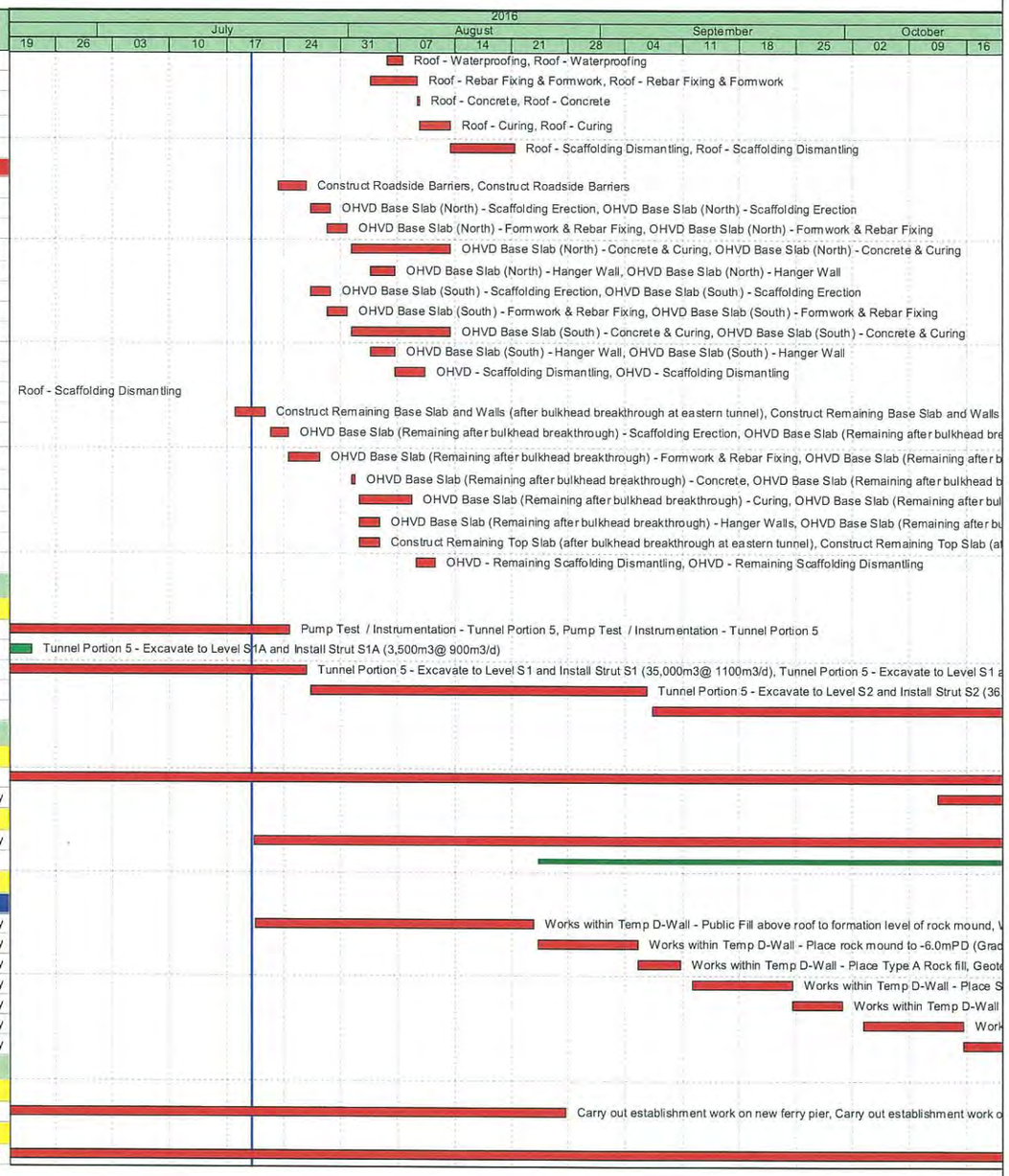
WD II - Central Wanchai Bypass at Wan Chai East (Contract 2)

3-MONTH ROLLING PROGRAMME (dd 20-Jul-16)

Date	Revision	Checked	Approved
20-Jul-16	Rev. 18		

CEDD CONTRACT HK/2009/02

Activity ID	Activity Name	Orl Dur	Rem Dur	Scheduled/ Actual Start	Scheduled/ Actual Finish	Total Float	Calendar
S9B-T34-B16-1260	Roof - Waterproofing	2	2	05-Aug-16	07-Aug-16	-544	Calendar Day
S9B-T34-B16-1270	Roof - Rebar Fixing & Formwork	5	5	03-Aug-16	09-Aug-16	-544	Calendar Day
S9B-T34-B16-1280	Roof - Concrete	1	1	09-Aug-16	09-Aug-16	-544	Calendar Day
S9B-T34-B16-1290	Roof - Curing	4	4	09-Aug-16	13-Aug-16	-544	Calendar Day
S9B-T34-B16-1300	Roof - Scaffolding Dismantling	8	8	13-Aug-16	21-Aug-16	-289	Calendar Day
Bay 17							
S9B-T34-B17-1185	Construct Roadside Barriers	4	4	23-Jul-16	26-Jul-16	-543	Calendar Day
S9B-T34-B17-1190	OHVD Base Slab (North) - Scaffolding Erection	3	3	27-Jul-16	29-Jul-16	-543	Calendar Day
S9B-T34-B17-1200	OHVD Base Slab (North) - Formwork & Rebar Fixing	3	3	29-Jul-16	31-Jul-16	-275	Calendar Day
S9B-T34-B17-1210	OHVD Base Slab (North) - Concrete & Curing	12	12	01-Aug-16	13-Aug-16	-275	Calendar Day
S9B-T34-B17-1220	OHVD Base Slab (North) - Hanger Wall	3	3	03-Aug-16	06-Aug-16	-275	Calendar Day
S9B-T34-B17-1230	OHVD Base Slab (South) - Scaffolding Erection	3	3	27-Jul-16	29-Jul-16	-278	Calendar Day
S9B-T34-B17-1240	OHVD Base Slab (South) - Formwork & Rebar Fixing	3	3	29-Jul-16	31-Jul-16	-278	Calendar Day
S9B-T34-B17-1250	OHVD Base Slab (South) - Concrete & Curing	12	12	01-Aug-16	13-Aug-16	-278	Calendar Day
S9B-T34-B17-1260	OHVD Base Slab (South) - Hanger Wall	3	3	03-Aug-16	06-Aug-16	-278	Calendar Day
S9B-T34-B17-1280	OHVD - Scaffolding Dismantling	4	4	06-Aug-16	10-Aug-16	-278	Calendar Day
S9B-T34-B17-1294	Roof - Scaffolding Dismantling	3	0	18-Jun-16 A	20-Jun-16 A		Calendar Day
S9B-T34-B17-1311	Construct Remaining Base Slab and Walls (after bulkhead breakthrough at eastern tunnel)	4	2	18-Jul-16 A	21-Jul-16	-543	Calendar Day
S9B-T34-B17-1312	OHVD Base Slab (Remaining after bulkhead breakthrough) - Scaffolding Erection	3	3	22-Jul-16	24-Jul-16	-538	Calendar Day
S9B-T34-B17-1313	OHVD Base Slab (Remaining after bulkhead breakthrough) - Formwork & Rebar Fixing	4	4	24-Jul-16	28-Jul-16	-276	Calendar Day
S9B-T34-B17-1314	OHVD Base Slab (Remaining after bulkhead breakthrough) - Concrete	1	1	01-Aug-16	01-Aug-16	-280	Calendar Day
S9B-T34-B17-1314a	OHVD Base Slab (Remaining after bulkhead breakthrough) - Curing	7	7	02-Aug-16	08-Aug-16	-280	Calendar Day
S9B-T34-B17-1315	OHVD Base Slab (Remaining after bulkhead breakthrough) - Hanger Walls	3	3	02-Aug-16	04-Aug-16	-276	Calendar Day
S9B-T34-B17-1315a	Construct Remaining Top Slab (after bulkhead breakthrough at eastern tunnel)	3	3	02-Aug-16	04-Aug-16	-276	Calendar Day
S9B-T34-B17-1316	OHVD - Remaining Scaffolding Dismantling	3	3	09-Aug-16	11-Aug-16	-280	Calendar Day
Section 10 Works - CWB Tunnel Structure (CH3246 - CH3400)							
Tunnel Portion 5 (CH3276-CH3400)							
S10-T5-1060	Pump Test / Instrumentation - Tunnel Portion 5	27	5	27-Mar-16 A	24-Jul-16	-496	Calendar Day
S10-T5-2010	Tunnel Portion 5 - Excavate to Level S1A and Install Strut S1A (3,500m3@ 900m3/d)	18	0	20-May-16 A	23-Jun-16 A		Calendar Day
S10-T5-2020	Tunnel Portion 5 - Excavate to Level S1 and Install Strut S1 (35,000m3@ 1100m3/d)	39	7	07-Jun-16 A	26-Jul-16	-597	Calendar Day
S10-T5-2030	Tunnel Portion 5 - Excavate to Level S2 and Install Strut S2 (36,800m3@ 1100m3/d)	42	42	27-Jul-16	06-Sep-16	-597	Calendar Day
S10-T5-2040	Tunnel Portion 5 - Excavate to Level S3 and Install Strut S3 (54,700m3@ 1100m3/d)	57	57	07-Sep-16	02-Nov-16	-597	Calendar Day
Section 11 of the Works - Remainder of Works							
Demolition Works							
S11-DEMO-1100	Demolition of existing WSD salt water pumping station	53	103	13-Jun-16 A	30-Oct-16	-246	Calendar Day
S11-DEMO-1300	Demoliton of abandoned seawall down to +1.5mPD - at the north of Ex-Salt Water Pump Station	12	12	12-Oct-16	25-Oct-16	-48	HK Working Day
Formation and Hard Landscaping Works							
S11-FM-3000A	Tunnel Portion 3 & 4 Backfilling to -6mPD (90,000m3; 1,000m3/d)	102	102	20-Jul-16	05-Nov-16	-503	HK Working Day
S11-FM-3000B1	Permament Seawall Construction (within temp D-Walls) for WCR4 Reclamation [Summary]	475	475	24-Aug-16	12-Dec-17	-523	Calendar Day
Misc. Works							
Removal of Temporary Reclamation							
S11-RTC-3010	Works within Temp D-Wall - Public Fill above roof to formation level of rock mound	34	34	20-Jul-16	23-Aug-16	-491	HK Working Day
S11-RTC-3020	Works within Temp D-Wall - Place rock mound to -6.0mPD (Grade 400: 6,000m3)	12	12	24-Aug-16	05-Sep-16	-491	HK Working Day
S11-RTC-3022	Works within Temp D-Wall - Place Type A Rock fill, Geotextile and Filter to -6.0mPD	6	6	05-Sep-16	10-Sep-16	-491	HK Working Day
S11-RTC-3023	Works within Temp D-Wall - Place Sorted Public Fill to -6.0mPD	12	12	12-Sep-16	24-Sep-16	-491	HK Working Day
S11-RTC-3024	Works within Temp D-Wall - Place Type A Rockfill and Filter from -6.0mPD to -2.0mPD	6	6	24-Sep-16	30-Sep-16	-491	HK Working Day
S11-RTC-3025	Works within Temp D-Wall - Place Sorted Public Fill from -6.0mPD to -2.0mPD	12	12	03-Oct-16	15-Oct-16	-491	HK Working Day
S11-RTC-3028	Works within Temp D-Wall - Place Mass Concrete Footing for HHR Flyover from -2.0mPD to +2.75...	12	12	15-Oct-16	28-Oct-16	-491	HK Working Day
Soft Landscaping & Establishment Works							
Section 8D of the Works - Establishment Works in Area 8							
S8D-0010	Carry out establishment work on new ferry pier	288	39	28-Aug-15 A	27-Aug-16	-264	Calendar Day
Section 12 of the Works - Protection and Preservation of Existing Trees							
S12-0010	Protection and preservation of existing trees	2111	613	24-Feb-10 A	24-Mar-18	-570	Calendar Day



◆ Milestone
◆ Critical Milestones
Current Works
Critical Works
Remaining Level of Effort

CHUN WO - CRGL

JOINT VENTURE

CEDD CONTRACT NO. HK/2009/02

WD II - Central Wanchai Bypass at Wan Chai East (Contract 2)

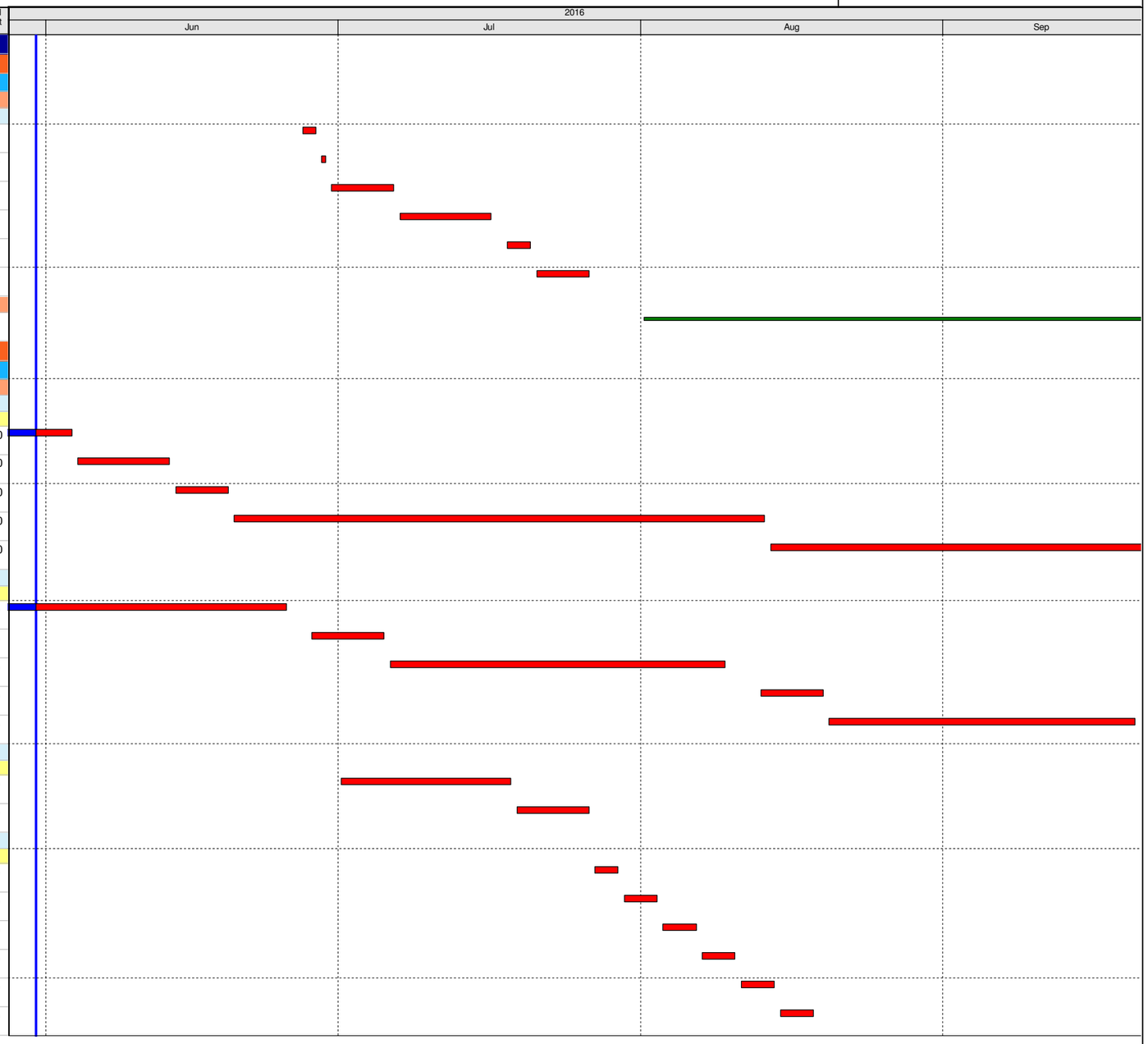
3-MONTH ROLLING PROGRAMME (dd 20-Jul-16)

Date	Revision	Checked	Approved
20-Jul-16	Rev. 18		

中國建築-利達聯營
CHINA STATE - LEADER JOINT VENTURE

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

Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Total Float
HK/2012/08 Revised Works Programme Rev.7_Updated as of 31-May-16					
Dredging and Reclamation					
Marine Work Construction					
Zone A1					
Seawall Construction - Zone A1					
MAR10310	Zone A1 - seawall - Type 3 - dredging from -2.5mPD to -7.2mPD)	2	27-Jun-16	28-Jun-16	-14
MAR10311	Zone A1 - seawall - Trimming of G400 and grab sampling	1	29-Jun-16	29-Jun-16	-14
MAR10312	Zone A1 - seawall - Type 3 - lay toe block and leveling stone	5	30-Jun-16	06-Jul-16	-14
MAR10320	Zone A1 - seawall - install block seawall type 3	9	07-Jul-16	16-Jul-16	-14
MAR10340	Zone A1 - seawall - place type A behind seawall Type 3	3	18-Jul-16	20-Jul-16	-14
MAR10345	Zone A1 - seawall - lay geotextile and filter behind seawall Type 3	5	21-Jul-16	26-Jul-16	-14
Others - Landing Steps					
MAR21400	Zone D - [summary] landing steps at seawall 9	70	01-Aug-16	24-Oct-16	62
Works for Section Completion					
Construction					
Section II - MVB Structure					
MVB Substructure - ELS & Structural Works for Portion A					
MVB Substructure - Structural Works for Portion A					
SII11200	Sec II - MVB A - Construct 2/F top slab, colum and wall	4	19-Mar-16 A	03-Jun-16	-120
SII11220	Sec II - MVB A - Remove Strut SL3 and SL2 & Concrete Packing	10	04-Jun-16	13-Jun-16	-120
SII11240	Sec II - MVB A: Construct 2M/F Inclined Strut	6	14-Jun-16	19-Jun-16	-120
SII11260	Sec II - MVB A: Construct B2M/F wall and OHVD	55	20-Jun-16	13-Aug-16	-120
SII11300	Sec II - MVB A: Construct B1/F roof slab	41	14-Aug-16	23-Sep-16	-120
MVB Substructure - ELS & Structural Works for Portion B					
MVB Substructure - Structural Works for Portion B					
SII11880	Sec II - MVB B: Construct B2/F wall, colum & top slab	26	03-May-16 A	25-Jun-16	-46
SII11900	Sec II - MVB B: Remove Strut SL2 & SL3 & Concrete Packing	8	28-Jun-16	05-Jul-16	-46
SII11920	Sec II - MVB B: Construct B2M/F wall, colum & top slab	35	06-Jul-16	09-Aug-16	-46
SII11940	Sec II - MVB B: Remove Strut SL1 & Concrete Packing	7	13-Aug-16	19-Aug-16	-46
SII12360	Sec II - MVB B: Construct B1/F Wall, Column & Slab	32	20-Aug-16	20-Sep-16	-46
MVB Substructure - Diaphragm Wall for Portion C					
MVB C - Pumping Test Preparation/ Pumping Test					
SII10670	Sec II - MVB C - sheetpile wall installation	18	01-Jul-16	18-Jul-16	-46
SII10680	Sec II - MVB C - Precaution grout / fissure grout	8	19-Jul-16	26-Jul-16	-46
MVB Substructure - ELS & Structural Works for Portion C					
MVB Substructure - ELS for Portion C					
SII12020	Sec II - MVB C: Excavation down to +1.7mPD	3	27-Jul-16	29-Jul-16	-46
SII12040	Sec II - MVB C : Install Strut S1 at +2.7mPD	4	30-Jul-16	02-Aug-16	-46
SII12060	Sec II - MVB C : Excavation down to +0.0mPD	4	03-Aug-16	06-Aug-16	-46
SII12080	Sec II - MVB C : Install Strut S2 at +1.0mPD	4	07-Aug-16	10-Aug-16	-46
SII12100	Sec II - MVB C : Excavation down to -2.0mPD	4	11-Aug-16	14-Aug-16	-46
SII12120	Sec II - MVB C : Install Strut S3 at -1.0mPD	4	15-Aug-16	18-Aug-16	-46



Data Date:
31-May-16

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

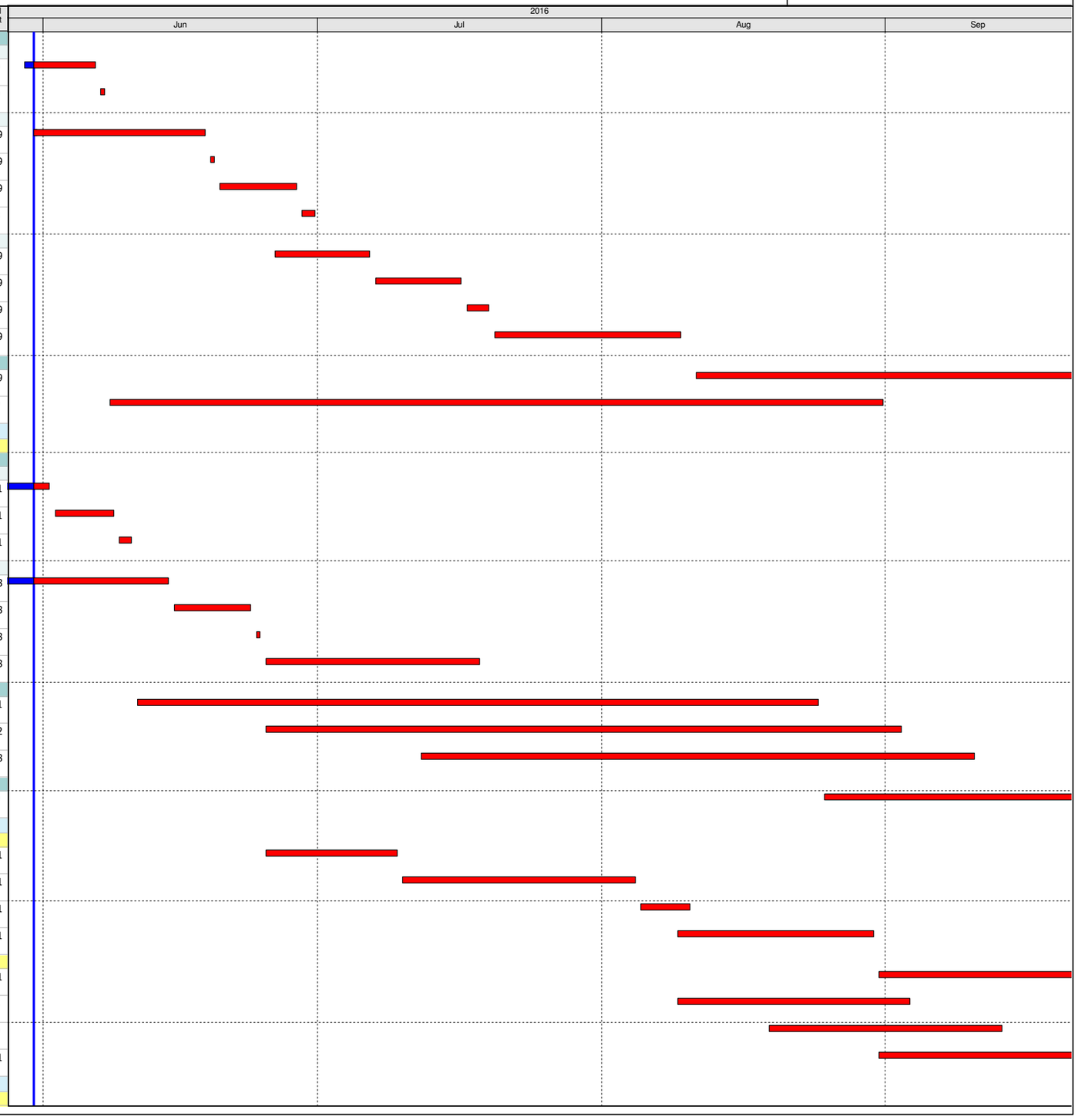
3-Months Rolling Programme for Works at Non-CRIII Area

