CONTRACT NO: HK/2011/07

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

ENVIRONMENTAL PERMIT NO. EP-356/2009, FURTHER EVIRONMENTAL PERMIT NOS. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-05/356/2009, FEP-06/356/2009 AND FEP-07/356/2009

QUARTERLY ENVIRONMENTAL MONITORING AND AUDIT REPORT

- JUNE 2014 TO AUGUST 2014 -

CLIENTS:

Civil Engineering and Development Department

and

Highways Department

PREPARED BY:

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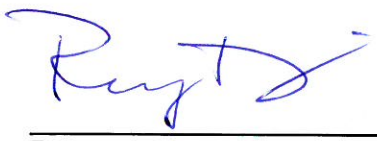

Raymond Dai
Environmental Team Leader

DATE:

22 September 2014

ENVIRON

Ref.: AACWBIECEM00_0_5712L.14

22 September 2014

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

By Post and Fax (2691 2649)

Attention: Mr. Conrad NG

Dear Sir,

Re: Wan Chai Development Phase II and Central-Wan Chai Bypass
Quarterly Environmental Monitoring and Audit Report (Jun to Aug 2014)
for EP-356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009,
FEP-05/356/2009, FEP-06/356/2009 and FEP-07/356/2009

Reference is made to the Environmental Team's submission of the Quarterly Environmental Monitoring and Audit (EM&A) Report for June to August 2014 received by e-mail on 19 September 2014 and the subsequent revision of the report received by e-mail on 22 September 2014 for our review and comment.

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

c.c.	HyD	Mr. Eddy Wu	by fax: 2714 5289
	CEDD	Mr. Jason Cheung	by fax: 2577 5040
	AECOM	Mr. Stephen Lai	by fax: 2691 2649
	Lam	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 2014 to August 2014 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-05/356/2009, FEP-06/356/2009 and FEP-07/356/2009. This report presents the environmental monitoring and audit findings and information during the period from June 2014 to August 2014. The cut-off date of reporting is at 27th of each reporting period.

Construction Activities for the Reported Period

ii. 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 2014	July 2014	August 2014
• Ongoing demolition work of the exiting Expo Drive East Bridge • Ongoing work on UU diversion at Expo Drive East Bridge • Ongoing structure works for Stage 1 tunnel • Ongoing Stage 2 excavation • Installation of pre-bored H-piles at HKCEC water channel • Construction of D-wall • Ongoing mainlaying work on discharge cooling and saltwater • Ongoing rectification work • Demolition work of exiting HKCEC pump house	• Rock trimming works	• Rock trimming works

iii. 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 2014	July 2014	August 2014
• Road works between Expo Drive and Expo Drive East • Backfilling work • Installation and testing of AVR • Defect rectification works in WSD Salt Water Pumping Station • ABWF Works(Completion of fender system panels installation) • E&M Works for instance fire services ducting and cabling works • VSD installation and testing of movable ramp and life cage • Ongoing capping beam construction • Removal of marine mud at WCR2 • Erection of Bridge 3 • Modification of D-Wall for Bridge 2 • Delivery of fabricated temp bridges	• Road works between Expo Drive and Expo Drive East • Backfilling work • Defect rectification works in WSD Salt Water Pumping Station • ABWF Works in Section VIIIA • E&M Works for instance fire services ducting and cabling works • Capping beam construction • Installation of seawall block • Removal of marine mud and reclamation at WCR2 • Temporary drainage construction • Concrete decking	• Road works • Connection works of temporary sewage pipe • Lighting installation • Granolithic finishing • Reclamation at WCR2 • Excavation works • Construction of at-grade road

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 2014	July 2014	August 2014
• EVA construction at Eastern Breakwater • Reinstatement of Eastern Breakwater • Removal of Seawall Blocks at TS2, TPCWAE	• EVA construction at Eastern Breakwater • Reinstatement of Eastern Breakwater • Removal of Seawall Blocks at TS2, TPCWAE & TS4	• EVA construction at Eastern Breakwater • Reinstatement of Eastern Breakwater • Removal of Seawall Blocks at TPCWAE & TS4

June 2014	July 2014	August 2014
& TS4 • Demolition of D-Wall at TS2, TPCWAE & TS4 • Maintenance dredging	• Demolition of D-Wall at TS2, TPCWAE & TS4 • Maintenance dredging	• Demolition of D-Wall at TS2, TPCWAE & TS4 • Underwater Cutting of Temporary Diaphragm Walls at TS2, TS4 and TPCWAE

v. Contract no. HK/2010/06 was commenced on 22 March 2011. During this reporting period, the principal work activities for Contract no. HK/2010/06 are summarized as below:

Table IV Principal Work Activities for Contract no. HK/2010/06

June 2014	July 2014	August 2014
• Nil	• Nil	• Nil

vi. 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 V Principal Work Activities for Contract no. HY/2009/19

June 2014	July 2014	August 2014
• Road works at Watson Road • Bored piling (Land) • Removal/Installation of strut at ELS • Construction of Dolphin Cap • ELS for Cut &Cover Tunnel and EVB • Laying of 1500ϕ pipe • Launching of segments • Extraction of temporary pile from marine section • Construction of bridge TA1 • Pre-bored H-pile for Admin. Building continue • U-beam installation continue • Parapet construction continue • Wing slab extension for segment continue • Construction of TD bridge continue	• Construction of Dolphin Cap • Extraction of temporary pile from marine section	• Construction of Dolphin Cap

June 2014	July 2014	August 2014
• Construction of Bridge E • Construction of Bride F4 and F5		

vii. 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 VI Principal Work Activities for Contract no. HK/2012/08

June 2014	July 2014	August 2014
• ELS for box culvert La at Lung King Street • Filling for seawall rock mound formation • Filling for reclamation • Dredging	• ELS for box culvert La at Lung King Street • Filling for seawall rock mound formation • Filling for reclamation	• ELS for box culvert La at Lung King Street • Filling for seawall rock mound formation • Filling for reclamation • Dredging

viii. 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 VII Principal Work Activities for Contract no. HY/2010/08

June 2014	July 2014	August 2014
• Rock filling works (works cease on 8th Feb. 2014)	• Rock filling works (works cease on 8th Feb. 2014) • Dredging works	• Rock filling works • Dredging works • Seawall blocks installation

Noise Monitoring

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. No action and four limit level exceedances at M6 – HK Baptist Church Henrietta Secondary School were recorded on 5, 10, 17 and 25 June 2014 in June reporting month. The exceedances were concluded as non-project related.

xi. One limit level exceedance at M2b – Noon Day Gun Area was recorded on 24 June 2014 in June reporting month. The exceedance was concluded as project related.

xii. No action and limit level exceedance was recorded in July reporting month.

xiii. One limit level exceedance at M6 – HK Baptist Church Henrietta Secondary School was recorded on 28 July 2014 in August reporting month. The exceedance was concluded as non-project related.

xiv. One limit level exceedance at M2b – Noon Day Gun Area was recorded on 5 August 2014 in August reporting month. The exceedance was concluded as project related.

Real-time Noise Monitoring

xv. As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

xvi. Real-time noise monitoring at FEHD Hong Kong Transport Section Whitefield Depot and Oil Street Community Centre have been commenced on 5 October 2010 for the filling works of Contract no. HY/2009/11.

xvii. Real-time noise monitoring at FEHD Hong Kong Transport Section Whitefield Depot commenced external wall renovation since 1 June 2012

xviii. Oil Street Community Liaison Centre was confirmed to be demolished in mid-October by CWB RSS. This presented a need for relocation of RTN2 – Oil Street Community Liaison Centre. After liaison with Hong Kong Electric, permission was granted on 21 Sep 2012 for real time noise monitoring set up at City Garden Electric Centre (RTN2a – Electric Centre), which is a representative of the noise sensitive receiver City Garden. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.

xix. No project related exceedance was recorded in June, July and August 2014 reporting months at RTN2a-Hong Kong Electric Centre during this reporting quarter.

Air Quality Monitoring

xx. Due to extension of site boundary by contractor of HY/2009/19, location of air monitoring station CMA1b – Oil Street Community Liaison Centre has been finely adjusted on 21 April 2012.

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

xxii. 1hr and 24hr TSP monitoring were conducted at CMA1b, CMA2a, CMA3a, CMA4a, CMA5a and CMA6a in the reporting period.

xxiii. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 8 July 2014, 22 July 2014, 5 July 2014 and 19 August 2014 at the concerned hours (afternoon for higher daily temperature).

xxiv. No action and limit level exceedance was recorded in reporting period.

Water Quality Monitoring

xxv. Due to the hoisting of strong wind signal No. 3 on 18 July 2014, water quality monitoring on 18 July 2014 during both flood and ebb tides were cancelled in July reporting month.

xxvi. Due to the hoisting of amber rainstorm warning signal, the following water quality monitoring events were cancelled in August reporting month.

WQM during flood tide was cancelled on 1 August 2014
WQM during ebb tide was cancelled on 13 August 2014

xxvii. WQM during ebb tide was cancelled on 20 August 2014

xxviii. Water quality monitoring was conducted at 11 monitoring stations namely WSD9, WSD17, WSD19, C1, C7, P1, P3, P4, P5 and RW21-P789 during the reporting period.

xxix. As advised by WDII RSS, the pump station for WSD21 pump house relocation was implemented with respect to HK/2009/02 since 6 March 2014, according to the EM&A Manual the monitoring station WSD21 was relocated to RW21-P789 from 12 March 2014 accordingly.

xxx. Due to the Amber Rainstorm signal was hoisted on 31 March 2014, water quality monitoring at ebb tide were cancelled.

xxxi. Action and Limit level of water quality monitoring was transited from dry season to wet season from 1 April 2014.

xxxii. Due to sealing of sampling point at water quality monitoring station P3 during ebb tide 21 May 2014, water quality monitoring at P3 during ebb tide were cancelled.

xxxiii. Due to sealing of sampling point at water quality monitoring station P3, P4 and P5 during ebb tide 23 May 2014, water quality monitoring at P3, P4 and P5 during ebb tide were cancelled.

xxxiv. According to CWB RSS, oil dispersion at the culvert outfall location at SW corner of CBTS was observed on 6, 22, 24 and 28 Feb 2014. An ICC case (ICC ref: 2-92821253) regarding the above issue was lodged by CWB RSS team to request for follow-up action by relevant departments.

xxxv. Another oil dispersion at the culvert outfall location at Ex-Cargo handling area was observed on 28 Feb 2014 by CWB RSS. An ICC case (ICC ref: 2-125779508) regarding the above observation was lodged by CWB RSS team to request for follow-up action by relevant departments.

xxxvi. Since marine dredging works was commenced under contract HK/2012/08. The respective water quality monitoring station WSD19, P1, P3, P4, and P5 have been started under contract HK/2012/08 September 2013.

xxxvii. As confirmed by CWB RSS, the marine pilling works under contract HY/2009/19 was confirmed completed by 4 March 2013. The water quality monitoring at the respective monitoring stations C8 and C9 were temporarily suspended since 30 March 2013.

xxxviii. WQM events on 22 April 2013 at monitoring stations C2, C3, C4e and C4w were temporarily suspended. Upon confirmation with WDII RSS and the IEC, water quality monitoring at relocated intakes monitoring location P1, P3, P4 and P5 were commenced since 24 April 2013.

xxxix. There were 2 action level of DO and no limit level exceedance recorded in June reporting month. Investigation found that the exceedances were not related to Project works.

xl. No action and limit level exceedance was recorded in July reporting month.

xli. There were no action level and 1 limit level exceedance of turbidity recorded in August reporting month. Investigation found that the exceedance was not related to Project works.

xlii. Enhanced DO monitoring at 4 monitoring stations in Causeway Bay Typhoon Shelter and Ex-Public Cargo Works Area was conducted three days per week during the reporting period.

xliii. There were no action level exceedances and 12 limit level exceedances of enhanced dissolved oxygen recorded in June reporting month. Investigation found that the exceedances are not related to the Project works.

xliv. There were no action level exceedances and 8 limit level exceedances of enhanced dissolved oxygen recorded in July reporting month. Investigation found that the exceedances are not related to the Project works.

xlv. There were 1 action level exceedance and 13 limit level exceedances of enhanced dissolved oxygen recorded in August reporting month. Investigation found that the exceedances are not related to the Project works.

xlvi. 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.

xlvii. Based on the joint inspection on 4 Jan 2012 for the NPR area, the 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 to confirm no water deterioration with respect to NPR was commenced since 7 Jan 2012 and was completed on 6 Feb 2012 water quality monitoring.

xlviii. Water quality monitoring at WSD10 and WSD15 will be temporary suspended while water quality monitoring at WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 12 onwards;

xlix. Water quality monitoring at C8 and C9 have been implemented with respect to HY/2009/19 since the marine bore piling work started on 28 Jan 12.

l. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.

li. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Centre (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.

lii. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3 , 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.

liii. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.

liv. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui-DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration.

Complaints, Notifications of Summons and Successful Prosecutions

lv. One environmental complaint received in June reporting month.

lvi. A public complaint regarding water quality impact referred by WDII RSS team was received by ET on 12 June 2014. Notification letter from EPD on the captioned case was subsequently received by ET on 13 June 2014. The complainant reported that a large piece of muddy water was found on the waterfront outside the Hong Kong Academy for Performing Arts Theatre Block on 12 June 2014 morning.

lvii. ET confirmed with the Resident Site Staff that neither marine construction works nor barge operation was conducted at the concerned location during the time of complaint. Nevertheless, with the respect to the EPD complaint case and the email notification issued by the Environmental team to contractor on 12 June 2014 morning, muddy dispersion was observe at HKCEC2W works area and the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs and contractor's immediate follow up action was requested.

lviii. Mitigation measures implemented by the Contractor for the above construction works include the deployment of double layer of silt curtain for marine filling works area at HKCEC2W, additional silt curtain at marine access between caisson seawall on 12 June 2014, and regular diver checking on the silt curtain deployed at the location. It is considered that Contractor's mitigation measures for safeguarding the water quality during marine filling works at the concerned location implemented would require further review on the effectiveness to avoid seepage of muddy dispersion.

lix. Follow-up inspection was further conducted on 16 June 2014 and in addition, diver inspection check on the silt curtain deployed was conducted by the Contractor on 14 June 2014 to confirm the integrity of silt curtain.

lx. The Contractors' investigation report on the complaint case was submitted to EPD via email on 18 June 2014, and the interim report was submitted to EPD on 20 June 2014.

lxi. One environmental complaint under EP-356/2009 was received in July reporting period.

lxii. A public complaint regarding construction noise impact referred by RSS was received by ET on 25 July 2014. The complainant reported that at 00:57hrs on 21 July 2014, the complainant could not sleep due to work and machine at the project site opposite to Ngan Tao Building, where he is staying were still going on and in operation. Noise travelled to his flat despite it was some distance away.

lxiii. ET confirmed with the 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 23:00 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.

lxiv. 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.

lxv. After reviewing the relevant records and information verified by RSS and the Construction Noise Permit (CNP) no. GW-RS0592-14, 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.” 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 considerations, the completion of diaphragm wall removal was necessary and of imminent need.

lxvi. 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 strictly 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.

lxvii. No environmental complaint was received in August reporting month.

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-05/356/2009, 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-014/2001).

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 June 2014 to August 2014.

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, 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.

2.3.2. 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
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	To be commenced tentatively on 4th quarter in 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	Joint Venture Board Representative	Mr. Simon Liu	9304 8355	2587 1878
		Deputy Site Agent	Mr Andy Yu	9648 4896	
		Construction Manager	Mr Terry Wong	9757 9846	
		Construction Manager	Mr. Wyman Wong	9627 2467	
		Construction Manager	Mr Kenneth Chan	9160 3850	
		Senior Environmental Engineer	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. Alfred Leung	3658-3022	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	K C Cheung	3557 6399	2566 2192
		Site Manager	J H Chen	3557 6368	
		Contractor's Representative	Andrew Wong	3557 6358	
		Contractor's Representative	Gene Cheung	3557 6395	
		Senior Project Manager	Eddie Tang	35576452	
		Environmental Officer	Mr. Daniel Sin	3557 6347	
Gammon -Leader JV	Contractor under Contract no. HK/2010/06	Project Manager	Mr. Paul Lui	9095 7922	2529 2880
		Site Agent	Mr. Eric Yip	2529 2068	
		Environmental Officer	Clement Pang	9735 9200	
		Environmental Supervisor	Jacky Cheung	9779 2292	

Party	Role	Post	Name	Contact No.	Contact Fax
Chun Wo - CRGL - MBEC Joint Venture	Contractor under Contract no. HY/2009/19	Project Manager	Mr. Rayland Lee	3758 8879	2570 8013
		Site Agent	Mr. Eric Yip	252902068	
		Environmental Engineer	Mr. Calvin Leung	9286 9208	
		Environmental Manager / Environmental Officer	Mr. M.H. Isa	9884 0810	
		Construction Manager (Marine)	William Luk	9610 1101	
		Construction Manager (Land)	Patrick Cheung	9643 3012	
		Construction Manager (Land)	Eric Fong	6191 9337	
		Operation Manager (Land)	Yung Kwok Wah	9834 1010	
China State-Leader JV	Contractor under Contract no. HK/2012/08	Project Director	Andrew Tse	9137 1811	2877 1522
		Project Manager	Victor Wu	9193 8871	
		Deputy Project Manager	George Cheung	9268 1918	
		Site Agent	Paul Lui	9095 7922	
		Environmental Officer	James Ma	9130 9549	
		Environmental Supervisor	Ching Man, Chan	6050 4919	
China State	Contractor under Contract no. HY/2010/08	Project Director	Cheung Kit Cheung	3557 6399	2566 8061
		Project Manager	Chan Ying Lun	3418 3001	
		Deputy Project Manager	Chris Leung	3467 4299	
		Site Agent	Dave Chan	3467 4277	
		Environmental Officer	C.M. Wong	3557 6464	
		Environmental Supervisor	Desmond Ho Tsz Ho	3557 6466	
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 2014	July 2014	August 2014
• Ongoing demolition work of the exiting Expo Drive East Bridge • Ongoing work on UU diversion at Expo Drive East Bridge • Ongoing structure works for Stage 1 tunnel • Ongoing Stage 2 excavation • Installation of pre-bored H-piles at HKCEC water channel • Construction of D-wall • Ongoing mainlaying work on discharge cooling and saltwater • Ongoing rectification work • Demolition work of exiting HKCEC pump house	• Rock trimming works	• Rock trimming works

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 2014	July 2014	August 2014
• Road works between Expo Drive and Expo Drive East • Backfilling work • Installation and testing of AVR	• Road works between Expo Drive and Expo Drive East • Backfilling work • Defect rectification works	• Road works • Connection works of temporary sewage pipe • Lighting installation • Granolithic finishing

June 2014	July 2014	August 2014
• Defect rectification works in WSD Salt Water Pumping Station • ABWF Works(Completion of fender system panels installation) • E&M Works for instance fire services ducting and cabling works • VSD installation and testing of movable ramp and life cage • Ongoing capping beam construction • Removal of marine mud at WCR2 • Erection of Bridge 3 • Modification of D-Wall for Bridge 2 • Delivery of fabricated temp bridges	in WSD Salt Water Pumping Station • ABWF Works in Section VIIIA • E&M Works for instance fire services ducting and cabling works • Capping beam construction • Installation of seawall block • Removal of marine mud and reclamation at WCR2 • Temporary drainage construction • Concrete decking	• Reclamation at WCR2 • Excavation works • Construction of at-grade road

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 2014	July 2014	August 2014
• EVA construction at Eastern Breakwater • Reinstatement of Eastern Breakwater • Removal of Seawall Blocks at TS2, TPCWAE & TS4 • Demolition of D-Wall at TS2, TPCWAE & TS4 • Maintenance dredging	• EVA construction at Eastern Breakwater • Reinstatement of Eastern Breakwater • Removal of Seawall Blocks at TS2, TPCWAE & TS4 • Demolition of D-Wall at TS2, TPCWAE & TS4 • Maintenance dredging	• EVA construction at Eastern Breakwater • Reinstatement of Eastern Breakwater • Removal of Seawall Blocks at TPCWAE & TS4 • Demolition of D-Wall at TS2, TPCWAE & TS4 • Underwater Cutting of Temporary Diaphragm Walls at TS2, TS4 and

June 2014	July 2014	August 2014
		TPCWAE

2.5.4. Contract no. HK/2010/06 was commenced on 22 March 2011. During this reporting period, the principal work activities for Contract no. HK/2010/06 are summarized as below:

Table 2.7 Principal Work Activities for Contract no. HK/2010/06

June 2014	July 2014	August 2014
• Nil	• Nil	• Nil

2.5.5. 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 2.8 Principal Work Activities for Contract no. HY/2009/19

June 2014	July 2014	August 2014
• Road works at Watson Road • Bored piling (Land) • Removal/Installation of strut at ELS • Construction of Dolphin Cap • ELS for Cut &Cover Tunnel and EVB • Laying of 1500ϕ pipe • Launching of segments • Extraction of temporary pile from marine section • Construction of bridge TA1 • Pre-bored H-pile for Admin. Building continue • U-beam installation continue • Parapet construction continue • Wing slab extension for segment continue • Construction of TD bridge continue • Construction of Bridge E • Construction of Bride F4 and F5	• Construction of Dolphin Cap • Extraction of temporary pile from marine section	• Construction of Dolphin Cap

2.5.6. 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 2.9 Principal Work Activities for Contract no. HK/2012/08

June 2014	July 2014	August 2014
• ELS for box culvert La at Lung King Street • Filling for seawall rock mound formation • Filling for reclamation • Dredging	• ELS for box culvert La at Lung King Street • Filling for seawall rock mound formation • Filling for reclamation	• ELS for box culvert La at Lung King Street • Filling for seawall rock mound formation • Filling for reclamation • Dredging

2.5.7. 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 2.10 Principal Work Activities for Contract no. HY/2010/08

June 2014	July 2014	August 2014
• Rock filling works (works cease on 8th Feb. 2014)	• Rock filling works (works cease on 8th Feb. 2014) • Dredging works	• Rock filling works • Dredging works • Seawall blocks installation

2.5.8. 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

REAL TIME NOISE MONITORING STATIONS

3.1.2. The real-noise 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.

3.1.3. The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.

3.1.4. As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at RTN1 - FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

Table 3.2 Real Time Noise Monitoring Station

District	Station	Description
North Point	RTN2	Oil Street Community Liaison Centre
North Point	RTN2a	Electric Centre

- *Real time noise monitoring results and graphical presentation during night time period are for information only.*
- *RTN2 had been relocated to RTN2a since 5 Oct 2012*

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

3.1.5. 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.

3.1.6. 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.

3.1.7. If construction works are extended to include works during the hours of 1900 – 0700 as well as public holidays and Sundays, additional weekly impact monitoring shall be carried out during respective restricted hours periods. Applicable permits under NCO shall be obtained by the Contractor.

3.1.8. 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

3.1.9. 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.

3.1.10. 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 3.3*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

Table 3.3 Air Monitoring Stations

Station ID	Monitoring Location	Description
CMA1b	Oil Street Community Liaison Centre	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
CMA5a	Children Playgrounds opposite to 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.

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. It is proposed to monitor the water quality at 2 WSD salt water intakes and 8 cooling water intakes along the seafront of the Victoria Harbour. The proposed water quality monitoring stations of the Project are shown in ***Table 3.4*** and ***Figure 3.1***. ***Appendix 3.1*** shows the established Action/Limit Levels for the monitoring works.

Table 3.4 Marine Water Quality Stations for Water Quality Monitoring

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD9	Tai Wan	837921.0	818330.0
WSD17	Quarry Bay	839790.3	817032.2
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
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/CWB	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.

- WSD9 and WSD17 were implemented with respect to HK/2009/02 from 8 Feb 2012.
- 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8 and C9 were completed on 6 Feb 2012.
- C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
- WSD7 and WSD20 water quality monitoring were temporarily suspended from 27 Apr 2012.
- C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
- C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013

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 3.5*** 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 3.5 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
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 3.6*** and ***Figure 3.1.***

Table 3.6 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

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 The major work activities for Contract no. HY/2009/11 was confirmed substantial complete by RSS on 4 January 2012. The FEP surrender application was submitted to EPD by contractor on 16 Jan 2012 that they would surrender the permit on 1 Jan 2012. Moreover, the construction site was handed over to contractor HY/2009/19 on 4 January 2012. However, the surrender of the FEP for HY/2009/11 withdrew by contractor on 14 February 2012 due to some outstanding works was confirmed by RSS on 10 Feb 2012. Therefore, the noise, air and water quality monitoring were keeping in view for the commencement of the works under this contract. No construction activity was conducted by HY/2009/11 up to 4 January 2012.

4.0.3 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 and Contract no. HK/2010/06 Wan Chai Development Phase II – Central-Wan Chai Bypass over MTR Tsuen Wan Line

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 and HK/2010/06

Station	Description
M1a	Harbour Road Sports Centre

4.1.2. No action or limit level exceedance was recorded in June, July and August reporting months. Details of noise monitoring results and graphical presentation can be referred in ***Appendix 4.1***

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

4.1.3. 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

4.1.4. One limit level exceedance was recorded on 24 June 2014 at M2b – Noon Day Gun Area in June reporting month.

4.1.5. Concrete breaking works at TS4 under HY/2009/15 were observed during monitoring on 24 June 2014. It was considered that the concrete breaking works was the major noise contribution. As such, the limit level exceedance was concluded as project related. Rectification measures including provision of noise blanket for breakers was implemented by the contractor. Additional monitoring was conducted and no exceedance was identified.

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

4.1.7. One limit level exceedance was recorded on 5 August 2014 at M2b – Noon Day Gun Area in August reporting month. Barge operation and concrete breaking works at TS4 under HY/2009/15 were observed during monitoring on 5 August 2014. It was considered that the operation of derrick barge and nearby breaking works at TS4 were the major noise contribution. As such, the limit level exceedance was concluded as project related. Rectification measures including provision of noise blanket for breakers and provision of noise screen for engine at the derrick barrage were implemented by the contractor. Additional monitoring was conducted and no exceedance was identified.

4.1.8. Details of noise monitoring results and graphical presentation can be referred in ***Appendix 4.1***

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

4.1.9. 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.

4.1.10. 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

4.1.11. Four limit level exceedances were recorded on 5, 10, 17 and 25 June 2014 at M6 – HK Baptist Church Henrietta Secondary School in June reporting month. Major traffic noise observed during monitoring on 5, 10, 17 and 25 June 2014 and it was considered as the major noise contribution. As such, the limit level exceedances were concluded as non-project related.

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

4.1.13. One limit level exceedance was recorded on 28 July 2014 at M6 – HK Baptist Church Henrietta Secondary School in August reporting month. Major traffic noise observed during monitoring on 28 July 2014 and it was considered as the major noise contribution. As such, the limit level exceedance was concluded as non-project related.

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

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

4.1.15. 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

4.1.16. No action or limit exceedance was recorded in June, July and August reporting months.

4.1.17. 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. Real Time Noise Monitoring Results

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

4.2.1 As the land-based piling and filling works- DP3 at Tin Hau had been completed on 3 September 2012 and confirmed by RSS, the real-time noise monitoring results at FEHD Hong Kong Transport Section Whitfield Depot was excluded under EP-356/2009 since 28 November 2012.

4.2.2 The real-time noise monitoring at RTN2-Oil Street Community Liaison Centre has been relocated to City Garden Electric Centre (RTN2a- Electric Centre) on 5 Oct 2012, which is a representative of noise sensitive receiver- City Garden. The baseline noise level of RTN2a will adopt the results derived from the baseline noise monitoring conducted in Electric Centre from 4 December 2009 to 17 December 2009.

4.2.3 The major work activities for Contract no. HY/2009/11 was confirmed substantial complete by RSS on 4 January 2012. The construction site was handed over to contractor HY/2009/19 on 31 December 2011 and the FEP-01/356/2009 was surrendered on 22 Oct 2012.

4.2.4 Real-time noise monitoring at FEHD Hong Kong Transport Section Whitfield Depot commenced external wall renovation since 1 June 2012

Table 4.5 Real Time Noise Monitoring Station for Contract no. HY/2009/19

District	Station	Description
North Point	RTN2a	Electric Centre

- *Real time noise monitoring results and graphical presentation during night time period are for information only.*
- *RTN2 had been relocated to RTN2a since 5 Oct 2012*
- *RTN1 monitoring had been finished on 28 Nov 2012*

4.2.5 Limit level exceedances were recorded at RTN2a-Electric Centre during restricted hours on 8 June 2014 and during daytime on 20 June 2014 in June reporting month. After checking with Contractor, no construction activity was conducted at the concerned location on 8 June 2014 during the recorded period and the exceedances were considered to be contributed by the adverse weather condition during the hoisting period of rainstorm signal. On 20 June 2014, despite socket H-piling and bored piling activities were conducted at the concerned location on the monitoring day, contractor mitigation measures including erection of temporary noise barrier was in place. Also, piling works was also observed at nearby non-CWB Projects. In view of the exceedance was non-continuous, it was considered that the exceedance was considered as non-project related

4.2.6 Limit level exceedances were recorded at RTN2a-Electric Centre during restricted hours on 27 July 2014 and during daytime on 22 July 2014 in July reporting month. After checking with Contractor, despite socket H-piling was conducted at the concerned location on 22 July 2014 during the recorded period, contractor mitigation measures including erection of temporary noise barrier was in place and the exceedance was considered to be contributed by the adverse weather condition during the hoisting period of rainstorm signal. On 27 July 2014, no construction activity was conducted at the concerned location during the monitoring period. As such, it was considered that the exceedance was considered as non-project related and considered to be contributed by nearby IEC traffic.

4.2.7 Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 5, 13, 16, 21 and 23 August 2014 and during restricted hours on 1 August 2014 in August reporting month. After checking with Contractor, bored piling was conducted at the concerned location on 5, 13 and 16 during the recorded period and bored piling and breaking works was conducted on 21 and 23 August 2014, contractor mitigation measures including erection of temporary noise barrier was in place. In view of the exceedances are non-continuous, the exceedances are considered to be non-project related and contributed by nearby IEC traffic. On 1 August 2014, bored piling was conducted at the concerned location during the monitoring period. Temporary noise barrier was implemented by the Contractor and the CNP GW-RS0752-14 was in place and complied. The exceedance was considered as non-project related and considered to be contributed by nearby IEC traffic.