(Jun 2016 to Aug 2016)

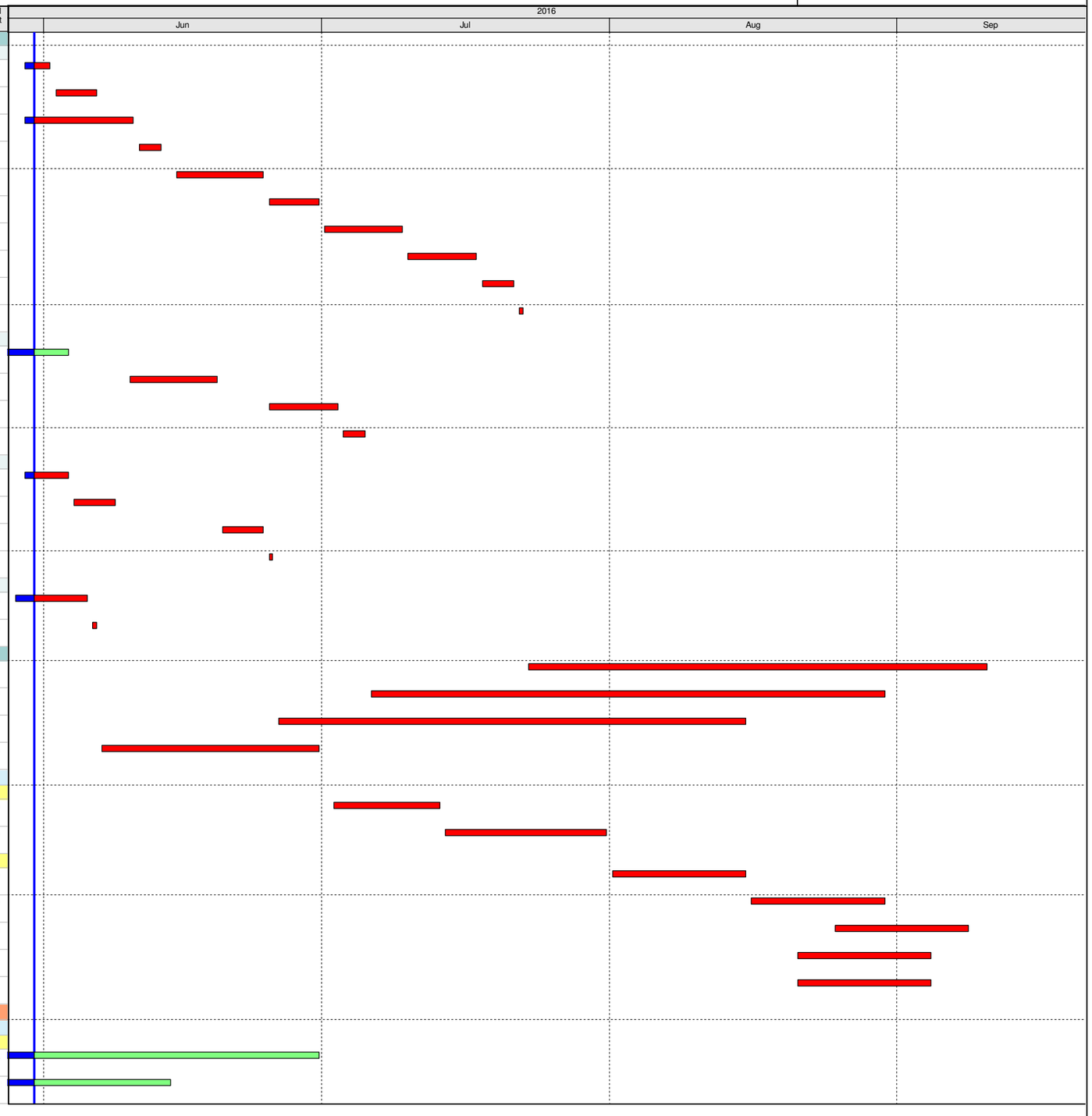
Date	Revision	Checked	Approved
01-Jun-16	Rev. 1		

Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Total Float
SII12180	Sec II - MVB C : Excavation down to -3mPD	3	19-Aug-16	21-Aug-16	-46
MVB Substructure - Structural Works for Portion C					
SII12200	Sec II - MVB C : Construct Slab B1/F	16	22-Aug-16	06-Sep-16	-46
Section II A - CWB Tunnel & Slip Road Structures and Facilities					
CWB A2(2)					
CWB A2 (2) - ELS & Tunnel Structure					
CWB A2 - ELS					
CWB A2 - West					
SIIA13445	Sec II A - CWB A2(2): demolition of temp bulk head wall at west end	21	03-May-16 A	20-Jun-16	-79
CWB A2 - Tunnel Structure					
SIIA11700	Sec II A - CWB A2(2): base, wall, OHVD & roof (bay 1 -Adjancent to A1)	51	21-Jun-16	10-Aug-16	-79
SIIA11750	Sec II A - CWB A2(2): base, wall, OHVD & roof (bay 2)	54	12-May-16 A	23-Jul-16	-61
SIIA12492	Sec II A - CWB A2(2): base, wall, OHVD & roof (bay3)	51	28-Apr-16 A	20-Jul-16	-49
CWB A2 - Other Works					
SIIA12530	Sec II A - CWB A2(2) : waterproofing and backfill to +4.0mPD	45	11-Aug-16	04-Oct-16	-66
CWB A2 (2) - Associated Facilities					
SIIA14320	Sec II A - CWB A2(2): Civil Provisions - lay screeding	7	04-Aug-16	10-Aug-16	-63
SIIA14430	Sec II A - CWB A2(2): Civil Provisions - cast cable trough	8	11-Aug-16	18-Aug-16	-63
CWB B & A2(1)					
CWB B - ELS & Tunnel Structure					
CWB B - ELS					
CWB B - Inside Concrete Plug					
SIIA13562	Sec II A - CWB B Inside Concrete Plug: Jet Grouting at Both Corners	3	23-May-16 A	02-Jun-16	-119
SIIA13582	Sec II A - CWB B Inside Concrete Plug: Stage 1 Pumping Test	1	03-Jun-16	03-Jun-16	-119
SIIA13602	Sec II A - CWB B Inside Concrete Plug: Jet Grouting along C4	17	04-Jun-16	20-Jun-16	-119
SIIA13622	Sec II A - CWB B Inside Concrete Plug: Stage 2 Pumping Test	1	21-Jun-16	21-Jun-16	-119
SIIA13642	Sec II A - CWB B Inside Concrete Plug: Excavation to formation	3	22-Jun-16	24-Jun-16	-102
SIIA13662	Sec II A - CWB B Inside Concrete Plug: Cast top layer of concrete plug and blinding layer	2	25-Jun-16	26-Jun-16	-102
SIIA13682	Sec II A - CWB B: Demolish cocnrete plug (near C4 unit)	18	14-Jul-16	31-Jul-16	-119
CWB B - Outside Concrete Plug					
SIIA 15120	Sec II A - CWB B Outside Concrete Plug: Install struts for Layer S2 at -1.0 mPD	2	30-May-16 A	01-Jun-16	-99
SIIA 15160	Sec II A - CWB B Outside Concrete Plug: Removal of diagonal struts for sheetpile at -2.0mPD	5	22-Jun-16	26-Jun-16	-119
SIIA 15170	Sec II A - CWB B Outside Concrete Plug:Excavate down to -6.7mPD	4	27-Jun-16	30-Jun-16	-119
SIIA 15180	Sec II A - CWB B Outside Concrete Plug: Install Struts S3 at level -5.70mPD	5	01-Jul-16	05-Jul-16	-119
SIIA 15200	Sec II A - CWB B Outside Concrete Plug: Formation Excavation	4	06-Jul-16	09-Jul-16	-119
SIIA 15220	Sec II A - CWB B Outside Concrete Plug:Blinding layer and removal of sheetpile	4	10-Jul-16	13-Jul-16	-119
CWB B - Exhaust Air Duct					
SIIA 16100	Sec II A - CWB B Exhaust Air Duct: Formation Excavation	16	22-May-16 A	15-Jun-16	-104
SIIA 16120	Sec II A - CWB B Exhaust Air Duct: Blinding Layer	6	16-Jun-16	21-Jun-16	-104
CWB A2(1) & B - Tunnel Structure					
SIIA13558	Sec II A - CWB A2(1): base, wall, OHVD & roof (bay 4 - Adjance to Zone A2(2))	59	20-May-16 A	28-Jul-16	-60
SIIA13560	Sec II A - CWB B: Air Duct Trough - base & wall (bay 5 - Adajcent to Zone A2(1))	25	22-Jun-16	16-Jul-16	-104
SIIA13600	Sec II A - CWB B: base, wall, OHVD & roof (bay 6)	61	17-Jul-16	15-Sep-16	-104
SIIA13660	Sec II A - CWB B: base, wall, OHVD & roof (bay 7 - Adjacent to C4)	66	02-Aug-16	06-Oct-16	-119
CWB A2(1) & B - Associated Facilities					
SIIA14460	Sec II A - CWB A2(1): Civil Provisions - lay screeding	7	29-Jul-16	05-Aug-16	-50
SIIA14480	Sec II A - CWB A2(1): Civil Provisions - cast cable trough	8	06-Aug-16	15-Aug-16	-50
CWB C (W)					
CWB C(W) - ELS & Tunnel Structure					

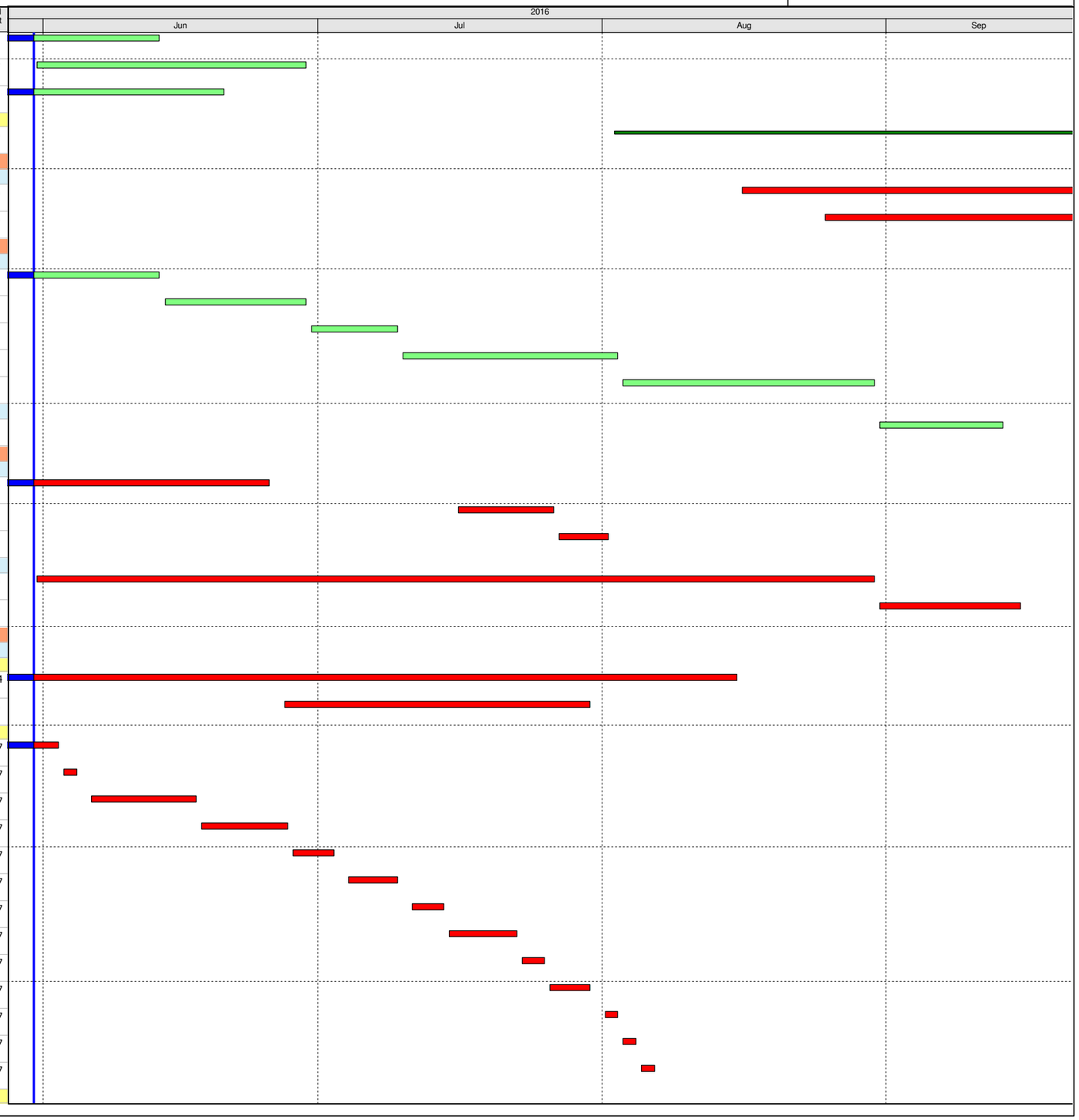
Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Total Float
	CWB C(W) - ELS				
	CWB C(W) - ELS bay 1 & 2				
SIIA12121	Sec II A - CWB CW Bay 1&2: Formation Excavation	7	30-May-16 A	06-Jun-16	-89
SIIA12161	Sec II A - CWB CW Bay 1&2:Blindling Layer	1	07-Jun-16	07-Jun-16	-89
	CWB C(W) - ELS Inside Concrete Plug				
SIIA 12150	Sec II A - CWB CW inside Concret Plug: Jet grouting along C4	19	31-May-16 A	18-Jun-16	-119
SIIA 12170	Sec II A - CWB CW inside Concret Plug: Stage 2 pumping test	1	19-Jun-16	19-Jun-16	-119
SIIA 12190	Sec II A - CWB CW inside Concret Plug: Formation Excavation	9	20-Jun-16	28-Jun-16	-119
SIIA 12210	Sec II A - CWB CW inside Concret Plug:Blinding layer	2	29-Jun-16	30-Jun-16	-78
	CWB C(W) - ELS Outide Concrete Plug				
SIIA 13100	Sec II A - CWB CW outside Concrete Plug: Remove struts	11	26-Jun-16	06-Jul-16	-119
SIIA 13120	Sec II A - CWB CW outside Concrete Plug: Formation excavation (bay 1 & exhaust duct)	10	07-Jul-16	16-Jul-16	-119
SIIA 13140	Sec II A - CWB CW outside Concrete Plug: Remove sheetpile	3	17-Jul-16	19-Jul-16	-119
SIIA 13160	Sec II A - CWB CW: Remove concrete bulkhead (Adjancent C4 unit)	21	20-Jul-16	09-Aug-16	-119
	CWB C(W) - Tunnel Structure				
SIIA12140	Sec II A - CWB CW: base, wall, OHVD & roof (bay 1)	57	11-Aug-16	06-Oct-16	-119
SIIA12180	Sec II A - CWB CW: base, wall, OHVD & roof (bay 2)	85	08-Jun-16	31-Aug-16	-89
	CWB C (E)				
	CWB C(E) - ELS & Tunnel Structure				
	CWB C(E) - ELS				
	CWB C(E) - ELS - Bay 1				
SIIA14100	Sec II A - CWB CE Bay 1: 3 rd layer excavation & Struting	2	07-May-16 A	01-Jun-16	-101
SIIA14120	Sec II A - CWB CE Bay 1 : Formation excavation	7	02-Jun-16	08-Jun-16	-101
SIIA14140	Sec II A - CWB CE Bay 1 : Blinding layer	2	09-Jun-16	10-Jun-16	-101
	CWB C(E) - ELS - Bay 2 & 3				
SIIA15540	Sec II A - CWB CE Bay 2&3: 3rd layer excavation & Struting	15	26-May-16 A	14-Jun-16	-118
SIIA15560	Sec II A - CWB CE Bay 2&3: Formation excavation	9	15-Jun-16	23-Jun-16	-118
SIIA15580	Sec II A - CWB CE Bay 2&3: Blinding layer	1	24-Jun-16	24-Jun-16	-118
SIIA15600	Sec II A - CWB CE: Demolish Bulkhead at C1 Interface	24	25-Jun-16	18-Jul-16	-118
	CWB C(E) - Tunnel Structure				
SIIA13215	Sec II A - CWB CE: base, wall, OHVD & roof (bay 1) (after MVB Bulkhead Removal)	75	11-Jun-16	24-Aug-16	-101
SIIA13220	Sec II A - CWB CE: base, wall, OHVD & roof (bay 2)	70	25-Jun-16	02-Sep-16	-102
SIIA13280	Sec II A - CWB CE: base, wall, OHVD & roof (bay 3) (after C1 Intrface Bulkhead Removal)	61	12-Jul-16	10-Sep-16	-118
	CWB C(E) - Other Works				
SIIA13320	Sec II A - CWB CE: Cut Down Dwall Head	45	25-Aug-16	08-Oct-16	-99
	CWB C - Exhaust Duct				
	CWB C - Exhaust Duct Temp Work & ELS				
SIIA12880	Sec II A - Exhaust Duct at Slip Rd3: Temp. Sheetpiling	15	25-Jun-16*	09-Jul-16	-101
SIIA12900	Sec II A - Exhaust Duct at Slip Rd3: Excavation & Shoring	26	10-Jul-16	04-Aug-16	-101
SIIA12910	Sec II A - Exhaust Duct at Slip Rd3: Blinding & Capping Plate	6	05-Aug-16	10-Aug-16	-101
SIIA12920	Sec II A - Exhaust Duct at Slip Rd3: Demolish Bulkheads	22	09-Aug-16	30-Aug-16	-101
	CWB C - Exhaust Duct Structural Work				
SIIA12938	Sec II A - Exhaust Duct at Slip Rd3: bottom slab, wall and top slab (bay 1) (after Bulkhead Removal)	26	31-Aug-16	25-Sep-16	-101
SIIA12940	Sec II A - Exhaust Duct at Slip Rd3: bottom slab, wall and top slab (bay 2)	26	09-Aug-16	03-Sep-16	-95
SIIA12946	Sec II A - Exhaust Duct at Slip Rd3: bottom slab, wall and top slab (bay 3)	26	19-Aug-16	13-Sep-16	-89
SIIA12948	Sec II A - Exhaust Duct at Slip Rd3: bottom slab, wall and top slab (bay 4) (after Bulkhead Removal)	26	31-Aug-16	25-Sep-16	-101
	CWB D - Slip Road 1				
	CWB D - Slip Road 1 - ELS & Tunnel Structure				



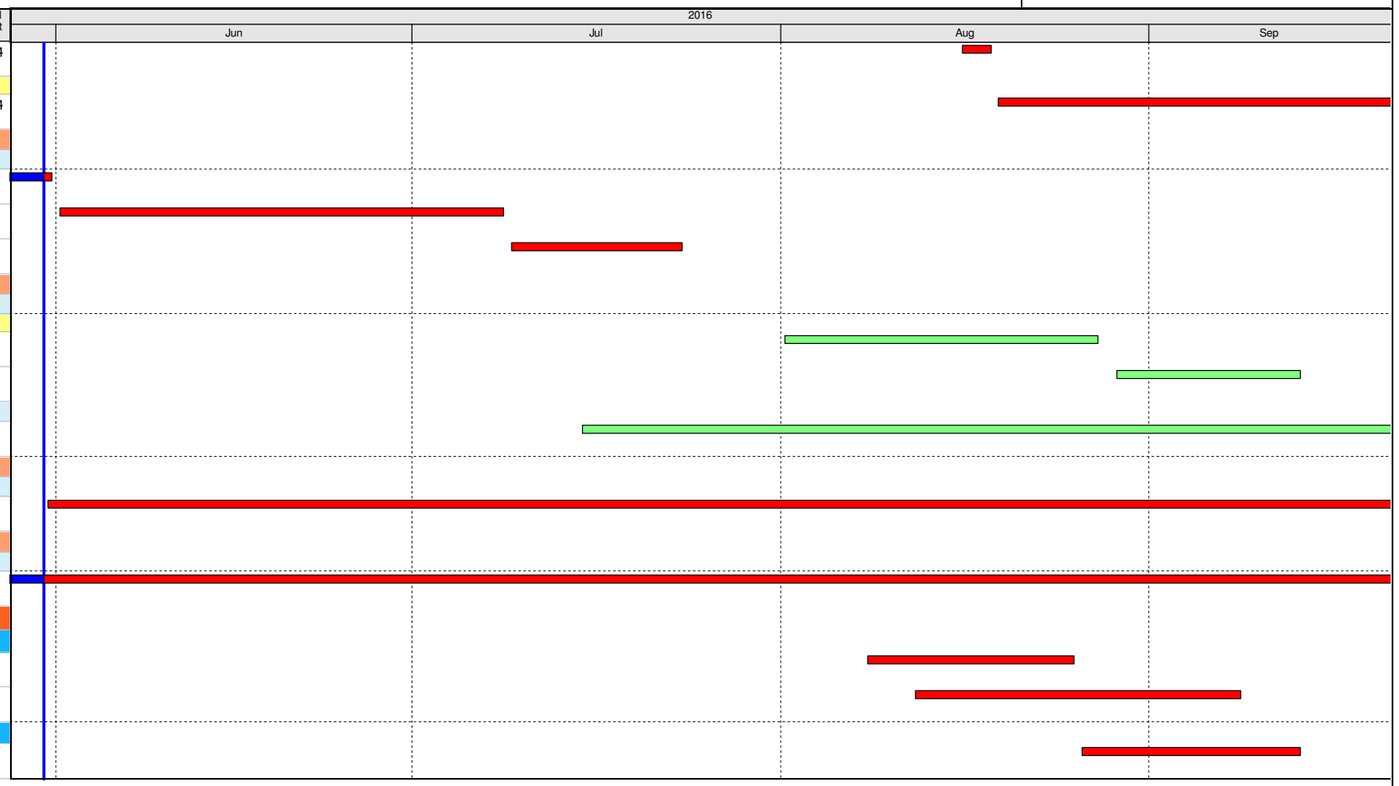
Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Total Float
	CWB D - Slip Road 1 - ELS				
	CWB D - SR1 - ELS - Bay 1 & 2				
SIIA 12482	Sec II A - CWB SR1 Concrete Plug: Sheetpilling at norther corner	2	30-May-16 A	01-Jun-16	-87
SIIA 12522	Sec II A - CWB SR1 Concrete Plug: Jet grouting at norther corner	5	02-Jun-16	06-Jun-16	-87
SIIA 12542	Sec II A - CWB SR1 Concrete Plug: excavation to formation	11	30-May-16 A	10-Jun-16	-91
SIIA 12562	Sec II A - CWB SR1 Concrete Plug: Cast concrete plug	3	11-Jun-16	13-Jun-16	-91
SIIA 12582	Sec II A - CWB SR1 Concrete Plug: Jet grouting along C4 & bpumpiong test	10	15-Jun-16	24-Jun-16	-91
SIIA 12602	Sec II A - CWB SR1 Bay 1&2: 1st layer excavation & strutting	6	25-Jun-16	30-Jun-16	-91
SIIA 12622	Sec II A - CWB SR1 Bay 1&2: 2nd layer excavation & strutting	9	01-Jul-16	09-Jul-16	-91
SIIA 12642	Sec II A - CWB SR1 Bay 1&2: 3rd layer excavation & strutting	8	10-Jul-16	17-Jul-16	-91
SIIA 12662	Sec II A - CWB SR1 Bay 1&2: Formation excavtion	4	18-Jul-16	21-Jul-16	-91
SIIA 12682	Sec II A - CWB SR1 Bay 1&2: Blinding layer	1	22-Jul-16	22-Jul-16	-91
	CWB D - SR1 - ELS - Bay 3				
SIIA 12530	Sec II A - CWB SR1 Bay 3: 2nd Layer Excavation & Shoringg	4	25-May-16 A	03-Jun-16	971
SIIA 12550	Sec II A - CWB SR1 Bay 3: 3rd Layer Excavation & Shoring	10	10-Jun-16	19-Jun-16	-87
SIIA 12570	Sec II A - CWB SR1 Bay 3: Formation Excavation	8	25-Jun-16	02-Jul-16	-87
SIIA 12590	Sec II A - CWB SR1 Bay 3: Blinding Layer	3	03-Jul-16	05-Jul-16	-87
	CWB D - SR1 - ELS - Bay 4				
SIIA 12600	Sec II A - CWB SR1 Bay 4: 2nd Layer Excavation & Shoring	4	30-May-16 A	03-Jun-16	-87
SIIA 12620	Sec II A - CWB SR1 Bay 4: 3rd Layer Excavation & Shoring	5	04-Jun-16	08-Jun-16	-87
SIIA 12660	Sec II A - CWB SR1 Bay 4: Formation Excavation	5	20-Jun-16	24-Jun-16	-87
SIIA 12680	Sec II A - CWB SR1 Bay 4: Blinding Layer	1	25-Jun-16	25-Jun-16	-21
	CWB D - SR1 - ELS - Bay 5				
SIIA 16140	Sec II A - CWB SR1 Bay 5: Formation Excavation	6	29-May-16 A	05-Jun-16	-26
SIIA 16160	Sec II A - CWB SR1 Bay 5: Blinding Layer	1	06-Jun-16	06-Jun-16	-26
	CWB D - Slip Road 1 - Tunnel Structure				
SIIA12500	Sec II A - CWB SR1: base & roof (bay 1 & 2)	50	23-Jul-16	10-Sep-16	-91
SIIA12540	Sec II A - CWB SR1: base, wall & roof (bay 3)	56	06-Jul-16	30-Aug-16	-87
SIIA12560	Sec II A - CWB SR1: base, wall & roof (bay 4)	51	26-Jun-16	15-Aug-16	-21
SIIA12565	Sec II A - CWB SR1: base, wall & roof (bay 5)	24	07-Jun-16	30-Jun-16	-26
	CWB D - Slip Road 1 - Trough / Retaining Wall				
	CWB D - Slip Road 1 - Trough/Retaining Wall Temp Work & ELS				
SIIA12760	Sec II A - CWB SR1 Trough & RW: install sheetpile	12	02-Jul-16*	13-Jul-16	-99
SIIA12780	Sec II A - CWB SR1 Trough & RW: Excavation & Shoring	18	14-Jul-16	31-Jul-16	-99
	CWB D - Slip Road 1 - Trough/Retaining Wall Structure				
SIIA12800	Sec II A - CWB SR1 Trough & RW: Trough Structure (bay 1)	15	01-Aug-16	15-Aug-16	-99
SIIA13720	Sec II A - CWB SR1 Trough & RW: Trough Structure (bay 2)	15	16-Aug-16	30-Aug-16	-99
SIIA13740	Sec II A - CWB SR1 Trough & RW: Trough Structure (bay 3)	15	25-Aug-16	08-Sep-16	-99
SIIA13800	Sec II A - CWB SR1 Trough & RW: Retaining Walls RW3 (bay 1)	15	21-Aug-16	04-Sep-16	-91
SIIA13840	Sec II A - CWB SR1 Trough & RW: Retaining Walls RW3 (bay 3)	15	21-Aug-16	04-Sep-16	-91
	Section III - Road D11 & Part of Road P2, Area 4, Implement 1st Stage ITA				
	Roadwork & Utilities				
	Remaining Works for Handing Over Area 4				
SIII11100	Sec III - Road D11 Footpath westbound	26	20-May-16 A	30-Jun-16	766
SIII11120	Sec III - Road D11 Footpath eastbound	12	20-May-16 A	14-Jun-16	780



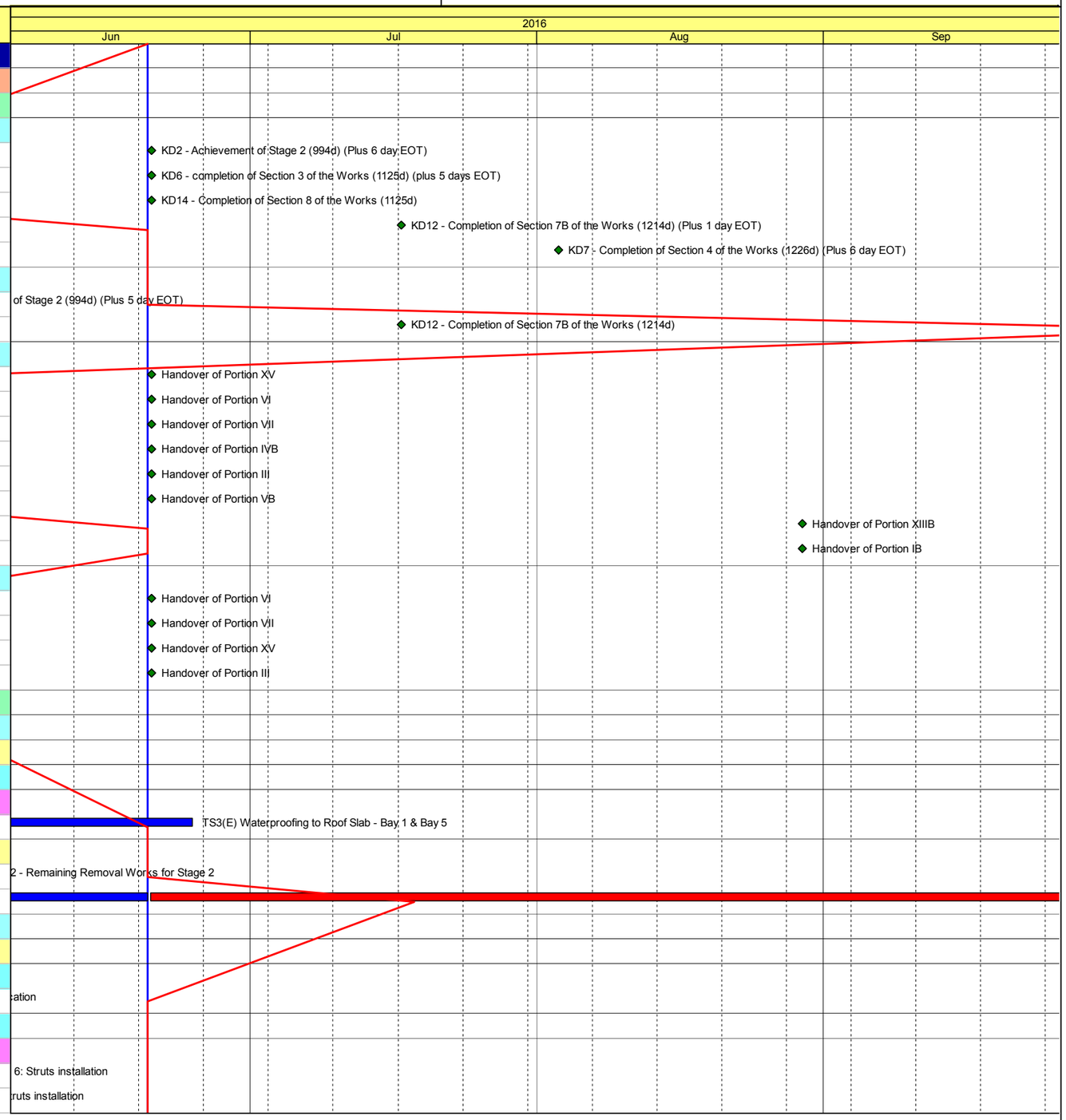
Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Total Float
SIII11122	Sec III - Road D11 Central divider	11	23-May-16 A	13-Jun-16	781
SIII11124	Sec III - Road P2 Central divider	25	31-May-16	29-Jun-16	767
SIII11126	Sec III - Road P2 Foothpath westbound	17	24-May-16 A	20-Jun-16	775
Works after the Box Culvert Reinstatement					
SIII10240	[Summary] reinstatement of Box Culvert K	71	02-Aug-16	26-Oct-16	-66
Section III A - Road A2, A4, A5, Area 11; Implement 2nd Stage ITA					
Roadwork & Utilities at A1					
SIIIA10260	Sec III A - roadwork and utilities (Zone A1) - Backfill to pavement founding level	42	16-Aug-16	05-Oct-16	-66
SIIIA10280	Sec III A - roadwork and utilities (Zone A1) - storm water drain & sub-soil drain	42	25-Aug-16	15-Oct-16	-66
Box Culvert L1 & FRP-L - Bay 8					
Box Culvert L1 & FRP-L - Bay 8 Structure					
CUL10260	Culvert L - Bay 8 - pipe bridging	14	21-Apr-16 A	13-Jun-16	50
CUL11320	Culvert L - bay 8 - construct pile cap	16	14-Jun-16	29-Jun-16	50
CUL11322	Culvert L - bay 8 - construct base slab	10	30-Jun-16	09-Jul-16	50
CUL11326	Culvert L - Bay 8 - construct wall	24	10-Jul-16	02-Aug-16	50
CUL11328	Culvert L - bay 8 - top slab (& Desilting Openings)	28	03-Aug-16	30-Aug-16	50
Box Culvert L1 & FRP-L - Bay 8 Others					
CUL11340	Culvert L - bay 8 - backfill above box section	12	31-Aug-16	13-Sep-16	40
Box Culvert L1 & FRP-L - Bay 12 to 13					
Box Culvert L1 & FRP-L - Bay 12 to 13 Temp Work & ELS					
CUL12500	Culvert L - bay 12 & 13 - pile head treatment	22	25-May-16 A	25-Jun-16	-25
CUL12520	Culvert L - Bay 12 & 13 - precast pile cap PC 9-11	9	16-Jul-16*	26-Jul-16	-41
CUL12540	Culvert L - Bay 12 & 13 - install pile cap PC 9-11	5	27-Jul-16	01-Aug-16	-41
Box Culvert L1 & FRP-L - Bay 12 to 13 Structure					
CUL12545	Culvert L - bay 12 & 13 - Construct Precast Units (off site)	77	31-May-16*	30-Aug-16	-66
CUL12548	Culvert L - bay 12 & 13 - Install Precast Units & Joint Survey	14	31-Aug-16	15-Sep-16	-66
Section VI D - Area 8B & 10					
WDII Box 1 Construction					
WDII Box 1 Existing Pile Head and Dry Dock					
WD-C3032	Sec VI D - Precast Box 1 (bottom slab and temp bulk head wall)	64	05-Apr-16 A	15-Aug-16	-124
WD-C3052	Sec VID - Precast Box Beam	29	27-Jun-16*	30-Jul-16	-66
WDII Box 1 ELS					
WD-C3994	Sec VIC - Excavation at Zone 3	3	20-May-16 A	02-Jun-16	-117
WD-C3995	Sec VIC - Removal of Platform of Bored Pile	2	03-Jun-16	04-Jun-16	-117
WD-C3998	Sec VIC - Install Column, C1, Struct S1 & RS1	10	06-Jun-16	17-Jun-16	-117
WD-C4000	Sec VIC - Excavation of Fluid	8	18-Jun-16	27-Jun-16	-117
WD-C4020	Sec VIC - Excavation of Rockfill to -7.5mPD	4	28-Jun-16	02-Jul-16	-117
WD-C4040	Sec VIC - 2nd Layer of Strut	6	04-Jul-16	09-Jul-16	-117
WD-C4060	Sec VIC - Excavation down to -11.5mPD	4	11-Jul-16	14-Jul-16	-117
WD-C4080	Sec VIC - 3rd Layer of Strut	7	15-Jul-16	22-Jul-16	-117
WD-C4120	Sec VIC - Joint Survey of excavated level	2	23-Jul-16	25-Jul-16	-117
WD-C4140	Sec VIC - Tremie concrete at bottom level	5	26-Jul-16	30-Jul-16	-117
WD-C4160	Sec VIC - Joint Survey of concrete level	2	01-Aug-16	02-Aug-16	-117
WD-C4180	Sec VIC - Remove Strut S2	2	03-Aug-16	04-Aug-16	-117
WD-C4190	Sec VIC - Reinstatement of platform of bored piles	2	05-Aug-16	06-Aug-16	-117
WDII Box 1 Bottom Slab					



Activity ID	Activity Name	Remaining Dur	Early Start	Early Finish	Total Float
WD-C5040	Sec VI D - tow bottom slab to position	3	16-Aug-16	18-Aug-16	-124
WDII Box 1 Remaining Structure					
WD-C6000	Sec VI D - construct remaining Box 1 structure	42	19-Aug-16	08-Oct-16	-124
Section IV - Slip Road 3					
Roadwork & Utilities (Lung King Street)					
SIV11000	Sec IV - Stage 1: Roadwork & Utilities (MH1.2 to MH1.3)	1	09-May-16 A	31-May-16	-19
SIV11020	Sec IV - Stage 2: Roadwork & Utilities (MH1.3 to MH1.4)	31	01-Jun-16	08-Jul-16	-19
SIV11060	Sec IV - Stage 3: Roadwork & Utilities (MH1.4 to MH1.5)	13	09-Jul-16	23-Jul-16	-19
Section VII - Remainder Works					
Landing Steps Construction					
Landing Steps BSW9					
SVII11100	Sec VII - Landing steps (BSW9) - construct mass concrete coping	24	01-Aug-16*	27-Aug-16	62
SVII11120	Sec VII - Landing steps (BSW9) - curing and dismantle formwork	14	29-Aug-16	13-Sep-16	62
Promenade Seawall Parapet Construction					
SVII10400	Sec VII - construct block seawall mass concrete coping & backfill to pavement formation	120	15-Jul-16*	05-Dec-16	1
Section VIII - Landscape Softworks					
Soft Landscaping Works					
SVIII10040	Sec VIII - Trees Planting	163	31-May-16	12-Dec-16	0
Section X - Protection & Preservation of Trees					
Soft Landscaping Works					
SX10020	Sec X - Protection & Preservation of Trees	417	31-Jan-13 A	21-Jul-17	0
VO : Construction of Box 4A & 4B					
Box 4A					
4A10000	Concrete Fill with 300 dia. carrier drain (Approx. 50m)	16	08-Aug-16*	25-Aug-16	-95
4A10020	Internal Suspended Slab & Internal Wall	24	12-Aug-16	08-Sep-16	-95
Box 4B					
4B10000	Concrete Fill with 300 dia. carrier drain (Approx. 50m)	16	26-Aug-16	13-Sep-16	-87



Activity ID	Activity Name	Original Duration	Start	Finish
Total		1471d	21-Mar-13 A	14-Dec-17
DWP-06 (A) - Update Progress As of 20 Jun 16		1471d	21-Mar-13 A	14-Dec-17
Key Dates		71d	25-May-16 A	29-Aug-16
Stage / Section Completion of Works (Contractual Date yp to EOT-10)		44d	20-Jun-16	03-Aug-16
KD02C	KD2 - Achievement of Stage 2 (994d) (Plus 6 day EOT)	0d		20-Jun-16*
KD06C	KD6 - completion of Section 3 of the Works (1125d) (plus 5 days EOT)	0d		20-Jun-16*
KD14C	KD14 - Completion of Section 8 of the Works (1125d)	0d		20-Jun-16*
KD12C	KD12 - Completion of Section 7B of the Works (1214d) (Plus 1 day EOT)	0d		17-Jul-16*
KD07C	KD7 - Completion of Section 4 of the Works (1226d) (Plus 6 day EOT)	0d		03-Aug-16*
Stage / Section Completion of Works (Programmed Date)		27d	25-May-16 A	17-Jul-16
KD2	KD2 - Achievement of Stage 2 (994d) (Plus 5 day EOT)	0d		25-May-16 A
KD12	KD12 - Completion of Section 7B of the Works (1214d)	0d		17-Jul-16
Handover Dates (Contractual Date up to EOT-10)		71d	20-Jun-16	29-Aug-16
HXVC	Handover of Portion XV	0d		20-Jun-16*
HVIC	Handover of Portion VI	0d		20-Jun-16*
HVIIC	Handover of Portion VII	0d		20-Jun-16*
HIVBC	Handover of Portion IVB	0d		20-Jun-16*
HIIIIC	Handover of Portion III	0d		20-Jun-16*
HVBC	Handover of Portion VB	0d		20-Jun-16*
HXIIIBC	Handover of Portion XIIIB	0d		29-Aug-16*
HIBC	Handover of Portion IB	0d		29-Aug-16*
Handover Dates (Programmed Date)		0d	20-Jun-16	20-Jun-16
HVI	Handover of Portion VI	0d		20-Jun-16
HVII	Handover of Portion VII	0d		20-Jun-16
HXV	Handover of Portion XV	0d		20-Jun-16
HIII	Handover of Portion III	0d		20-Jun-16
Works in TS3		328d	17-Sep-15 A	29-Oct-16
Works in TS3-East		213d	16-Jan-16 A	05-Oct-16
Cut & Cover Tunnel Structure		6d	16-Jan-16 A	24-Jun-16 A
TS3-East CCT - Ch.4500.000 to Ch.4582.140		6d	16-Jan-16 A	24-Jun-16 A
TS3 East CCT - Roof Slab Waterproofing + Screeding		6d	16-Jan-16 A	24-Jun-16 A
TS3E_6820	TS3(E) Waterproofing to Roof Slab - Bay 1 & Bay 5	6d	16-Jan-16 A	24-Jun-16 A
Removal of Reclamation		90d	25-May-16 A	05-Oct-16
TS3E_7630	Achievement of KD2 - Remaining Removal Works for Stage 2	0d		25-May-16 A
TS3E_8010	Remove Bulkhead between TS3E & TZ2	90d	28-May-16 A	05-Oct-16
Works in TS3-West		328d	17-Sep-15 A	29-Oct-16
ELS & Rock Excavation		252d	17-Sep-15 A	29-Jul-16
ELS Fabrication Works		75d	17-Sep-15 A	22-May-16 A
TS3W_4510	ELS struts & waling fabrication	75d	17-Sep-15 A	22-May-16 A
TS3-West ELS Works		34d	02-May-16 A	29-Jul-16
Layer 6		6d	02-May-16 A	27-May-16 A
TS3W_8660	East Side Layer 6: Struts installation	6d	02-May-16 A	27-May-16 A
TS3W_8680	West Side Layer 6: Struts installation	6d	04-May-16 A	24-May-16 A



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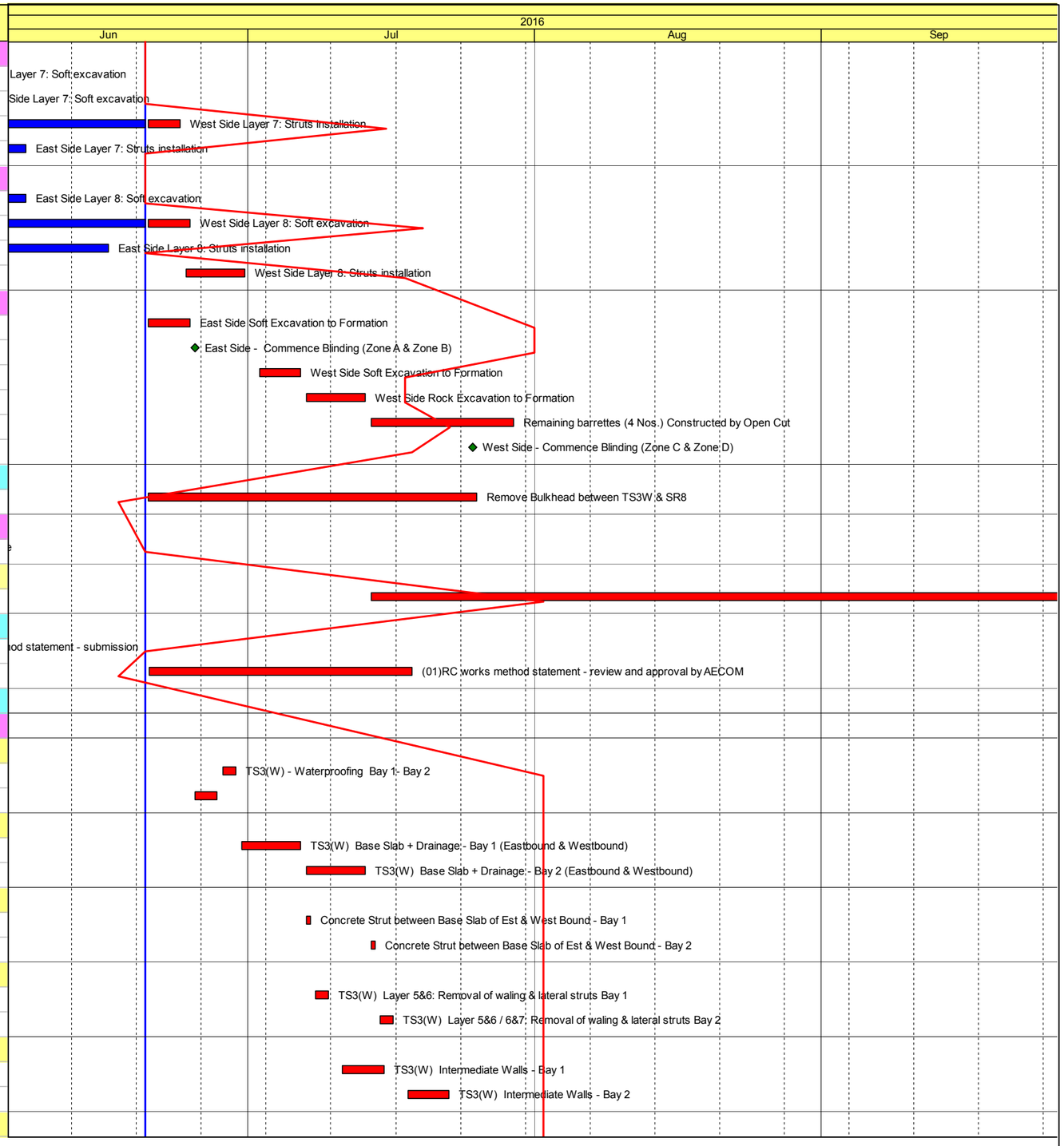
Contract No. HY/2010/08: Central - Wanchai Bypass Tunnel +(Slip Road 8 Section) - 3 Months Rolling Progamme