4.3. Air Monitoring Results

4.3.1. 1hr and 24hr TSP monitoring were conducted at CMA1b, CMA2a, CMA3a, CMA4a, CMA5a and CMA6a in the reporting period.

Contract no. HY/2009/11 – Central – Wanchai Bypass, North Point Reclamation

4.3.2. The major work activities for Contract no. HY/2009/11 was confirmed substantial complete by RSS on 4 January 2012. The construction site was handed over to contractor HY/2009/19 and the FEP-01/356/2009 was surrendered on 22 October 2012. The monitoring for the contract was temporary suspended on 6 January 2012.

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

4.3.3. 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 4.6*** below.

Table 4.6 Air Monitoring Stations for Contract no. HK/2009/01

Station	Description
CMA5a	Children Playgrounds opposite to Pedestrian Plaza
CMA6a	WDII PRE Site Office *

4.3.4. No action or limit exceedance was recorded in June, July and August reporting months.

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

4.3.5. 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 4.7*** below.

Table 4.7 Air Monitoring Station for Contract no. HK/2009/02

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

4.3.6. No action or limit level exceedance was recorded in June, July and August reporting months.

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

4.3.7. 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 4.8*** below.

Table 4.8 Air Monitoring Station for Contract no. HY/2009/15

Station	Description
CMA3a	CWB PRE Site Office

4.3.8. No action or limit exceedance was recorded in June, July and August reporting months.

4.3.9. The odour patrol along the odour route with 7 sniffing locations was conducted by a qualified odour patrol member on 8, 22 July and 5, 19 August at the concerned hours (afternoon for higher daily temperature). No action or limit exceedance was recorded in July and August reporting months.

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 4.9*** below.

Table 4.9 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 exceedance was recorded in June, July and August reporting months.

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 4.10*** 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 4.10 Water Monitoring Stations for Contract no. HK/2009/01

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

Remarks:

- The water monitoring stations for the dredging works under Contract No. HK/2009/01 should also include WSD9, WSD17, WSD 21 and C5 if water quality monitoring at these locations have not been carried out by others. Similarly, the water monitoring stations for the dredging works under Contract No. HK/2009/02 should also include WSD7, WSD9, WSD17, WSD 19, C1, C2, C3 and C4 if water quality monitoring at these locations have not been carried out by others.
- WSD7 and WSD20 water quality monitoring were temporarily suspended since 27 Apr 2012.
- C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013

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

4.4.3. 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 4.11*** below.

Table 4.11 Water Monitoring Stations for Contract no. HK/2009/02

Station Ref.	Location	Easting	Northing
WSD Salt Water Intake			
WSD9	Tai Wan	837921.0	818330.0
WSD17	Quarry Bay	839790.3	817032.2
Cooling Water Intake			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/CWB	836268.0	816020.0

Remarks:

- The water monitoring stations for the dredging works under Contract No. HK/2009/01 should also include WSD9, WSD17, WSD 21 and C5 if water quality monitoring at these locations have not been carried out by others. Similarly, the water monitoring stations for the dredging works under Contract No. HK/2009/02 should also include WSD7, WSD9, WSD17, WSD 19, C1, C2, C3 and C4 if water quality monitoring at these locations has not been carried out by others.
- Water quality monitoring at WSD9 and WSD 17 was implemented with respect to HK/2009/02 from 8 Feb 2012.
- C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013

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

4.4.4. 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 4.12*** below.

Table 4.12 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

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

4.4.5. As the removal of reclamation work of TS1 at CBTS has been completed, all procedures have been rectified and complied with the conditions set in EP-356/2009 and FEP-04/356/2009.

4.4.6. Due to the presence of obstacle within the inner silt curtain frame at sampling point, water quality point at C7 was finely adjusted to the outside of the inner silt curtain frame since 29 Dec 2012.

4.4.7. 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 4.13*** below.

Table 4.13 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.

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

4.4.8. Due to the commencement of the marine bored piling on 28 Jan 2012, water quality monitoring for Contract no. HY/2009/19 was commenced on 28 Jan 2012.

4.4.9. Due to the marine piling under Contract no. HY/2009/19 was completed on 4 March 2013, the temporary suspension of impact water quality monitoring at C8 and C9 from 4 March 2013 have been monitored for 4-week period after the completion of marine works to confirm no water deterioration.

4.4.10. As confirmed by CWB RSS, the marine pilling works under contract HY/2009/19 was confirmed completed by 4 March 2013. The water quality monitoring at the respective monitoring stations C8 and C9 were temporarily suspended since 30 March 2013.

4.4.11. Based on the joint inspection on 4 Jan 2012 for the NPR area, the 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8, C9 to confirm no water deterioration with respect to NPR was commenced since 7 Jan 2012 and it was completed on 6 February 2012.

4.4.12. Water quality monitoring at WSD10 and WSD15 was temporary suspended while water quality monitoring at WSD9 and WSD17 was implemented with respect to HK/2009/02 from 8 Feb 12 onwards;

4.4.13. Water quality monitoring at C8 and C9 have been implemented with respect to HY/2009/19 since the marine bore piling work started on 28 Jan 12.

4.4.14. Based on the safety concern when external façade refurbishment was conducted by contractor employed by Provident Center (C9) between 9 January 2012 to 30 July 2012 which caused to the inaccessibility of sampling either land and marine since 3 Feb 2012, there is a fine adjustment of the sampling location of water quality monitoring at C9 since 10 March 2012 to the closest accessible point prior to the completion of the external façade refurbishment work.

4.4.15. With respect to the trial dredging at WCR2 was scheduled on 20, 22, 24, 25 March and 1, 3 , 11, 13, 15, 17, 19, 20 Apr and 3 May 2012, on-going water quality monitoring results at WSD21 during this period was checked and indicated that there was no contribution due to the trial dredging operation. Enhanced review of water quality around WCR2 was also implemented and no deterioration in the water quality was observed.

4.4.16. Due to the access of water monitoring station at WSD19 was blocked by LCSD construction works from 3 April 2012 to 2 May 2012 and lead to the inaccessibility of sampling either land and marine, there is a fine adjustment of the sampling point of WSD 19 since 5 April 2012 to the closest accessible point prior to the completion of the construction activities.

4.4.17. Due to the dredging works for Cross Harbour Water Mains from Wan Chai to Tsim Sha Tsui-DP6 was completed on 26 March 2012, the temporary suspension of impact water quality monitoring at WSD7 and WSD20 after 27 April 2012 for the water quality monitoring at WSD7 and WSD20 have been monitored for 4-week period after the completion of DP6 to confirm no water deterioration.

4.4.18. As per the meeting with the representative of Excelsior Hotel and World Trade Centre on 17 May 2011, they confirmed that the seawater intake for The Excelsior was no longer in use and replaced by the connected permanent water supply from WSD pipelines since 11 January 2011. Thus, the impact water quality monitoring for the cooling intake - C6 was terminated effective from 26 May 2011.

4.4.19. 24 hours monitoring of turbidity at the cooling water intakes at C7 was conducted. With respect to the seawall collapsing at TS4 on 17 November 2011, the 24 hours turbidity monitoring and was kept in November 2011. Since the reinstating the seawall was completed

on 13 January 2012 and no any water deterioration was performed, 24 hour turbidity monitoring was then suspended on 27 January 2012.

4.4.20. The enhanced water quality monitoring at C6, C7, Ex-WPCWA-SW and Ex-WPCWA-SE was commenced on 13 January 2011.

4.4.21. Water monitoring results measured in this reporting period are reviewed and summarized in ***Table 4.15***. Details of water quality monitoring results and graphical presentation can be referred in ***Appendix 4.3***.

Table 4.15 Summary of Water Quality Monitoring Exceedances in Reporting period

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	0	0	0	0	0	0	0	0	0	0
	P1	0	0	0	0	0	0	1	0	0	0	0	0
	P3	0	0	0	0	0	0	1	0	0	0	0	0
	P4	0	0	0	0	0	0	0	0	0	0	0	0
	P5	0	0	0	0	0	0	0	0	0	0	0	0
HK/2009/02 Monitoring started on 8 Feb 2012	WSD9	0	0	0	0	0	0	0	0	0	0	0	0
	WSD17	0	0	0	0	0	0	0	0	0	0	0	0
Monitoring started on 29 July 2013	RW21-P789	0	0	0	0	0	0	0	0	0	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	1	0	0
Total		0	0	0	0	0	0	2	0	0	1	0	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.
- WSD9 and WSD17 were implemented with respect to HK/2009/02 from 8 Feb 2012.
- 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8 and C9 were completed on 6 Feb 2012.
- C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
- C8 & C9 was temporary suspended on 30 March 2013 due to the marine works for Contract no. HY/2009/19 had been completed on 4 March 2013
- WSD7 and WSD20 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

4.4.22. There were 2 action level of DO and no limit level exceedance recorded in June reporting month. Investigation found that the exceedances were not related to Project works.

4.4.23. No action and limit level exceedance was recorded in July reporting month.

4.4.24. There were no action level and 1 limit level exceedance of turbidity recorded in August reporting month. Investigation found that the exceedance was not related to Project works.

4.4.25. Enhanced DO monitoring at 4 monitoring stations in Causeway Bay Typhoon Shelter and Ex-Public Cargo Works Area was conducted three days per week during the reporting period. The action and limit level exceedances of water quality monitoring are summarized in ***Table 4.15a.***

Table 4.15a Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting period

Contract no.	Water Monitoring Station	Mid-flood		Mid-ebb	
		DO		DO	
		AL	LL	AL	LL
HY/2009/15	C6	0	0	0	0
	C7	0	0	0	0
	Ex-WPCWA SW	0	14	0	3
	Ex-WPCWA SE	1	14	0	2
Total		**1**	**28**	**0**	**5**

4.4.26. There were no action level exceedances and 12 limit level exceedances of enhanced dissolved oxygen recorded in June reporting month. Investigation found that the exceedances are not related to the Project works.

4.4.27. There were no action level exceedances and 8 limit level exceedances of enhanced dissolved oxygen recorded in July reporting month. Investigation found that the exceedances are not related to the Project works.

4.4.28. There were 1 action level exceedance and 13 limit level exceedances of enhanced dissolved oxygen recorded in this reporting month. Investigation found that the exceedances were not related to the Project works.

4.4.29. Investigation found that the exceedances are not related to the Project works. Details of graphical presentation can be referred in ***Appendix 4.3***.

4.4.30. 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. Details of additional DO monitoring results can be referred in ***Appendix 4.3a***.

4.4.31. 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

4.5 Waste Monitoring Results

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

4.5.1. Inert C&D waste was disposed 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 4.16.***

Table 4.16 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	8923.65	62116.405	TKO137, TM38
Inert C&D materials recycled, m^3	752	5856.5	N/A
Non-inert C&D materials disposed, m^3	24.22	1671.69	SENT Landfill
Non-inert C&D materials recycled, kg	25850	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
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 June, July and August reporting months.

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

4.5.3. 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 4.17.***

Table 4.17 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	2577.845	263704.45*	TKO137/ TM 38
Inert C&D materials recycled, m^3	NIL	18161	N/A
Non-inert C&D materials disposed, m^3	62.31	1515.103	SENT Landfill
Non-inert C&D materials recycled, m^3	NIL	NIL	N/A
Chemical waste disposed, kg	1200	13860	SENT Landfill
Marine Sediment (Type 1 – Open Sea Disposal), m^3 *	996	186070 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m^3	0	129320 (Bulk volume)	East of Sha Chau

*Remarks: Cumulative Quantity of Inert C&D materials disposed and Marine Sediment (Type 1 – Open Sea Disposal) were clarified in reporting period

4.5.4. There were 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. 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 4.18.***

Table 4.18 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	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	NIL	8,200	N/A	NIL

Waste Type	Quantity this quarter	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
disposed, kg				
Marine Sediment (Type 1 – Open Sea Disposal) , m^3	3280	103488 (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	24010	251325 (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)	3860	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
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 Marine Sediment (Type 1 – Open Sea Disposal), Marine Sediment (Type 2 – Confined Marine Disposal) and Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynehetic Containers) were disposed in this reporting quarter.

Contract no. HK/2010/06 - Wan Chai Development Phase II – Central –Wanchai Bypass over MTR Tsuen Wan Line

4.5.7. No non-inert C&D and no 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/2010/06

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	12567.88	TM38
Inert C&D materials recycled, m^3	NIL	267	HK/2009/01

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Non-inert C&D materials disposed, m^3	NIL	369.48	SENT/TKO137SF
Non-inert C&D materials recycled, m^3	NIL	60.58	Recyclers
Chemical waste disposed, L	NIL	2600	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m^3	NIL (Bulk Volume)	3,891 (Bulk Volume)	South Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m^3	NIL (Bulk Volume)	12,586 (Bulk Volume)	East Sha Chau

4.5.8. 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) were disposed in this reporting quarter.

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

4.5.9. Inert and non-inert C&D waste were disposed of in this reporting quarter

Table 4.20 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	7383.94	355921.04	TM38
Inert C&D materials recycled, m^3	818.71	59367	N/A
Non-inert C&D materials disposed, m^3	348.32	1068.6	N/A
Non-inert C&D materials recycled, kg	12.32	333.14	N/A
Chemical waste disposed, L	0.11	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

4.5.10. 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 the reporting period.

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

4.5.11. 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. HK/2012/08

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m^3	NIL	1247	TM38
Inert C&D materials recycled, m^3	NIL	NIL	N/A
Non-inert C&D materials disposed, m^3 *	15	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 *	724 (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 *	330 (Bulk volume)	108485 (Bulk volume)	South of The Brothers (from 27 Aug 2013 onwards)

*Remarks: Contractor clarified the cumulative quantity of Non-inert C&D material and marine sediment in July reporting month.

4.5.12. There were Marine Sediment (Type 1 – Open Sea Disposal) and marine sediment Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated were disposed in this reporting period.

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

4.5.13. No Inert C&D waste and non-inert C&D waste were disposed in this reporting period. Details of the waste flow table are summarized in Table 4.22

Table 4.22 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	NIL	NIL	N/A
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

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Dumping Permit (Type 1 – Open Sea Disposal)	3270	16130	South Cheung Chau
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	NIL	17820	Brothers Island

4.5.14. There were Marine Sediment (Type 1 – Open Sea Disposal) and no marine sediment Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated disposed in this reporting period.

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 No action and four limit level exceedances at M6 – HK Baptist Church Henrietta Secondary School were recorded on 5, 10, 17 and 25 June 2014 in June reporting month. The exceedances were concluded as non-project related.

5.1.2 One limit level exceedance at M2b – Noon Day Gun Area was recorded on 24 June 2014 in June reporting month. The exceedance was concluded as project related.

5.1.3 No action and limit level exceedance was recorded in July reporting month.

5.1.4 One limit level exceedance at M6 – HK Baptist Church Henrietta Secondary School was recorded on 28 July 2014 in August reporting month. The exceedance was concluded as non-project related

5.1.5 One limit level exceedance at M2b – Noon Day Gun Area was recorded on 5 August 2014 in August reporting month. The exceedance was concluded as project related.

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. Real-time Noise Monitoring

5.2.1 No project related exceedances were recorded in June, July and August 2014 reporting month at RTN2a-Hong Kong Electric Centre during this reporting quarter.

5.2.2 Details of real time noise monitoring results and graphical presentation can be referred to ***Appendix 4.2***

5.3. Air Monitoring

5.3.1 No action or limit exceedance was recorded in 1-hr TSP and 24-hrs TSP monitoring in the June, July and August reporting period.

5.3.2 No Action and Limit Level was recorded for odour patrol during July and August reporting months.

5.4. Water Quality Monitoring

5.4.1. The summary of water quality exceedances recorded in reporting period is presented in the ***Table 5.1*** and ***Table 5.1a***.

Table 5.1 Summary of Water Quality Monitoring Exceedances in Reporting period

Contract no.	Water Monitoring Station	Mid-flood						Mid-ebb					
		DO		Turbidity		SS		DO		Turbidity		SS	
		AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HK/2009/01	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	0	0	0	0	0	0	0	0	0	0
	P1	0	0	0	0	0	0	1	0	0	0	0	0
	P3	0	0	0	0	0	0	1	0	0	0	0	0
	P4	0	0	0	0	0	0	0	0	0	0	0	0
	P5	0	0	0	0	0	0	0	0	0	0	0	0
HK/2009/02 Monitoring started on 8 Feb 2012	WSD9	0	0	0	0	0	0	0	0	0	0	0	0
	WSD17	0	0	0	0	0	0	0	0	0	0	0	0
Monitoring started on 29 July 2013	RW21-P789	0	0	0	0	0	0	0	0	0	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	1	0	0
Total		0	0	0	0	0	0	2	0	0	1	0	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.

- WSD9 and WSD17 were implemented with respect to HK/2009/02 from 8 Feb 2012.
- 4-week water quality monitoring at WSD9, WSD10, WSD15, WSD17, C8 and C9 were completed on 6 Feb 2012.
- C8 and C9 were implemented with respect to HY/2009/19 from 28 Jan 2012.
- C8 & C9 was temporary suspended on 30 March 2013 due to the marine works for Contract no. HY/2009/19 had been completed on 4 March 2013
- WSD7 and WSD20 were temporary suspended since 27 April 2012

5.4.2. There were 2 action level of DO and no limit level exceedance recorded in June reporting month. Investigation found that the exceedances were not related to Project works.

5.4.3. No action and limit level exceedance was recorded in July reporting month.

5.4.4. There were no action level and 1 limit level exceedance of turbidity recorded in August reporting month. Investigation found that the exceedance was not related to Project works.

Table 5.1a Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting period

Contract no.	**Water Monitoring Station**	**Mid-flood**		**Mid-ebb**	
		DO		**DO**	
		AL	LL	AL	LL
HY/2009/15	C6	0	0	0	0
	C7	0	0	0	0
	Ex-WPCWA SW	0	14	0	3
	Ex-WPCWA SE	1	14	0	2
Total		**1**	**28**	**0**	**5**

5.4.5. There were no action level exceedances and 12 limit level exceedances of enhanced dissolved oxygen recorded in June reporting month. Investigation found that the exceedances are not related to the Project works.

5.4.6. There were no action level exceedances and 8 limit level exceedances of enhanced dissolved oxygen recorded in July reporting month. Investigation found that the exceedances are not related to the Project works.

5.4.7. There were 1 action level exceedance and 13 limit level exceedances of enhanced dissolved oxygen recorded in August reporting month. Investigation found that the exceedances are not related to the Project works.

5.5. 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.

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

5.6.1 There was no non-compliance from the site audits in the reporting period.

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

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

6. COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

6.0.1. One environmental complaint received in June reporting month.

6.0.2. A public complaint regarding water quality impact referred by WDII RSS team was received by ET on 12 June 2014. Notification letter from EPD on the captioned case was subsequently received by ET on 13 June 2014. The complainant reported that a large piece of muddy water was found on the waterfront outside the Hong Kong Academy for Performing Arts Theatre Block on 12 June 2014 morning.

6.0.3. ET confirmed with the Resident Site Staff that neither marine construction works nor barge operation was conducted at the concerned location during the time of complaint. Nevertheless, with the respect to the EPD complaint case and the email notification issued by the Environmental team to contractor on 12 June 2014 morning, muddy dispersion was observe at HKCEC2W works area and the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs and contractor's immediate follow up action was requested.

6.0.4. Mitigation measures implemented by the Contractor for the above construction works include the deployment of double layer of silt curtain for marine filling works area at HKCEC2W, additional silt curtain at marine access between caisson seawall on 12 June 2014, and regular diver checking on the silt curtain deployed at the location. It is considered that Contractor's mitigation measures for safeguarding the water quality during marine filling works at the concerned location implemented would require further review on the effectiveness to avoid seepage of muddy dispersion.

6.0.5. Follow-up inspection was further conducted on 16 June 2014 and in addition, diver inspection check on the silt curtain deployed was conducted by the Contractor on 14 June 2014 to confirm the integrity of silt curtain.

6.0.6. The Contractors' investigation report on the complaint case was submitted to EPD via email on 18 June 2014, and the interim report was submitted to EPD on 20 June 2014.

6.0.7. One environmental complaint under EP-356/2009 was received in July reporting period.

6.0.8. A public complaint regarding construction noise impact referred by RSS was received by ET on 25 July 2014. The complainant reported that at 00:57hrs on 21 July 2014, the complainant could not sleep due to work and machine at the project site opposite to Ngan Tao Building, where he is staying were still going on and in operation. Noise travelled to his flat despite it was some distance away.

6.0.9. ET confirmed with the 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 23:00 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.

6.0.10. 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.

6.0.11. After reviewing the relevant records and information verified by RSS and the Construction Noise Permit (CNP) no. GW-RS0592-14, 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.” 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 considerations, the completion of diaphragm wall removal was necessary and of imminent need.

6.0.12. 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 strictly 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.

6.0.13. No environmental complaint was received in August reporting month.

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

6.0.15. 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 period	28
June 2014- August 2014	2
Project-to-Date	**30**

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, Diaphragm wall construction and pipe pile wall construction were performed in August 2014 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 activity under Wan Chai Development Phase II were marine works at HKCEC areas, tunnel works at Wan Chai East and filling works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and tunnel works at Central Interchange, land base bored pilling works at Victoria Park Road and ELS, segment launching works and tunnel works at North Point area. The major environmental impact was water quality impact at Causeway Bay and Wan Chai. Marine-based construction activities were filling works at WanChai West and removal of temporary reclamation at TS4, TS2 and EX-PCWA at Wan Chai East in the reporting month.

7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, project related exceedances were recorded during the air and noise environmental monitoring events in June and August reporting months were rectified. 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

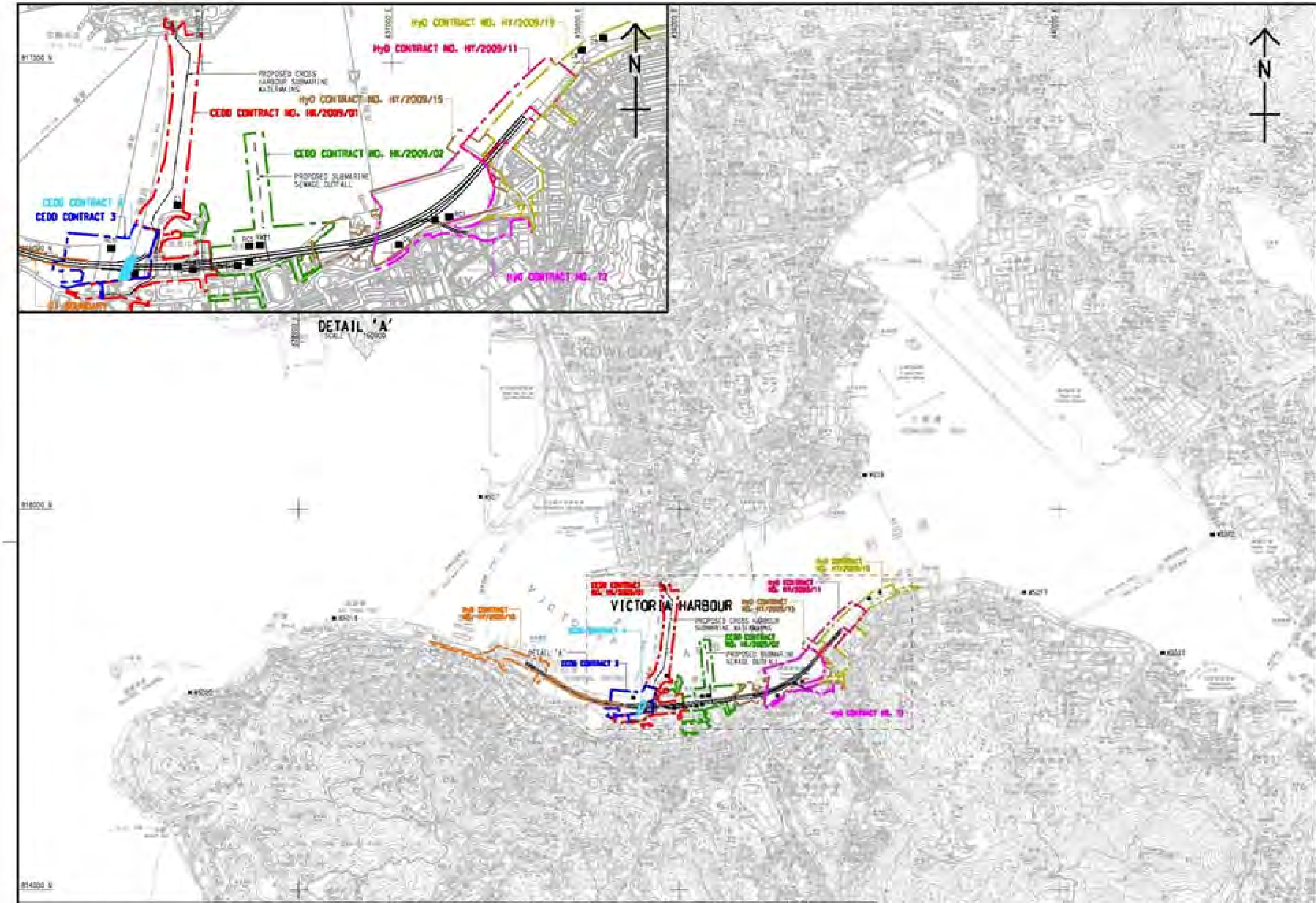
8.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.

8.0.2. No non-compliance was noted and no prosecution was received during the reporting period.

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	TELECOM HOUSE/HK ACADEMY FOR PERFORMING ARTS / SHUI ON 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 HKCEC EXTENSION
RC5	SUN HUNG KAI CENTRE (REPROVISION)
RC7	WINDSOR HOUSE (TEMPORARY REPROVISION)

WSD SALT WATER INTAKE

WSD21	WAN CHAI
RW21	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	2015
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)

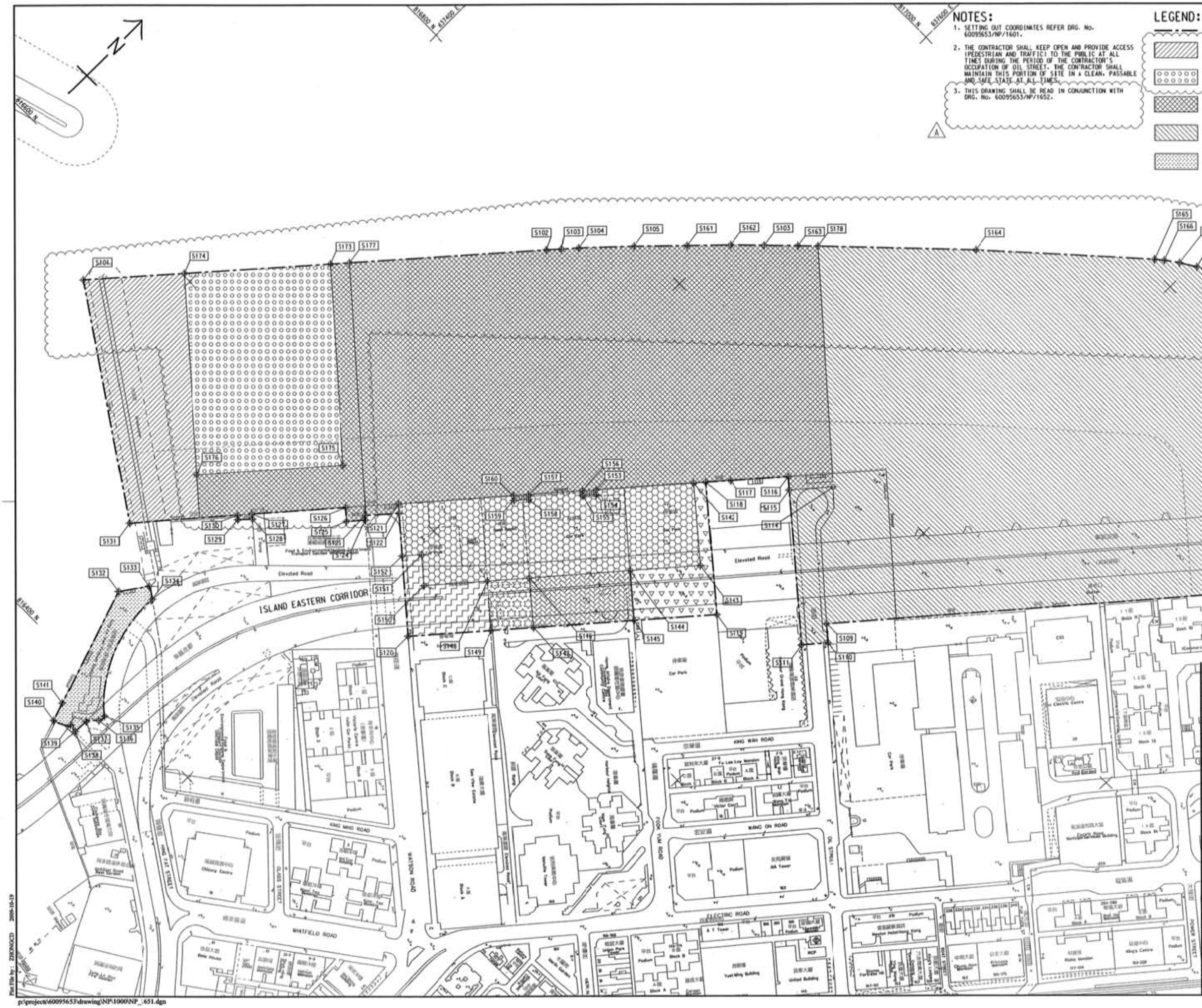
LOCATIONS OF WATER QUALITY MONITORING STATIONS

AECOM

DRAWING NO. 60041297/C5/SK001

SCALE A1 1:20000

DIMENSIONS IN METRES



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			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