Date	Revision	Checked	Approved
20-Jun-16	Updated to 20th Jun 2016	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish
Layer 7		6d	11-May-16 A	23-Jun-16
TS3W_8690	East Side Layer 7: Soft excavation	5d	11-May-16 A	30-May-16 A
TS3W_8710	West Side Layer 7: Soft excavation	5d	11-May-16 A	01-Jun-16 A
TS3W_8720	West Side Layer 7: Struts installation	6d	19-May-16 A	23-Jun-16
TS3W_8700	East Side Layer 7: Struts installation	6d	20-May-16 A	07-Jun-16 A
Layer 8		11d	26-May-16 A	30-Jun-16
TS3W_8730	East Side Layer 8: Soft excavation	5d	26-May-16 A	07-Jun-16 A
TS3W_8750	West Side Layer 8: Soft excavation	5d	01-Jun-16 A	24-Jun-16
TS3W_8740	East Side Layer 8: Struts installation	6d	05-Jun-16 A	16-Jun-16 A
TS3W_8760	West Side Layer 8: Struts installation	6d	24-Jun-16	30-Jun-16
Formation Level		34d	20-Jun-16	29-Jul-16
TS3W_8770	East Side Soft Excavation to Formation	5d	20-Jun-16	24-Jun-16
TS3W_8800	East Side - Commence Blinding (Zone A & Zone B)	0d	25-Jun-16	
TS3W_8780	West Side Soft Excavation to Formation	4d	02-Jul-16	06-Jul-16
TS3W_8790	West Side Rock Excavation to Formation	6d	07-Jul-16	13-Jul-16
TS3W_8810	Remaining barrettes (4 Nos.) Constructed by Open Cut	16d	14-Jul-16	29-Jul-16
TS3W_8820	West Side - Commence Blinding (Zone C & Zone D)	0d	25-Jul-16	
SR8 at TS3W Junction ELS Works		30d	20-May-16 A	25-Jul-16
A69810	Remove Bulkhead between TS3W & SR8	30d	20-Jun-16	25-Jul-16
Formation Level		0d	20-May-16 A	20-May-16 A
TS3W_8940	Commence Blinding Concrete	0d	20-May-16 A	
Cut & Cover Tunnel Structure		110d	25-May-16 A	29-Oct-16
TS3W_2180	Remove Bulkhead between TS3W & TS3E	90d	14-Jul-16	29-Oct-16
Method Statement		24d	25-May-16 A	18-Jul-16
TS3W_2135	(01)RC works method statement - submission	24d	25-May-16 A	25-May-16 A
TS3W_2140	(01)RC works method statement - review and approval by AECOM	24d	20-Jun-16	18-Jul-16
TS3-West CCT		77d	25-Jun-16 A	24-Sep-16
Zone A (Type 4) - Bay 1 to Bay 2		68d	28-Jun-16 A	17-Sep-16
Blinding + Waterproofing to Bay 1 to Bay 2		20d	28-Jun-16 A	29-Jun-16
TS3W_5620.20	TS3(W) - Waterproofing Bay 1- Bay 2	2d	28-Jun-16	29-Jun-16
TS3W_5620.10	TS3(W) CCT Blinding - Bay 1-2	2d	11-Jul-16 A	27-Jun-16
Base Slab - Bay 1 to Bay 2		12d	30-Jun-16	13-Jul-16
TS3W_5760	TS3(W) Base Slab + Drainage - Bay 1 (Eastbound & Westbound)	6d	30-Jun-16	06-Jul-16
TS3W_5765	TS3(W) Base Slab + Drainage - Bay 2 (Eastbound & Westbound)	6d	07-Jul-16	13-Jul-16
Concrete Strut between Base Slab		7d	07-Jul-16	14-Jul-16
A7630	Concrete Strut between Base Slab of Est & West Bound - Bay 1	1d	07-Jul-16	07-Jul-16
A7640	Concrete Strut between Base Slab of Est & West Bound - Bay 2	1d	14-Jul-16	14-Jul-16
Removal of Waling & Lateral Struts - Layer SL5 & SL6		8d	08-Jul-16	16-Jul-16
TS3W_6536	TS3(W) Layer 5&6: Removal of waling & lateral struts Bay 1	2d	08-Jul-16	09-Jul-16
TS3W_6537	TS3(W) Layer 5&6 / 6&7: Removal of waling & lateral struts Bay 2	2d	15-Jul-16	16-Jul-16
Walls - Bay 1 to Bay 2		11d	11-Jul-16	22-Jul-16
TS3W_5950	TS3(W) Intermediate Walls - Bay 1	5d	11-Jul-16	15-Jul-16
TS3W_5954	TS3(W) Intermediate Walls - Bay 2	5d	18-Jul-16	22-Jul-16
OHVD - Bay 1 to Bay 2		11d	16-Jul-16	28-Jul-16



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Date	Revision	Checked	Approved
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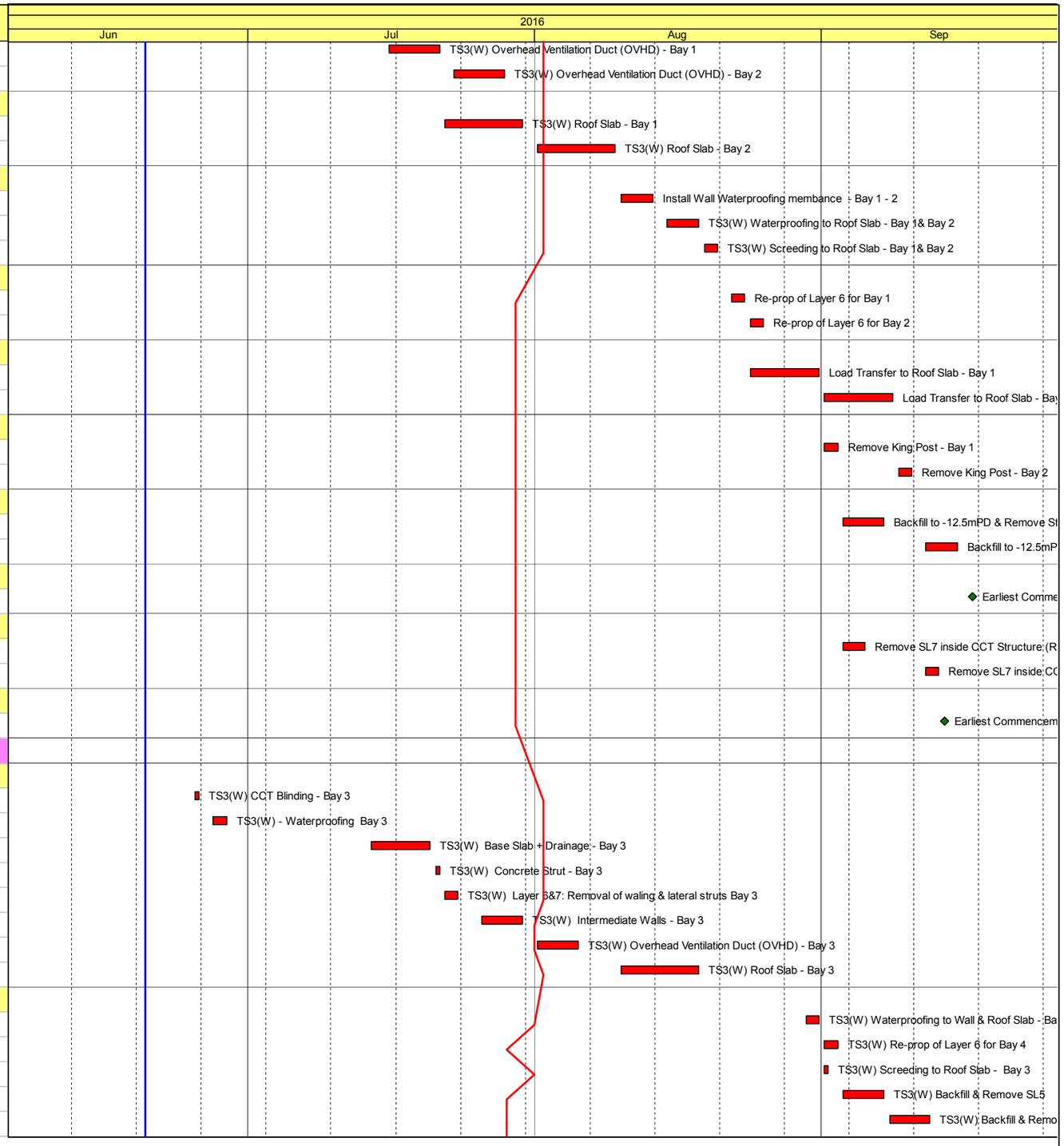
Activity ID	Activity Name	Original Duration	Start	Finish
TS3W_6200	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 1	5d	16-Jul-16	21-Jul-16
TS3W_6210	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 2	5d	23-Jul-16	28-Jul-16
Roof Slab - Bay 1 to Bay 2		16d	22-Jul-16	09-Aug-16
TS3W_6390	TS3(W) Roof Slab - Bay 1	8d	22-Jul-16	30-Jul-16
TS3W_6400	TS3(W) Roof Slab - Bay 2	8d	01-Aug-16	09-Aug-16
Roof Waterproofing + Screeding - Bay 1 to Bay 2		10d	10-Aug-16	20-Aug-16
TS3W_6530	Install Wall Waterproofing membance - Bay 1 - 2	4d	10-Aug-16	13-Aug-16
TS3W_8960	TS3(W) Waterproofing to Roof Slab - Bay 1& Bay 2	4d	15-Aug-16	18-Aug-16
TS3W_8970	TS3(W) Screeding to Roof Slab - Bay 1& Bay 2	2d	19-Aug-16	20-Aug-16
Re-prop for Layer 6		4d	22-Aug-16	25-Aug-16
A7650	Re-prop of Layer 6 for Bay 1	2d	22-Aug-16	23-Aug-16
A7660	Re-prop of Layer 6 for Bay 2	2d	24-Aug-16	25-Aug-16
Load Transfer to Roof for King Post		14d	24-Aug-16	08-Sep-16
A7550	Load Transfer to Roof Slab - Bay 1	7d	24-Aug-16	31-Aug-16
A7560	Load Transfer to Roof Slab - Bay 2	7d	01-Sep-16	08-Sep-16
Remove K-post inside CCT Structure		9d	01-Sep-16	10-Sep-16
A7690	Remove King Post - Bay 1	2d	01-Sep-16	02-Sep-16
A7700	Remove King Post - Bay 2	2d	09-Sep-16	10-Sep-16
Backfill & Remove SL4		11d	03-Sep-16	15-Sep-16
A7670	Backfill to -12.5mPD & Remove Strut SL4 - Bay 1	4d	03-Sep-16	07-Sep-16
A7680	Backfill to -12.5mPD & Remove Strut SL4 - Bay 2	4d	12-Sep-16	15-Sep-16
Commence Removal of Reclamation - Backfill & Remove SL3		0d	17-Sep-16	17-Sep-16
A7580	Earliest Commencement of Removal of Reclamtion for Bay 1 - 2	0d	17-Sep-16	
Remove K-post, SL8 & Re-prop of SL6		9d	03-Sep-16	13-Sep-16
A7600	Remove SL7 inside CCT Structure (RE-prop of SL6 Left in the Backfilling) - Bay 1	2d	03-Sep-16	05-Sep-16
A7710	Remove SL7 inside CCT Structure (RE-prop of SL6 Left in the Backfilling) - Bay 2	2d	12-Sep-16	13-Sep-16
Commence Utility Trough		0d	14-Sep-16	14-Sep-16
A7610	Earliest Commencement of Utility Trough - Bay 1 - 2	0d	14-Sep-16	
Zone B (Type 3) - Bay 3		69d	25-Jun-16	15-Sep-16
TS3(W) - CCT Structure		46d	25-Jun-16	18-Aug-16
TS3W_5670	TS3(W) CCT Blinding - Bay 3	1d	25-Jun-16	25-Jun-16
TS3W_5680	TS3(W) - Waterproofing Bay 3	2d	27-Jun-16	28-Jun-16
TS3W_5690	TS3(W) Base Slab + Drainage - Bay 3	6d	14-Jul-16	20-Jul-16
TS3W_5700	TS3(W) Concrete Strut - Bay 3	1d	21-Jul-16	21-Jul-16
TS3W_5710	TS3(W) Layer 6&7: Removal of waling & lateral struts Bay 3	2d	22-Jul-16	23-Jul-16
TS3W_5960	TS3(W) Intermediate Walls - Bay 3	5d	26-Jul-16	30-Jul-16
TS3W_6220	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 3	5d	01-Aug-16	05-Aug-16
TS3W_6410	TS3(W) Roof Slab - Bay 3	8d	10-Aug-16	18-Aug-16
Preparation Prior to Removal of Reclamation		14d	30-Aug-16	15-Sep-16
TS3W_6411	TS3(W) Waterproofing to Wall & Roof Slab - Bay 3	2d	30-Aug-16	31-Aug-16
TS3W_6413	TS3(W) Re-prop of Layer 6 for Bay 4	2d	01-Sep-16	02-Sep-16
TS3W_6412	TS3(W) Screeding to Roof Slab - Bay 3	1d	01-Sep-16	01-Sep-16
TS3W_6414	TS3(W) Backfill & Remove SL5	4d	03-Sep-16	07-Sep-16
TS3W_6414A	TS3(W) Backfill & Remove SL4	4d	08-Sep-16	12-Sep-16



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Date	Revision	Checked	Approved
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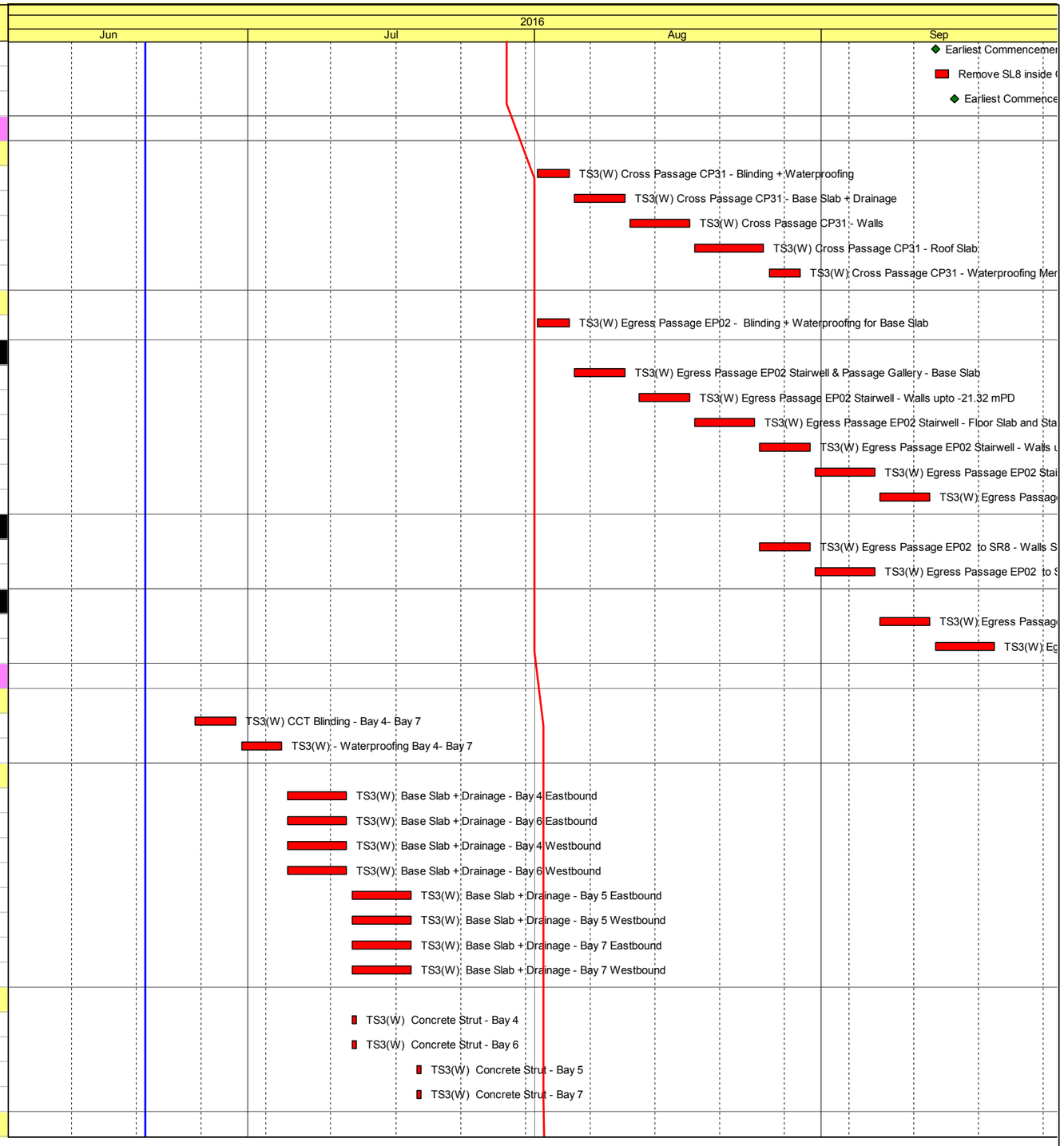
Activity ID	Activity Name	Original Duration	Start	Finish
TS3W_6415	Earliest Commencement of Removal of Reclamtion for Bay 3	0d	13-Sep-16	
TS3W_6416	Remove SL8 inside CCT Structure & Remove Re-prop SL6	2d	13-Sep-16	14-Sep-16
TS3w_6417	Earliest Commencement of Utility Trough - Bay 3	0d	15-Sep-16	
Cross Passage and Egress Passage (CP31/EP02)		43d	01-Aug-16	19-Sep-16
Cross Passage CP31		25d	01-Aug-16	29-Aug-16
TS3W_7890	TS3(W) Cross Passage CP31 - Blinding + Waterproofing	4d	01-Aug-16	04-Aug-16
TS3W_7900	TS3(W) Cross Passage CP31 - Base Slab + Drainage	5d	05-Aug-16	10-Aug-16
TS3W_7910	TS3(W) Cross Passage CP31 - Walls	6d	11-Aug-16	17-Aug-16
TS3W_7920	TS3(W) Cross Passage CP31 - Roof Slab	7d	18-Aug-16	25-Aug-16
TS3W_7930	TS3(W) Cross Passage CP31 - Waterproofing Membrane + Screeding	3d	26-Aug-16	29-Aug-16
Egress Passage EP-02		43d	01-Aug-16	19-Sep-16
TS3W_7940	TS3(W) Egress Passage EP02 - Blinding + Waterproofing for Base Slab	4d	01-Aug-16	04-Aug-16
Stair Well		33d	05-Aug-16	12-Sep-16
TS3W_7950	TS3(W) Egress Passage EP02 Stairwell & Passage Gallery - Base Slab	5d	05-Aug-16	10-Aug-16
TS3W_7960	TS3(W) Egress Passage EP02 Stairwell - Walls upto -21.32 mPD	5d	12-Aug-16	17-Aug-16
TS3W_7960A	TS3(W) Egress Passage EP02 Stairwell - Floor Slab and Stair Case	6d	18-Aug-16	24-Aug-16
TS3W_7960B	TS3(W) Egress Passage EP02 Stairwell - Walls upto Roof Soffit	5d	25-Aug-16	30-Aug-16
TS3W_7965	TS3(W) Egress Passage EP02 Stairwell - Roof Slab	6d	31-Aug-16	06-Sep-16
TS3W_7985	TS3(W) Egress Passage EP02 to SR8 - Stairs	5d	07-Sep-16	12-Sep-16
Lower Part of Egress Passage Gallery		11d	25-Aug-16	06-Sep-16
TS3W_7980	TS3(W) Egress Passage EP02 to SR8 - Walls Structure	5d	25-Aug-16	30-Aug-16
TS3W_7990	TS3(W) Egress Passage EP02 to SR8 Roof Slab	6d	31-Aug-16	06-Sep-16
Upper Egress Passage EP-02 on top of CCT Jointing to SR8		11d	07-Sep-16	19-Sep-16
TS3W_8170	TS3(W) Egress Passage EP02 to SR8 Access Well - Walls Structure	5d	07-Sep-16	12-Sep-16
TS3W_8180	TS3(W) Egress Passage EP02 to SR8 Access Well - Roof slab	6d	13-Sep-16	19-Sep-16
Zone C (Type 2) - Bay 4 to Bay 7		77d	25-Jun-16	24-Sep-16
Blinding + Waterproofing to Bay 4 to Bay 7		8d	25-Jun-16	04-Jul-16
TS3W_5620.30	TS3(W) CCT Blinding - Bay 4- Bay 7	4d	25-Jun-16	29-Jun-16
TS3W_5620.40	TS3(W) - Waterproofing Bay 4- Bay 7	4d	30-Jun-16	04-Jul-16
Base Slab - Bay 4 to Bay 7 (TS3W)		12d	05-Jul-16	18-Jul-16
TS3W_8571	TS3(W) Base Slab + Drainage - Bay 4 Eastbound	6d	05-Jul-16	11-Jul-16
TS3W_8575	TS3(W) Base Slab + Drainage - Bay 6 Eastbound	6d	05-Jul-16	11-Jul-16
TS3W_8569	TS3(W) Base Slab + Drainage - Bay 4 Westbound	6d	05-Jul-16	11-Jul-16
TS3W_8574	TS3(W) Base Slab + Drainage - Bay 6 Westbound	6d	05-Jul-16	11-Jul-16
TS3W_8573	TS3(W) Base Slab + Drainage - Bay 5 Eastbound	6d	12-Jul-16	18-Jul-16
TS3W_8572	TS3(W) Base Slab + Drainage - Bay 5 Westbound	6d	12-Jul-16	18-Jul-16
TS3W_8577	TS3(W) Base Slab + Drainage - Bay 7 Eastbound	6d	12-Jul-16	18-Jul-16
TS3W_8576	TS3(W) Base Slab + Drainage - Bay 7 Westbound	6d	12-Jul-16	18-Jul-16
Concrete Strut - Bay 4 to Bay 7		7d	12-Jul-16	19-Jul-16
A6980	TS3(W) Concrete Strut - Bay 4	1d	12-Jul-16	12-Jul-16
A7020	TS3(W) Concrete Strut - Bay 6	1d	12-Jul-16	12-Jul-16
A7000	TS3(W) Concrete Strut - Bay 5	1d	19-Jul-16	19-Jul-16
A7060	TS3(W) Concrete Strut - Bay 7	1d	19-Jul-16	19-Jul-16
Removal of Waling & Lateral Struts - Layer SL6 & SL7		8d	12-Jul-16	21-Jul-16



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Activity ID	Activity Name	Original Duration	Start	Finish
TS3W_7190	TS3(W) Layer 6&7: Removal of waling & lateral struts Bay 4	2d	12-Jul-16	14-Jul-16
TS3W_7290	TS3(W) Layer 6&7: Removal of waling & lateral struts Bay 6	2d	12-Jul-16	14-Jul-16
TS3W_7260	TS3(W) Layer 6&7: Removal of waling & lateral struts Bay 5	2d	19-Jul-16	21-Jul-16
TS3W_7310	TS3(W) Layer 6&7: Removal of waling & lateral struts Bay 7	2d	20-Jul-16	21-Jul-16
Walls - Bay 4 to Bay 7		11d	14-Jul-16	27-Jul-16
TS3W_8857	TS3(W) Intermediate Walls - Bay 6 Eastbound	5d	14-Jul-16	20-Jul-16
TS3W_8795	TS3(W) Intermediate Walls - Bay 4 Eastbound	5d	14-Jul-16	20-Jul-16
TS3W_8867	TS3(W) Intermediate Walls - Bay 6 Westbound	5d	14-Jul-16	20-Jul-16
TS3W_8827	TS3(W) Intermediate Walls - Bay 4 Westbound	5d	14-Jul-16	20-Jul-16
TS3W_8847	TS3(W) Intermediate Walls - Bay 5 Westbound	5d	21-Jul-16	27-Jul-16
TS3W_8837	TS3(W) Intermediate Walls - Bay 5 Eastbound	5d	21-Jul-16	27-Jul-16
TS3W_8869	TS3(W) Intermediate Walls - Bay 7 Westbound	5d	22-Jul-16	27-Jul-16
TS3W_8868	TS3(W) Intermediate Walls - Bay 7 Eastbound	5d	22-Jul-16	27-Jul-16
Fill Void Between Walls Including Waterproofing on Wall - Bay 4 to Bay 7		9d	20-Jul-16	30-Jul-16
TS3W_8817	Install Waterproofing membance and Fill Void Between Walls - Bay 6	3d	20-Jul-16	23-Jul-16
TS3W_8797	Install Waterproofing membance and Fill Void Between Walls - Bay 4	3d	20-Jul-16	23-Jul-16
TS3W_8807	Install Waterproofing membance and Fill Void Between Walls - Bay 5	3d	27-Jul-16	30-Jul-16
TS3W_8818	Install Waterproofing membance and Fill Void Between Walls - Bay 7	3d	28-Jul-16	30-Jul-16
Backfill to -24mPD (About Bottom Slab of SR8)		4d	01-Aug-16	04-Aug-16
TS3W_9240	TS3(W) Backfill -23.0mPD Bay 6	4d	01-Aug-16	04-Aug-16
OHVD - Bay 4 to Bay 7 (TS3W)		11d	20-Jul-16	02-Aug-16
TS3W_9260	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 4 Westbound	5d	20-Jul-16	26-Jul-16
TS3W_9290	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 6 Westbound	5d	20-Jul-16	26-Jul-16
TS3W_9270	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 4 Eastbound	5d	20-Jul-16	26-Jul-16
TS3W_9300	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 6 Eastbound	5d	20-Jul-16	26-Jul-16
TS3W_9280A	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 5 Westbound	5d	27-Jul-16	02-Aug-16
TS3W_9280B	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 5 Eastbound	5d	27-Jul-16	02-Aug-16
TS3W_9302	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 7 Eastbound	5d	28-Jul-16	02-Aug-16
TS3W_9301	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 7 Westbound	5d	28-Jul-16	02-Aug-16
Roof Slab - Bay 4 to Bay 7 (TS3w)		21d	26-Jul-16	19-Aug-16
TS3W_6430	TS3(W) Roof Slab - Bay 4 Westbound & SR8 Base Slab + Drainage - Bay S4a	8d	26-Jul-16	04-Aug-16
TS3W_6435	TS3(W) Roof Slab - Bay 4 Eastbound	8d	26-Jul-16	04-Aug-16
TS3W_9310	TS3(W) Roof Slab - Bay 5 Eastbound	8d	04-Aug-16	13-Aug-16
TS3W_9320	TS3(W) Roof Slab - Bay 6 Westbound & SR8 Base Slab + Drainage - Bay S6	8d	05-Aug-16	13-Aug-16
TS3W_6440	TS3(W) Roof Slab - Bay 5 Westbound & SR8 Base Slab + Drainage - Bay S5	8d	05-Aug-16	15-Aug-16
TS3W_9331	TS3(W) Roof Slab - Bay 7 Westbound & SR8 Base Slab + Drainage - Bay S7	8d	06-Aug-16	15-Aug-16
TS3W_9332	TS3(W) Roof Slab - Bay 7 Eastbound	8d	06-Aug-16	15-Aug-16
TS3W_9330	TS3(W) Roof Slab - Bay 6 Eastbound	8d	11-Aug-16	19-Aug-16
Re-prop for Layer 6		13d	04-Aug-16	19-Aug-16
A7030	Water Proof to Walls & Re-prop of Layer 6 for Bay 4	4d	04-Aug-16	09-Aug-16
A7040	Water Proof to Walls & Re-prop of Layer 6 for Bay 5	4d	15-Aug-16	19-Aug-16
Removal of Waling & Struts - Layer SL4 & SL5		25d	09-Aug-16	07-Sep-16
TS3W_9530	SR8 Layer 4&5: Removal of waling & lateral struts Bay 4	4d	09-Aug-16	13-Aug-16
TS3W_9560	SR8 Layer 4&5: Removal of waling & lateral struts Bay 7	4d	16-Aug-16	19-Aug-16