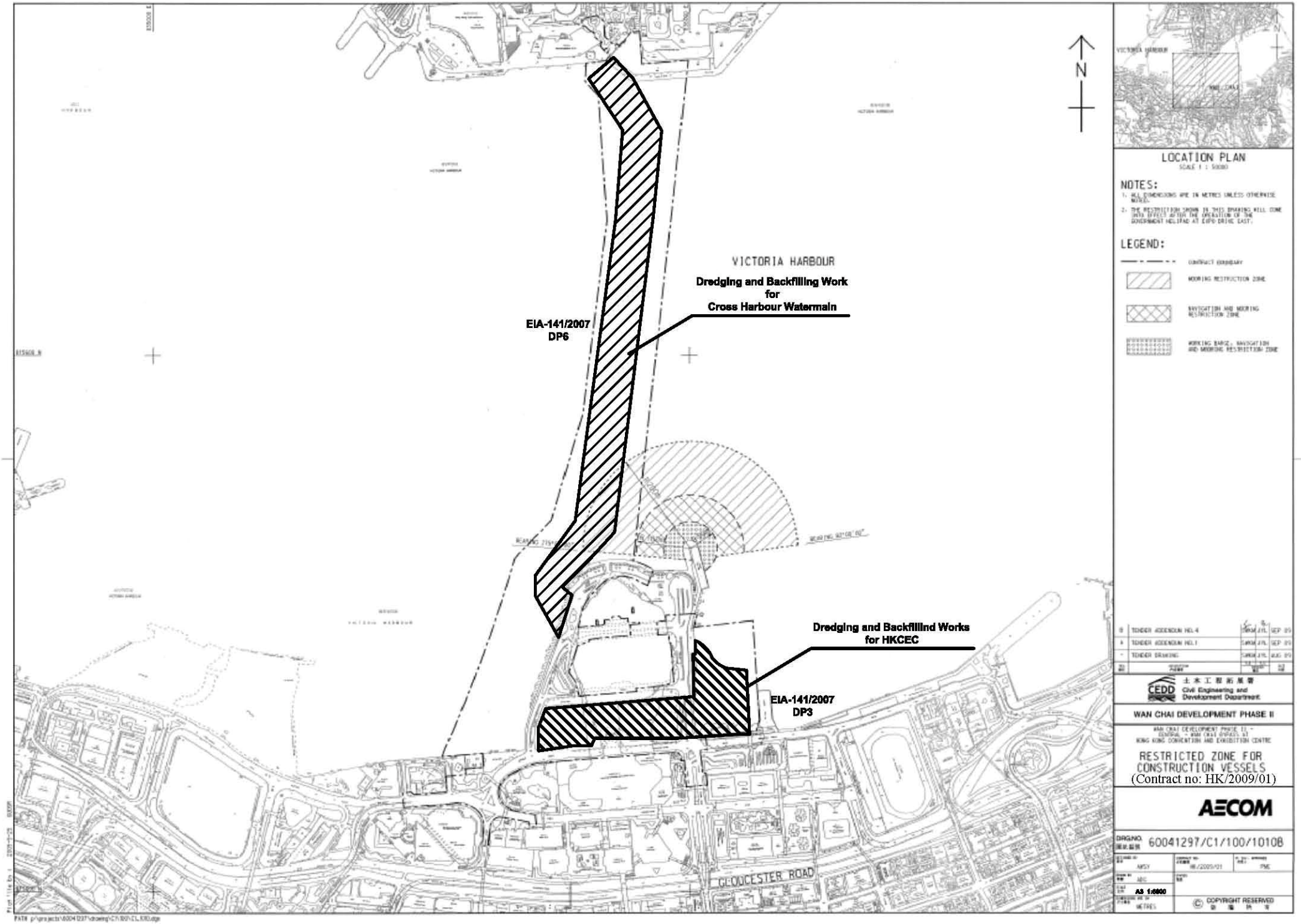
SHEET 1 OF 2

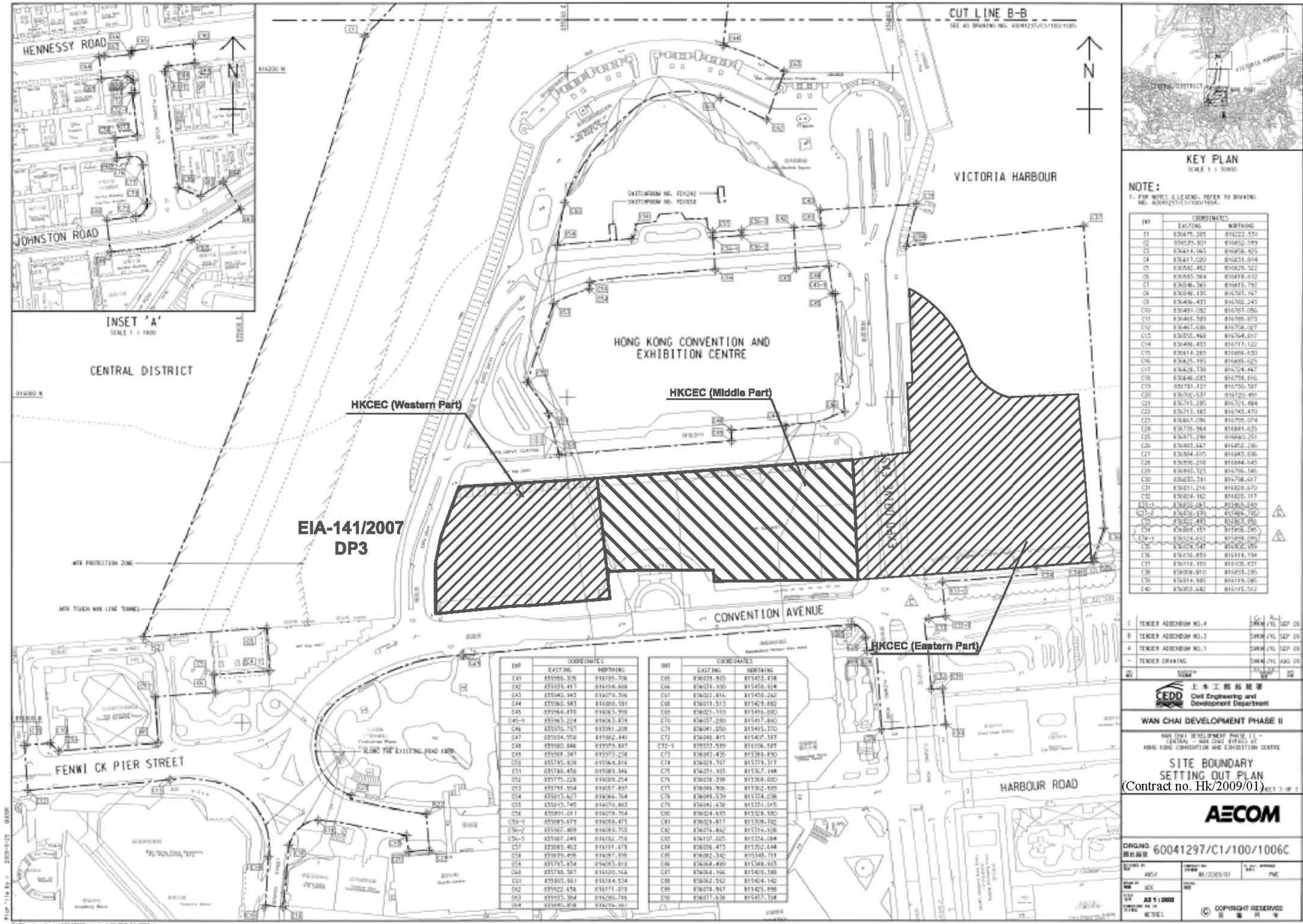
AECOM

DRG.NO. 60095653/NP/1651B

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

p:\project\60095653\drawing\NP\1000\NP_1651.dgn


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 COME INTO EFFECT AFTER THE OPERATION OF THE GOVERNMENT HELIPAD AT EXPO DRIVE EAST.
LEGEND:
CONTRACT BOUNDARY
MOORING RESTRICTION ZONE
NAVIGATION AND MOORING RESTRICTION ZONE
WORKING BARGE, NAVIGATION AND MOORING RESTRICTION ZONE
TENDER ADDENDUM NO.4
TENDER ADDENDUM NO.1
TENDER DRAWING
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


CUT LINE B-B
HENNESSY ROAD
JOHNSTON ROAD
INSET 'A'
CENTRAL DISTRICT
VICTORIA HARBOUR
HONG KONG CONVENTION AND EXHIBITION CENTRE
HKCEC (Western Part)
HKCEC (Middle Part)
HKCEC (Eastern Part)
EIA-141/2007
DP3
CONVENTION AVENUE
FENWICK PIER STREET
HARBOUR ROAD
KEY PLAN
NOTE:
TENDER ADDENDUM NO.4
TENDER ADDENDUM NO.2
TENDER ADDENDUM NO.1
TENDER DRAWING
Civil Engineering and Development Department
WAN CHAI DEVELOPMENT PHASE II
SITE BOUNDARY
SETTING OUT PLAN
(Contract no. Hk/2009/01)
AECOM
60041297/C1/100/1006C
COPYRIGHT RESERVED

OVERALL Working Schedule

ACTIVITY	DURATION	START	FINISH
OVERALL STAGE 1 (Days 1 to 830)	830	28/01/10	06/05/12
DREDGING & RECLAMATIONS PHASE 1 (WCR1)	C 146	22/05/10	19/10/10
DREDGING & LAYING OF SUBMARINE OUTFALL PIPE ON SEA	410	21/09/10	02/02/12

Stage 1 - Overall Working Schedule on Reclamation Area of WCR1 and Associated Area (Days 1 to 830)

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 ELSW
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
IVA, 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 toilet 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 Expos 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 / Tonnochy 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

N

N 816230

N 816030

N 815830

GOLDEN BAUHINIA SQUARE

VICTORIA HARBOUR

RECLAMATION WORKS BY OTHERS

TUNNEL WORKS BY OTHERS

35m CLEAR SPACE

P7 P8 P9

EXISTING WATER INTAKES

DIRECTION OF TUNNEL WORKS

DRAINAGE DIVERSION OF 1800 PIPE

EXISTING SUBMARINE OUTFALL (SEWAGE)

EXISTING DISCHARGE

B1 B2 B3 B4 B5 B6 B7 B8

A1 A2 A3 A4 A5 A6

C1 C2 C3 C4 C6 C7

D1

0 20 40 60m

1 : 2000 SCALE BAR

REV	DATE	DESCRIPTION
C	19/05/2010	WORKING SCHEDULE UPDATED & TEMPORARY SEAWALL LAYOUT REVISED
B	14/04/2010	SECTION OF WORKS ADDED
A	08/04/2010	AS MARKED & TITLE BLOCK UPDATED

CLIENT

ENGINEER'S REPRESENTATIVE

CONTRACTOR

俊和－中國中鐵聯營
CHUN WO - CRGL JOINT VENTURE

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	-	M.S. SIN	-
DATE	-	07/04/2010	-

DRAWING NO. CWCRJV/HK200902/SK0031 REV C

SCALE 1 : 2000 (A3)

P:\01_Construction Team\CAD (sketch working)\2010_05_19 SK0031C\CWCRJV-HK200902-SK0031C.dwg, 20/5/2010 9:34:20

LEGEND:

WORKS AREA

DREDGING AREA FOR
MITGATION OF ODOUR(DP3)

SITE BOUNDARY

TCBR1E

TCBR2
AND
TCBR3

TCBR4

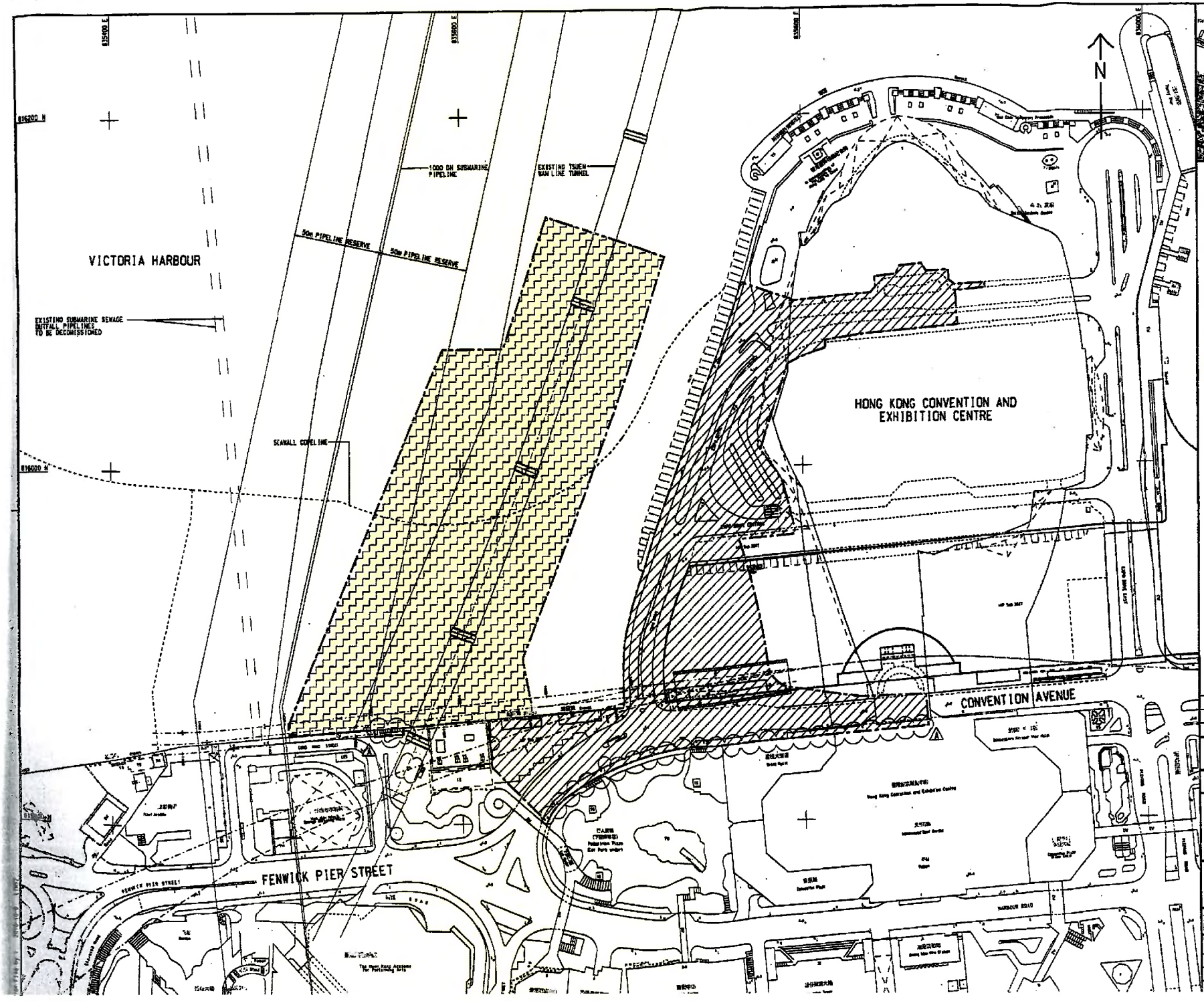
TCBR1W

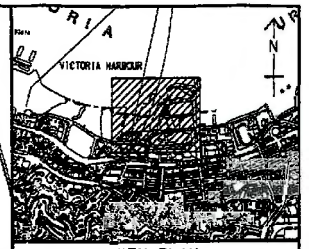
TPCWAE

TPCWAW

DP3

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 1:1000 @ A0	STATUS
DIMENSIONS ARE IN MILLIMETERS	COPYRIGHT RESERVED





KEY PLAN
SCALE 1 : 20000

NOTES:

1. COORDINATES ARE BASED ON HONG KONG METRIC GRID (1980) UNLESS OTHERWISE NOTED.
2. LEVELS ARE IN METRES RELATIVE TO HONG KONG PRINCIPAL DATUM (HPD) UNLESS OTHERWISE NOTED.
3. DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
4. SETTING OUT DIMENSIONS, LEVELS, COORDINATES ARE TO BE CALCULATED BY THE CONTRACTOR. NO INFORMATION SHOULD BE SCALED PHYSICALLY OR ELECTRONICALLY FROM THE DRAWINGS OR FILES.
5. SITE BOUNDARY SETTING OUT POINTS SHALL REFER TO DRAWING NO. 60041297/C4/100/1201.

LEGEND:

- SITE BOUNDARY
- PORTION 1
- PORTION 2 (DELAY POSSESSION)

REV	DESCRIPTION	BY	CHK	DATE
A	TENDER ADDENDUM NO.1	SWKM	JYL	OCT 10
-	TENDER DRAWING	SWKM	JYL	SEP 10

CEDD 土木工程拓展署 Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II

WAN CHAI DEVELOPMENT PHASE II - CENTRAL-WAN CHAI BYPASS OVER MTR TSUEN WAN LINE

PORTIONS OF THE SITE (Contract HK/2010/06)

AECOM

DRG.NO. 60041297/C4/100/1301A

DESIGNED BY SWKM	DRAWING NO. HK/2010/06	CHK'D BY TKH
DRAWN BY ADC	SCALE	
DATE	A1 1:1000	

Figure 2.2

Project Organization Chart

Project Organization Chart

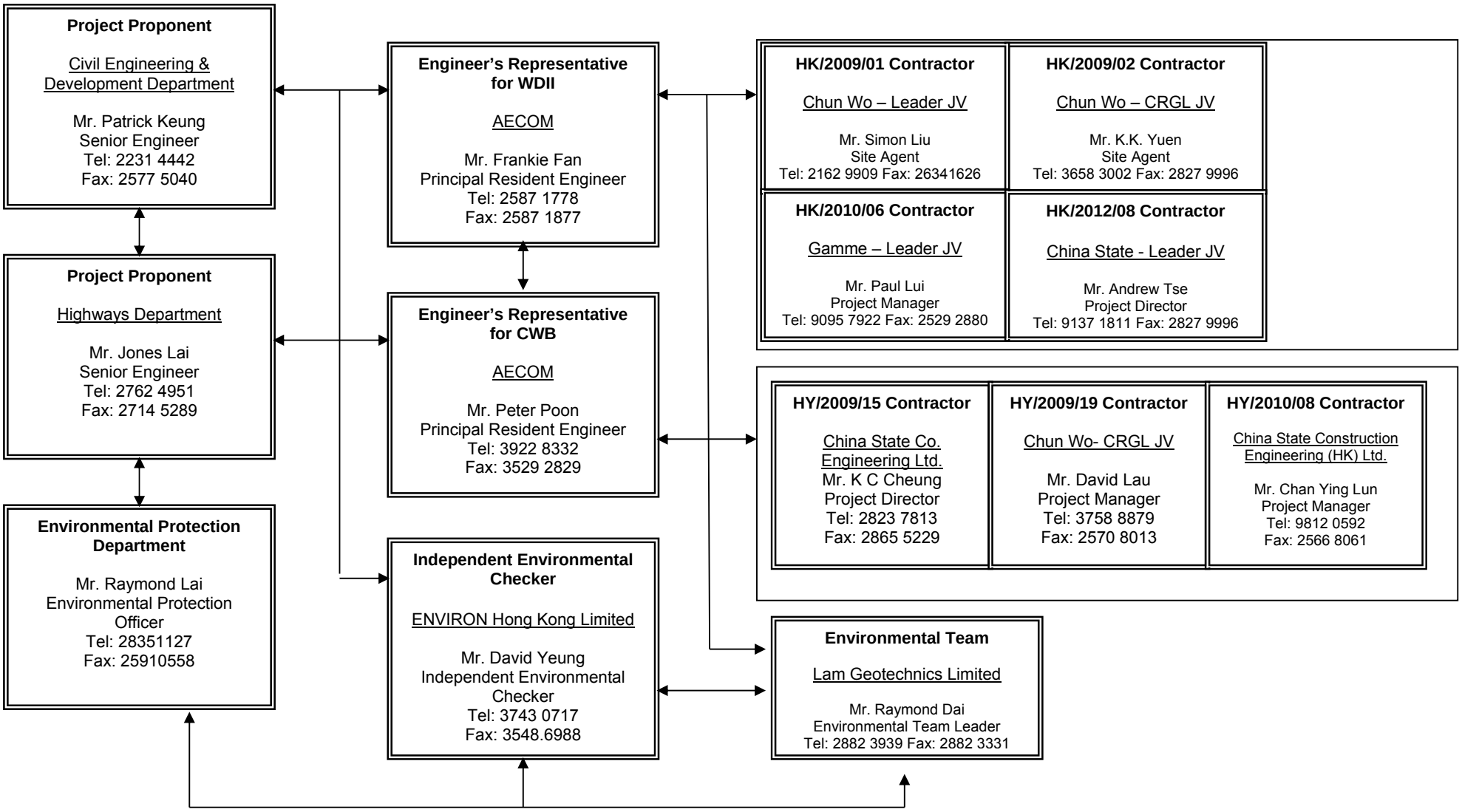
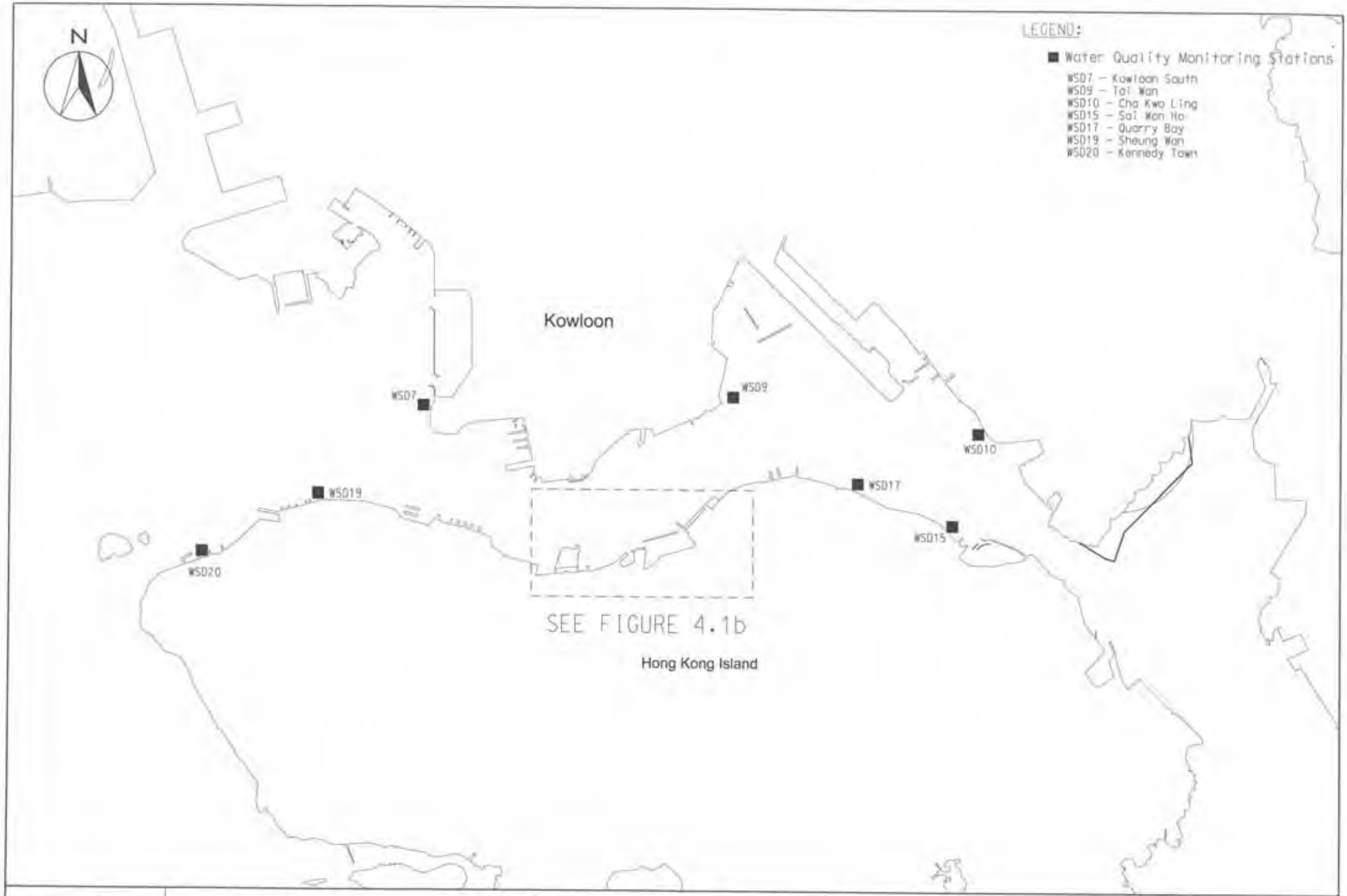


Figure 3.1

Locations of Monitoring Stations



MAUNSELL AECOM
Maunsell Consultants Asia Ltd

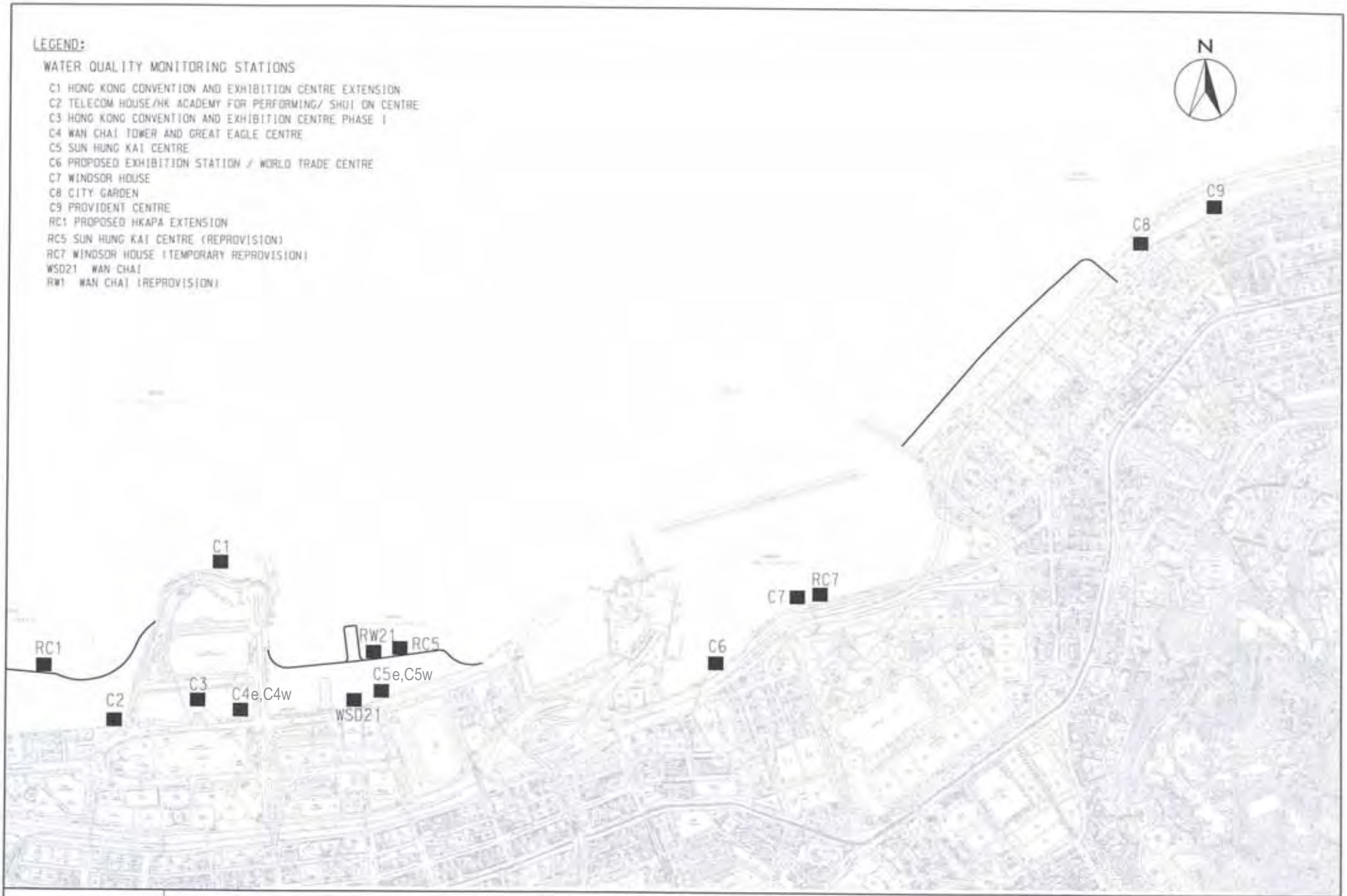
WAN CHAI DEVELOPMENT PHASE II - PLANNING AND ENGINEERING REVIEW

LOCATIONS OF WATER QUALITY MONITORING STATIONS

(SHEET 1 OF 2)

FIGURE 4.1a

P:/60017193/REPORT/DRAWINGS/EM&A-0708/WQ/4.1A.DGN SCALE: N.T.S. (A3)



MAUNSELL AECOM
Maunsell Consultants Asia Ltd

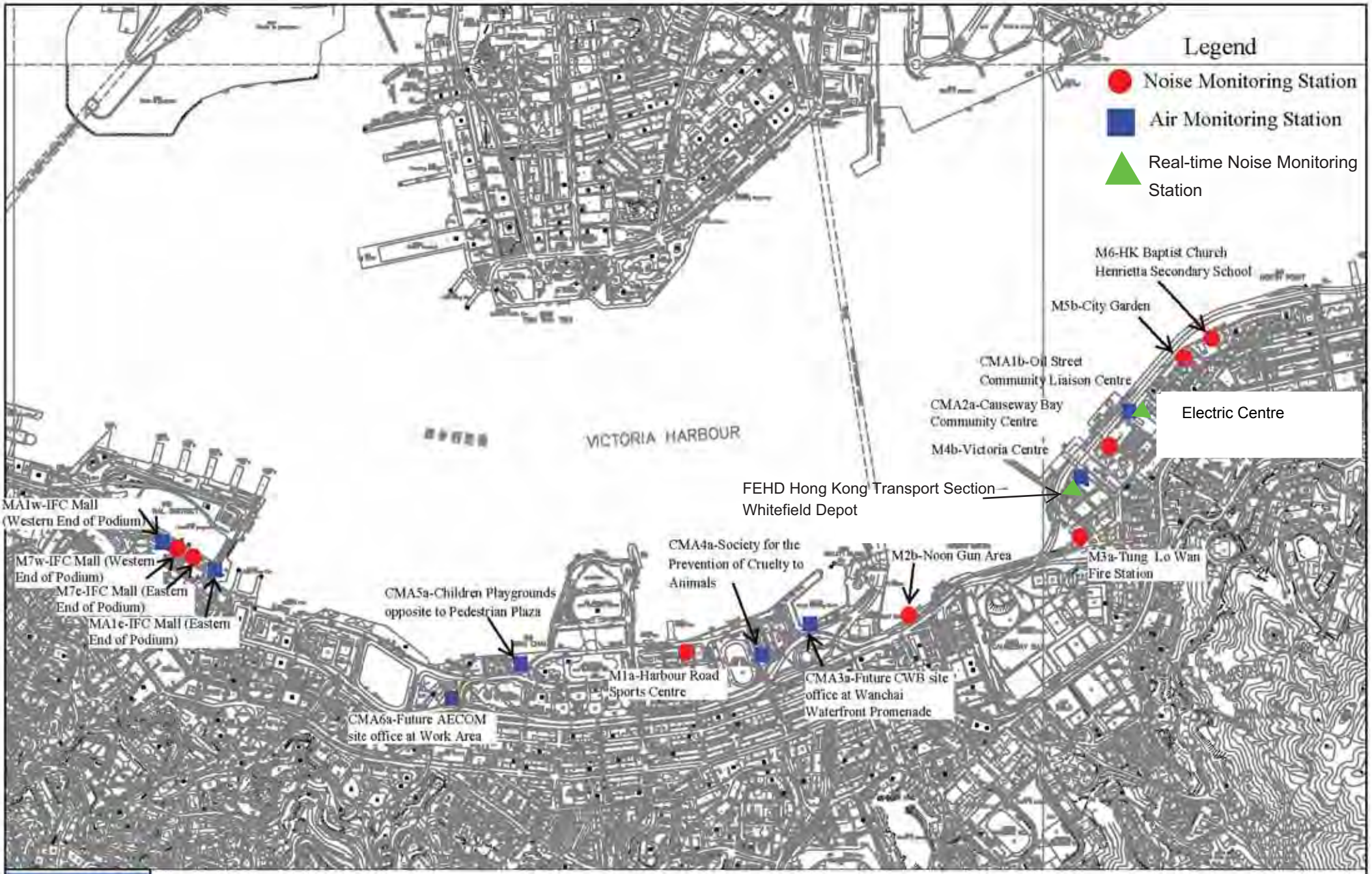
WAN CHAI DEVELOPMENT PHASE II - PLANNING AND ENGINEERING REVIEW

LOCATIONS OF WATER QUALITY MONITORING STATIONS

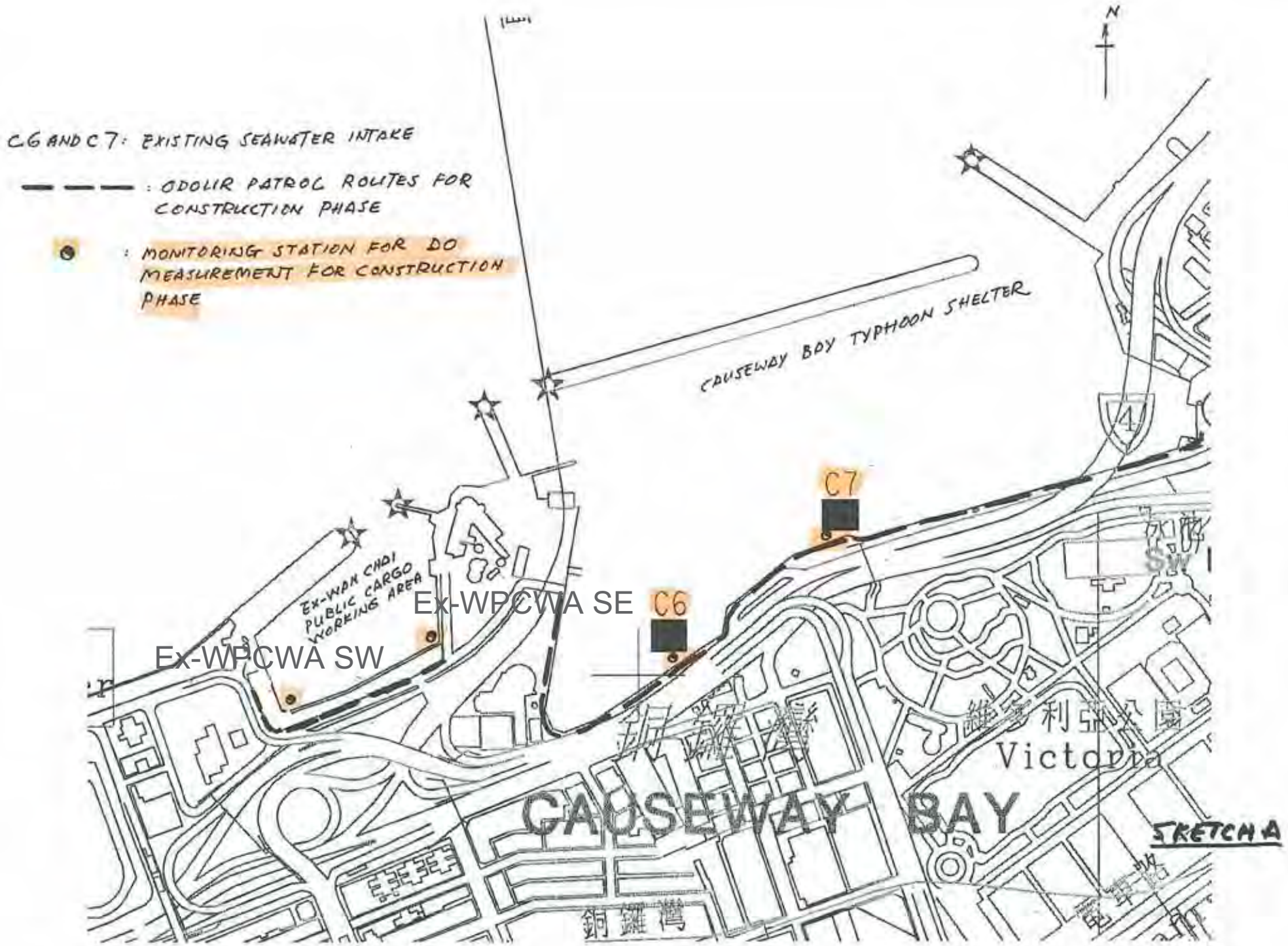
(SHEET 2 OF 2)

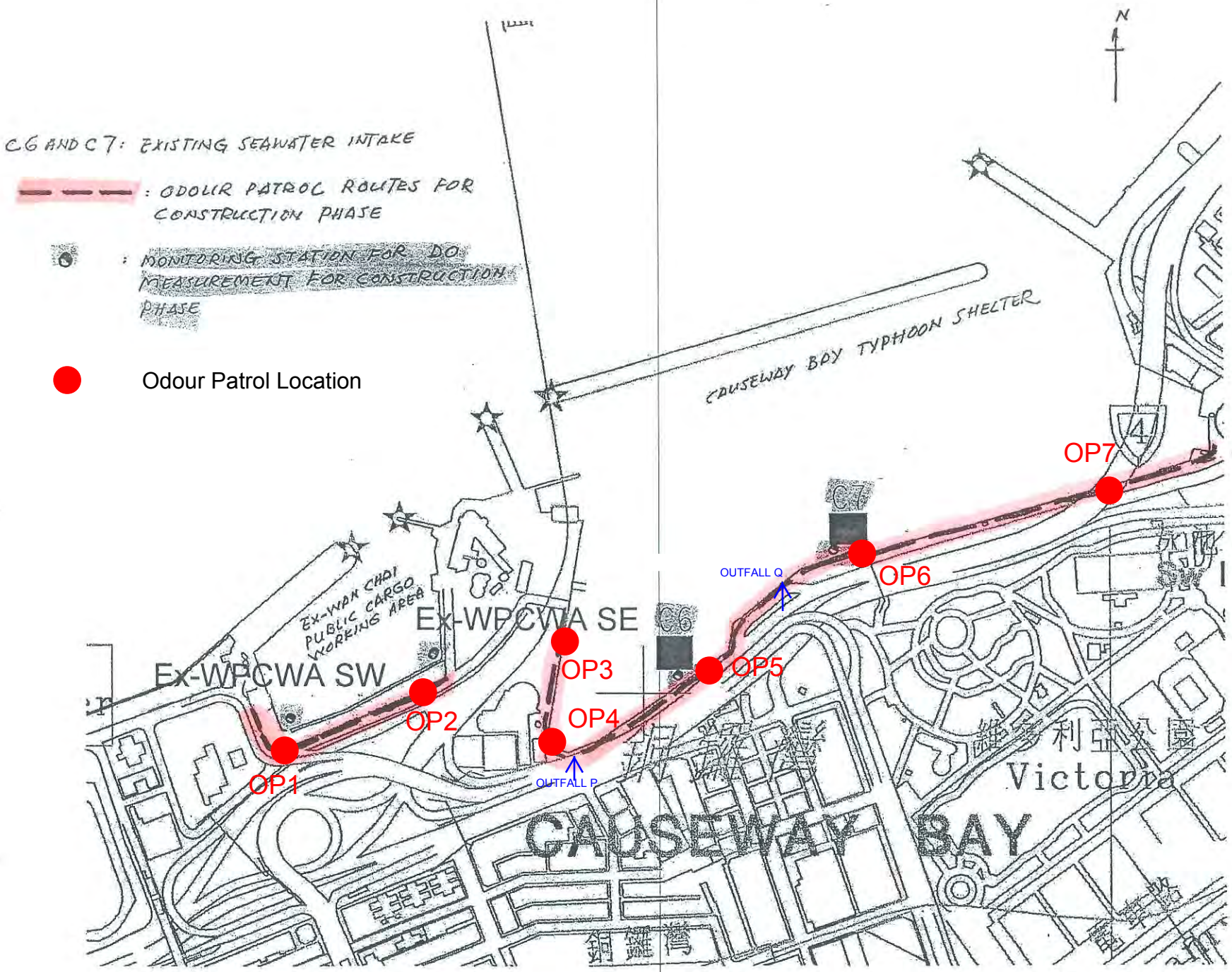
FIGURE 4.1b

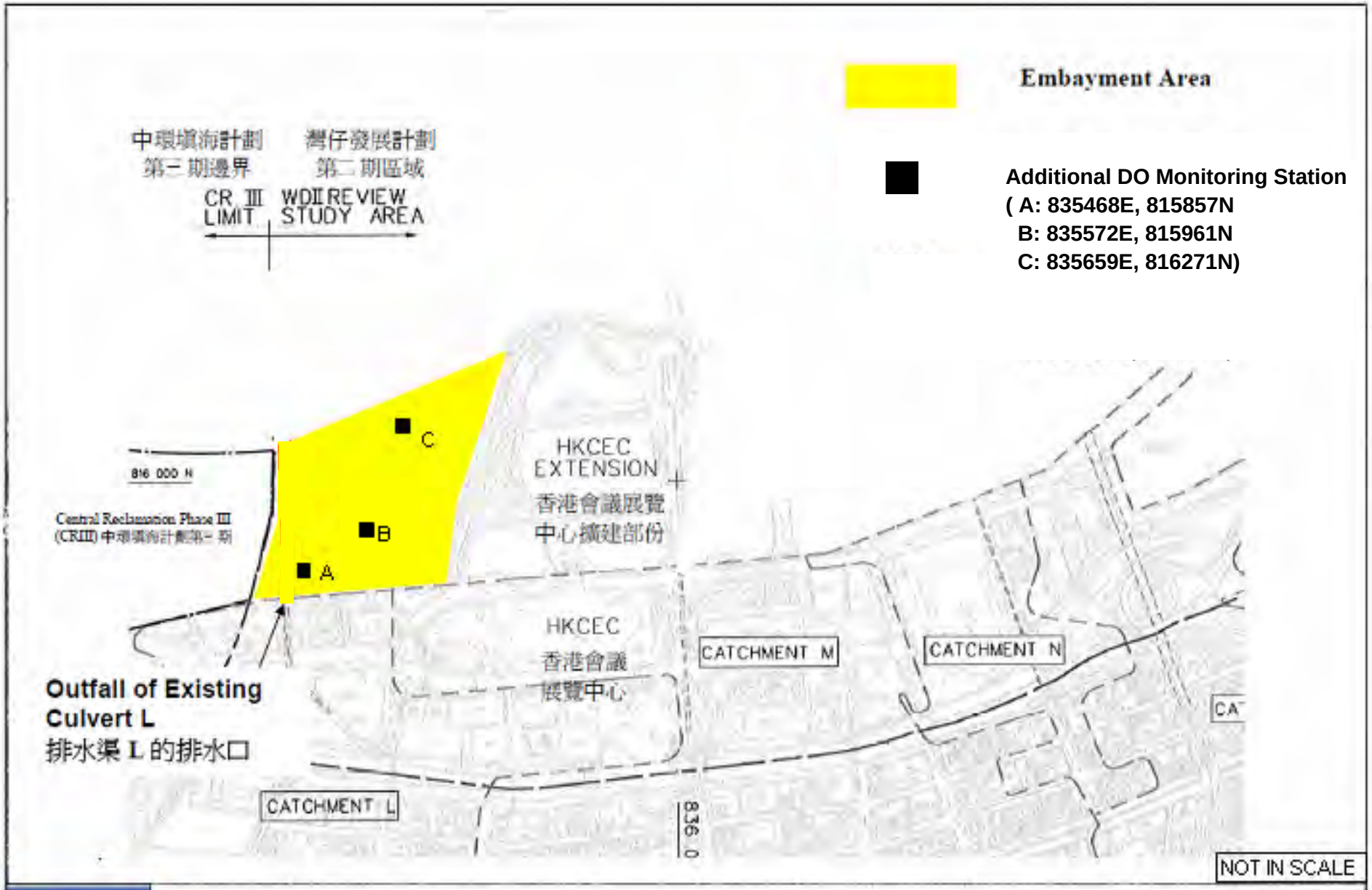
P:/6001719J/REPORT/DRAWINGS/EM&A-0708/WQ/4.1B.DGN SCALE 1:8000 (A3)



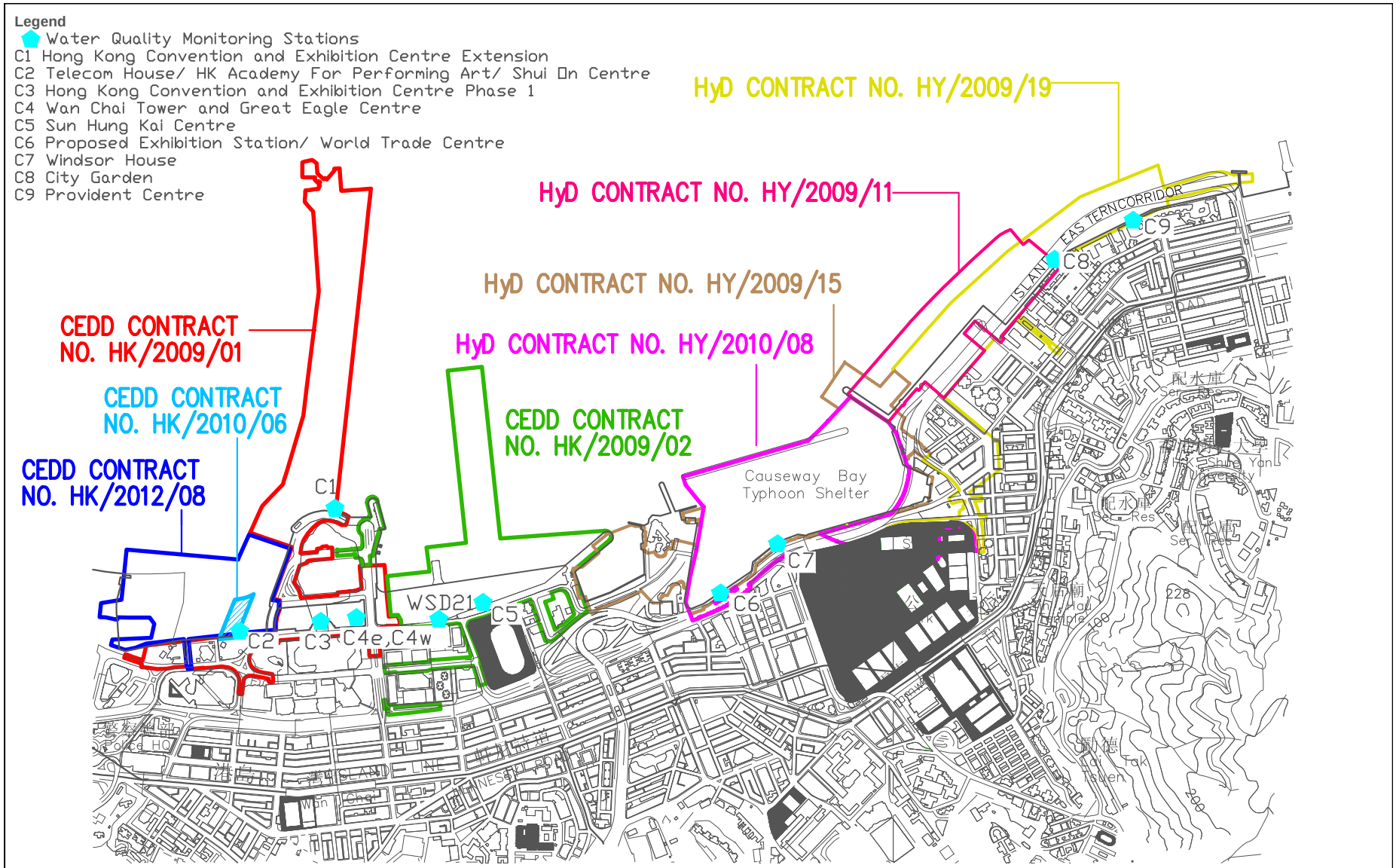
Location plan of Environmental Monitoring Stations


C6 AND C7: EXISTING SEAWATER INTAKE
: ODOUR PATROL ROUTES FOR CONSTRUCTION PHASE
: MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE
N
CAUSEWAY BAY TYPHOON SHELTER
C7
C6
EX-WAN CHAI PUBLIC CARGO WORKING AREA
Ex-WPCWA SE
Ex-WPCWA SW
CAUSEWAY BAY
銅鑼灣
Victoria
SKETCH A

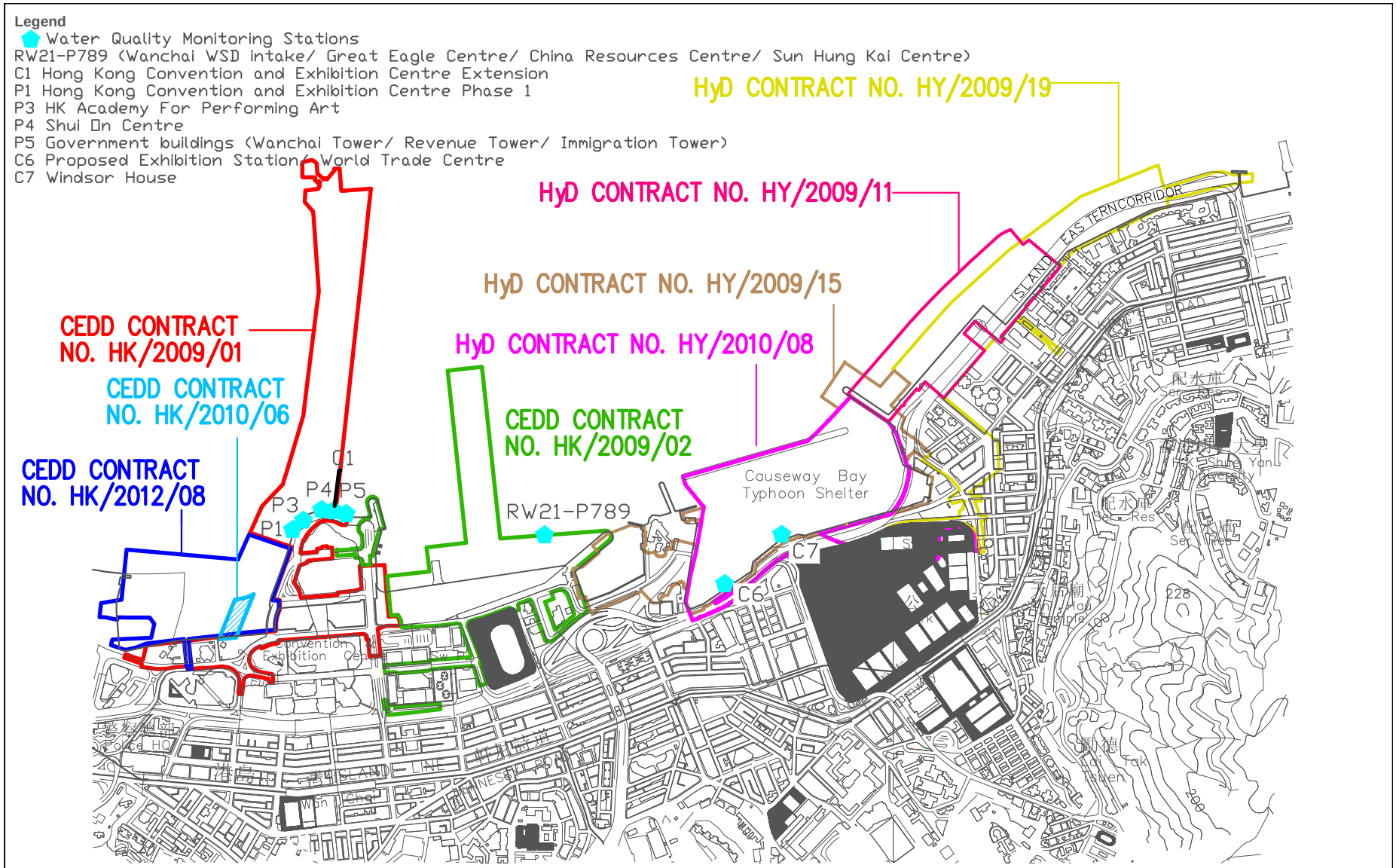

C6 AND C7: EXISTING SEAWATER INTAKE
: ODOUR PATROL ROUTES FOR CONSTRUCTION PHASE
: MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE
Odour Patrol Location
N
CAUSEWAY BAY TYPHOON SHELTER
EX-WAN CHAI PUBLIC CARGO WORKING AREA
Ex-WPCWA SE
Ex-WPCWA SW
OP1
OP2
OP3
OP4
OP5
OP6
OP7
OUTFALL P
OUTFALL Q
C6
C7
CAUSEWAY BAY
Victoria



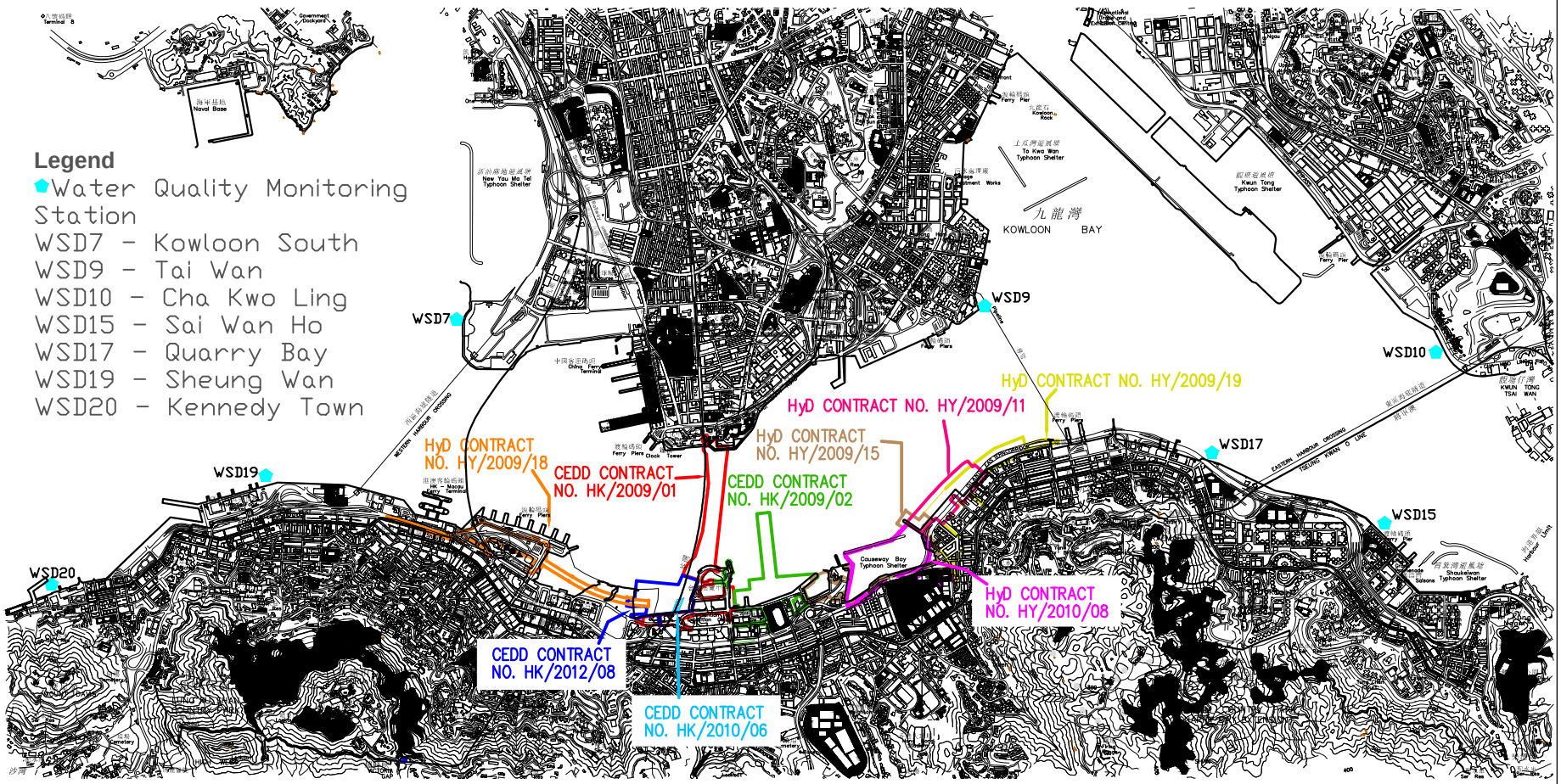
Location Plan of Additional Dissolved Oxygen Monitoring Stations for Culvert L Water Discharge Flow



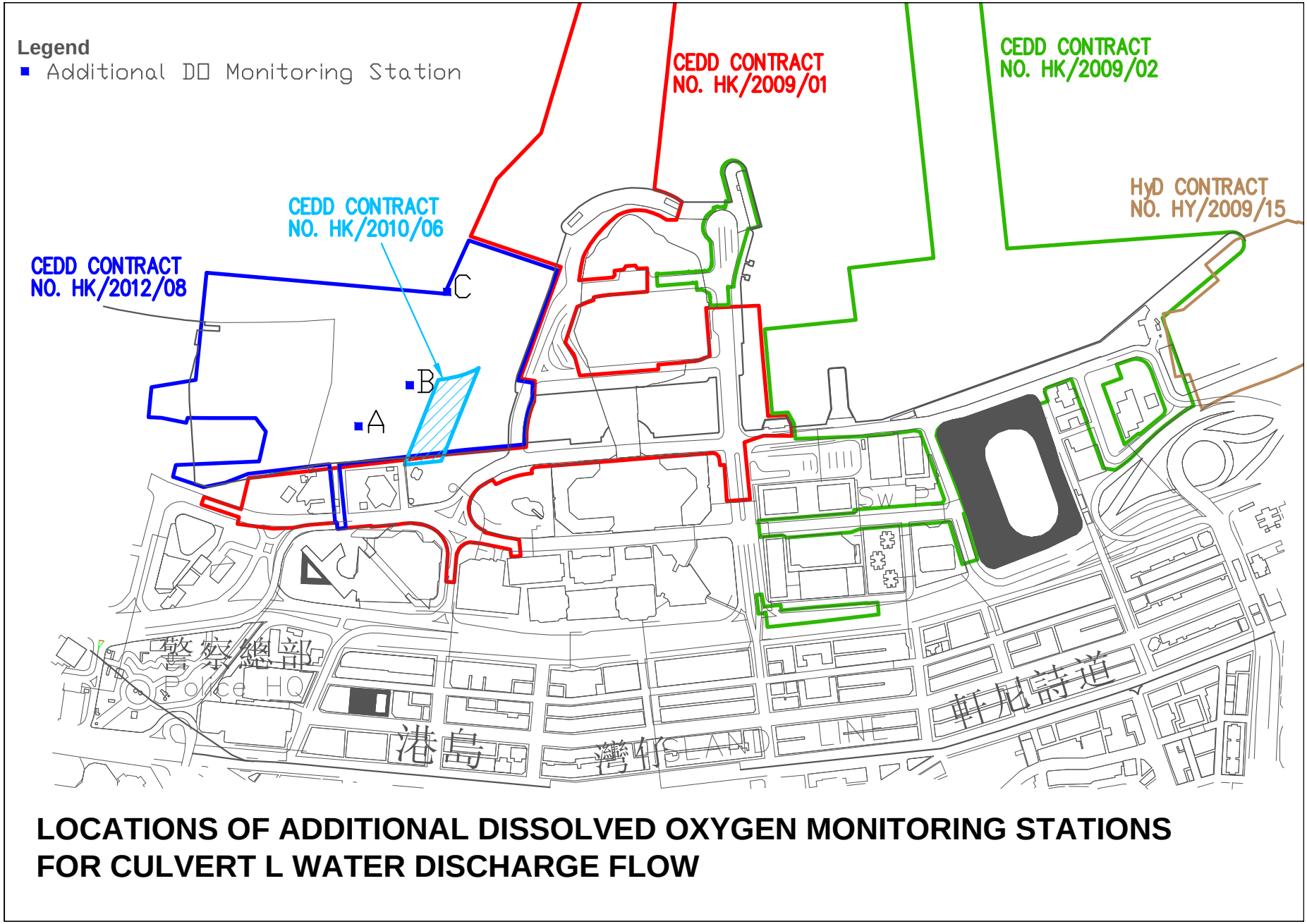
LOCATIONS OF WATER QUALITY MONITORING STATIONS



LOCATIONS OF WATER QUALITY MONITORING STATIONS



LOCATIONS OF WATER QUALITY MONITORING STATIONS



LOCATIONS OF ADDITIONAL DISSOLVED OXYGEN MONITORING STATIONS FOR CULVERT L WATER DISCHARGE FLOW

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		√			

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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

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								

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

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

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)								

Appendix 2.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.8.14 – 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	√	√ #			

Contract No. HK/2011/07
Wanchai Development Phase II and Central Wanchai Bypass
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	• 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

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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
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	<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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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

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				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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				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
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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.							