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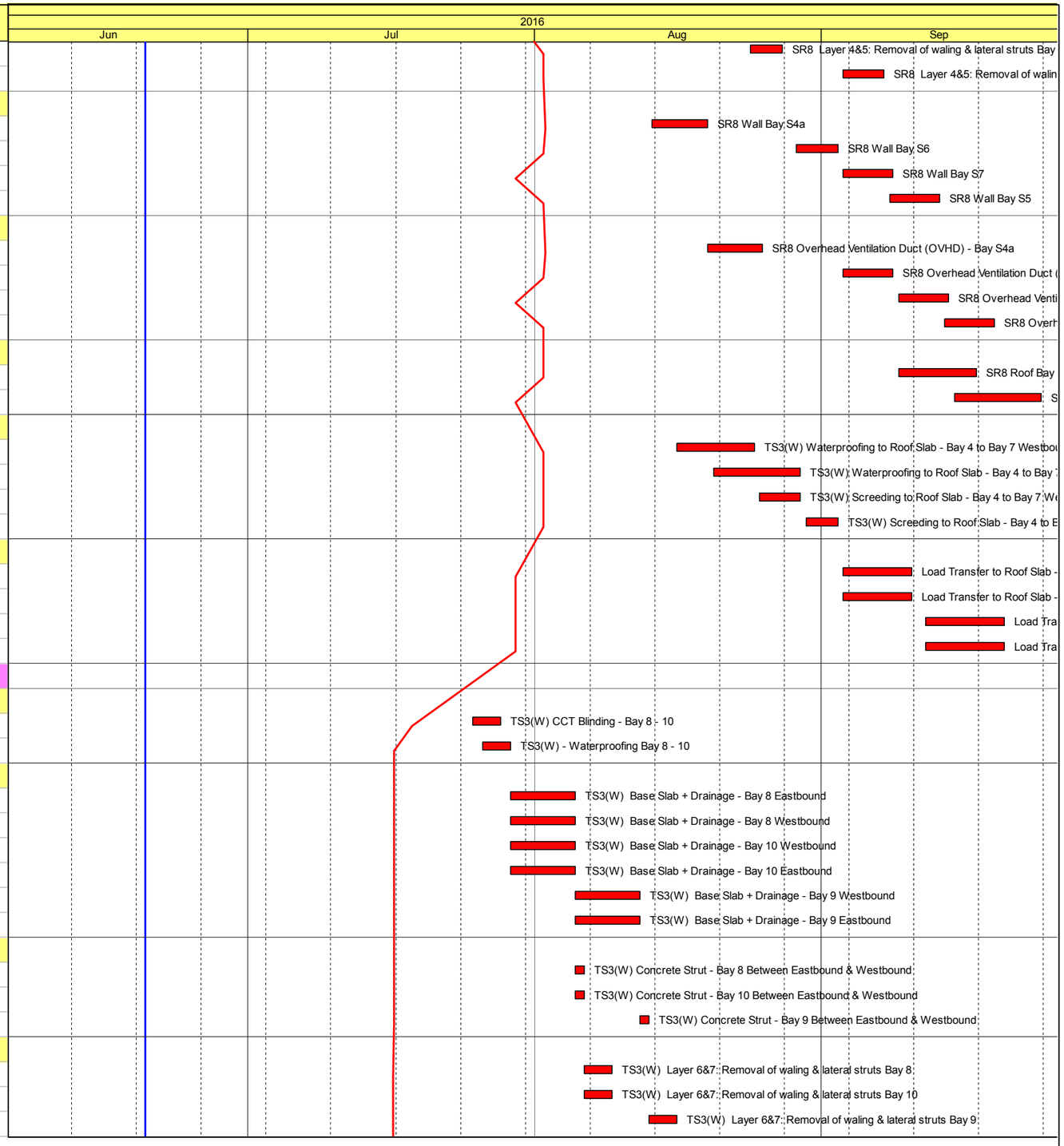
Activity ID	Activity Name	Original Duration	Start	Finish
TS3W_9550	SR8 Layer 4&5: Removal of waling & lateral struts Bay 6	4d	24-Aug-16	27-Aug-16
TS3W_9540	SR8 Layer 4&5: Removal of waling & lateral struts Bay 5	4d	03-Sep-16	07-Sep-16
Walls - Bay S4a to Bay S7 (SR8)		26d	13-Aug-16	13-Sep-16
TS3W_9000	SR8 Wall Bay S4a	5d	13-Aug-16	19-Aug-16
TS3W_9007	SR8 Wall Bay S6	5d	29-Aug-16	02-Sep-16
TS3W_9017	SR8 Wall Bay S7	5d	03-Sep-16	08-Sep-16
TS3W_9002	SR8 Wall Bay S5	5d	08-Sep-16	13-Sep-16
OHVD - Bay S4a to Bay S7 (SR8)		25d	19-Aug-16	19-Sep-16
TS3W_9274	SR8 Overhead Ventilation Duct (OVHD) - Bay S4a	5d	19-Aug-16	25-Aug-16
TS3W_9276	SR8 Overhead Ventilation Duct (OVHD) - Bay S6	5d	03-Sep-16	08-Sep-16
TS3W_9286	SR8 Overhead Ventilation Duct (OHVD) - Bay S7	5d	09-Sep-16	14-Sep-16
TS3W_9275	SR8 Overhead Ventilation Duct (OVHD) - Bay S5	5d	14-Sep-16	19-Sep-16
Roof Slab - Bay S4a to Bay S7 (SR8)		13d	09-Sep-16	24-Sep-16
TS3W_9020	SR8 Roof Bay S6	8d	09-Sep-16	17-Sep-16
TS3W_9030	SR8 Roof Bay S7	8d	15-Sep-16	24-Sep-16
Roof Waterproofing + Screeding - Bay 4 to Bay 7		16d	16-Aug-16	02-Sep-16
TS3W_8953	TS3(W) Waterproofing to Roof Slab - Bay 4 to Bay 7 Westbound	8d	16-Aug-16	24-Aug-16
TS3W_8951	TS3(W) Waterproofing to Roof Slab - Bay 4 to Bay 7 Eastbound	8d	20-Aug-16	29-Aug-16
TS3W_8955	TS3(W) Screeding to Roof Slab - Bay 4 to Bay 7 Westbound	4d	25-Aug-16	29-Aug-16
TS3W_8952	TS3(W) Screeding to Roof Slab - Bay 4 to Bay 7 Eastbound	4d	30-Aug-16	02-Sep-16
Load Transfer to Roof for King Post		14d	03-Sep-16	20-Sep-16
A7410	Load Transfer to Roof Slab - Bay 4	7d	03-Sep-16	10-Sep-16
A7430	Load Transfer to Roof Slab - Bay 6	7d	03-Sep-16	10-Sep-16
A7420	Load Transfer to Roof Slab - Bay 5	7d	12-Sep-16	20-Sep-16
A7620	Load Transfer to Roof Slab - Bay 7	7d	12-Sep-16	20-Sep-16
Zone D (Type 1b) - Bay 8 to Bay 10		52d	25-Jul-16	24-Sep-16
Blinding + Waterproofing to Bay 8 to Bay 10		4d	25-Jul-16	29-Jul-16
TS3W_5610.20	TS3(W) CCT Blinding - Bay 8 - 10	3d	25-Jul-16	28-Jul-16
TS3W_5610.20A	TS3(W) - Waterproofing Bay 8 - 10	3d	26-Jul-16	29-Jul-16
Base Slab - Bay 8 to Bay 10		12d	29-Jul-16	12-Aug-16
TS3W_9590	TS3(W) Base Slab + Drainage - Bay 8 Eastbound	6d	29-Jul-16	05-Aug-16
TS3W_8745	TS3(W) Base Slab + Drainage - Bay 8 Westbound	6d	29-Jul-16	05-Aug-16
TS3W_9620	TS3(W) Base Slab + Drainage - Bay 10 Westbound	6d	29-Jul-16	05-Aug-16
TS3W_9630	TS3(W) Base Slab + Drainage - Bay 10 Eastbound	6d	29-Jul-16	05-Aug-16
TS3W_9600	TS3(W) Base Slab + Drainage - Bay 9 Westbound	6d	05-Aug-16	12-Aug-16
TS3W_9610	TS3(W) Base Slab + Drainage - Bay 9 Eastbound	6d	05-Aug-16	12-Aug-16
Concrete Strut between Base Slab		7d	05-Aug-16	13-Aug-16
A7070	TS3(W) Concrete Strut - Bay 8 Between Eastbound & Westbound	1d	05-Aug-16	06-Aug-16
A7090	TS3(W) Concrete Strut - Bay 10 Between Eastbound & Westbound	1d	05-Aug-16	06-Aug-16
A7080	TS3(W) Concrete Strut - Bay 9 Between Eastbound & Westbound	1d	12-Aug-16	13-Aug-16
Removal of Waling & Lateral Struts - Layer SL6 & SL7		8d	06-Aug-16	16-Aug-16
TS3W_9640	TS3(W) Layer 6&7: Removal of waling & lateral struts Bay 8	2d	06-Aug-16	09-Aug-16
TS3W_9660	TS3(W) Layer 6&7: Removal of waling & lateral struts Bay 10	2d	06-Aug-16	09-Aug-16
TS3W_9650	TS3(W) Layer 6&7: Removal of waling & lateral struts Bay 9	2d	13-Aug-16	16-Aug-16



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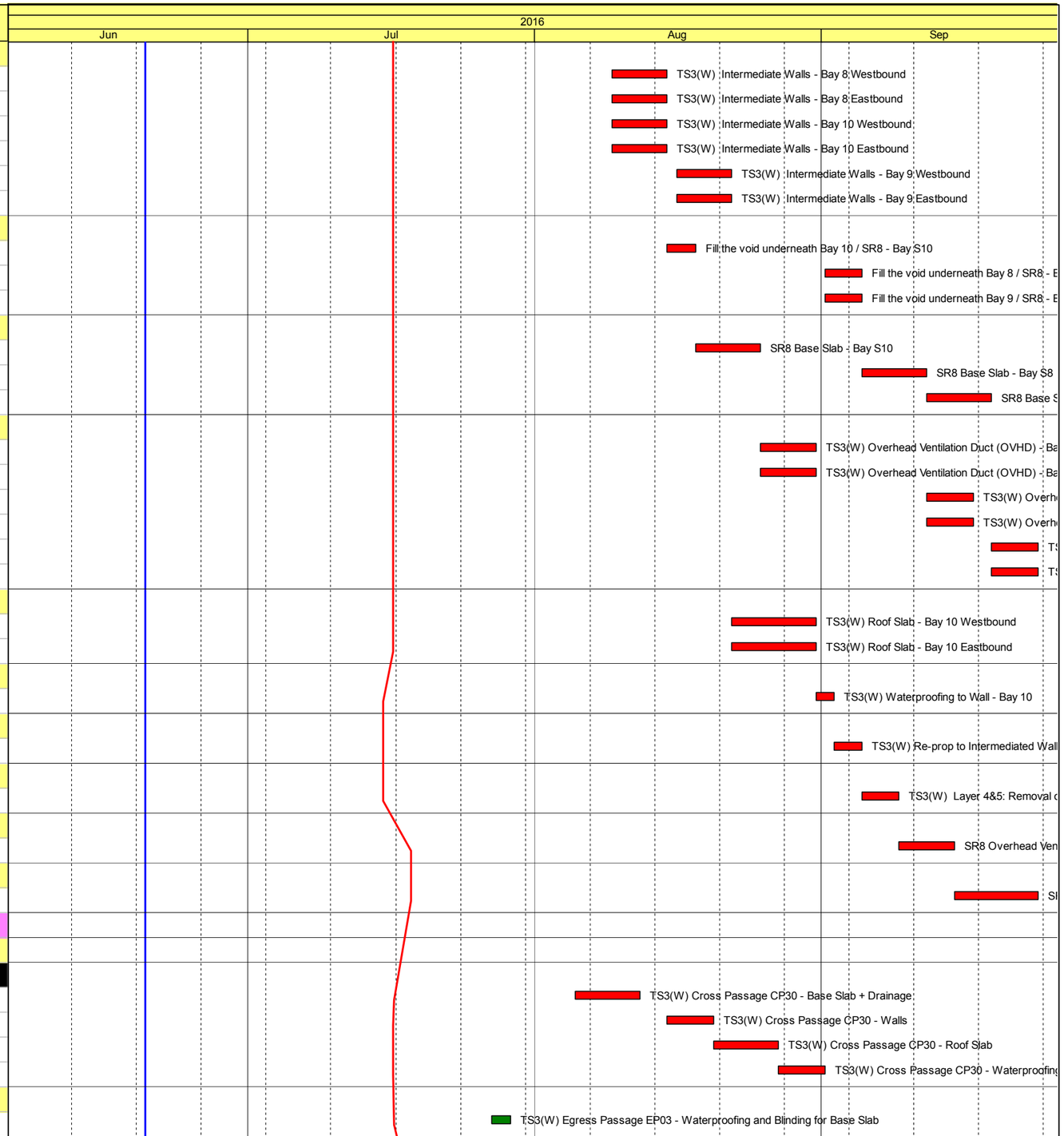
Activity ID	Activity Name	Original Duration	Start	Finish
Intermediated Walls - Bay 8 to Bay 10		11d	09-Aug-16	22-Aug-16
TS3W_5820	TS3(W) Intermediate Walls - Bay 8 Westbound	5d	09-Aug-16	15-Aug-16
TS3W_5830	TS3(W) Intermediate Walls - Bay 8 Eastbound	5d	09-Aug-16	15-Aug-16
TS3W_5860	TS3(W) Intermediate Walls - Bay 10 Westbound	5d	09-Aug-16	15-Aug-16
TS3W_5870	TS3(W) Intermediate Walls - Bay 10 Eastbound	5d	09-Aug-16	15-Aug-16
TS3W_5840	TS3(W) Intermediate Walls - Bay 9 Westbound	5d	16-Aug-16	22-Aug-16
TS3W_5850	TS3(W) Intermediate Walls - Bay 9 Eastbound	5d	16-Aug-16	22-Aug-16
Fill Void Between Walls Including Waterproofing on Wall - Bay 8 to Bay 10		18d	15-Aug-16	05-Sep-16
TS3W_6770	Fill the void underneath Bay 10 / SR8 - Bay S10	3d	15-Aug-16	18-Aug-16
TS3W_6750	Fill the void underneath Bay 8 / SR8 - Bay S8	3d	01-Sep-16	05-Sep-16
TS3W_6760	Fill the void underneath Bay 9 / SR8 - Bay S9	3d	01-Sep-16	05-Sep-16
Base Slab - Bay S8 to Bay S10 (SR8)		27d	18-Aug-16	19-Sep-16
TS3W_6150	SR8 Base Slab - Bay S10	6d	18-Aug-16	25-Aug-16
TS3W_6130	SR8 Base Slab - Bay S8	6d	05-Sep-16	12-Sep-16
TS3W_6145	SR8 Base Slab - Bay S9	6d	12-Sep-16	19-Sep-16
OHVD - Bay 8 to Bay 10 (TS3W)		26d	25-Aug-16	24-Sep-16
TS3W_6065	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 10 Westbound	5d	25-Aug-16	31-Aug-16
TS3W_6070	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 10 Eastbound	5d	25-Aug-16	31-Aug-16
TS3W_6020	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 8 Westbound	5d	12-Sep-16	17-Sep-16
TS3W_6030	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 8 Eastbound	5d	12-Sep-16	17-Sep-16
TS3W_6050	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 9 Westbound	5d	19-Sep-16	24-Sep-16
TS3W_6060	TS3(W) Overhead Ventilation Duct (OVHD) - Bay 9 Eastbound	5d	19-Sep-16	24-Sep-16
Roof Slab - Bay 8 to Bay 10 (TS3W)		8d	22-Aug-16	31-Aug-16
TS3W_9364	TS3(W) Roof Slab - Bay 10 Westbound	8d	22-Aug-16	31-Aug-16
TS3W_9370	TS3(W) Roof Slab - Bay 10 Eastbound	8d	22-Aug-16	31-Aug-16
Waterproofing to Intermediated Walls - TS3W		2d	31-Aug-16	02-Sep-16
TS3W_9710	TS3(W) Waterproofing to Wall - Bay 10	2d	31-Aug-16	02-Sep-16
TS3W - Re-prop for Layer 6 Between Intermediated Wall		2d	02-Sep-16	05-Sep-16
A7120	TS3(W) Re-prop to Intermediated Walls for Layer 6 - Bay 10	2d	02-Sep-16	05-Sep-16
Removal of Struts - Layer SL4 & SL5		4d	05-Sep-16	09-Sep-16
A7150	TS3(W) Layer 4&5: Removal of waling & lateral struts Bay 10	4d	05-Sep-16	09-Sep-16
OHVD - Bay S8 to Bay S10 (SR8)		5d	09-Sep-16	15-Sep-16
TS3W_9410	SR8 Overhead Ventilation Duct (OVHD) - Bay S10	5d	09-Sep-16	15-Sep-16
Roof Slab - Bay S8 to Bay s10 (SR8)		8d	15-Sep-16	24-Sep-16
TS3W_9450	SR8 Roof Slab - Bay S10	8d	15-Sep-16	24-Sep-16
Cross Passage and Egress Passage (CP30/EP03)		31d	27-Jul-16	01-Sep-16
Cross Passage CP30		23d	05-Aug-16	01-Sep-16
Passage Crossing between Eastbound & Westbound at Bay 8		23d	05-Aug-16	01-Sep-16
TS3W_8130	TS3(W) Cross Passage CP30 - Base Slab + Drainage	6d	05-Aug-16	12-Aug-16
TS3W_8140	TS3(W) Cross Passage CP30 - Walls	5d	15-Aug-16	20-Aug-16
TS3W_8150	TS3(W) Cross Passage CP30 - Roof Slab	6d	20-Aug-16	27-Aug-16
TS3W_8160	TS3(W) Cross Passage CP30 - Waterproofing + Screeding	4d	27-Aug-16	01-Sep-16
Egress Passage EP-03		2d	27-Jul-16	29-Jul-16
TS3W_8020	TS3(W) Egress Passage EP03 - Waterproofing and Blinding for Base Slab	2d	27-Jul-16	29-Jul-16



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Activity ID	Activity Name	Original Duration	Start	Finish
Zone E (Type 1a) - Bay 11 to Bay 12		51d	25-Jul-16	23-Sep-16
Blinding + Waterproofing to Bay 11 to Bay 12		4d	25-Jul-16	29-Jul-16
TS3W_5510.10	Blinding Bay 11 to Bay 12	2d	25-Jul-16	27-Jul-16
TS3W_5510.20	Waterproofing - Bay 11 to Bay 12	2d	27-Jul-16	29-Jul-16
Base Slab - Bay 11 to Bay 12		12d	29-Jul-16	12-Aug-16
TS3W_5520.10	TS3(W) Base Slab + Drainage - Bay 12 Westbound	6d	29-Jul-16	05-Aug-16
TS3W_5520.20	TS3(W) Base Slab + Drainage - Bay 12 Eastbound	6d	29-Jul-16	05-Aug-16
TS3W_5520.30	TS3(W) Base Slab + Drainage - Bay 11 Westbound	6d	05-Aug-16	12-Aug-16
TS3W_5520.60	TS3(W) Base Slab + Drainage - Bay 11 Eastbound	6d	05-Aug-16	12-Aug-16
Concrete Strut Between Base Slab		7d	05-Aug-16	13-Aug-16
A7200	TS3(W) Concrete Strut - Bay 12 Between Eastbound & Westbound	1d	05-Aug-16	06-Aug-16
A7210	TS3(W) Concrete Strut - Bay 11 Between Eastbound & Westbound	1d	12-Aug-16	13-Aug-16
Removal of Waling & Lateral Struts Layer SL6 & SL7		8d	06-Aug-16	16-Aug-16
TS3W_5530.70	Layer 6&7: Removal of waling & lateral struts - Bay 12	2d	06-Aug-16	09-Aug-16
TS3W_5530.80	Layer 6&7: Removal of waling & lateral struts - Bay 11	2d	13-Aug-16	16-Aug-16
Walls - Bay 11 to Bay 12		11d	09-Aug-16	22-Aug-16
TS3W_5530	Walls - Bay 12 Westbound	5d	09-Aug-16	15-Aug-16
TS3W_5531	Walls - Bay 12 Eastbound	5d	09-Aug-16	15-Aug-16
TS3W_5532	Walls - Bay 11 Westbound	5d	16-Aug-16	22-Aug-16
TS3W_5533	Walls - Bay 11 Eastbound	5d	16-Aug-16	22-Aug-16
Fill Void Between Walls Including Waterproofing on Wall - Bay 11 to Bay 12		9d	15-Aug-16	25-Aug-16
TS3W_5520.100	Install Waterproofing menbrane & Fill Void Wall Bay 12	3d	15-Aug-16	18-Aug-16
TS3W_5520.90	Install Waterproofing menbrane & Fill Void Wall Bay 11	3d	22-Aug-16	25-Aug-16
SR8 Base Slab - Bay S11 - 12		12d	18-Aug-16	01-Sep-16
A7220	SR8 Base Slab + Drainage - Bay S12	6d	18-Aug-16	25-Aug-16
A7230	SR8 Base Slab + Drainage - Bay S11	6d	25-Aug-16	01-Sep-16
TS3(W) - OHVD - Bay 11 to Bay 12		11d	25-Aug-16	07-Sep-16
TS3W_5540.10	TS3W OHVD Slab - Bay 12 Westbound	5d	25-Aug-16	31-Aug-16
TS3W_5540.20	TS3W OHVD Slab - Bay 12 Eastbound	5d	25-Aug-16	31-Aug-16
TS3W_5540.30	TS3W OHVD Slab - Bay 11 Westbound	5d	01-Sep-16	07-Sep-16
TS3W_5540.35	TS3W OHVD Slab - Bay 11 Eastbound	5d	01-Sep-16	07-Sep-16
Roof Slab - Bay 11 to Bay 12		16d	31-Aug-16	19-Sep-16
TS3W_5550	Roof Slab - TS3W Bay 12 Westbound	8d	31-Aug-16	09-Sep-16
TS3W_5552	Roof Slab - TS3W Bay 12 Eastbound	8d	31-Aug-16	09-Sep-16
TS3W_5554	Roof Slab - TS3W Bay 11 Eastbound	8d	09-Sep-16	19-Sep-16
TS3W_5553	Roof Slab - TS3W Bay 11 Westbound	8d	09-Sep-16	19-Sep-16
TS3W - Re-prop for Layer 6 Between Intermediated Wall		11d	09-Sep-16	23-Sep-16
A7240	TS3(W) Re-prop to Intermediated Walls for Layer 6 - Bay 12	4d	09-Sep-16	14-Sep-16
A7250	TS3(W) Re-prop to Intermediated Walls for Layer 6 - Bay 11	4d	19-Sep-16	23-Sep-16
Removal of Struts - Layer SL4 & SL5		4d	14-Sep-16	20-Sep-16
A7260	TS3(W) Layer 4&5: Removal of waling & lateral struts Bay 12	4d	14-Sep-16	20-Sep-16
Cable Trough Containment (TS3W)		9d	15-Sep-16	24-Sep-16
TS3W_6510	TS3(W) Cable Through Bay 1-3	9d	15-Sep-16	24-Sep-16
SR8 Junction at Sea Side		45d	20-Jun-16	11-Aug-16

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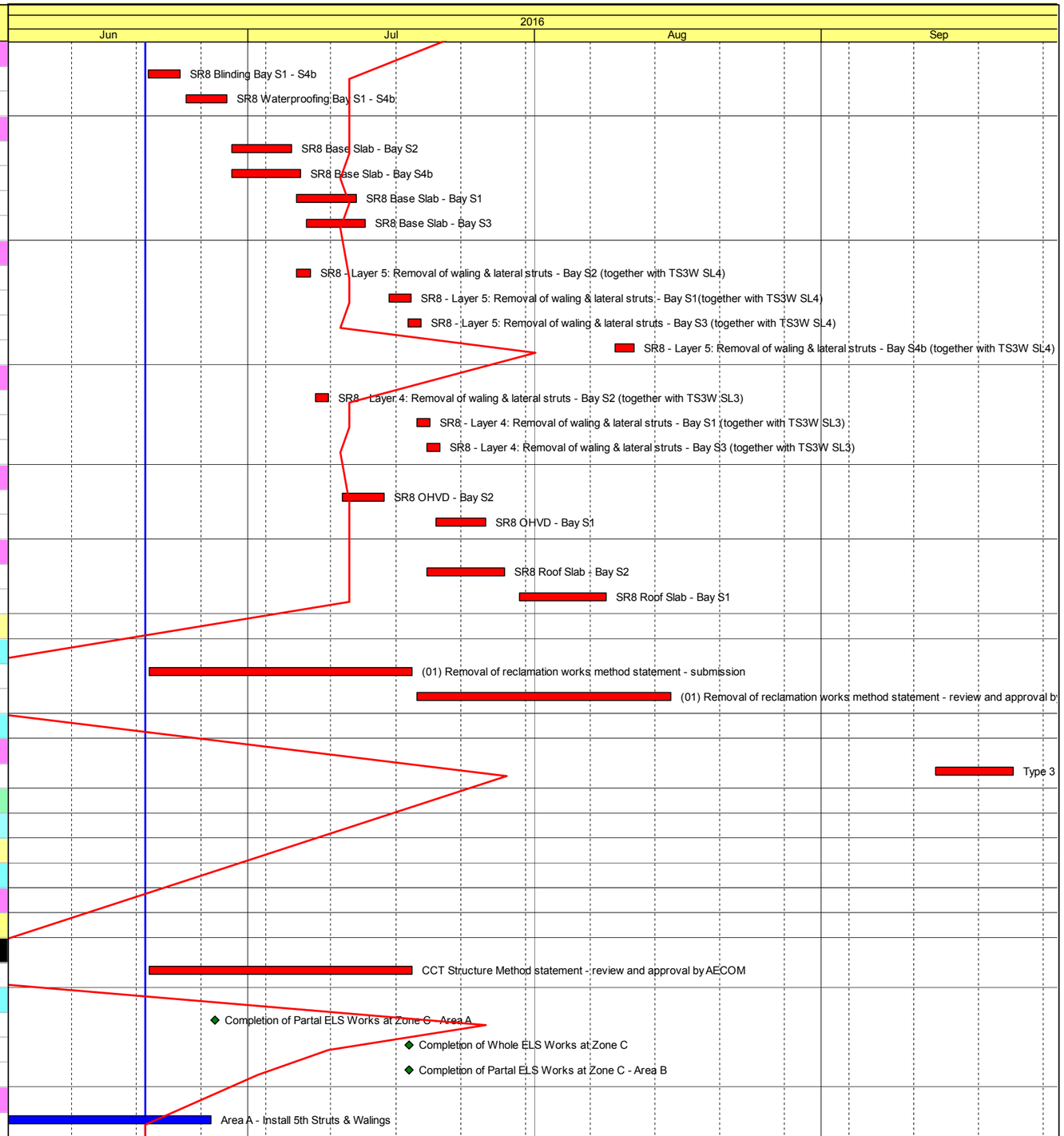
Date	Revision	Checked	Approved
20-Jun-16	Updated to 20th Jun 2016	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish
Blinding + Waterproofing - Bay S1 to Bay S4b		8d	20-Jun-16	28-Jun-16
TS3W_7510	SR8 Blinding Bay S1 - S4b	4d	20-Jun-16	23-Jun-16
TS3W_7520	SR8 Waterproofing Bay S1 - S4b	4d	24-Jun-16	28-Jun-16
Base Slab - Bay S1 to Bay S4b		12d	29-Jun-16	13-Jul-16
TS3W_7540	SR8 Base Slab - Bay S2	6d	29-Jun-16	05-Jul-16
TS3W_7570	SR8 Base Slab - Bay S4b	6d	29-Jun-16	06-Jul-16
TS3W_7530	SR8 Base Slab - Bay S1	6d	06-Jul-16	12-Jul-16
TS3W_7550	SR8 Base Slab - Bay S3	6d	07-Jul-16	13-Jul-16
Removal of Struts - Layer SL5		32d	06-Jul-16	11-Aug-16
TS3W_8520	SR8 - Layer 5: Removal of waling & lateral struts - Bay S2 (together with TS3W SL4)	2d	06-Jul-16	07-Jul-16
TS3W_7560	SR8 - Layer 5: Removal of waling & lateral struts - Bay S1(together with TS3W SL4)	2d	16-Jul-16	18-Jul-16
TS3W_8530	SR8 - Layer 5: Removal of waling & lateral struts - Bay S3 (together with TS3W SL4)	2d	18-Jul-16	19-Jul-16
TS3W_8540	SR8 - Layer 5: Removal of waling & lateral struts - Bay S4b (together with TS3W SL4)	2d	09-Aug-16	11-Aug-16
Removal of Struts - Layer SL4		12d	08-Jul-16	21-Jul-16
A7730	SR8 - Layer 4: Removal of waling & lateral struts - Bay S2 (together with TS3W SL3)	2d	08-Jul-16	09-Jul-16
A7720	SR8 - Layer 4: Removal of waling & lateral struts - Bay S1 (together with TS3W SL3)	2d	19-Jul-16	20-Jul-16
A7740	SR8 - Layer 4: Removal of waling & lateral struts - Bay S3 (together with TS3W SL3)	2d	20-Jul-16	21-Jul-16
OHVD - Bay S1 to Bay S4b		14d	11-Jul-16	26-Jul-16
TS3W_7710	SR8 OHVD - Bay S2	5d	11-Jul-16	15-Jul-16
TS3W_7700	SR8 OHVD - Bay S1	5d	21-Jul-16	26-Jul-16
Roof Slab - Bay S1 to Bay 4b		17d	20-Jul-16	08-Aug-16
TS3W_7790	SR8 Roof Slab - Bay S2	8d	20-Jul-16	28-Jul-16
TS3W_7780	SR8 Roof Slab - Bay S1	8d	30-Jul-16	08-Aug-16
Removal of Reclamation		79d	20-Jun-16	21-Sep-16
Method Statement		48d	20-Jun-16	15-Aug-16
TS3W_2150	(01) Removal of reclamation works method statement - submission	24d	20-Jun-16	18-Jul-16
TS3W_2155	(01) Removal of reclamation works method statement - review and approval by AECOM	24d	19-Jul-16	15-Aug-16
TS3-West Removal of Reclamation		7d	13-Sep-16	21-Sep-16
Removal of waling and Struts at Layer 3		7d	13-Sep-16	21-Sep-16
TS3W_8510	Type 3 - Bay 3; Backfill & Remove Strut SL3	7d	13-Sep-16	21-Sep-16
Works in SR8 (Open Cut Method)		422d	20-May-15 A	19-Oct-16
SR8 - Cofferdam & Cut & Cover Tunnel Works		422d	20-May-15 A	19-Oct-16
SR8 (Zone C) - Ch. 528 to Ch. 368		79d	13-May-16 A	21-Sep-16
Pipe Piling & Dewatering Wells		24d	20-Jun-16	18-Jul-16
SR8 East Bound - (Seaside to Victoria Road / IEC Central Divider)		24d	20-Jun-16	18-Jul-16
Method Statement		24d	20-Jun-16	18-Jul-16
CCT Structure		24d	20-Jun-16	18-Jul-16
SR8_2290	CCT Structure Method statement - review and approval by AECOM	24d	20-Jun-16	18-Jul-16
ELS - Excavation & Struts Installation		23d	13-May-16 A	18-Jul-16
A2160	Completion of Partal ELS Works at Zone C - Area A	0d		27-Jun-16
A1600	Completion of Whole ELS Works at Zone C	0d		18-Jul-16
A2260	Completion of Partal ELS Works at Zone C - Area B	0d		18-Jul-16
Area A (Ch.384 to Ch.461) / (77m) - Victoria Park to Steel Deck WB		12d	13-May-16 A	27-Jun-16
A1380	Area A - Install 5th Struts & Walings	12d	13-May-16 A	27-Jun-16 A



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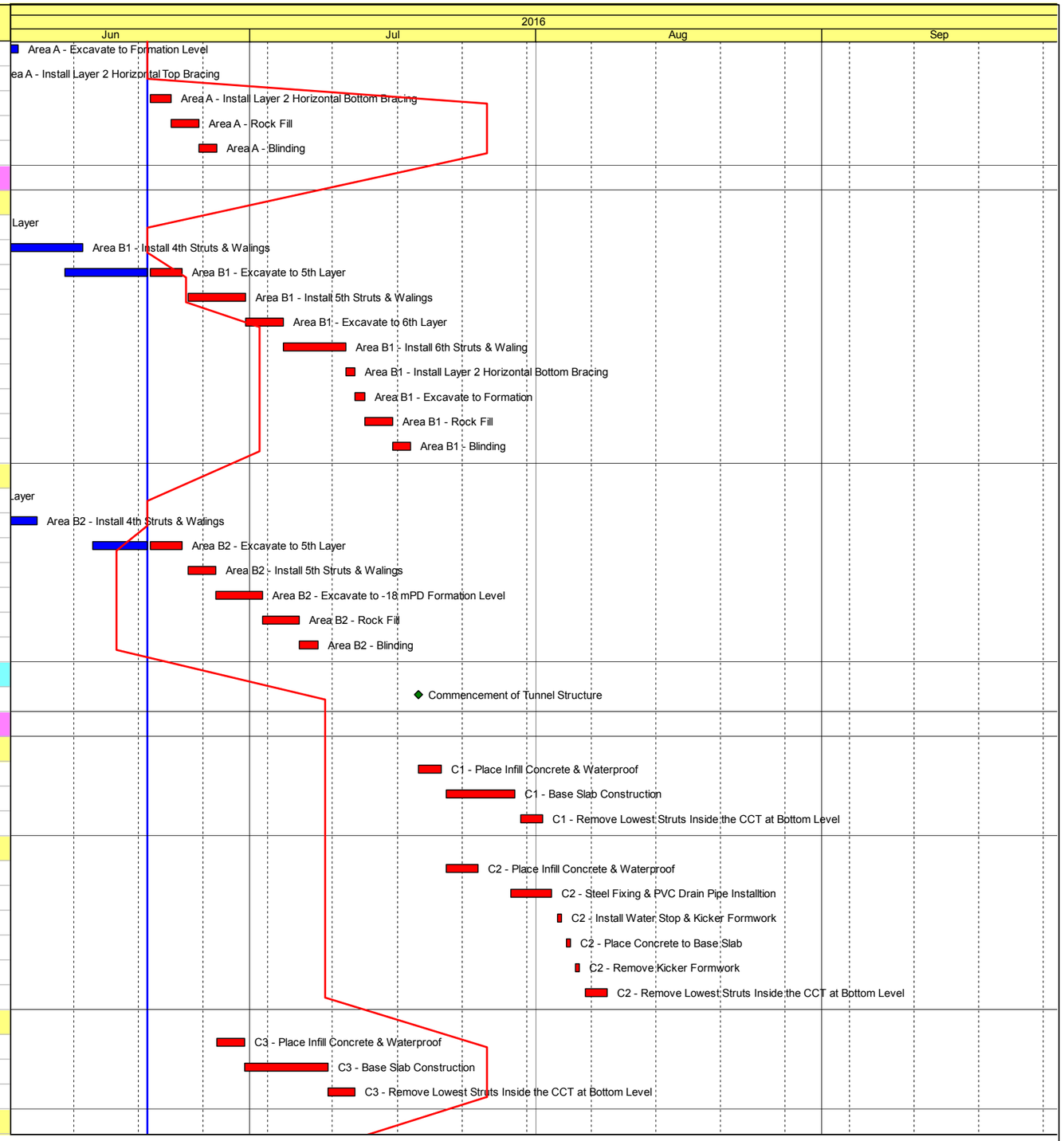
20-Jun-16	Updated to 20th Jun 2016	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish
A1390	Area A - Excavate to Formation Level	4d	30-May-16 A	06-Jun-16 A
A1350A	Area A - Install Layer 2 Horizontal Top Bracing	2d	01-Jun-16 A	03-Jun-16 A
A2270	Area A - Install Layer 2 Horizontal Bottom Bracing	2d	20-Jun-16	22-Jun-16
A2280	Area A - Rock Fill	3d	22-Jun-16	25-Jun-16
A2290	Area A - Blinding	1d	25-Jun-16	27-Jun-16
Area B (Ch.461 to Ch.525) / (64m) - IEC + Steel Deck EB + SR8/TS3 Interface		23d	13-May-16 A	18-Jul-16
Area B1 (CH461 to CH511) / (50m) - IEC + Steel Deck EB		23d	13-May-16 A	18-Jul-16
A4830	Area B1 - Excavate to -4th Layer	4d	13-May-16 A	21-May-16 A
A4840	Area B1 - Install 4th Struts & Walings	6d	01-Jun-16 A	13-Jun-16 A
A4850	Area B1 - Excavate to 5th Layer	2d	11-Jun-16 A	23-Jun-16
A4860	Area B1 - Install 5th Struts & Walings	6d	24-Jun-16	30-Jun-16
A4870	Area B1 - Excavate to 6th Layer	2d	30-Jun-16	04-Jul-16
A5800	Area B1 - Install 6th Struts & Waling	6d	04-Jul-16	11-Jul-16
A5860	Area B1 - Install Layer 2 Horizontal Bottom Bracing	1d	11-Jul-16	12-Jul-16
A5870	Area B1 - Excavate to Formation	1d	12-Jul-16	13-Jul-16
A5880	Area B1 - Rock Fill	3d	13-Jul-16	16-Jul-16
A5890	Area B1 - Blinding	1d	16-Jul-16	18-Jul-16
Area B2 (CH511 to CH525) / (14m) - SR8/TS3 Interface		15d	13-May-16 A	08-Jul-16
A1460	Area B2 - Excavate to 4th Layer	2d	13-May-16 A	21-May-16 A
A1470	Area B2 - Install 4th Struts & Walings	2d	30-May-16 A	08-Jun-16 A
A1480	Area B2 - Excavate to 5th Layer	1d	14-Jun-16 A	23-Jun-16
A1490	Area B2 - Install 5th Struts & Walings	2d	24-Jun-16	27-Jun-16
A2300	Area B2 - Excavate to -18 mPD Formation Level	4d	27-Jun-16	02-Jul-16
A2310	Area B2 - Rock Fill	3d	02-Jul-16	06-Jul-16
A2320	Area B2 - Blinding	2d	06-Jul-16	08-Jul-16
Tunnel Structure		73d	27-Jun-16	21-Sep-16
A4880	Commencement of Tunnel Structure	0d	19-Jul-16	
Base Slab		36d	27-Jun-16	09-Aug-16
Bay C1		12d	19-Jul-16	01-Aug-16
A1400	C1 - Place Infill Concrete & Waterproof	3d	19-Jul-16	21-Jul-16
A1530	C1 - Base Slab Construction	7d	22-Jul-16	29-Jul-16
A1540	C1 - Remove Lowest Struts Inside the CCT at Bottom Level	2d	30-Jul-16	01-Aug-16
Bay C2		15d	22-Jul-16	08-Aug-16
A4890	C2 - Place Infill Concrete & Waterproof	3d	22-Jul-16	25-Jul-16
A4900	C2 - Steel Fixing & PVC Drain Pipe Installtion	4d	29-Jul-16	02-Aug-16
A4900A	C2 - Install Water Stop & Kicker Formwork	1d	03-Aug-16	03-Aug-16
A4900B	C2 - Place Concrete to Base Slab	1d	04-Aug-16	04-Aug-16
A4900C	C2 - Remove Kicker Formwork	1d	05-Aug-16	05-Aug-16
A4910	C2 - Remove Lowest Struts Inside the CCT at Bottom Level	2d	06-Aug-16	08-Aug-16
Bay C3		12d	27-Jun-16	12-Jul-16
A4920	C3 - Place Infill Concrete & Waterproof	3d	27-Jun-16	30-Jun-16
A4930	C3 - Base Slab Construction	7d	30-Jun-16	09-Jul-16
A4940	C3 - Remove Lowest Struts Inside the CCT at Bottom Level	2d	09-Jul-16	12-Jul-16
Bay C4		16d	21-Jul-16	09-Aug-16



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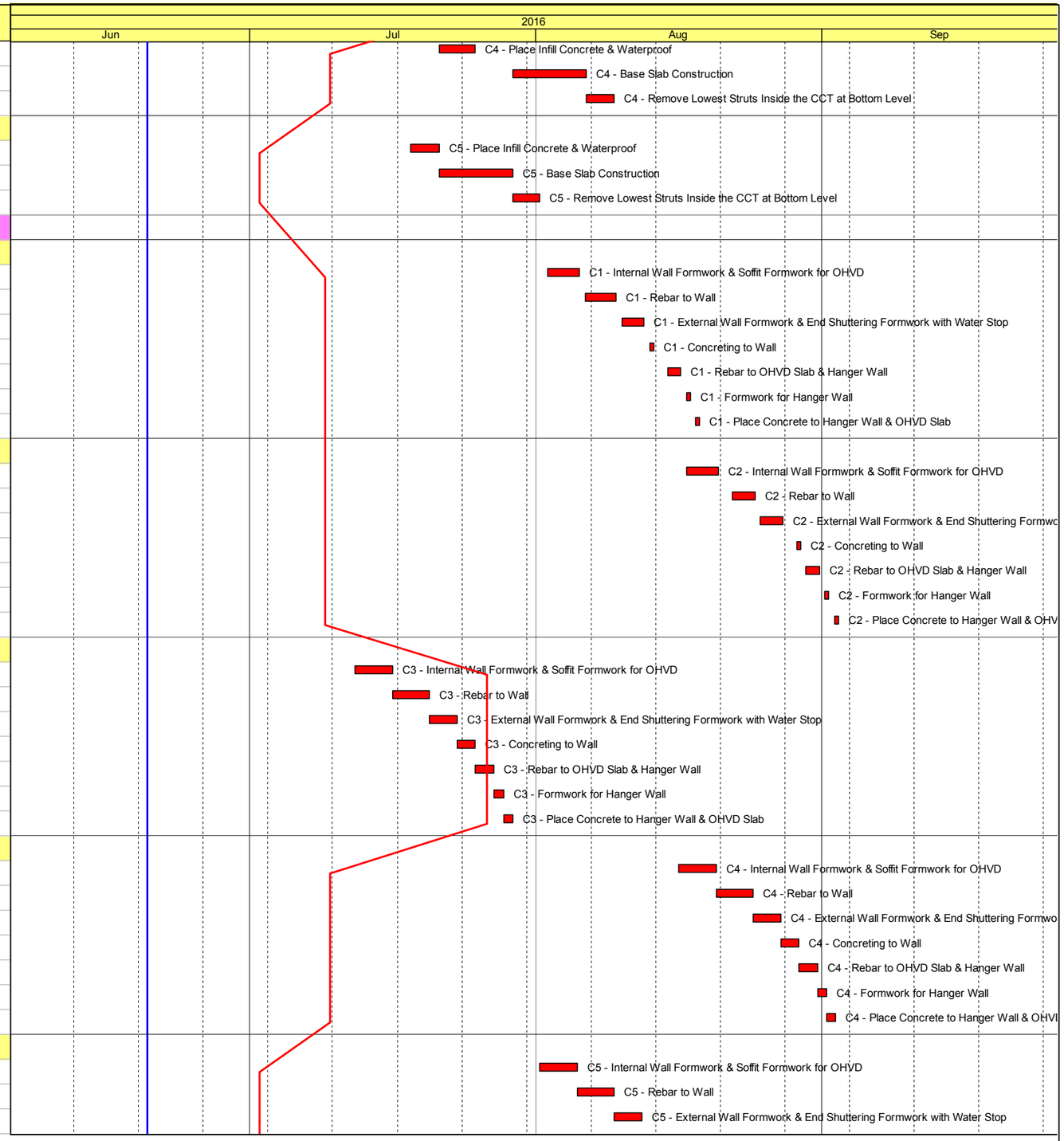
Activity ID	Activity Name	Original Duration	Start	Finish
A6030	C4 - Place Infill Concrete & Waterproof	3d	21-Jul-16	25-Jul-16
A6040	C4 - Base Slab Construction	7d	29-Jul-16	06-Aug-16
A6050	C4 - Remove Lowest Struts Inside the CCT at Bottom Level	2d	06-Aug-16	09-Aug-16
Bay C5		12d	18-Jul-16	01-Aug-16
A6060	C5 - Place Infill Concrete & Waterproof	3d	18-Jul-16	21-Jul-16
A6070	C5 - Base Slab Construction	7d	21-Jul-16	29-Jul-16
A6080	C5 - Remove Lowest Struts Inside the CCT at Bottom Level	2d	29-Jul-16	01-Aug-16
Wall & OHVD		46d	12-Jul-16	02-Sep-16
Bay C1		15d	02-Aug-16	18-Aug-16
A1550	C1 - Internal Wall Formwork & Soffit Formwork for OHVD	4d	02-Aug-16	05-Aug-16
A1560	C1 - Rebar to Wall	3d	06-Aug-16	09-Aug-16
A1570	C1 - External Wall Formwork & End Shuttering Formwork with Water Stop	3d	10-Aug-16	12-Aug-16
A1580	C1 - Concreting to Wall	1d	13-Aug-16	13-Aug-16
A1580A	C1 - Rebar to OHVD Slab & Hanger Wall	2d	15-Aug-16	16-Aug-16
A1580B	C1 - Formwork for Hanger Wall	1d	17-Aug-16	17-Aug-16
A1580C	C1 - Place Concrete to Hanger Wall & OHVD Slab	1d	18-Aug-16	18-Aug-16
Bay C2		15d	17-Aug-16	02-Sep-16
A6090	C2 - Internal Wall Formwork & Soffit Formwork for OHVD	4d	17-Aug-16	20-Aug-16
A6100	C2 - Rebar to Wall	3d	22-Aug-16	24-Aug-16
A6110	C2 - External Wall Formwork & End Shuttering Formwork with Water Stop	3d	25-Aug-16	27-Aug-16
A6120	C2 - Concreting to Wall	1d	29-Aug-16	29-Aug-16
A6130	C2 - Rebar to OHVD Slab & Hanger Wall	2d	30-Aug-16	31-Aug-16
A6140	C2 - Formwork for Hanger Wall	1d	01-Sep-16	01-Sep-16
A6150	C2 - Place Concrete to Hanger Wall & OHVD Slab	1d	02-Sep-16	02-Sep-16
Bay C3		15d	12-Jul-16	29-Jul-16
A6160	C3 - Internal Wall Formwork & Soffit Formwork for OHVD	4d	12-Jul-16	16-Jul-16
A6170	C3 - Rebar to Wall	3d	16-Jul-16	20-Jul-16
A6180	C3 - External Wall Formwork & End Shuttering Formwork with Water Stop	3d	20-Jul-16	23-Jul-16
A6190	C3 - Concreting to Wall	1d	23-Jul-16	25-Jul-16
A6200	C3 - Rebar to OHVD Slab & Hanger Wall	2d	25-Jul-16	27-Jul-16
A6210	C3 - Formwork for Hanger Wall	1d	27-Jul-16	28-Jul-16
A6220	C3 - Place Concrete to Hanger Wall & OHVD Slab	1d	28-Jul-16	29-Jul-16
Bay C4		15d	16-Aug-16	02-Sep-16
A6230	C4 - Internal Wall Formwork & Soffit Formwork for OHVD	4d	16-Aug-16	20-Aug-16
A6240	C4 - Rebar to Wall	3d	20-Aug-16	24-Aug-16
A6250	C4 - External Wall Formwork & End Shuttering Formwork with Water Stop	3d	24-Aug-16	27-Aug-16
A6260	C4 - Concreting to Wall	1d	27-Aug-16	29-Aug-16
A6270	C4 - Rebar to OHVD Slab & Hanger Wall	2d	29-Aug-16	31-Aug-16
A6280	C4 - Formwork for Hanger Wall	1d	31-Aug-16	01-Sep-16
A6290	C4 - Place Concrete to Hanger Wall & OHVD Slab	1d	01-Sep-16	02-Sep-16
Bay C5		15d	01-Aug-16	18-Aug-16
A6300	C5 - Internal Wall Formwork & Soffit Formwork for OHVD	4d	01-Aug-16	05-Aug-16
A6310	C5 - Rebar to Wall	3d	05-Aug-16	09-Aug-16
A6320	C5 - External Wall Formwork & End Shuttering Formwork with Water Stop	3d	09-Aug-16	12-Aug-16