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

Contract No. HK/2011/07
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Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

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							

Contract No. HK/2011/07
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Sampling, Field Measurement and testing Works (Stage 2)
Quarterly EM&A Report

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 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 [Note 2]	320.1	500	176.7	260
CMA2a	323.4	500	169.5	260
CMA3a [Note 2]	311.3	500	171.0	260
CMA4a	312.5	500	171.2	260
CMA5a [Note 2]	332.0	500	181.0	260
CMA6a [Note 2]	300.1	500	187.3	260

Note 2:

- *As per facing owner's rejection in allowing the implementation of long-term air quality impact monitoring at their premises, alternative monitoring stations and justification were proposed for IEC verification and EPD approval.*
- *The established Action and Limit Levels from the baseline air monitoring will be adopted to the alternative monitoring stations.*

Action and Limit Level for Water 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 Levels for Odour Patrol

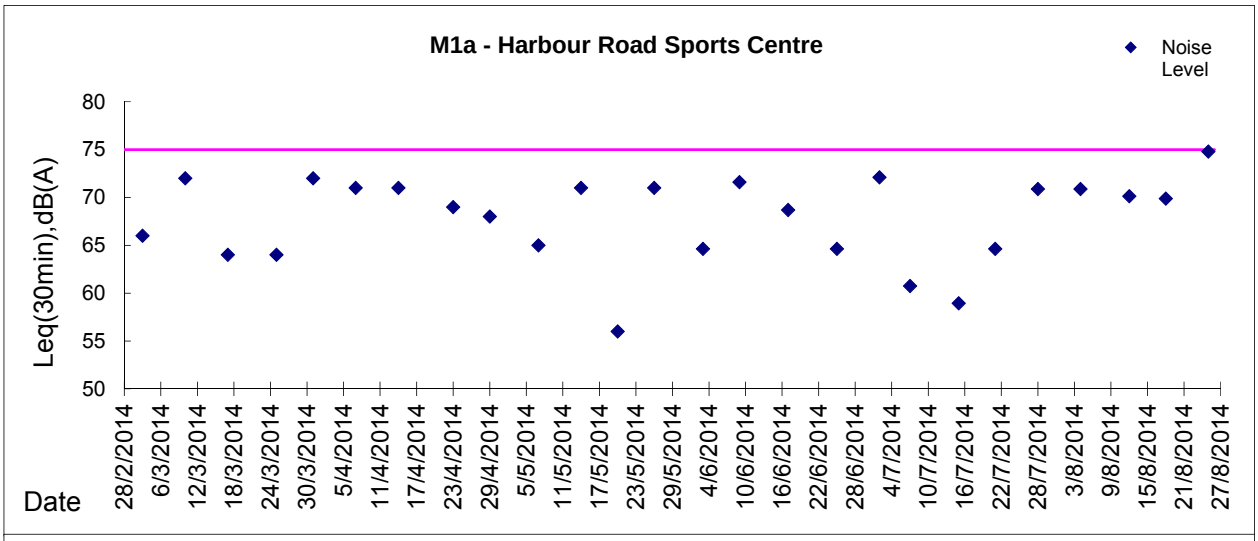
Parameters	Action	Limit
Odour Nuisance (from odour intensity analysis or odour patrol)	• When two documented complaint are received; or • Odour Intensity of 2 is measured from odour intensity analysis.	• Five or more consecutive genuine documented complaints within a week; or • Odour Intensity of 3 or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

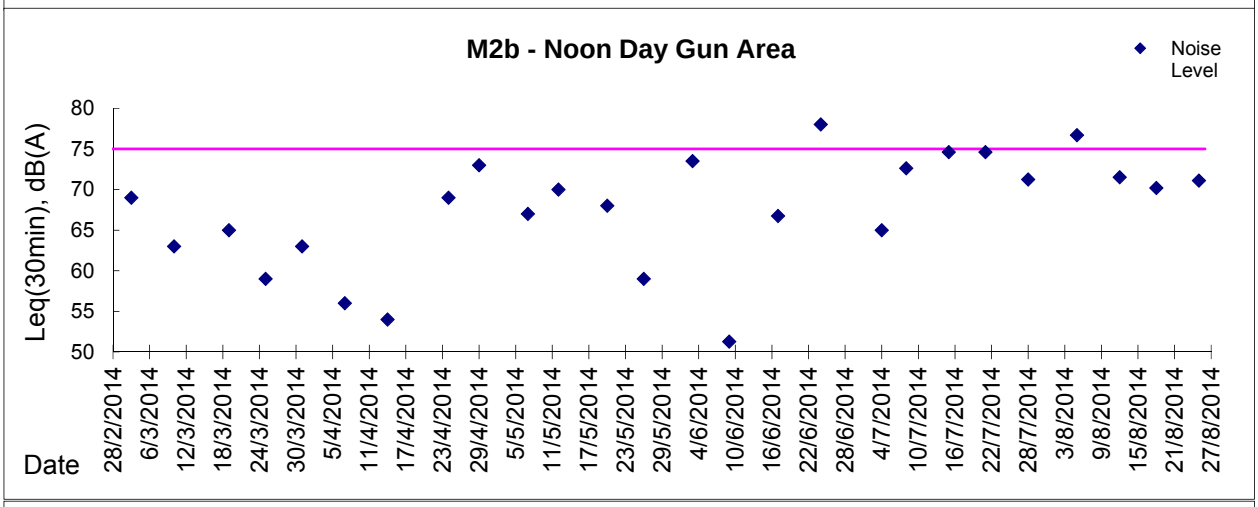
Appendix 4.1

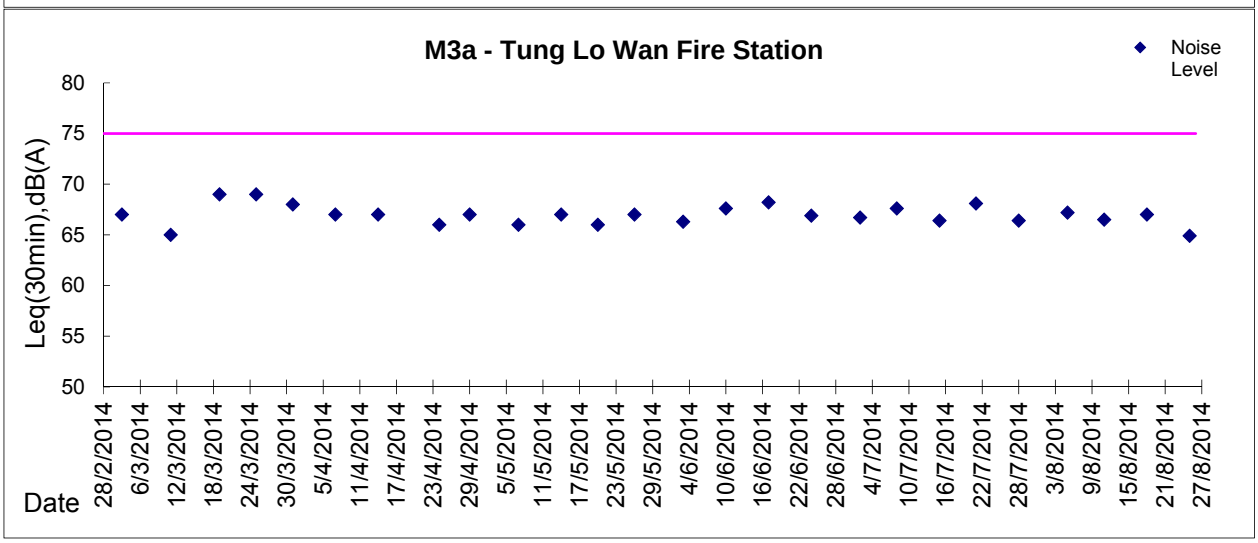
Noise Monitoring Graphical Presentations

Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

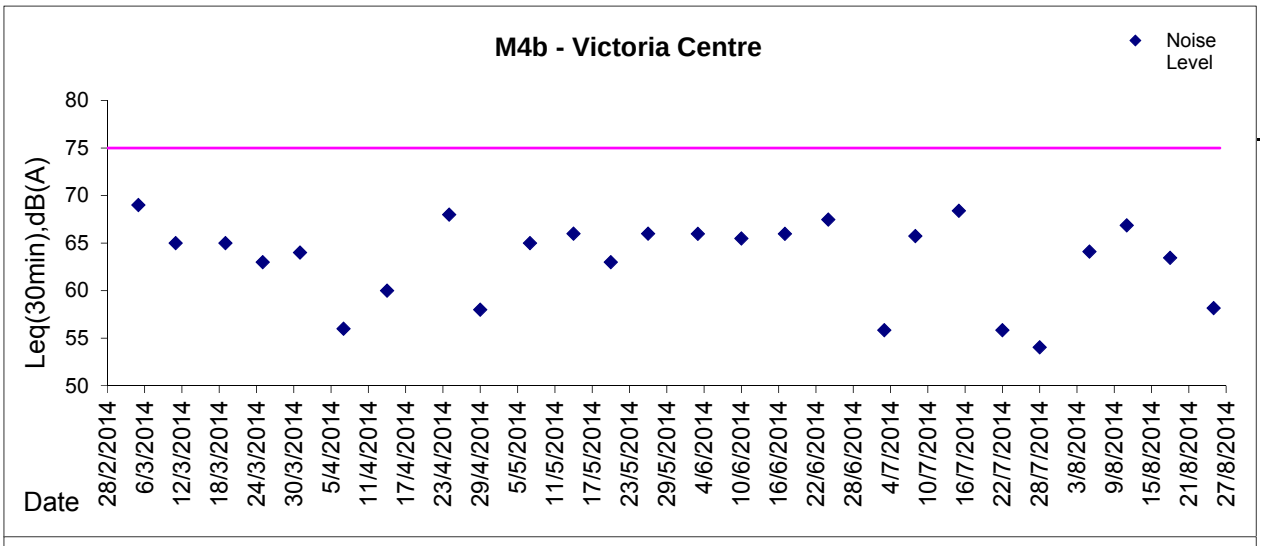


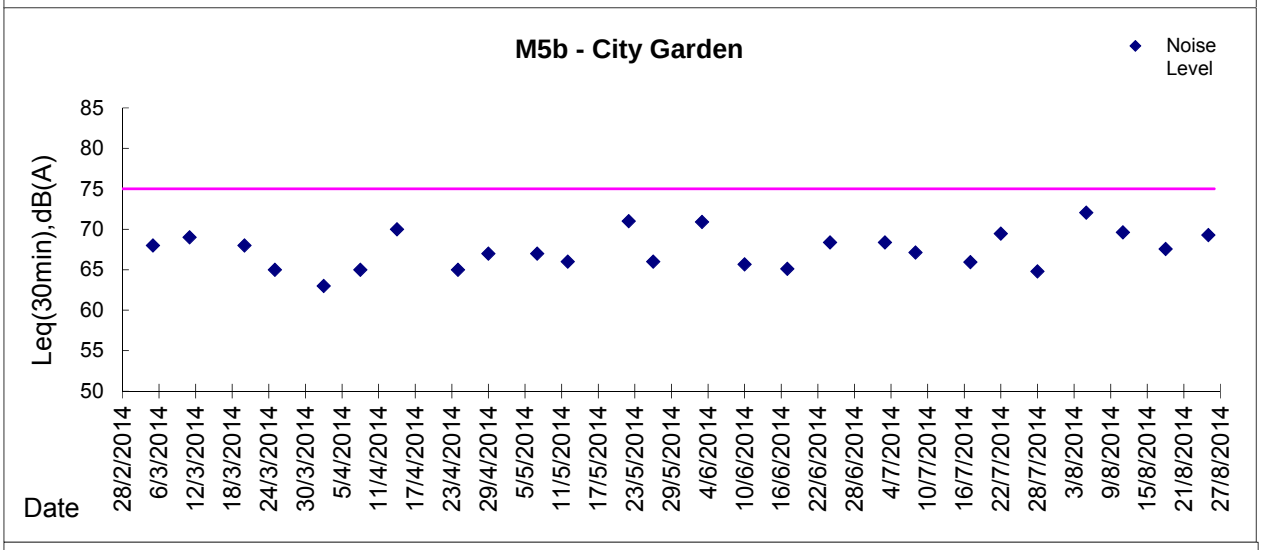


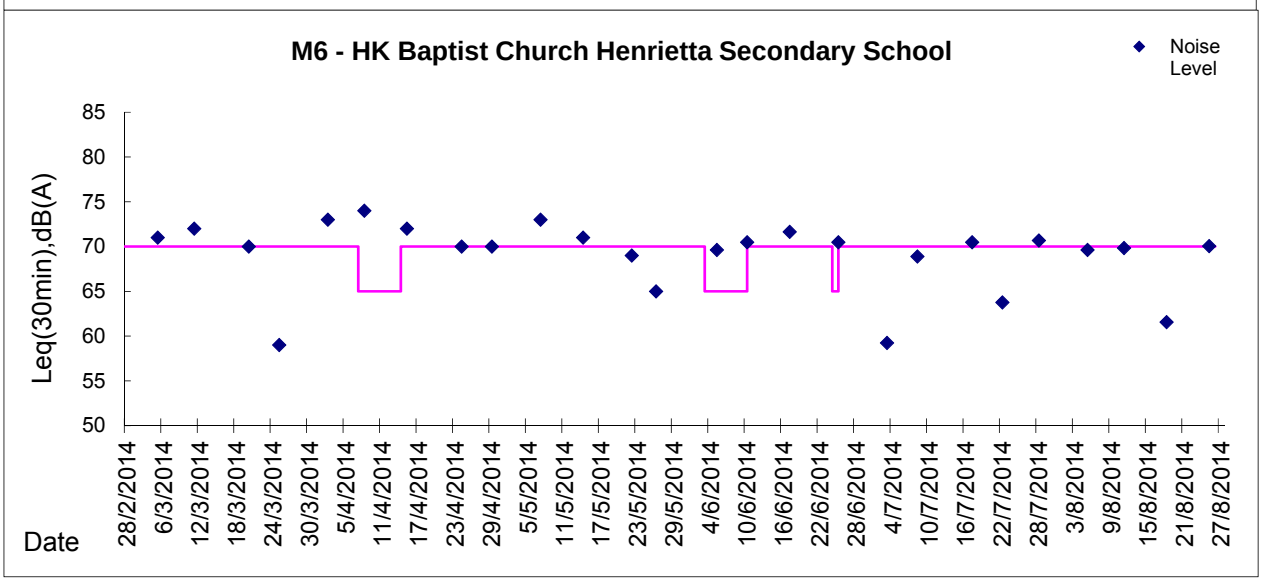


Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

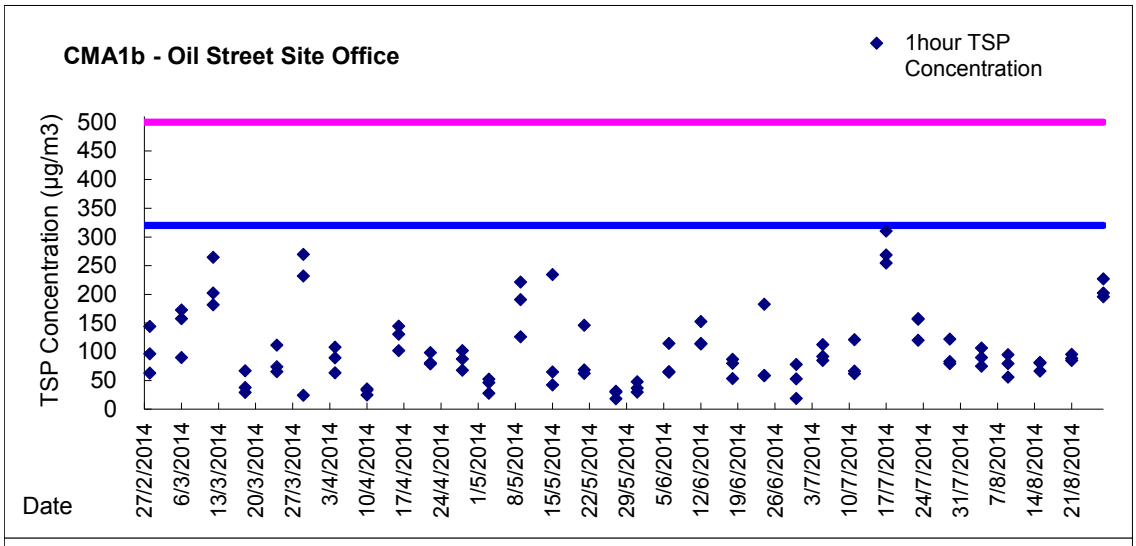


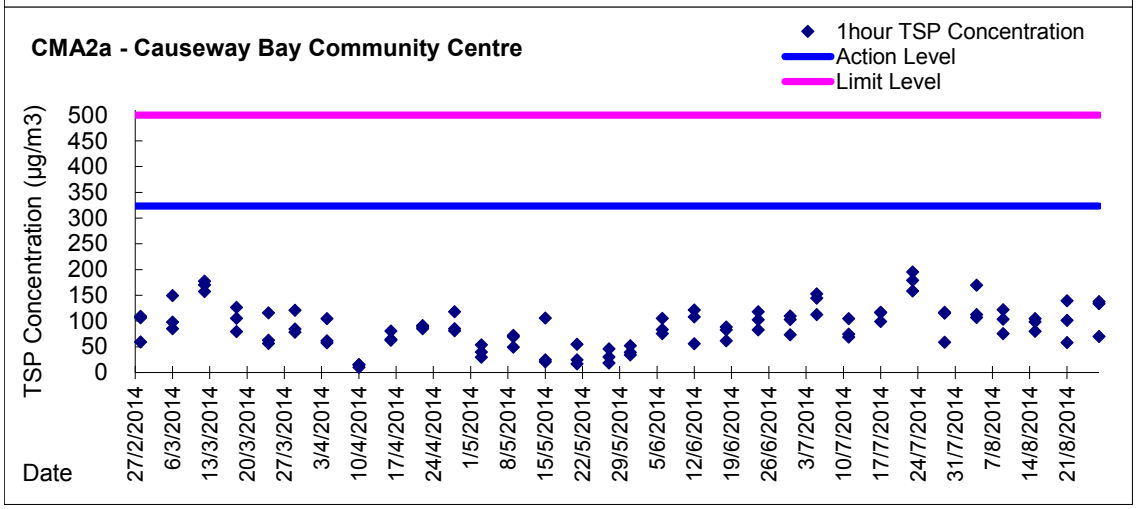


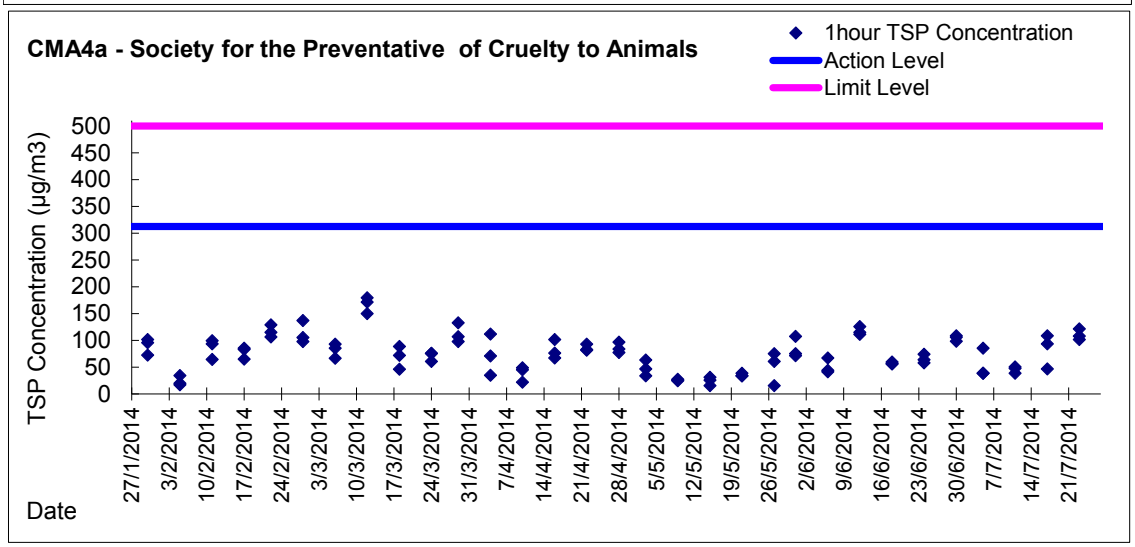


Appendix 4.2
Air Quality Monitoring Graphical Presentations

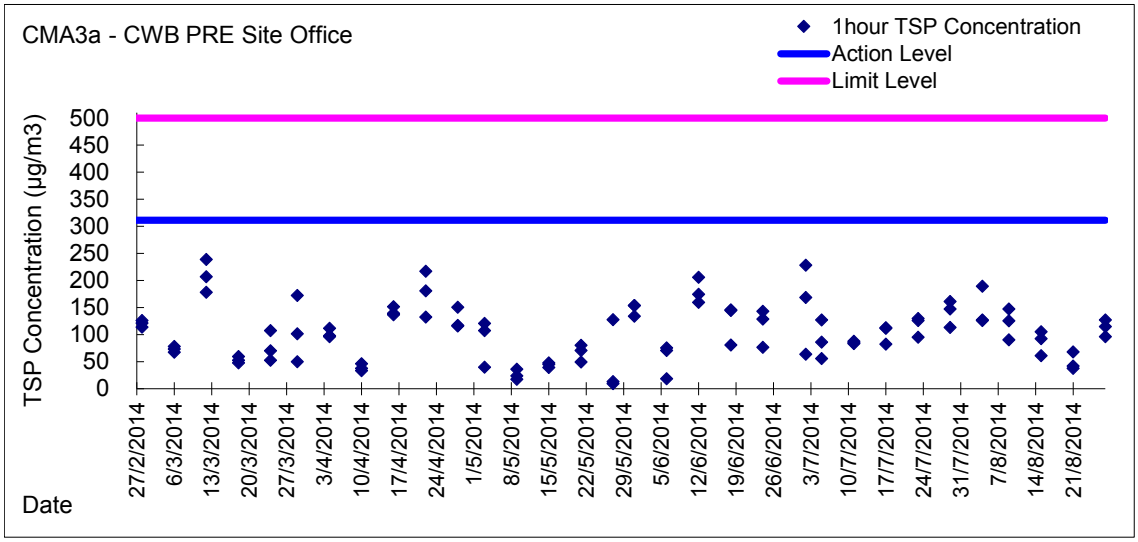
Graphic Presentation of 1 hour TSP Result

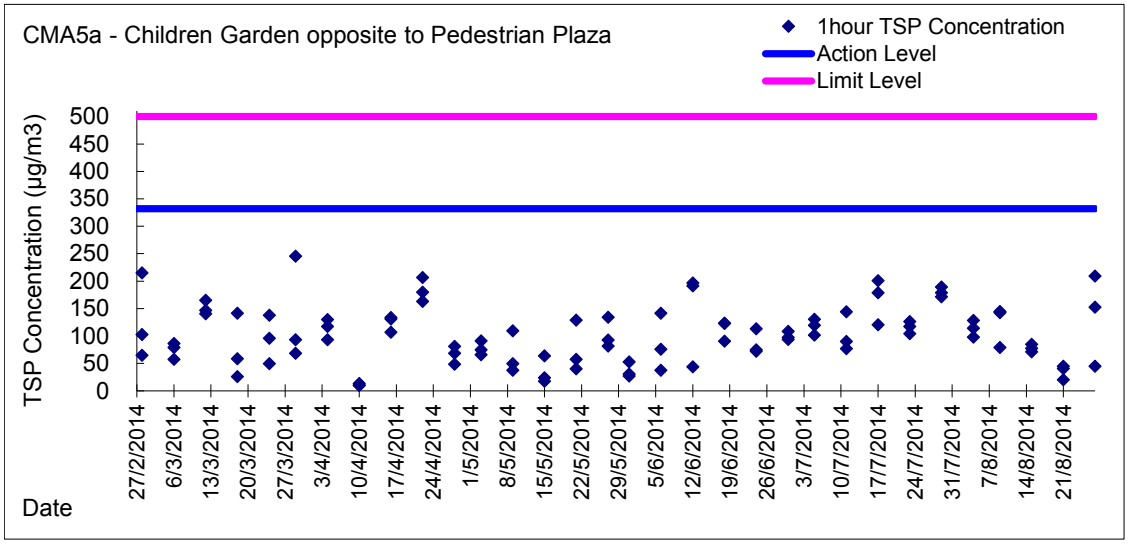


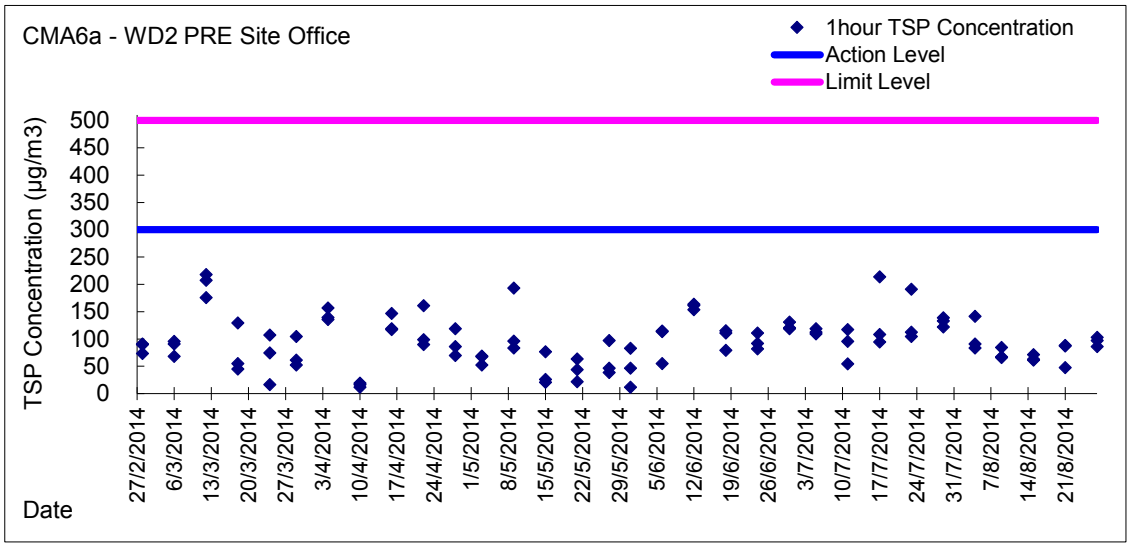




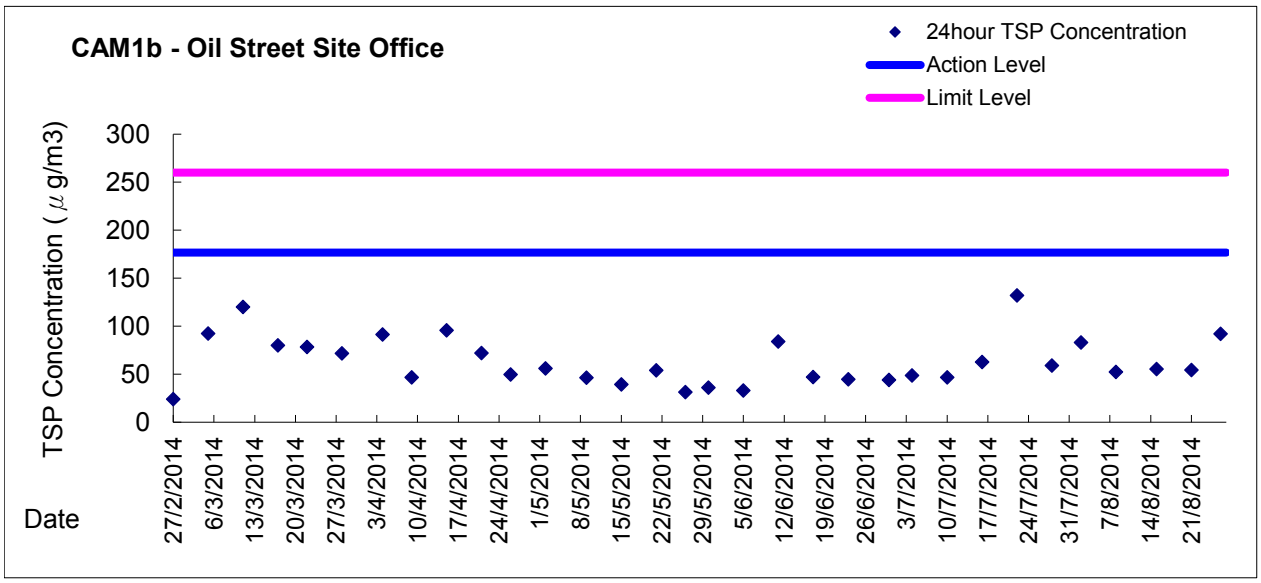
Graphic Presentation of 1 hour TSP Result

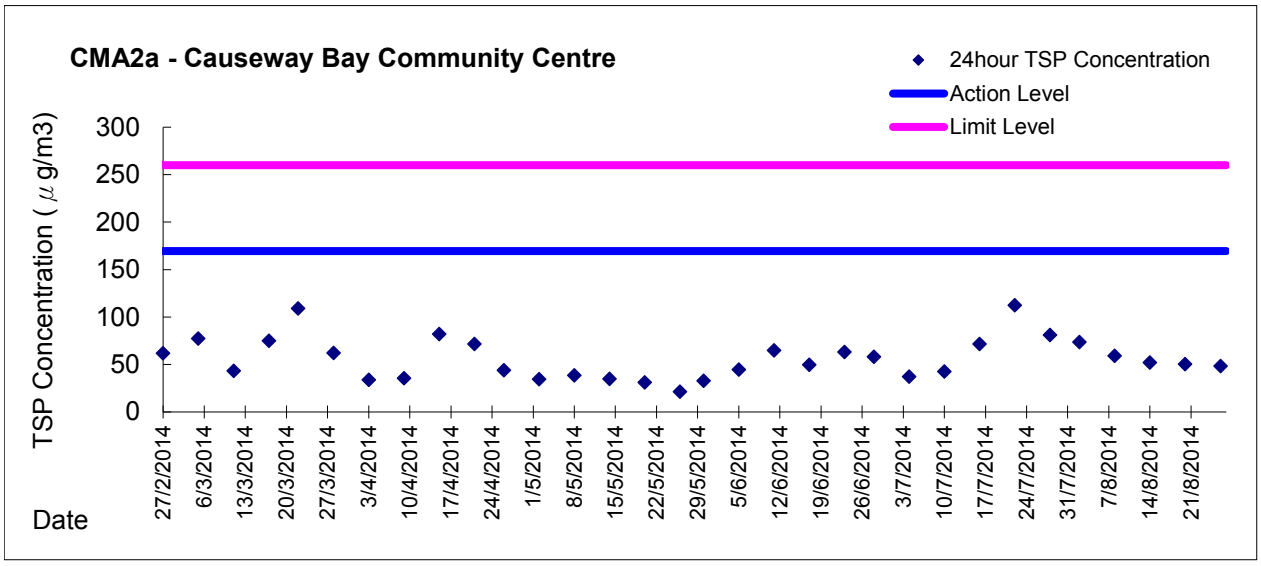


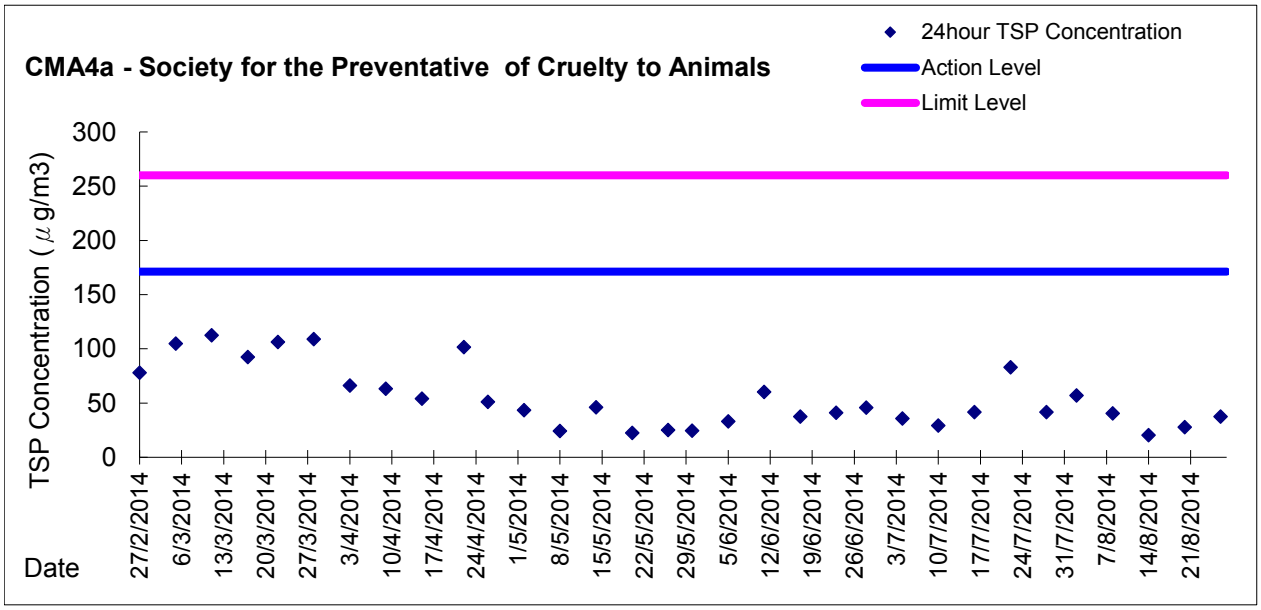




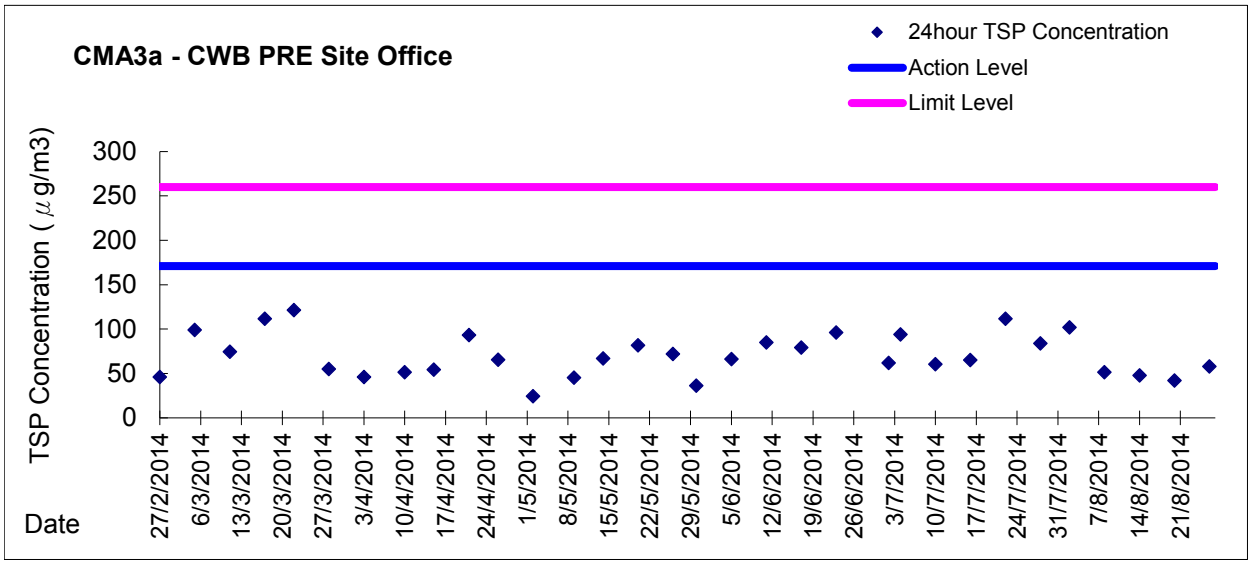
Graphic Presentation of 24 hour TSP Result

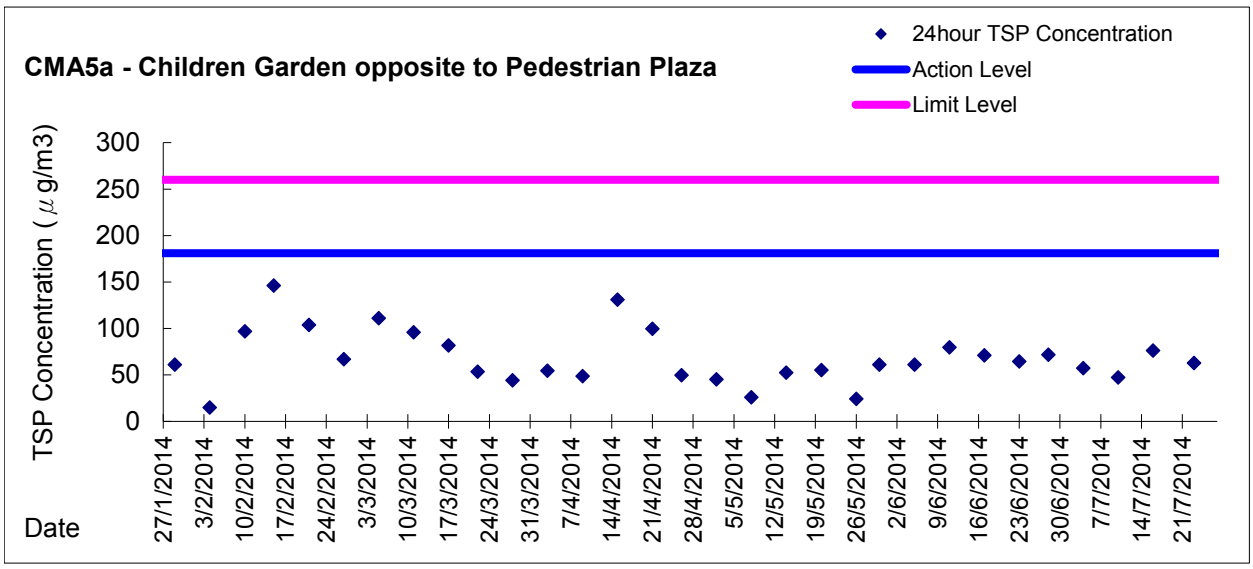


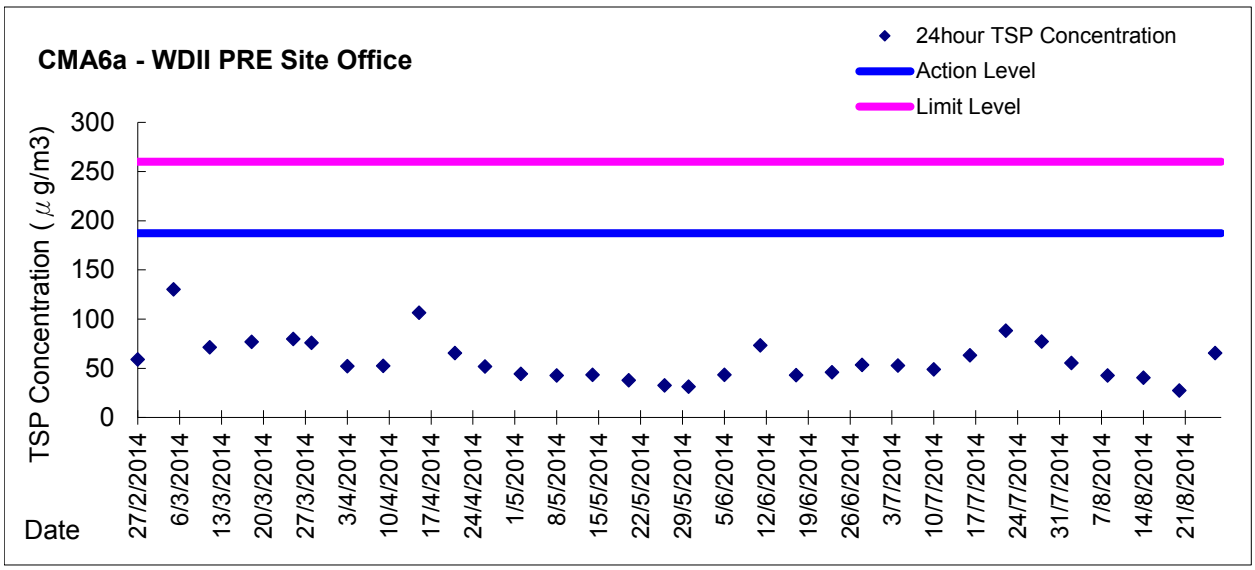




Graphic Presentation of 24 hour TSP Result







Field Data Record Sheet

Monitoring Date: 8 July 2014 **Weather Condition:** Sunny **Tidal Condition:** Ebb

Temperature: 36.7°C – 32.4°C **Relative Humidity:** 52.4%-72.6%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	13:33	32.4	72.6	0-1	Culvert Discharge	Sea	Persistent	2.4	NW	
OP6	13:41	33.4	69.1	0-1	Culvert Discharge	Sea	Persistent	1.6	NW	
OP5	14:00	32.8	67.7	0-1	Barge exhaust	Barge	Intermittent	2.9	W	
OP4	13:54	36.7	59.2	0	/	/	/	2.0	NW	
OP3	14:07	35.4	52.4	0	/	/	/	1.0	ENE	
OP2	14:12	36.6	54.9	0-1	Seawater	Sea	Persistent	0.8	NNW	
OP1	14:17	33.8	61.6	0-1	Culvert Discharge	Sea	Persistent	1.6	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

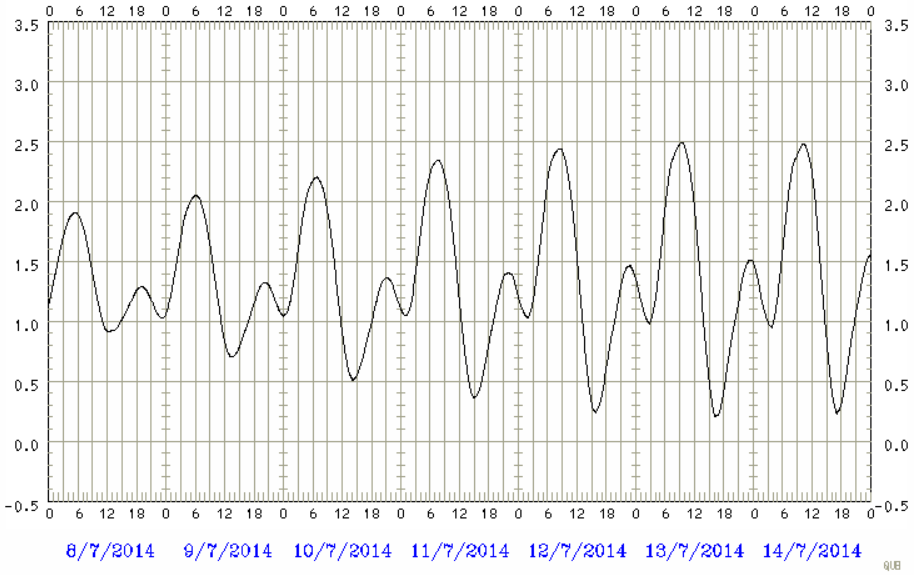
Meteorological Conditions on 08 July 2014

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **28.0-33.0** ℃ Relative humidity: **65-90%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **33.0** ℃

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

Tide Time	Tide Height (m)
05:24	1.9
12:25	0.9
18:57	1.3
23:14	1.0



Field Data Record Sheet

Monitoring Date: 22 July 2014 **Weather Condition:** Sunny **Tidal Condition:** Flood

Temperature: 31.9°C – 36.2°C **Relative Humidity:** 51.9% - 68.7%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	13:23	31.9	68.7	0	/	/	/	1.8	NNW	
OP6	13:30	33.1	64.4	0	/	/	/	2.4	NW	
OP5	13:34	32.8	63.2	0	/	/	/	3.7	W	
OP4	13:37	36.2	53.6	0	/	/	/	2.3	WNW	
OP3	13:43	34.7	59.1	0-1	Sea water	Site	Intermittent	1.9	N	
OP2	13:47	36.1	51.9	0	/	/	/	1.5	WNW	
OP1	13:51	34.0	60.8	0-1	Culvert discharge	Sea	Intermittent	0.8	NNE	

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

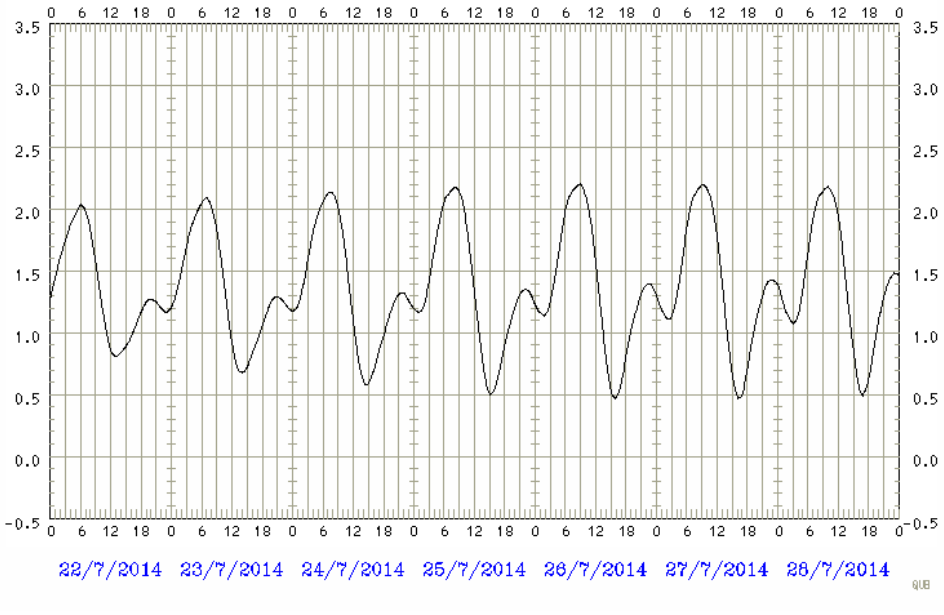
Meteorological Conditions on 22 July 2014

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **27.5-33.6** ℃ Relative humidity: **71%**

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

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

Tide Time	Tide Height (m)
06:11	2.0
13:00	0.8
19:57	1.3
22:58	1.2



Field Data Record Sheet

Monitoring Date: 5 August 2014 **Weather Condition:** Overcast **Tidal Condition:** Flood

Temperature: 29.2^{0}C – 31.9^{0}C **Relative Humidity:** 74.5% - 79.4%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	14:06	29.2	79.1	0	/	/	/	1.8	NNW	
OP6	13:57	30.9	74.8	0	/	/	/	0.7	NNW	
OP5	13:53	32.0	74.5	0	/	/	/	0.6	NW	
OP4	13:49	31.5	76.3	0	/	/	/	0.7	N	
OP3	13:45	31.9	75.1	0	/	/	/	0.4	N	
OP2	13:40	30.0	76.7	0	/	/	/	0.8	NNW	
OP1	13:33	29.7	79.4	1	Culvert Discharge	Culvert	Intermittent	1.3	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

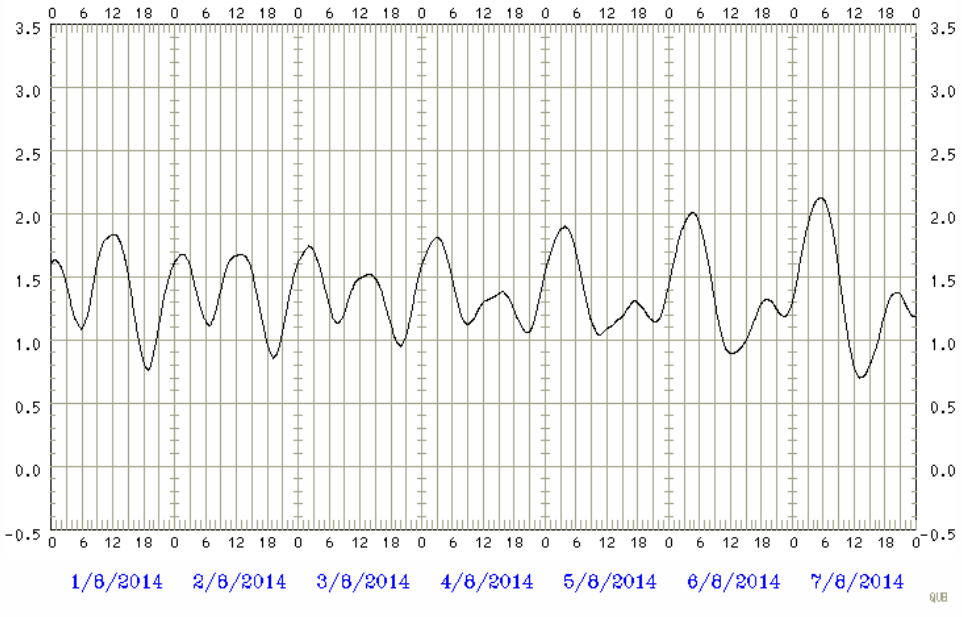
Meteorological Conditions on 5 August 2014

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **27.3-30.7** ℃ Relative humidity: **78-96%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **27.8-30.6** ℃

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

Tide Time	Tide Height (m)
03:52	1.9
10:35	1.0
17:18	1.3
21:15	1.1



Field Data Record Sheet

Monitoring Date: 19 August 2014 **Weather Condition:** Overcast **Tidal Condition:** Flood

Temperature: 31.9°C – 34.1°C **Relative Humidity:** 61.6% - 75.8%

Location	Time	Temperature (℃)	Relative Humidity (%)	Odour Intensity	Odour Nature	Possible Odour Sources	Duration	Wind Speed(m/s)	Wind Direction	Remarks
OP7	14:00	33.1	70.2	0	/	/	/	2.6	NNW	
OP6	13:54	32.0	62.0	0	/	/	/	4.0	NW	
OP5	13:50	31.9	61.0	0-1	Sewage (Drainage)	Sea	Intermittent	1.4	NW	
OP4	13:43	34.0	67.7	0-1	Seawater	Sea	Persistent	0.9	NNW	
OP3	13:37	33.2	72.1	0	/	/	/	0.6	N	
OP2	13:30	34.1	74.3	0	/	/	/	1.0	NW	
OP1	13:25	32.1	75.8	1	Sewage (Drainage)	Sea	Intermittent	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

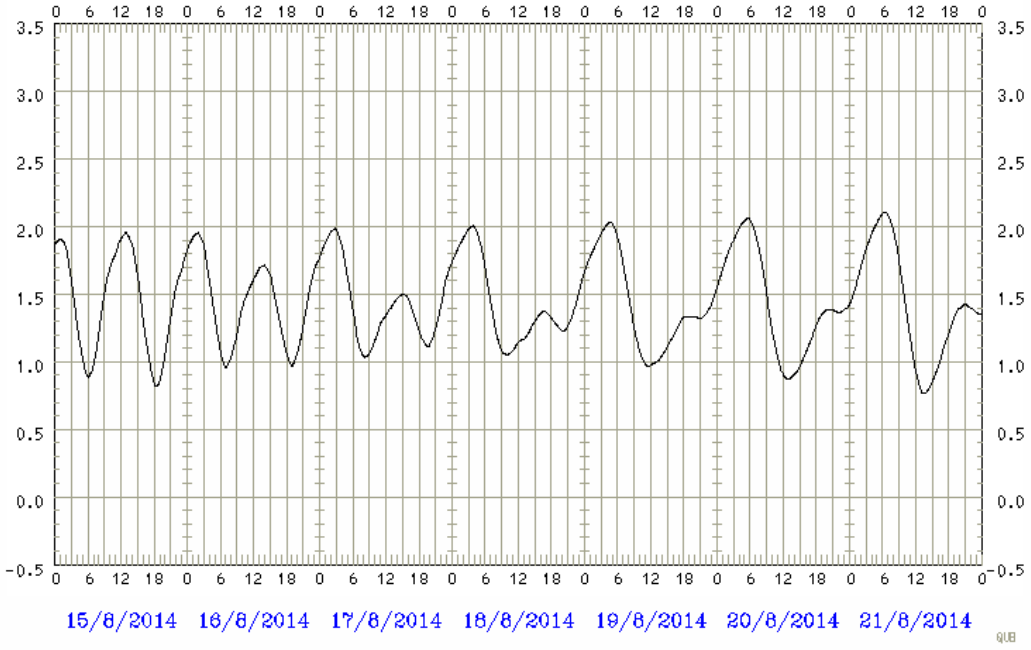
Meteorological Conditions on 19 August 2014

- **Hong Kong Observatory Weather Station at Hong Kong Observatory**
  Air Temperature: **24.6-31.3** ℃ Relative humidity: **72-94%**

- **Hong Kong Observatory Weather Station at Hong Kong Park**
  Air Temperature: **23.6-30.5** ℃

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

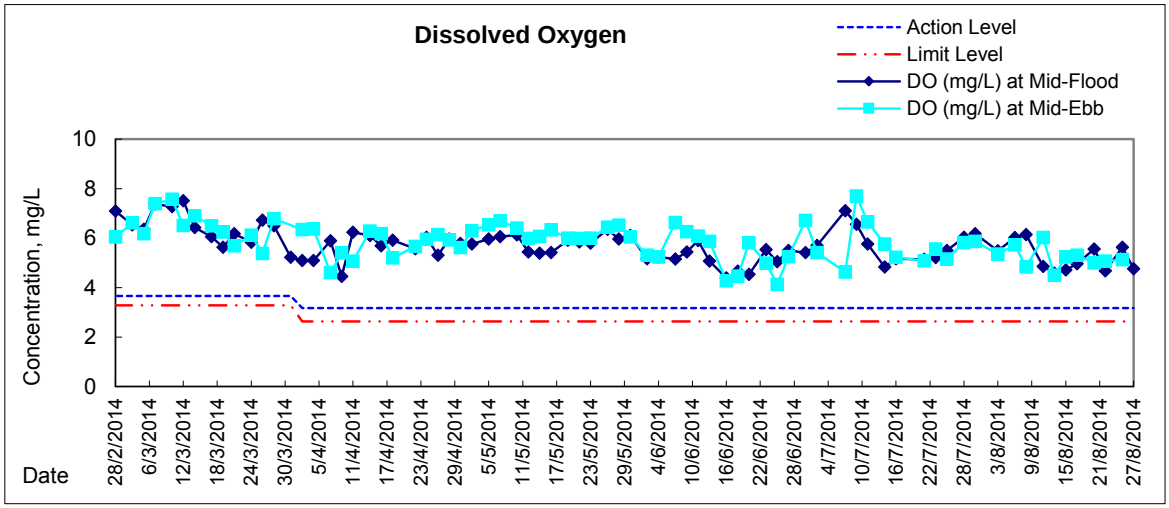
Tide Time	Tide Height (m)
04:40	2.0
11:37	1.0
19:02	1.3
20:54	1.3

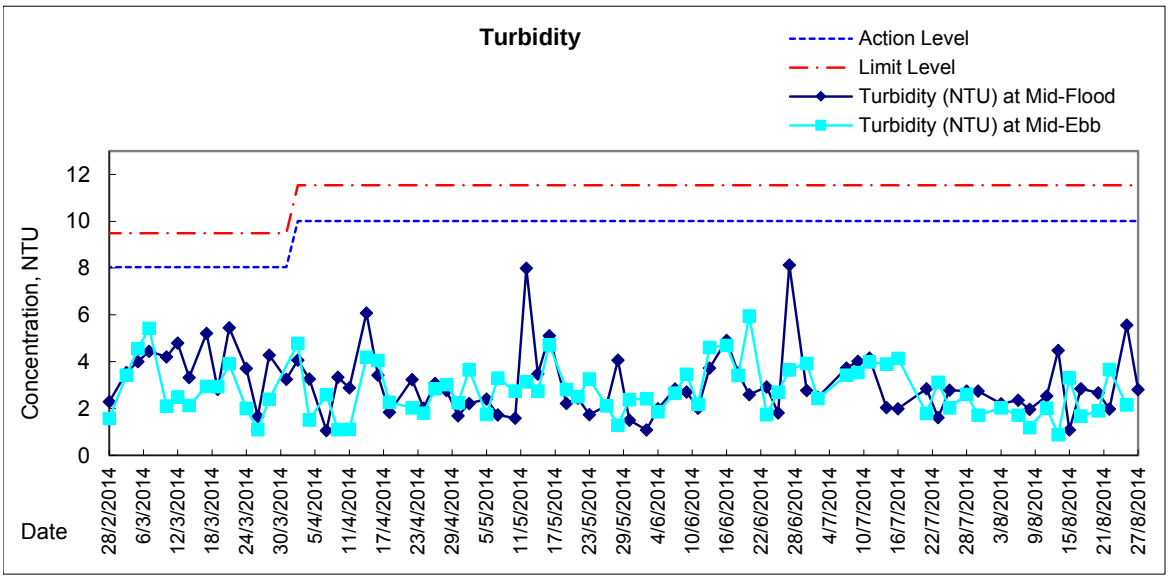


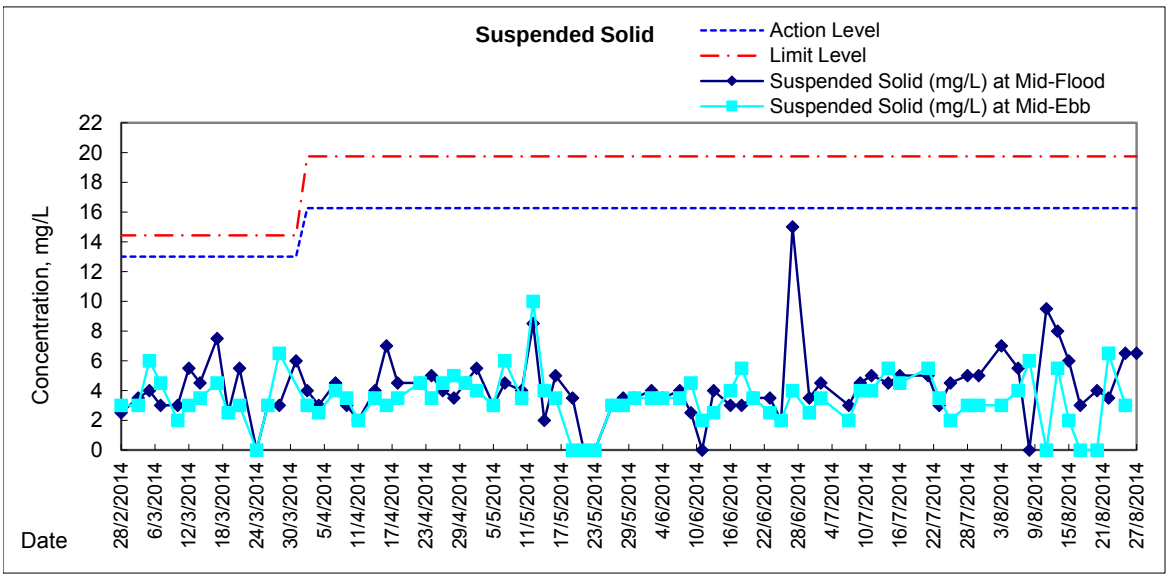
Appendix 4.3

Water Quality Monitoring Graphical Presentations

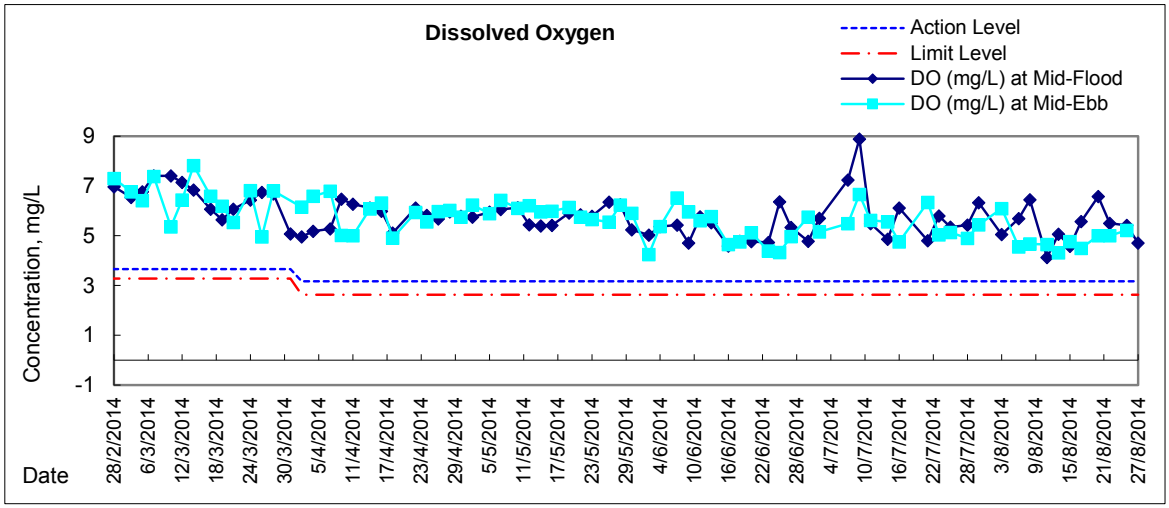
Graphic Presentation of Water Quality Result of WSD9 - Tai Wan