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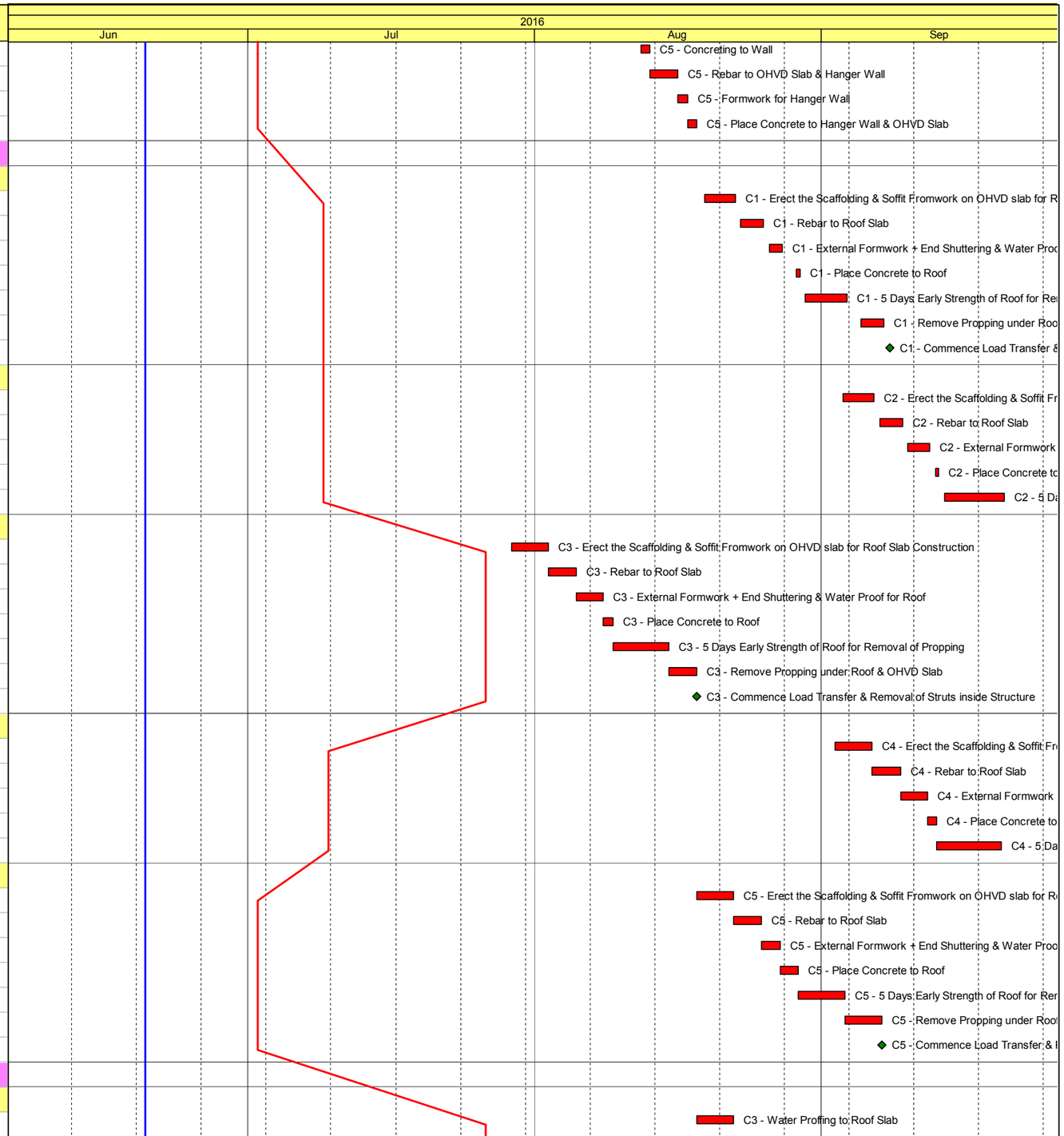
Activity ID	Activity Name	Original Duration	Start	Finish
A6330	C5 - Concreting to Wall	1d	12-Aug-16	13-Aug-16
A6340	C5 - Rebar to OHVD Slab & Hanger Wall	2d	13-Aug-16	16-Aug-16
A6350	C5 - Formwork for Hanger Wall	1d	16-Aug-16	17-Aug-16
A6360	C5 - Place Concrete to Hanger Wall & OHVD Slab	1d	17-Aug-16	18-Aug-16
Roof Slab		45d	29-Jul-16	20-Sep-16
Bay C1		17d	19-Aug-16	08-Sep-16
A6370	C1 - Erect the Scaffolding & Soffit Fromwork on OHVD slab for Roof Slab Construction	3d	19-Aug-16	22-Aug-16
A6380	C1 - Rebar to Roof Slab	3d	23-Aug-16	25-Aug-16
A6390	C1 - External Formwork + End Shuttering & Water Proof for Roof	2d	26-Aug-16	27-Aug-16
A6400	C1 - Place Concrete to Roof	1d	29-Aug-16	29-Aug-16
A6410	C1 - 5 Days Early Strength of Roof for Removal of Propping	5d	30-Aug-16	03-Sep-16
A6420	C1 - Remove Propping under Roof & OHVD Slab	3d	05-Sep-16	07-Sep-16
A6430	C1 - Commence Load Transfer & Removal of Struts inside Structure	0d	08-Sep-16	
Bay C2		14d	03-Sep-16	20-Sep-16
A6440	C2 - Erect the Scaffolding & Soffit Fromwork on OHVD slab for Roof Slab Construction	3d	03-Sep-16	06-Sep-16
A6450	C2 - Rebar to Roof Slab	3d	07-Sep-16	09-Sep-16
A6460	C2 - External Formwork + End Shuttering & Water Proof for Roof	2d	10-Sep-16	12-Sep-16
A6470	C2 - Place Concrete to Roof	1d	13-Sep-16	13-Sep-16
A6480	C2 - 5 Days Early Strength of Roof for Removal of Propping	5d	14-Sep-16	20-Sep-16
Bay C3		17d	29-Jul-16	18-Aug-16
A3920	C3 - Erect the Scaffolding & Soffit Fromwork on OHVD slab for Roof Slab Construction	3d	29-Jul-16	02-Aug-16
A3930	C3 - Rebar to Roof Slab	3d	02-Aug-16	05-Aug-16
A3940	C3 - External Formwork + End Shuttering & Water Proof for Roof	2d	05-Aug-16	08-Aug-16
A3950	C3 - Place Concrete to Roof	1d	08-Aug-16	09-Aug-16
A3960	C3 - 5 Days Early Strength of Roof for Removal of Propping	5d	09-Aug-16	15-Aug-16
A4070	C3 - Remove Propping under Roof & OHVD Slab	3d	15-Aug-16	18-Aug-16
A4080	C3 - Commence Load Transfer & Removal of Struts inside Structure	0d	18-Aug-16	
Bay C4		14d	02-Sep-16	20-Sep-16
A6510	C4 - Erect the Scaffolding & Soffit Fromwork on OHVD slab for Roof Slab Construction	3d	02-Sep-16	06-Sep-16
A6520	C4 - Rebar to Roof Slab	3d	06-Sep-16	09-Sep-16
A6530	C4 - External Formwork + End Shuttering & Water Proof for Roof	2d	09-Sep-16	12-Sep-16
A6540	C4 - Place Concrete to Roof	1d	12-Sep-16	13-Sep-16
A6550	C4 - 5 Days Early Strength of Roof for Removal of Propping	5d	13-Sep-16	20-Sep-16
Bay C5		17d	18-Aug-16	07-Sep-16
A6580	C5 - Erect the Scaffolding & Soffit Fromwork on OHVD slab for Roof Slab Construction	3d	18-Aug-16	22-Aug-16
A6590	C5 - Rebar to Roof Slab	3d	22-Aug-16	25-Aug-16
A6600	C5 - External Formwork + End Shuttering & Water Proof for Roof	2d	25-Aug-16	27-Aug-16
A6610	C5 - Place Concrete to Roof	1d	27-Aug-16	29-Aug-16
A6620	C5 - 5 Days Early Strength of Roof for Removal of Propping	5d	29-Aug-16	03-Sep-16
A6630	C5 - Remove Propping under Roof & OHVD Slab	3d	03-Sep-16	07-Sep-16
A6640	C5 - Commence Load Transfer & Removal of Struts inside Structure	0d	07-Sep-16	
Load Transfer Works		28d	18-Aug-16	21-Sep-16
Bay C3 (Involve 75% by Area)		14d	18-Aug-16	03-Sep-16
A3210	C3 - Water Proffing to Roof Slab	3d	18-Aug-16	22-Aug-16



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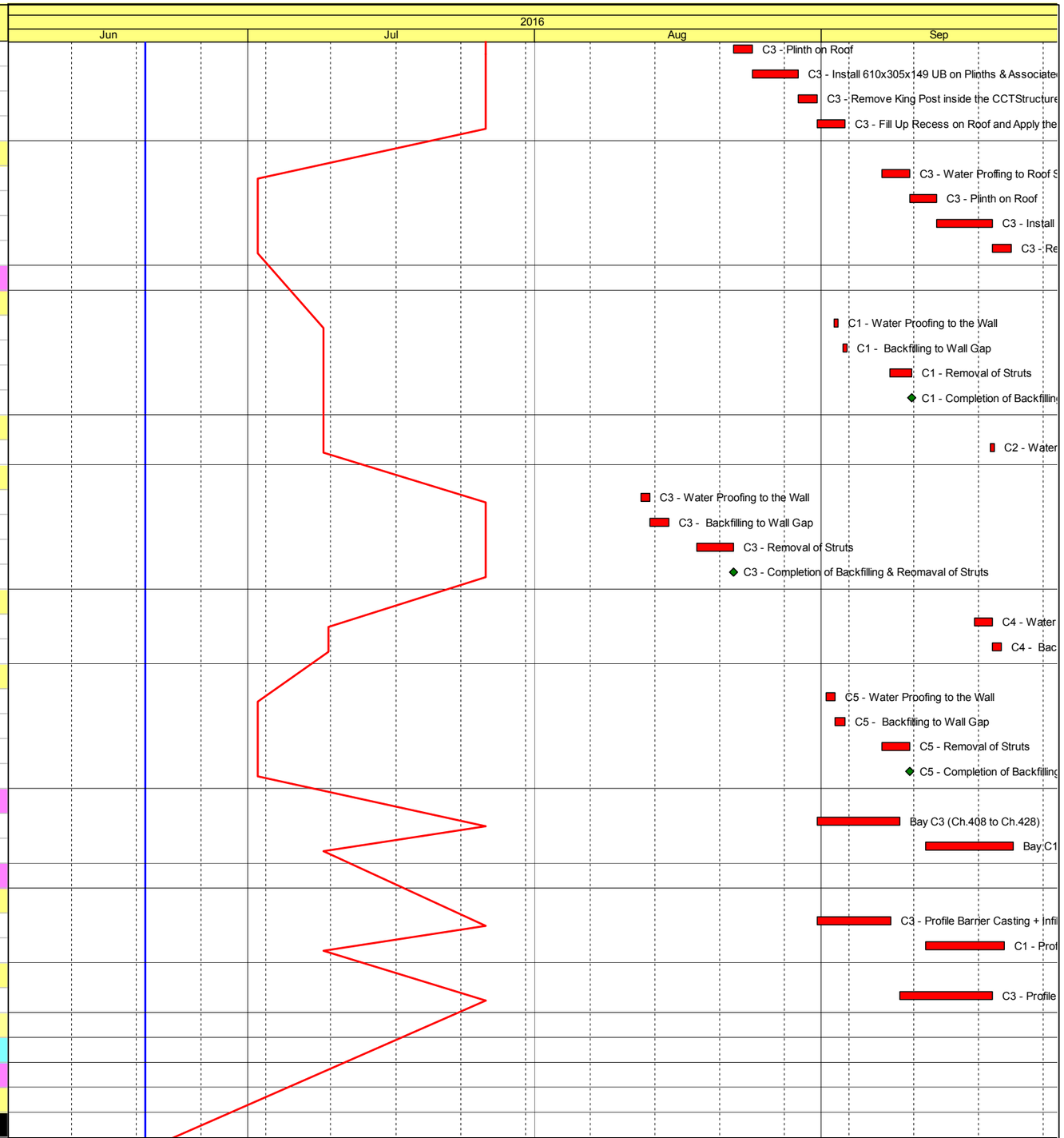
Activity ID	Activity Name	Original Duration	Start	Finish
A3210A	C3 - Plinth on Roof	2d	22-Aug-16	24-Aug-16
A3220	C3 - Install 610x305x149 UB on Plinths & Associated Weldings	4d	24-Aug-16	29-Aug-16
A3230	C3 - Remove King Post inside the CCTStructure	2d	29-Aug-16	31-Aug-16
A3240	C3 - Fill Up Recess on Roof and Apply the Waterproof Material to Recess	3d	31-Aug-16	03-Sep-16
Bay C5 (Involve 100% by Area)		11d	07-Sep-16	21-Sep-16
A6690	C3 - Water Proffing to Roof Slab	3d	07-Sep-16	10-Sep-16
A6690A	C3 - Plinth on Roof	2d	10-Sep-16	13-Sep-16
A6700	C3 - Install 610x305x149 UB on Plinths & Associated Weldings	4d	13-Sep-16	19-Sep-16
A6710	C3 - Remove King Post inside the CCTStructure	2d	19-Sep-16	21-Sep-16
Removal of 2 Layers of Sruts at Top Level		32d	12-Aug-16	20-Sep-16
Bay C1		8d	02-Sep-16	10-Sep-16
A3450	C1 - Water Proofing to the Wall	1d	02-Sep-16	02-Sep-16
A3460	C1 - Backfilling to Wall Gap	1d	03-Sep-16	03-Sep-16
A3470	C1 - Removal of Struts	3d	08-Sep-16	10-Sep-16
A3480	C1 - Completion of Backfilling & Reomaval of Struts	0d		10-Sep-16
Bay C2		1d	19-Sep-16	19-Sep-16
A6730	C2 - Water Proofing to the Wall	1d	19-Sep-16	19-Sep-16
Bat C3		8d	12-Aug-16	22-Aug-16
A6770	C3 - Water Proofing to the Wall	1d	12-Aug-16	13-Aug-16
A6780	C3 - Backfilling to Wall Gap	1d	13-Aug-16	15-Aug-16
A6790	C3 - Removal of Struts	3d	18-Aug-16	22-Aug-16
A6800	C3 - Completion of Backfilling & Reomaval of Struts	0d		22-Aug-16
Bay C4		2d	17-Sep-16	20-Sep-16
A6810	C4 - Water Proofing to the Wall	1d	17-Sep-16	19-Sep-16
A6820	C4 - Backfilling to Wall Gap	1d	19-Sep-16	20-Sep-16
Bay C5		8d	01-Sep-16	10-Sep-16
A6850	C5 - Water Proofing to the Wall	1d	01-Sep-16	02-Sep-16
A6860	C5 - Backfilling to Wall Gap	1d	02-Sep-16	03-Sep-16
A6870	C5 - Removal of Struts	3d	07-Sep-16	10-Sep-16
A6880	C5 - Completion of Backfilling & Reomaval of Struts	0d		10-Sep-16
Egress Passage		18d	31-Aug-16	21-Sep-16
A5070	Bay C3 (Ch.408 to Ch.428)	8d	31-Aug-16	09-Sep-16
A5050	Bay C1 (Ch.368 to Ch.388)	8d	12-Sep-16	21-Sep-16
Utility Trough		17d	31-Aug-16	20-Sep-16
RHS Adjacent to Tunnel Wall		17d	31-Aug-16	20-Sep-16
A4610	C3 - Profile Barrier Casting + Infill Concrete for U-trough Trench	7d	31-Aug-16	08-Sep-16
A4590	C1 - Profile Barrier Casting + Infill Concrete for U-trough Trench	7d	12-Sep-16	20-Sep-16
LHS Adjacent to Egress Passage Wall		7d	09-Sep-16	19-Sep-16
A4690	C3 - Profile Barrier Casting + Infill Concrete for U-trough Trench	7d	09-Sep-16	19-Sep-16
SR8 (Zone B) - Ch.385.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)		62d	24-Feb-16 A	31-Aug-16
SR8 (Zone B) Tunnel - ELS / CCT / BF Works (7 Bays Ch. 385.000 to Ch.317.500)		62d	24-Feb-16 A	31-Aug-16
Portal Structure		62d	24-Feb-16 A	31-Aug-16
Roof Slab Construction		20d	08-Jun-16 A	20-Jun-16 A
Bay B2 (CH338.625 to CH351.8)		4d	08-Jun-16 A	12-Jun-16 A