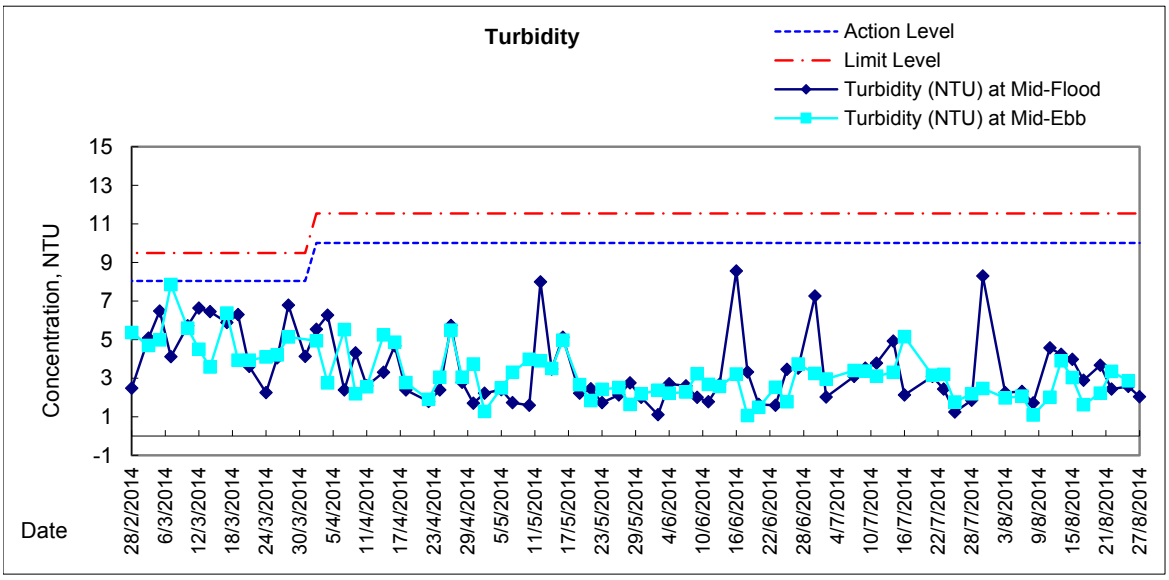


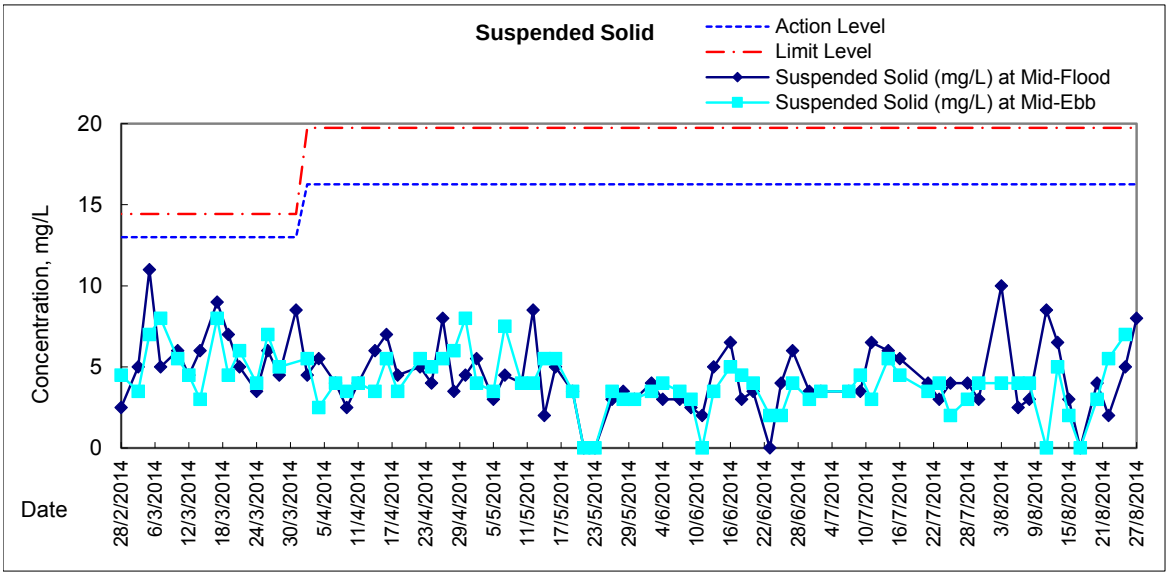




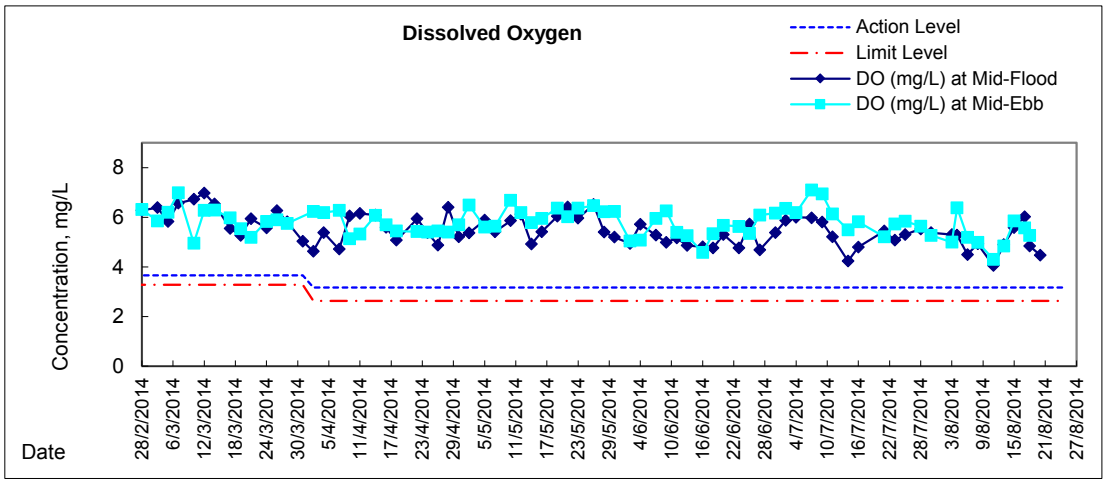
Graphic Presentation of Water Quality Result of WSD17 - Quarry Bay

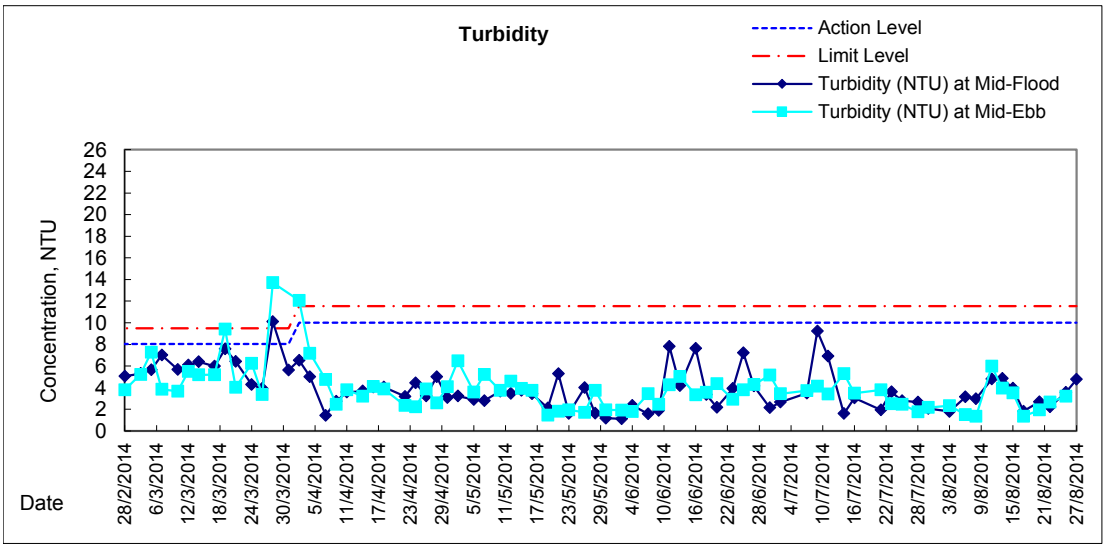


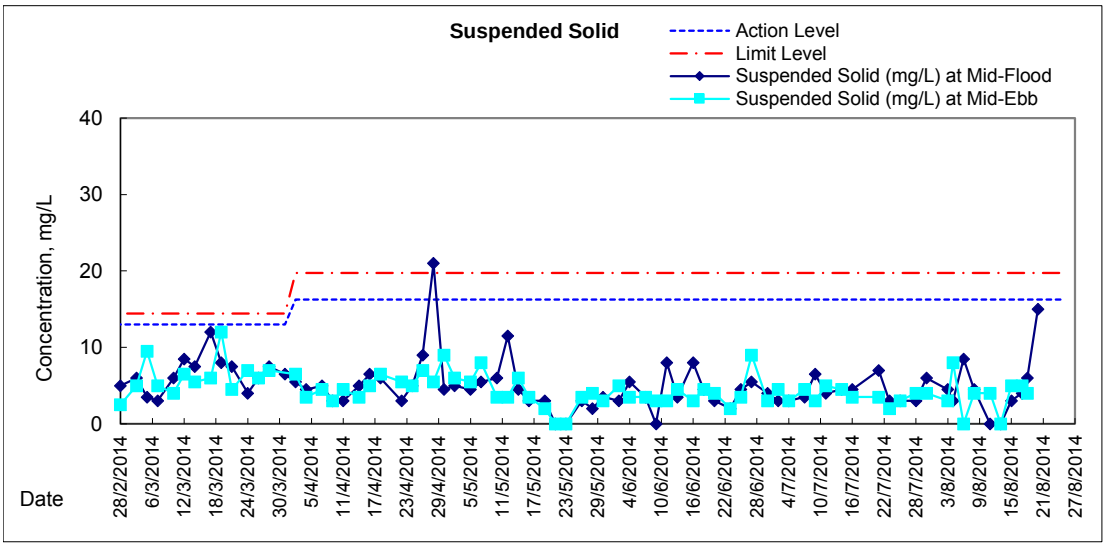




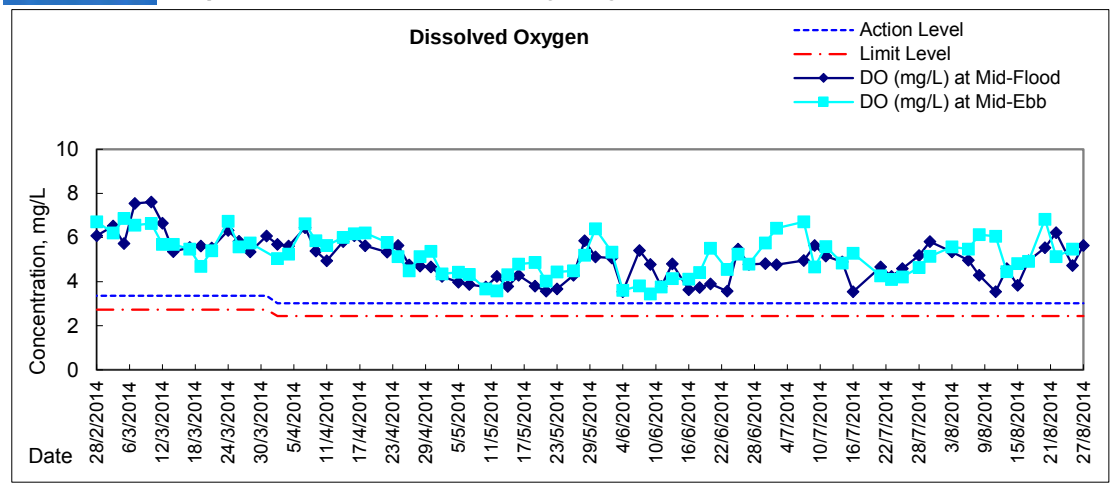
Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan

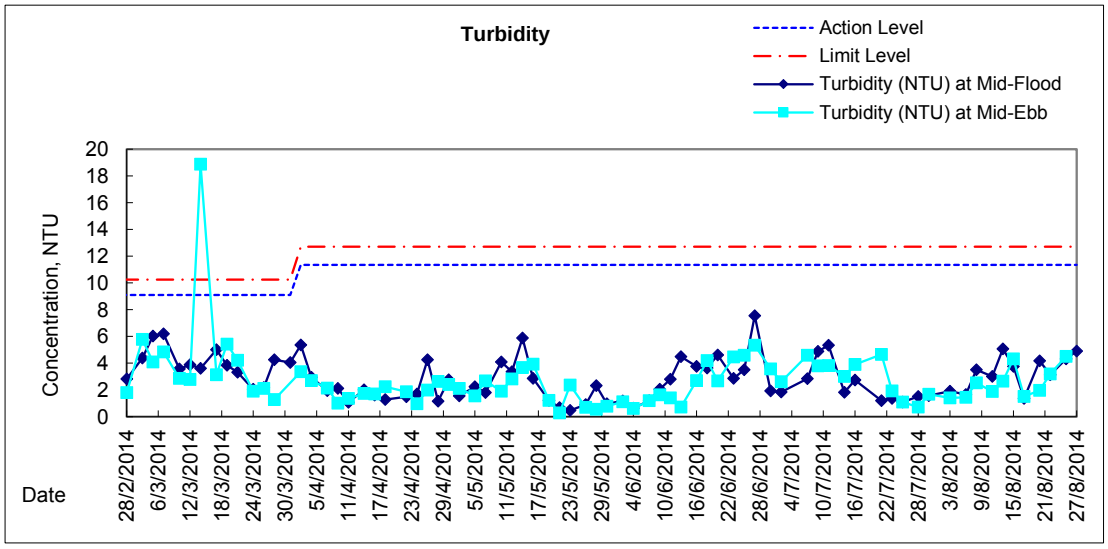


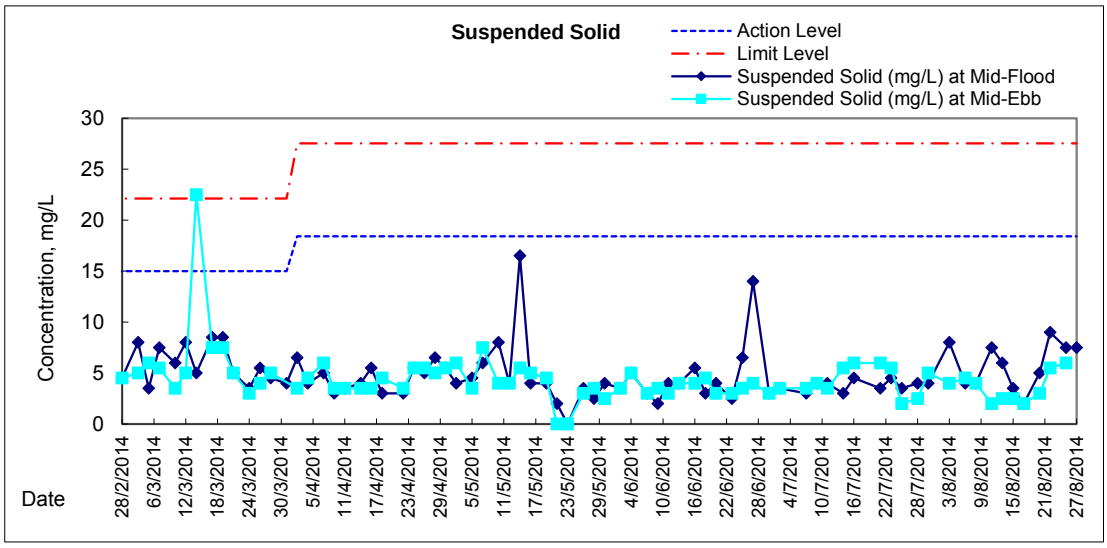




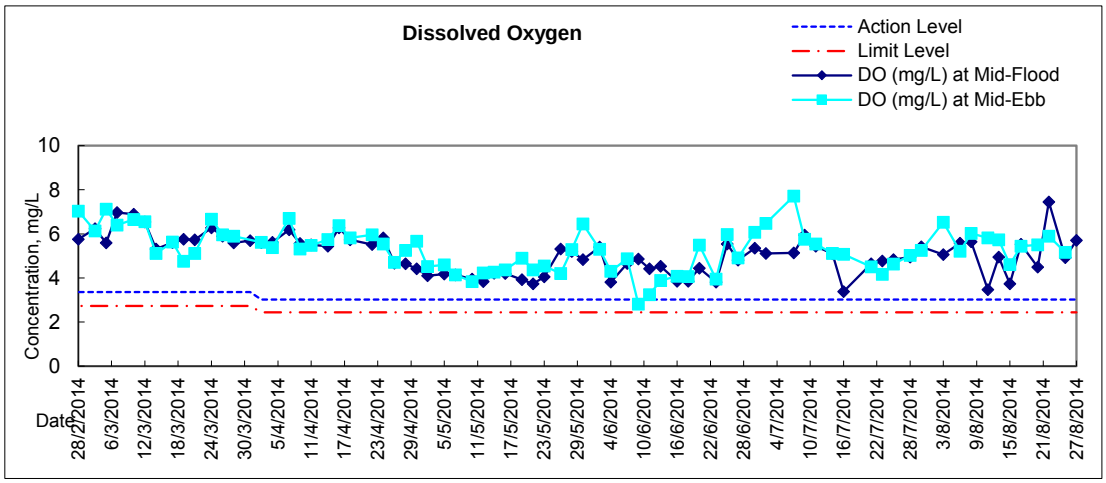
Graphic Presentation of Water Quality Result of C1 - HKCEC

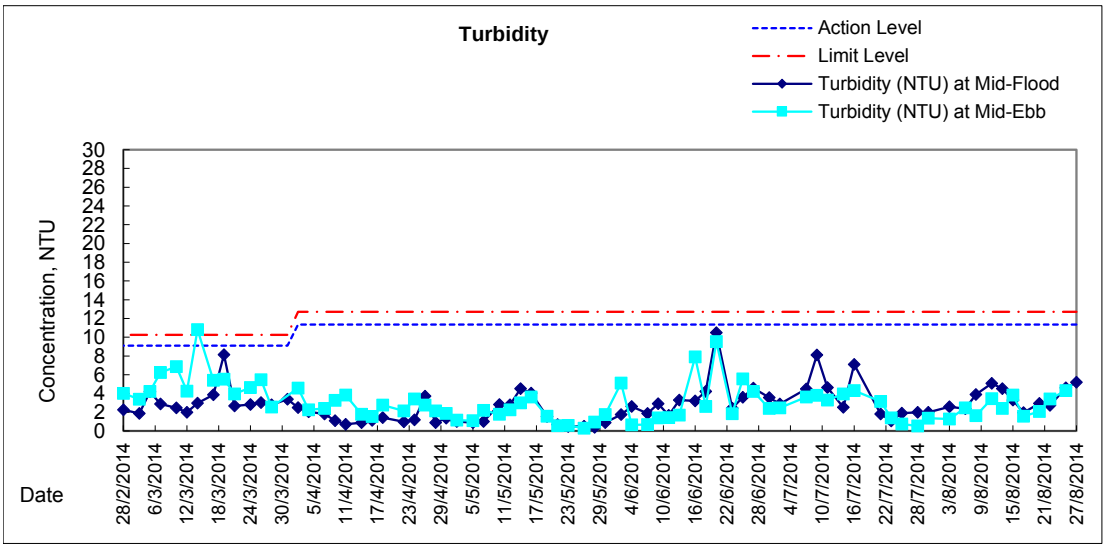


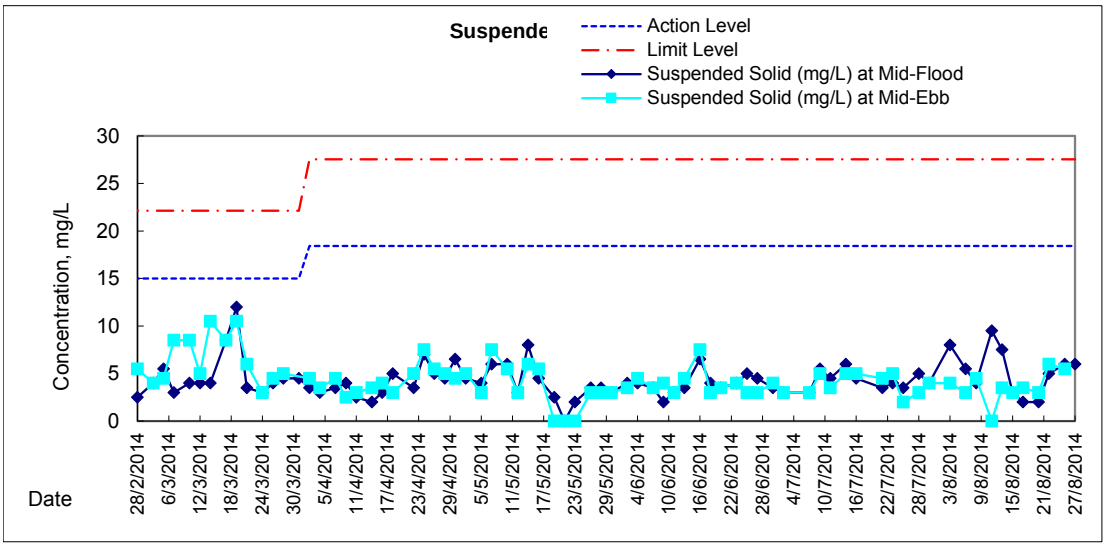




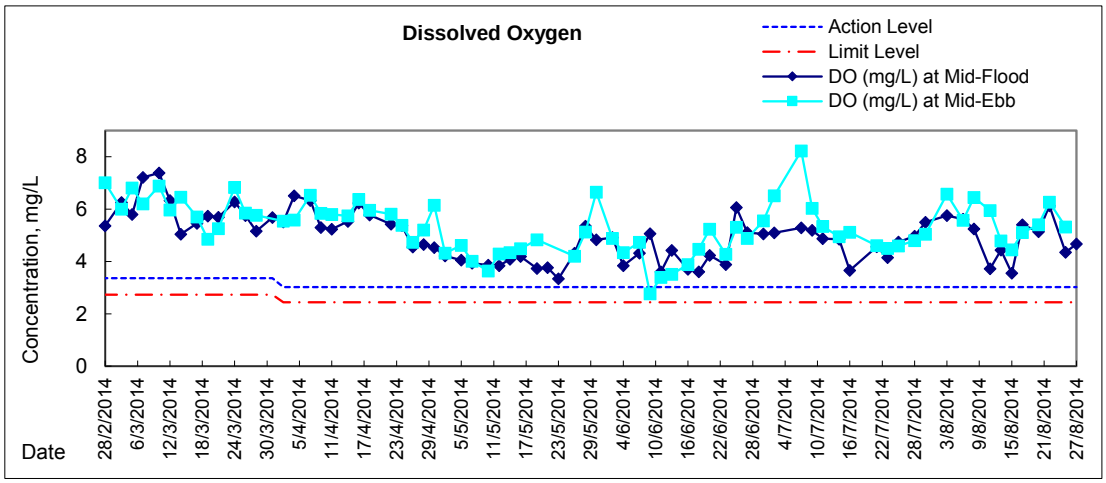
Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I

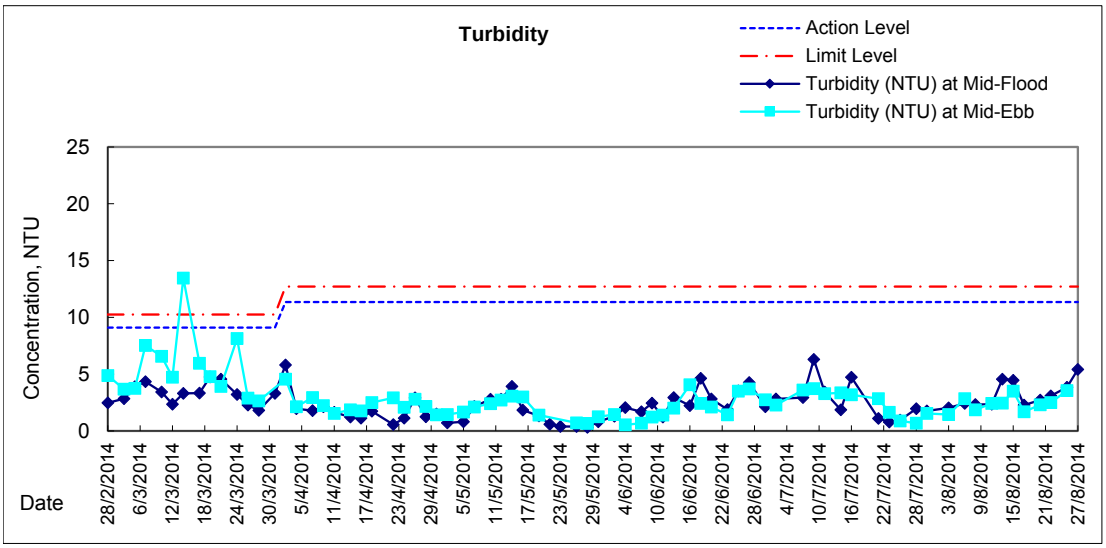


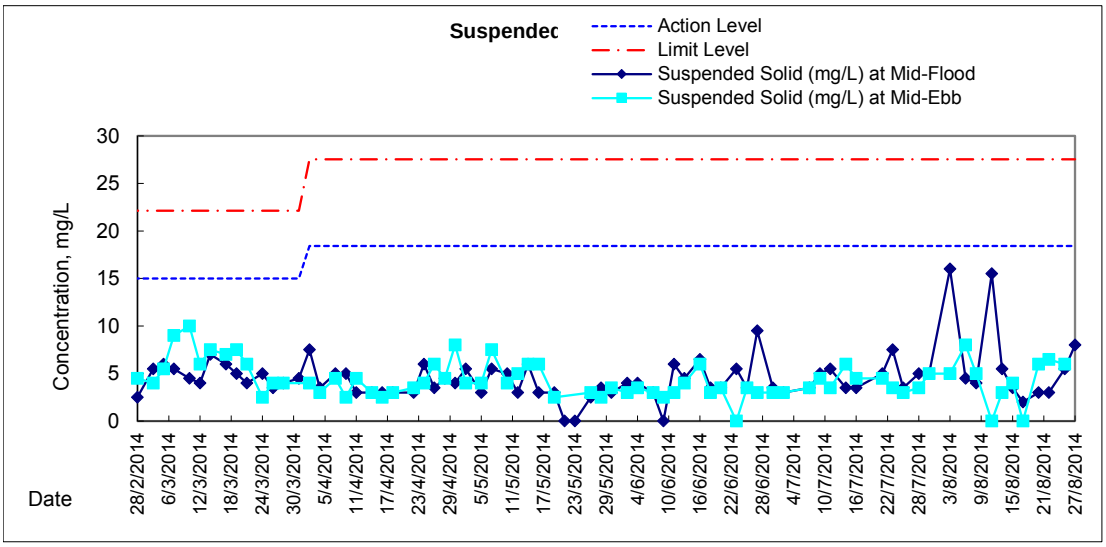




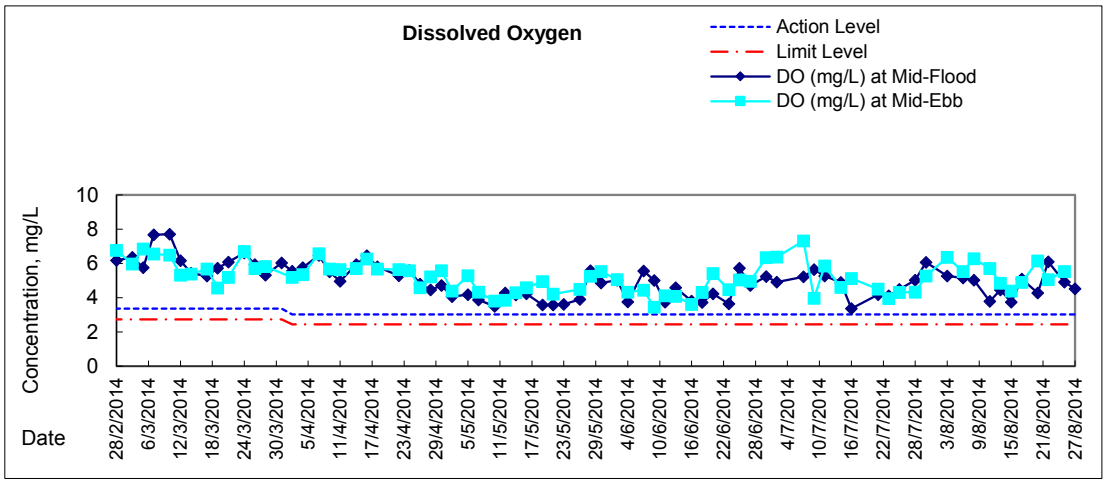
Graphic Presentation of Water Quality Result of P3 - APA