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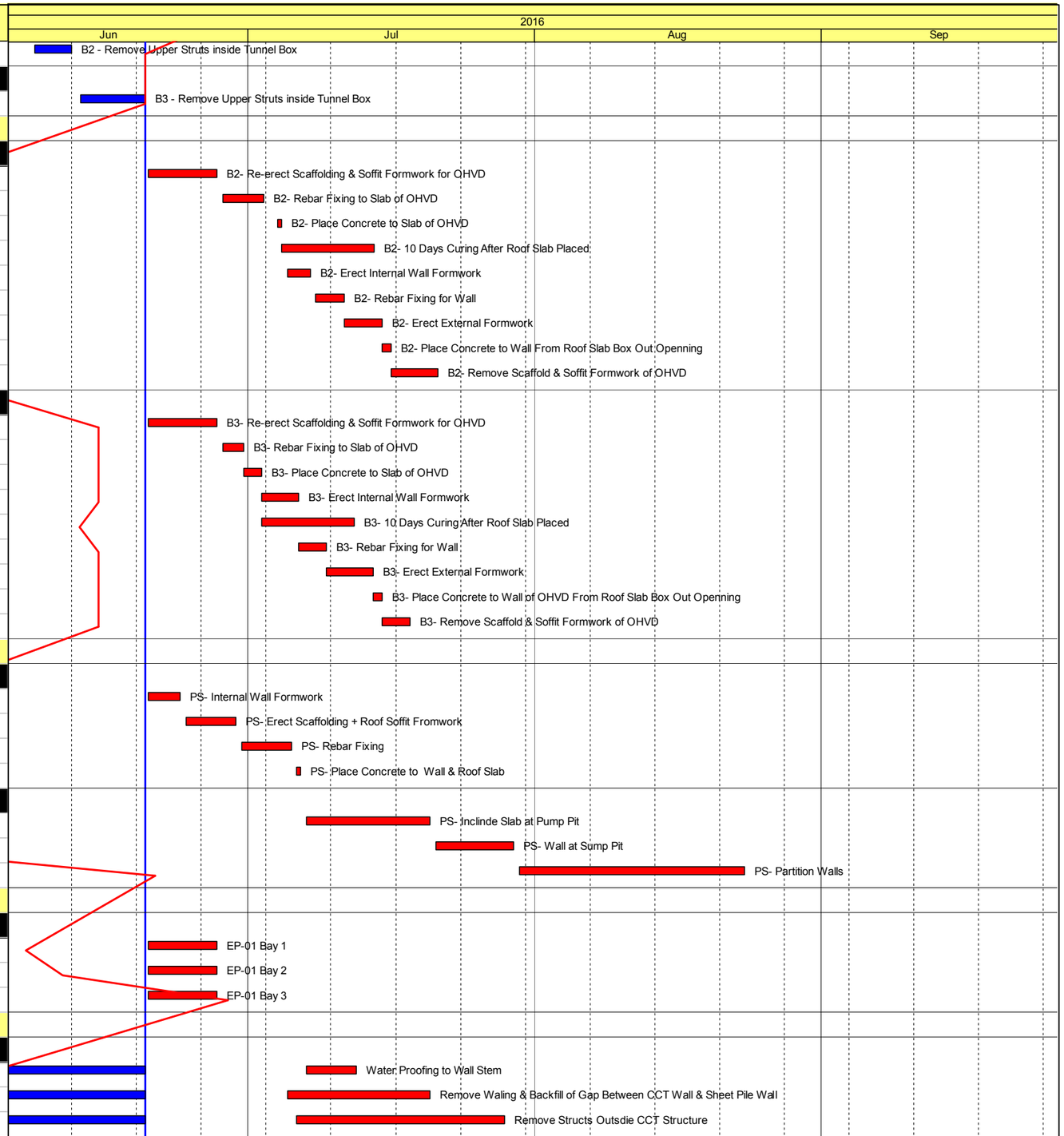
Activity ID	Activity Name	Original Duration	Start	Finish
A5560A10	B2 - Remove Upper Struts inside Tunnel Box	4d	08-Jun-16 A	12-Jun-16 A
Bay B3 (CH351.8 to CH368)		4d	13-Jun-16 A	20-Jun-16 A
A5590A10	B3 - Remove Upper Struts inside Tunnel Box	4d	13-Jun-16 A	20-Jun-16 A
OHVD		27d	20-Jun-16	21-Jul-16
Bay B2 (CH338.625 to CH351.8)		27d	20-Jun-16	21-Jul-16
A5600	B2- Re-erect Scaffolding & Soffit Formwork for OHVD	7d	20-Jun-16	27-Jun-16
A5610	B2- Rebar Fixing to Slab of OHVD	4d	28-Jun-16	02-Jul-16
A5620	B2- Place Concrete to Slab of OHVD	1d	04-Jul-16	04-Jul-16
A5670	B2- 10 Days Curing After Roof Slab Placed	10d	04-Jul-16	14-Jul-16
A5630	B2- Erect Internal Wall Formwork	3d	05-Jul-16	07-Jul-16
A5640	B2- Rebar Fixing for Wall	3d	08-Jul-16	11-Jul-16
A5650	B2- Erect External Formwork	4d	11-Jul-16	15-Jul-16
A5660	B2- Place Concrete to Wall From Roof Slab Box Out Openning	1d	15-Jul-16	16-Jul-16
A5670A	B2- Remove Scaffold & Soffit Formwork of OHVD	4d	16-Jul-16	21-Jul-16
Bay B3 (CH351.8 to CH368)		24d	20-Jun-16	18-Jul-16
A5680	B3- Re-erect Scaffolding & Soffit Formwork for OHVD	7d	20-Jun-16	27-Jun-16
A5690	B3- Rebar Fixing to Slab of OHVD	3d	28-Jun-16	30-Jun-16
A5700	B3- Place Concrete to Slab of OHVD	1d	30-Jun-16	02-Jul-16
A5710	B3- Erect Internal Wall Formwork	3d	02-Jul-16	06-Jul-16
A5750	B3- 10 Days Curing After Roof Slab Placed	10d	02-Jul-16	12-Jul-16
A5720	B3- Rebar Fixing for Wall	3d	06-Jul-16	09-Jul-16
A5730	B3- Erect External Formwork	4d	09-Jul-16	14-Jul-16
A5740	B3- Place Concrete to Wall of OHVD From Roof Slab Box Out Openning	1d	14-Jul-16	15-Jul-16
A5750A	B3- Remove Scaffold & Soffit Formwork of OHVD	2d	15-Jul-16	18-Jul-16
Pump House		55d	20-Jun-16	23-Aug-16
Access Hut Near Ground Level		14d	20-Jun-16	06-Jul-16
A1670	PS- Internal Wall Formwork	4d	20-Jun-16	23-Jun-16
A1680	PS- Erect Scaffolding + Roof Soffit Fromwork	5d	24-Jun-16	29-Jun-16
A1690	PS- Rebar Fixing	4d	30-Jun-16	05-Jul-16
A1700	PS- Place Concrete to Wall & Roof Slab	1d	06-Jul-16	06-Jul-16
Floor Slabs & Partition Walls		41d	07-Jul-16	23-Aug-16
A1710	PS- Inclinde Slab at Pump Pit	12d	07-Jul-16	20-Jul-16
A1720	PS- Wall at Sump Pit	8d	21-Jul-16	29-Jul-16
A1750	PS- Partition Walls	21d	30-Jul-16	23-Aug-16
Egress Passage (EP-01) Inside CCT Structure		7d	20-Jun-16	27-Jun-16
Utility Trough		7d	20-Jun-16	27-Jun-16
A2230	EP-01 Bay 1	7d	20-Jun-16	27-Jun-16
A2240	EP-01 Bay 2	7d	20-Jun-16	27-Jun-16
A2250	EP-01 Bay 3	7d	20-Jun-16	27-Jun-16
Backfilling & Struts Removal		35d	24-Feb-16 A	13-Aug-16
Water Proofing to Wall Stems & Remove Struts		21d	24-Feb-16 A	28-Jul-16
A5940	Water Proofing to Wall Stem	14d	24-Feb-16 A	12-Jul-16
A5950	Remove Waling & Backfill of Gap Between CCT Wall & Sheet Pile Wall	14d	19-Apr-16 A	20-Jul-16
A5960	Remove Structs Outsdie CCT Structure	14d	16-May-16 A	28-Jul-16



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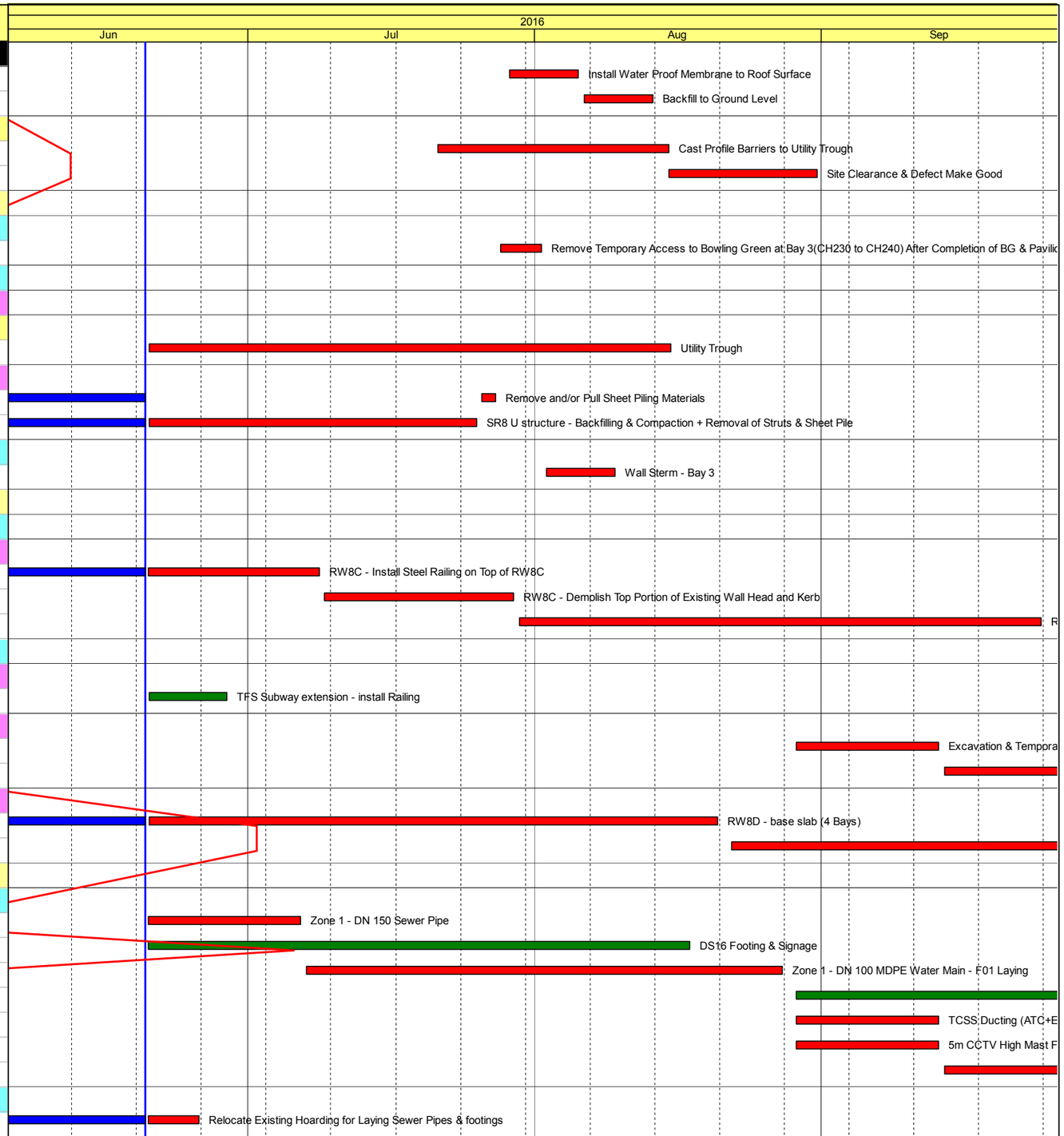
Water Proofing to Roof Surface & Backfilling		14d	29-Jul-16	13-Aug-16
A5980	Install Water Proof Membrane to Roof Surface	7d	29-Jul-16	05-Aug-16
A5990	Backfill to Ground Level	7d	06-Aug-16	13-Aug-16
Utility Trough		35d	21-Jul-16	31-Aug-16
A6000	Cast Profile Barriers to Utility Trough	21d	21-Jul-16	15-Aug-16
A6010	Site Clearance & Defect Make Good	14d	15-Aug-16	31-Aug-16
SR8 (Zone A) - Ch 317.500 to Ch 210.000 - U-Structure & Slab (Victoria Park)		149d	29-Oct-15 A	15-Aug-16
Excavation and Lateral Support		4d	28-Jul-16	01-Aug-16
SR8_2320	Remove Temporary Access to Bowling Green at Bay 3(CH230 to CH240) After Completion of BG & Pavilion	4d	28-Jul-16	01-Aug-16
RC CCT & Backfill Ch317.5000 to Ch240.000		150d	29-Oct-15 A	15-Aug-16
Structure		48d	20-Jun-16	15-Aug-16
Utility Through		48d	20-Jun-16	15-Aug-16
SR8_2050	Utility Trough	48d	20-Jun-16	15-Aug-16
Backfill & Reinstatement Works Including Removal of Struts		60d	29-Oct-15 A	27-Jul-16
SR8_1920.20	Remove and/or Pull Sheet Piling Materials	36d	29-Oct-15 A	27-Jul-16
SR8_1920	SR8 U structure - Backfilling & Compaction + Removal of Struts & Sheet Pile	60d	21-Jan-16 A	25-Jul-16
SR8 Structural Slab Ch.240.000 to Ch.210.000		7d	02-Aug-16	09-Aug-16
SR8_2090B	Wall Sterm - Bay 3	7d	02-Aug-16	09-Aug-16
Tsing Fung St - RW & Subway Extension & Toe Wall at Hing Fat St		422d	20-May-15 A	19-Oct-16
Ret. Wall & TF Subway Extension (Portion V)		403d	20-May-15 A	24-Sep-16
Retaining Wall RW8C at Tsing Fung Street (Portion V)		403d	20-May-15 A	24-Sep-16
VP_1370A	RW8C - Install Steel Railing on Top of RW8C	14d	20-May-15 A	08-Jul-16
VP_1390	RW8C - Demolish Top Portion of Existing Wall Head and Kerb	18d	09-Jul-16	29-Jul-16
VP_1400	RW8C - Road Formation - Subbase + Kerb + U-shape Channel	48d	30-Jul-16	24-Sep-16
Retaining Wall + Toe Wall at Hing Fat Street		101d	09-May-16 A	19-Oct-16
Subway Extension at Tsing Fung Street (Portion VIII)		8d	20-Jun-16	28-Jun-16
VP_1375.50	TFS Subway extension - install Railing	8d	20-Jun-16	28-Jun-16
RC Works - Toe Wall (RW8E)		42d	29-Aug-16	19-Oct-16
A6900	Excavation & Temporary Works for RW8E	14d	29-Aug-16	13-Sep-16
A6910	Construction of Base Slab of RW8E - 4 Bays	28d	14-Sep-16	19-Oct-16
RC Works - Retaining Wall RW8D		89d	09-May-16 A	04-Oct-16
VP_1540	RW8D - base slab (4 Bays)	28d	09-May-16 A	20-Aug-16
VP_1550	RW8D - wall stem (4 Bay)	36d	22-Aug-16	04-Oct-16
SR8 External Works: Raod & Drain, Surfacing, Furnitures, Traffic Signs etc.		204d	21-Jan-16 A	30-Sep-16
Zone 1 - Within Footpath of Retaining Wall RW8D		87d	20-Jun-16	30-Sep-16
SR8_2010A	Zone 1 - DN 150 Sewer Pipe	14d	20-Jun-16	06-Jul-16
SR8_2100	DS16 Footing & Signage	50d	20-Jun-16	17-Aug-16
SR8_2030	Zone 1 - DN 100 MDPE Water Main - F01 Laying	45d	07-Jul-16	27-Aug-16
SR8_2040	Zone 1 - DN 100 MDPE Water Main Connection by WSD	28d	29-Aug-16	30-Sep-16
SR8_2060	TCSS Ducting (ATC+E&M @2x150UPVC)	14d	29-Aug-16	13-Sep-16
SR8_2110	5m CCTV High Mast Footing	14d	29-Aug-16	13-Sep-16
SR8_2110A	Overheight Detector Footing & Draw Pits at Footpath	14d	14-Sep-16	30-Sep-16
Zone 2 - Subway Extension to New Lay-by		189d	21-Jan-16 A	12-Sep-16
SR8_2140	Relocate Existing Hoarding for Laying Sewer Pipes & footings	14d	21-Jan-16 A	25-Jun-16



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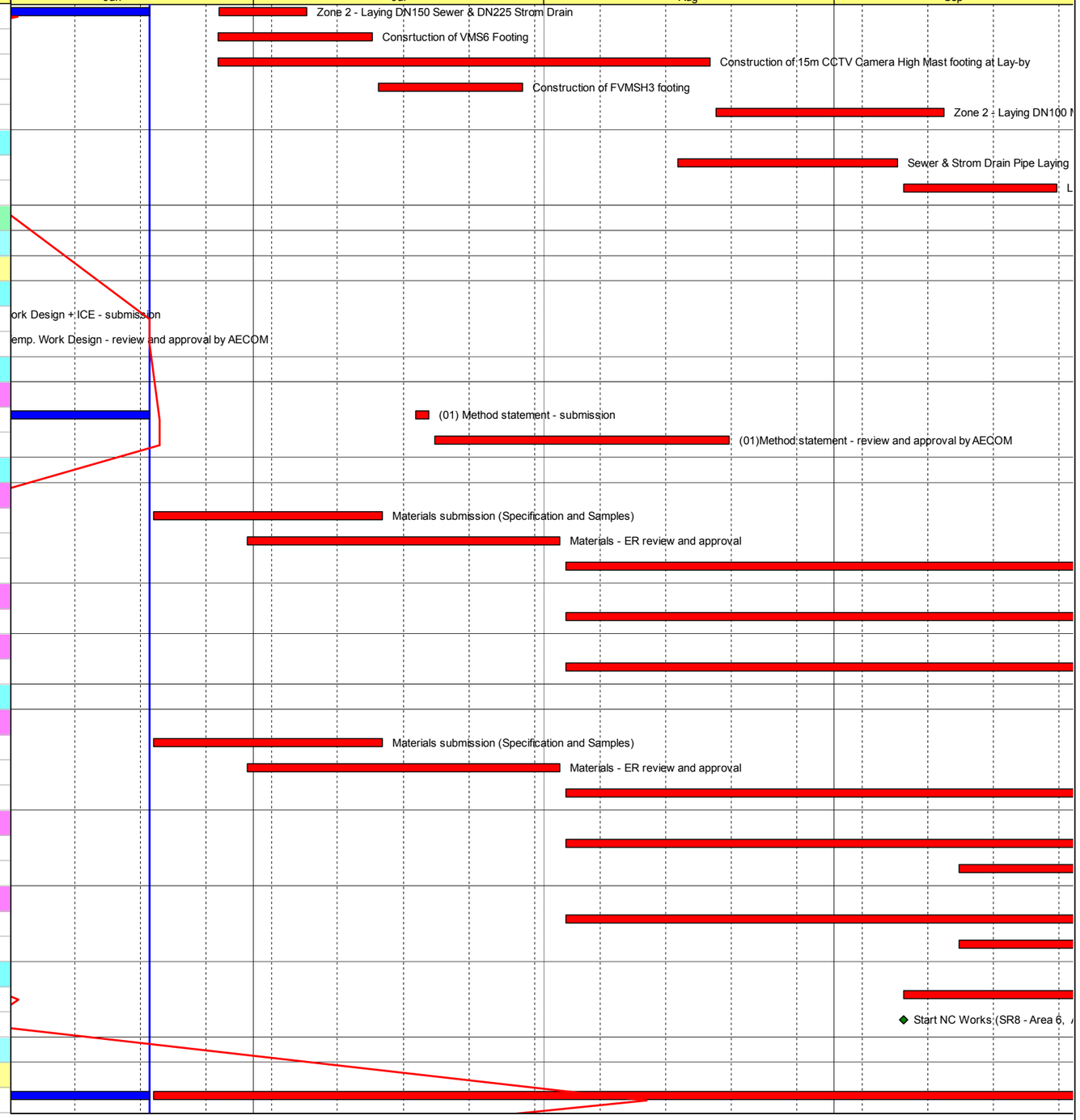
SR8_2140A	Zone 2 - Laying DN150 Sewer & DN225 Strom Drain	21d	31-Jan-16 A	06-Jul-16
SR8_2150	Consrtuction of VMS6 Footing	14d	27-Jun-16	13-Jul-16
SR8_2170	Construction of 15m CCTV Camera High Mast footing at Lay-by	45d	27-Jun-16	18-Aug-16
SR8_2160	Construction of FVMSH3 footing	14d	14-Jul-16	29-Jul-16
SR8_21800	Zone 2 - Laying DN100 MDPE Water Main - F01	21d	19-Aug-16	12-Sep-16
Zone 3 - Within Zone A & Zone B Area inside Victoria Park/ New Pedestrian Island		35d	15-Aug-16	24-Sep-16
SR8_2180	Sewer & Strom Drain Pipe Laying	21d	15-Aug-16	07-Sep-16
SR8_2210	Laying DN40 Irrigation Main	14d	08-Sep-16	24-Sep-16
Works in Victoria Park		1471d	21-Mar-13 A	14-Dec-17
Re-Provisioning Works		133d	27-Apr-16 A	25-Nov-16
Nursery Compound (NC)		133d	27-Apr-16 A	25-Nov-16
Temp. Works Design		24d	27-Apr-16 A	01-Jun-16 A
VP_0270	(01) Temp. Work Design + ICE - submission	24d	27-Apr-16 A	28-May-16 A
VP_0280	(01) Temp. Work Design - review and approval by AECOM	24d	30-May-16 A	01-Jun-16 A
Structural Submisions		30d	27-Apr-16 A	20-Aug-16
Method Statement		30d	27-Apr-16 A	20-Aug-16
VP_6700	(01) Method statement - submission	21d	27-Apr-16 A	19-Jul-16
VP_6710	(01)Method statement - review and approval by AECOM	28d	20-Jul-16	20-Aug-16
ABWF Submissions		97d	20-Jun-16	14-Oct-16
Materials		97d	20-Jun-16	14-Oct-16
VP_6860	Materials submission (Specification and Samples)	21d	20-Jun-16	14-Jul-16
VP_6870	Materials - ER review and approval	28d	30-Jun-16	02-Aug-16
VP_6880	Issue P.O. / Manufacturing / Fabrication	60d	03-Aug-16	14-Oct-16
Shop Drawing		60d	03-Aug-16	14-Oct-16
VP_6820	Shopdrawing submission	60d	03-Aug-16	14-Oct-16
Method Statement		60d	03-Aug-16	14-Oct-16
VP_6720	(01) Method statement - submission	60d	03-Aug-16	14-Oct-16
E&M Works Submission		133d	20-Jun-16	25-Nov-16
Materials		97d	20-Jun-16	14-Oct-16
VP_6760	Materials submission (Specification and Samples)	21d	20-Jun-16	14-Jul-16
VP_6770	Materials - ER review and approval	28d	30-Jun-16	02-Aug-16
VP_6780	Issue P.O. / Manufacturing / Fabrication	60d	03-Aug-16	14-Oct-16
Shop Drawing		96d	03-Aug-16	25-Nov-16
VP_6800	Shopdrawing submission	60d	03-Aug-16	14-Oct-16
VP_6810	Shopdrawing - ER review and approval	60d	14-Sep-16	25-Nov-16
Method Statement		96d	03-Aug-16	25-Nov-16
VP_6750	(01) Method statement - submission	60d	03-Aug-16	14-Oct-16
VP_6740	(01)Method statement - review and approval by AECOM	60d	14-Sep-16	25-Nov-16
Construction Works to Permanent NC		24d	08-Sep-16	07-Oct-16
VP_1530	NC - U/G Utilities and foundation works	24d	08-Sep-16	07-Oct-16
VP_1520	Start NC Works (SR8 - Area 6, Area 7 & Area 8 Complete)	0d	08-Sep-16	
Establishment Works for Landscape Softworks		902d	23-Feb-15 A	14-Dec-17
KD11 - Section 7A: Portion XIV & XV (Victoria Park Open Space)		901d	23-Feb-15 A	14-Dec-17
EW_1000	Establishment Works - for Landscape Softworks and transplanted trees in Portion XIV & XV	901d	23-Feb-15 A	14-Dec-17



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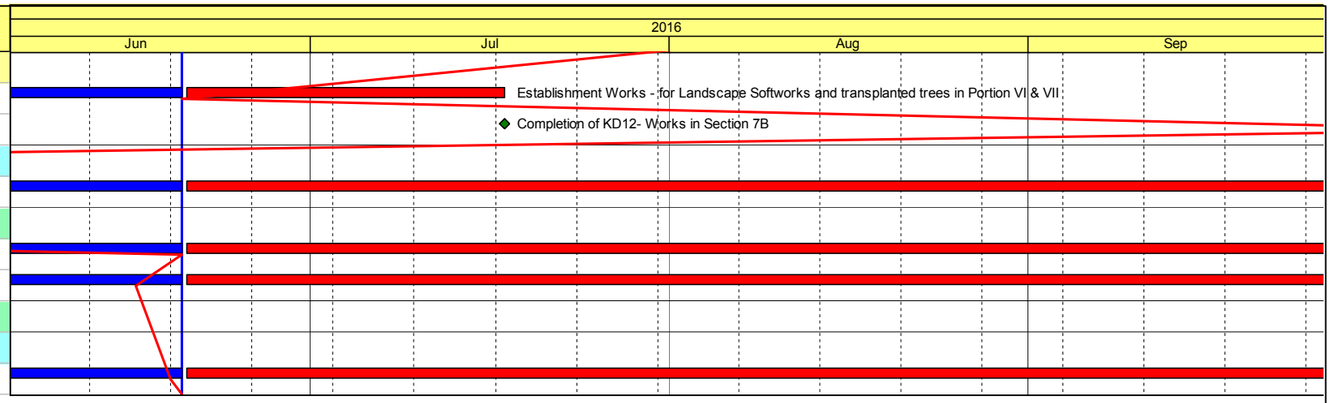
KD12 - Section 7B: Portion VI & VII (Reprov. Bowling Green Area)		177d	03-Dec-15 A	17-Jul-16
EW_1010	Establishment Works - for Landscape Softworks and transplanted trees in Portion VI & VII	177d	03-Dec-15 A	17-Jul-16
EW_1030	Completion of KD12- Works in Section 7B	0d		17-Jul-16
Preservation and Protection of Trees		1088d	21-Mar-13 A	20-Nov-16
PPT_0000	Preservation and Protection of Existing Trees	1088d	21-Mar-13 A	20-Nov-16
Mooring Components Upkeep (CBTS and ATS)		1399d	21-Mar-13 A	21-Jan-17
MAR_2000	Mooring Upkeep at Portion XIX(19) & XX(20) - ATS (if instructed by Engineer)	1399d	21-Mar-13 A	17-Jan-17
MAR_3020	Mooring Upkeep at Portion X(10) & XVI(16) - CBTS	979d	15-May-14 A	21-Jan-17
Works for Public Works Regional Laboratory (North Lantau)		1301d	19-Jul-13 A	21-Nov-17
Maintenance and Upkeep of New PWRL (Portion XVII)		1301d	19-Jul-13 A	21-Nov-17
PWRL_1050	Maintenance/ Upkeep of New PWRL	1301d	19-Jul-13 A	21-Nov-17



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