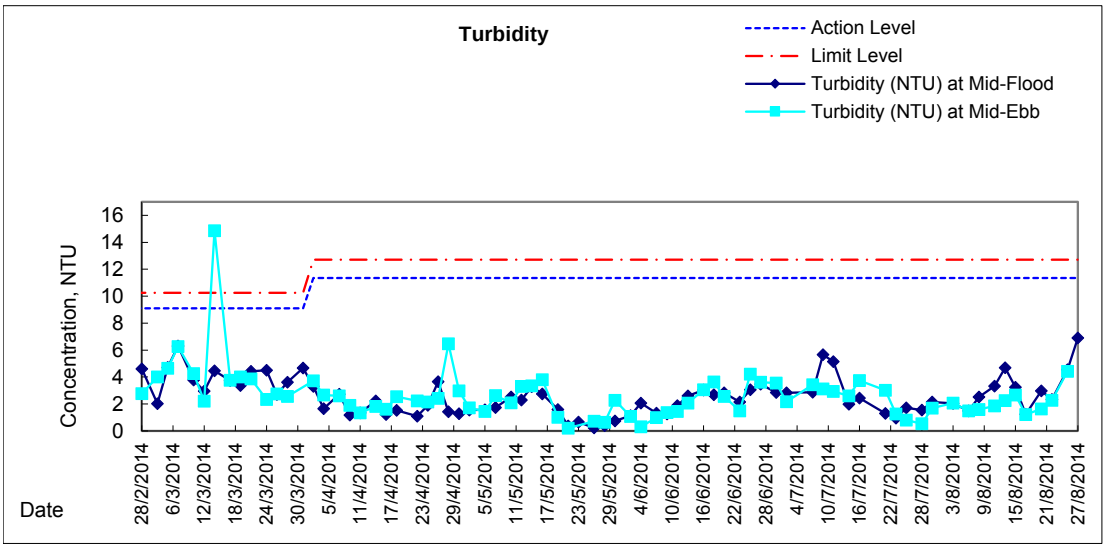


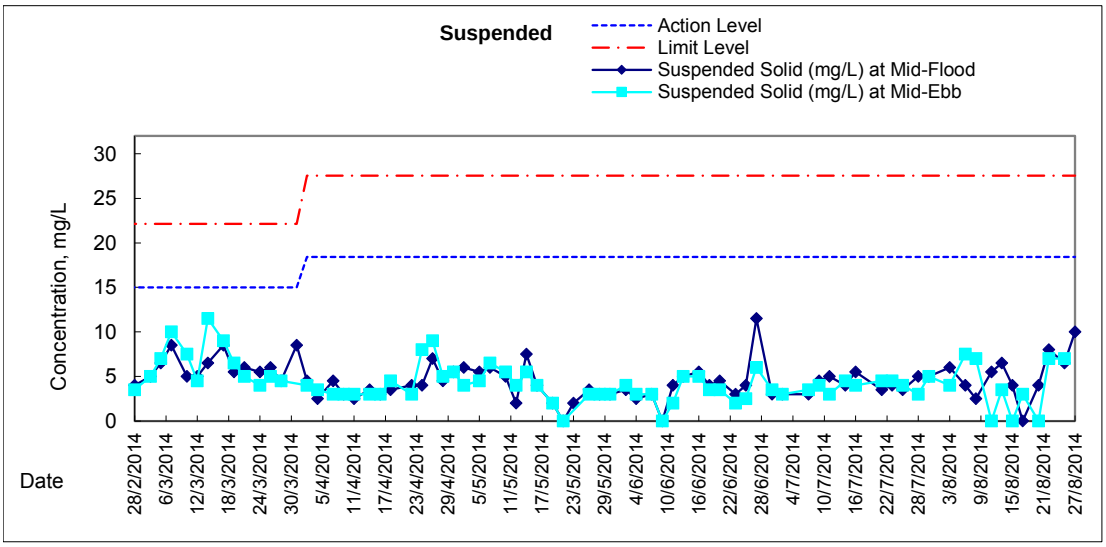




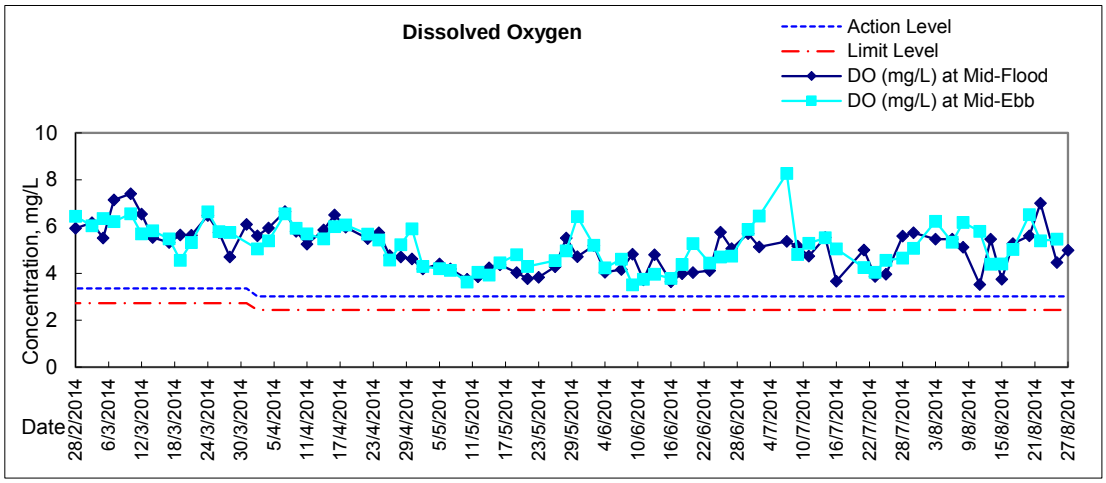
Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT

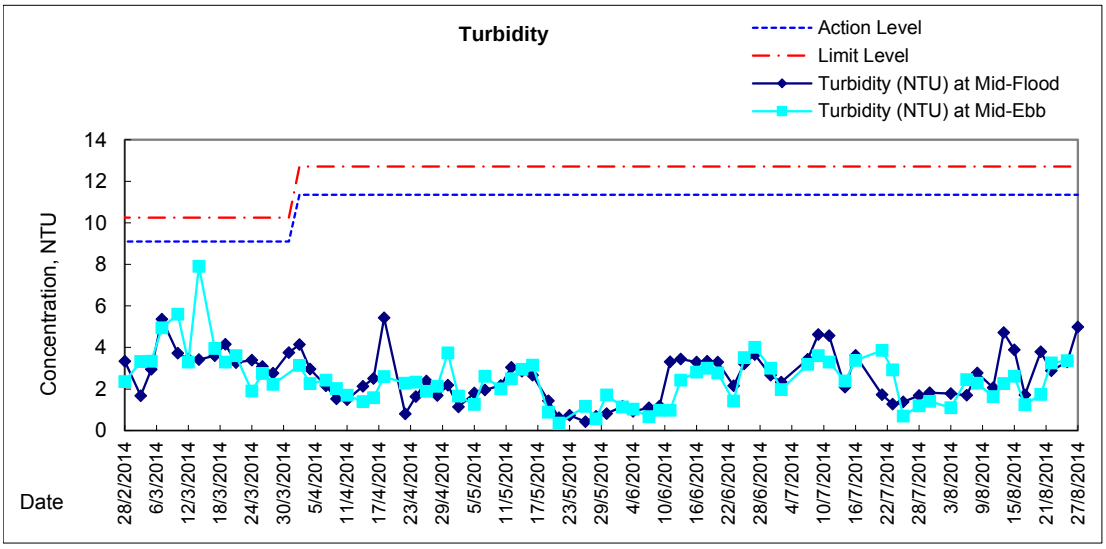


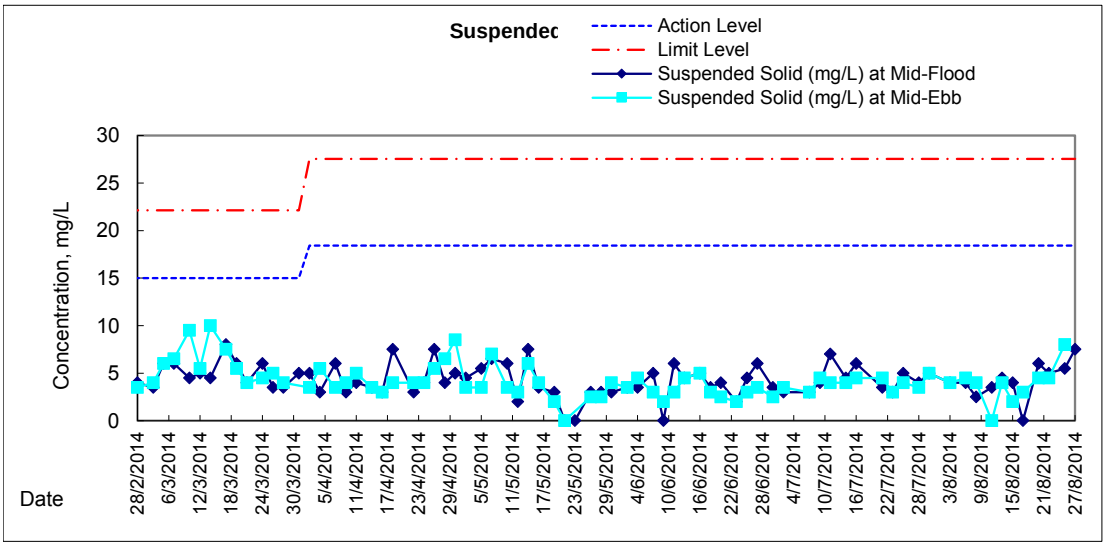




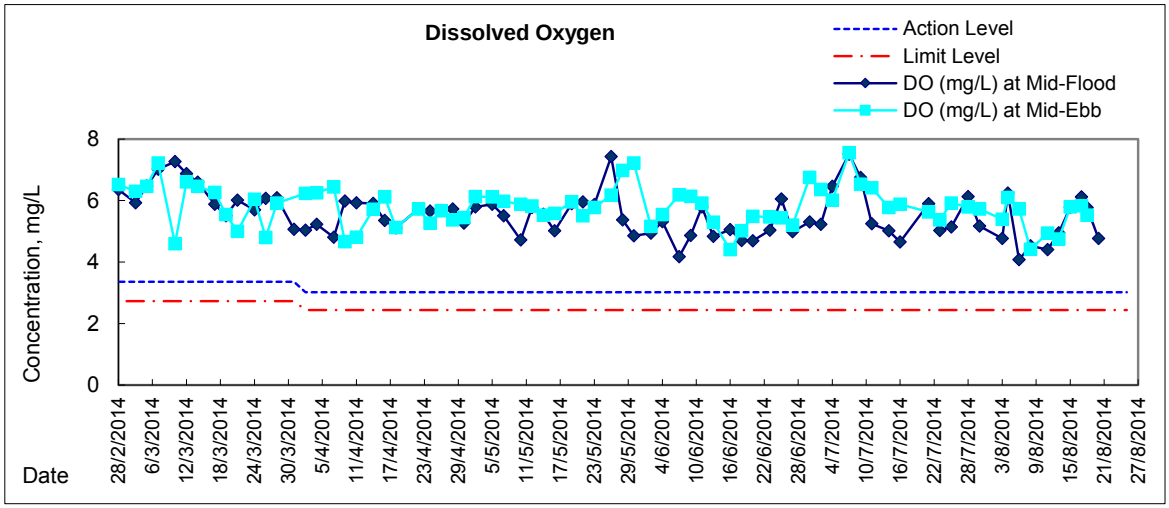
Graphic Presentation of Water Quality Result of P4 - SOC

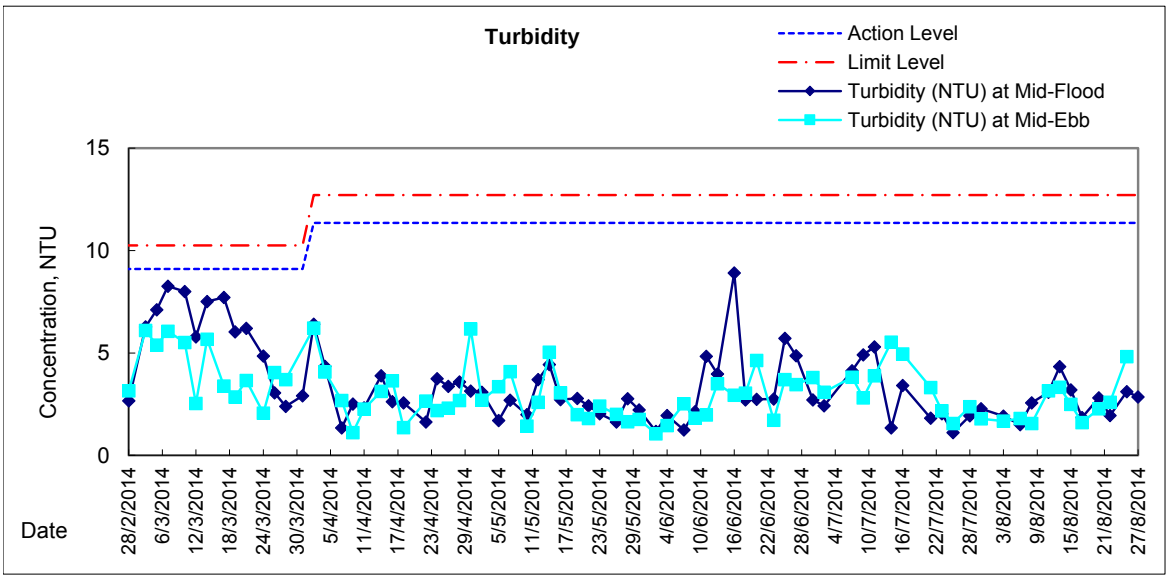


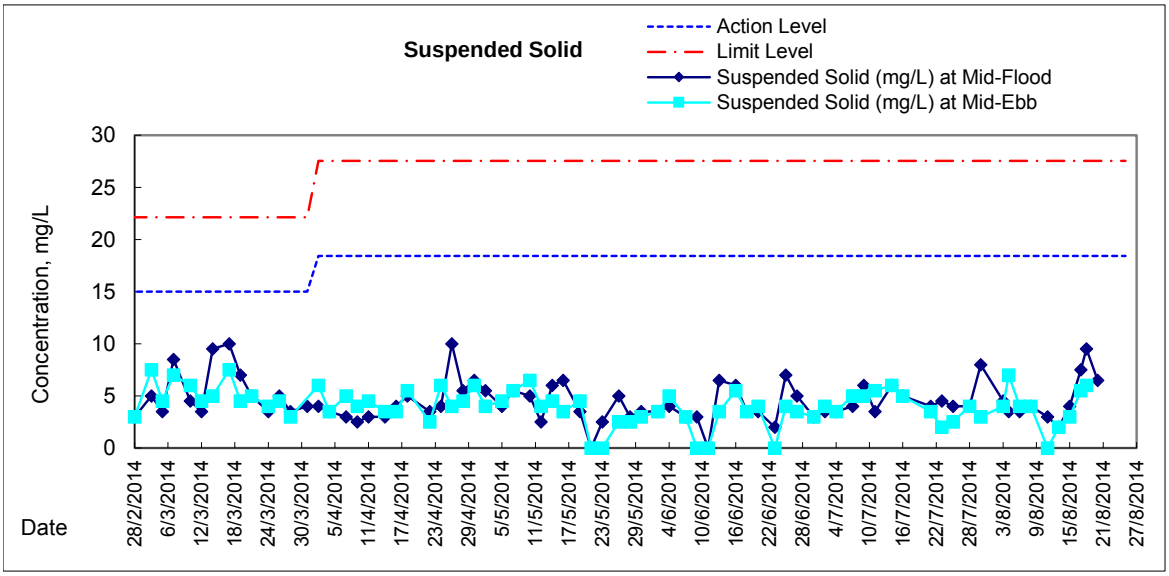




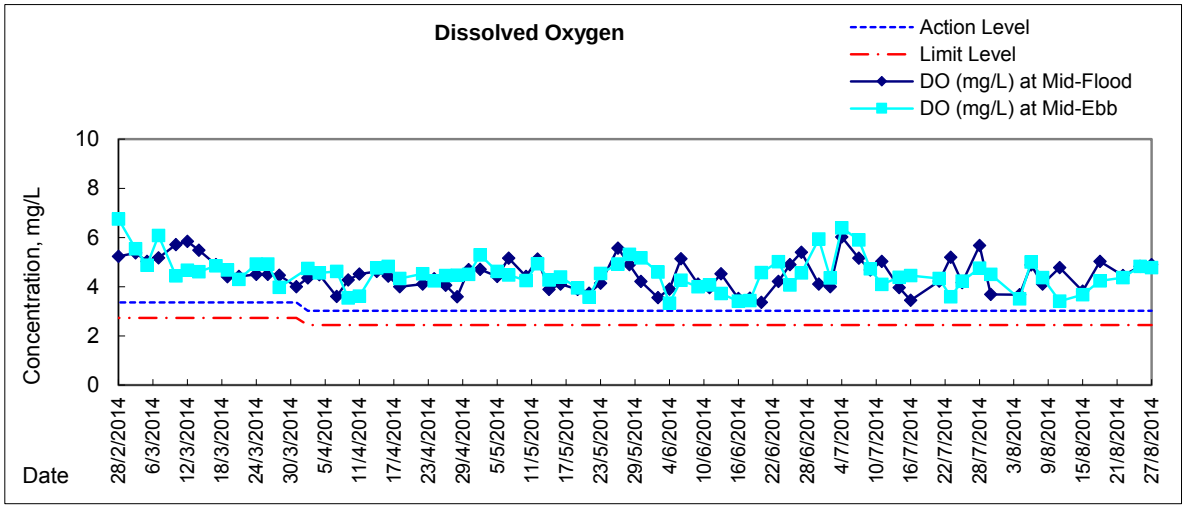
Graphic Presentation of Water Quality Result of RW21-P789 - GEC/CRC/SHK

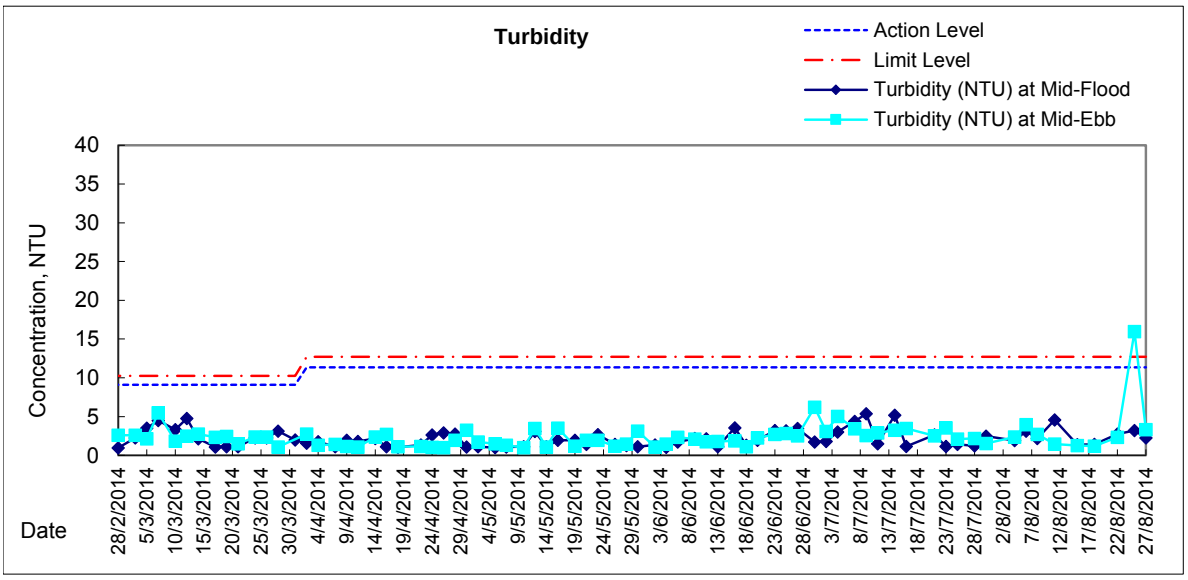


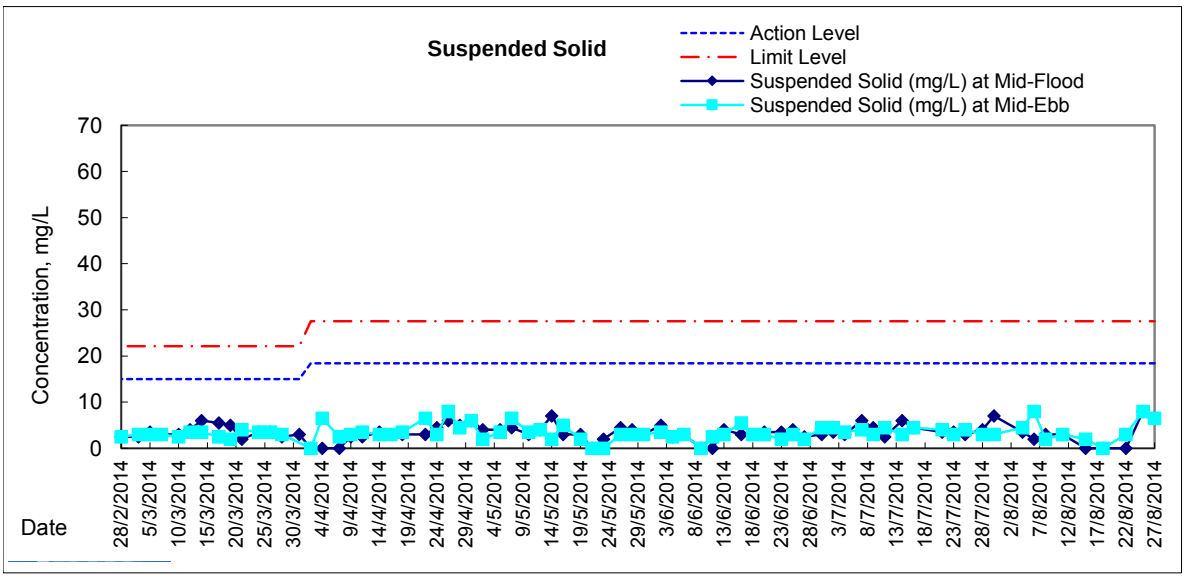




Graphic Presentation of Water Quality Result of C7 - Windsor House



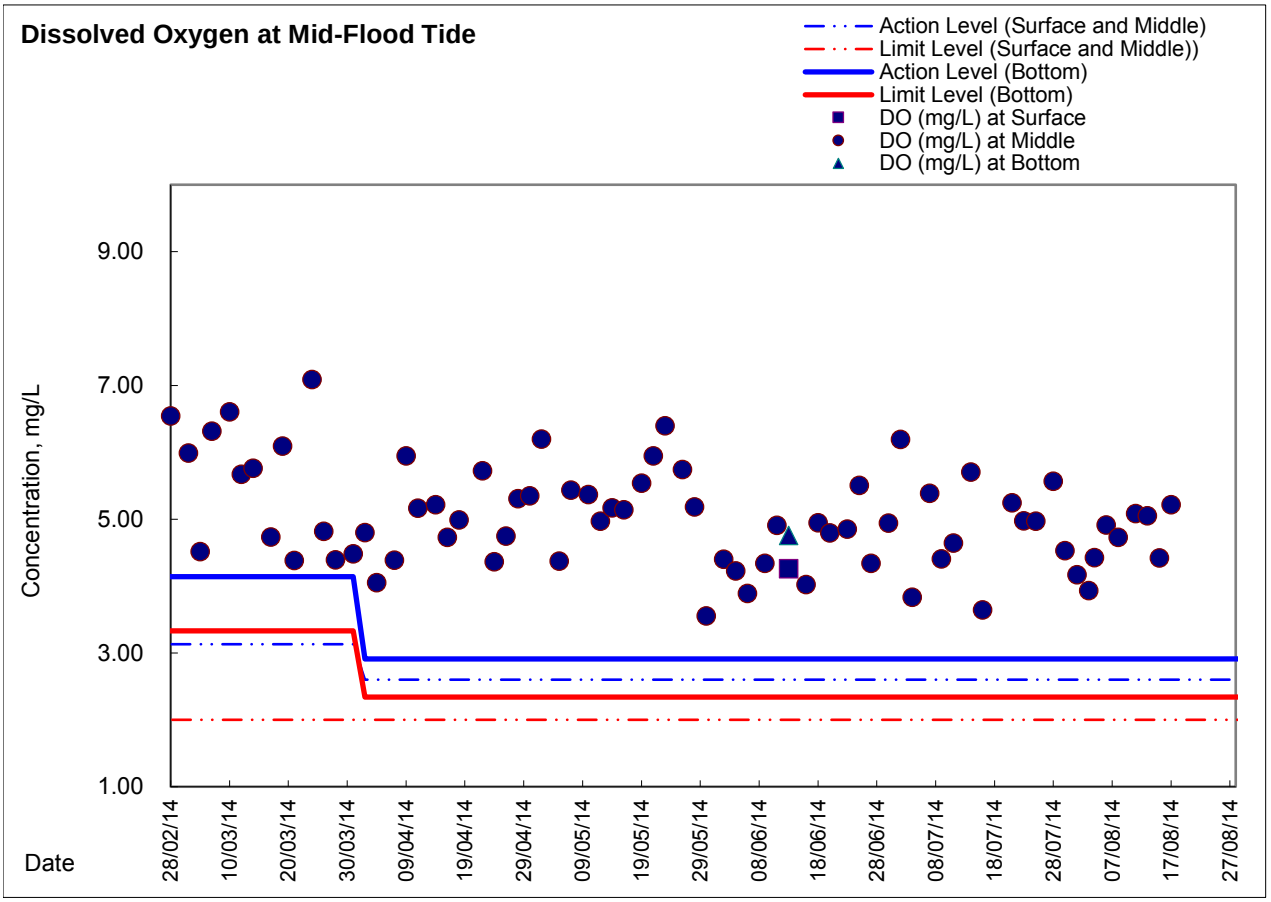


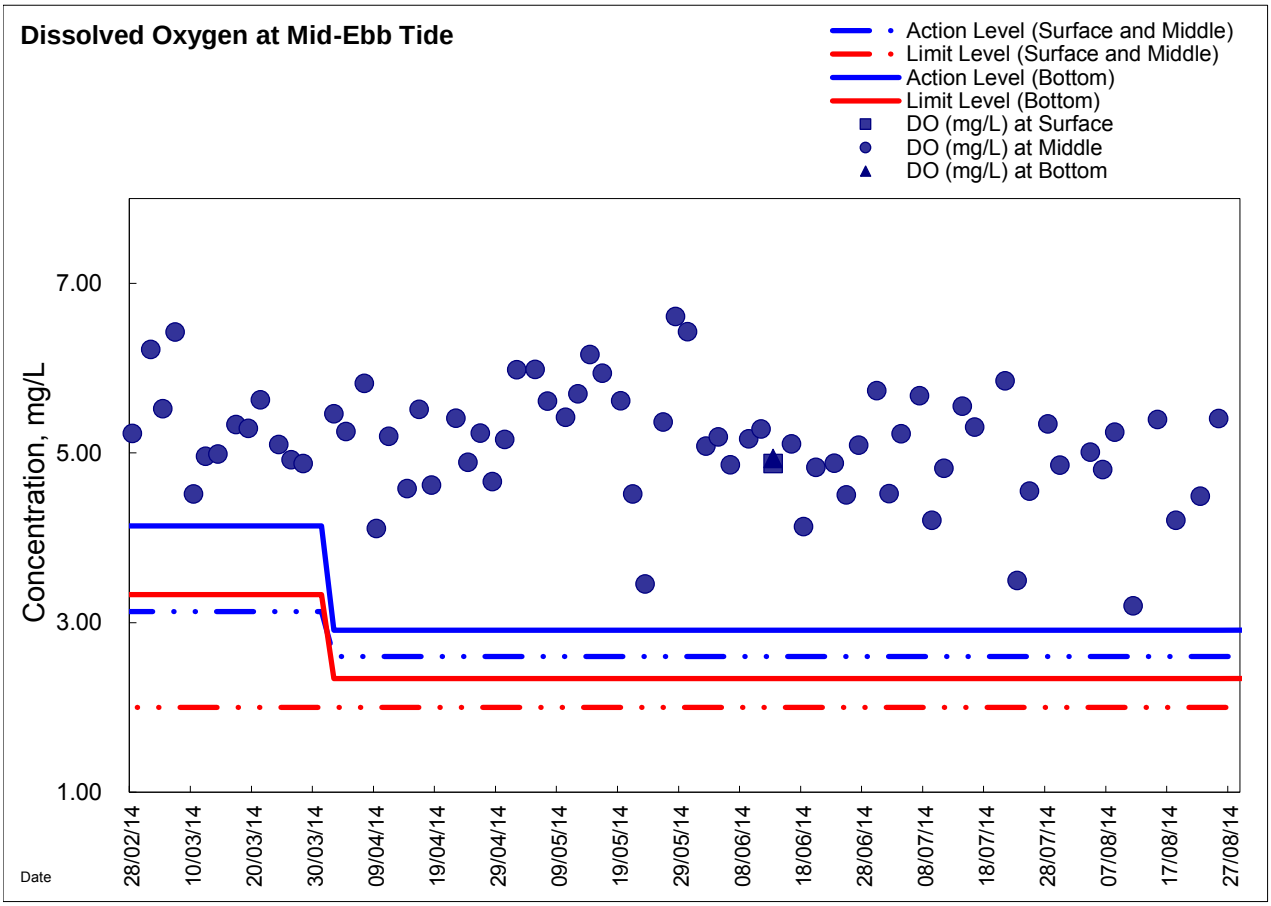


Appendix 4.3a

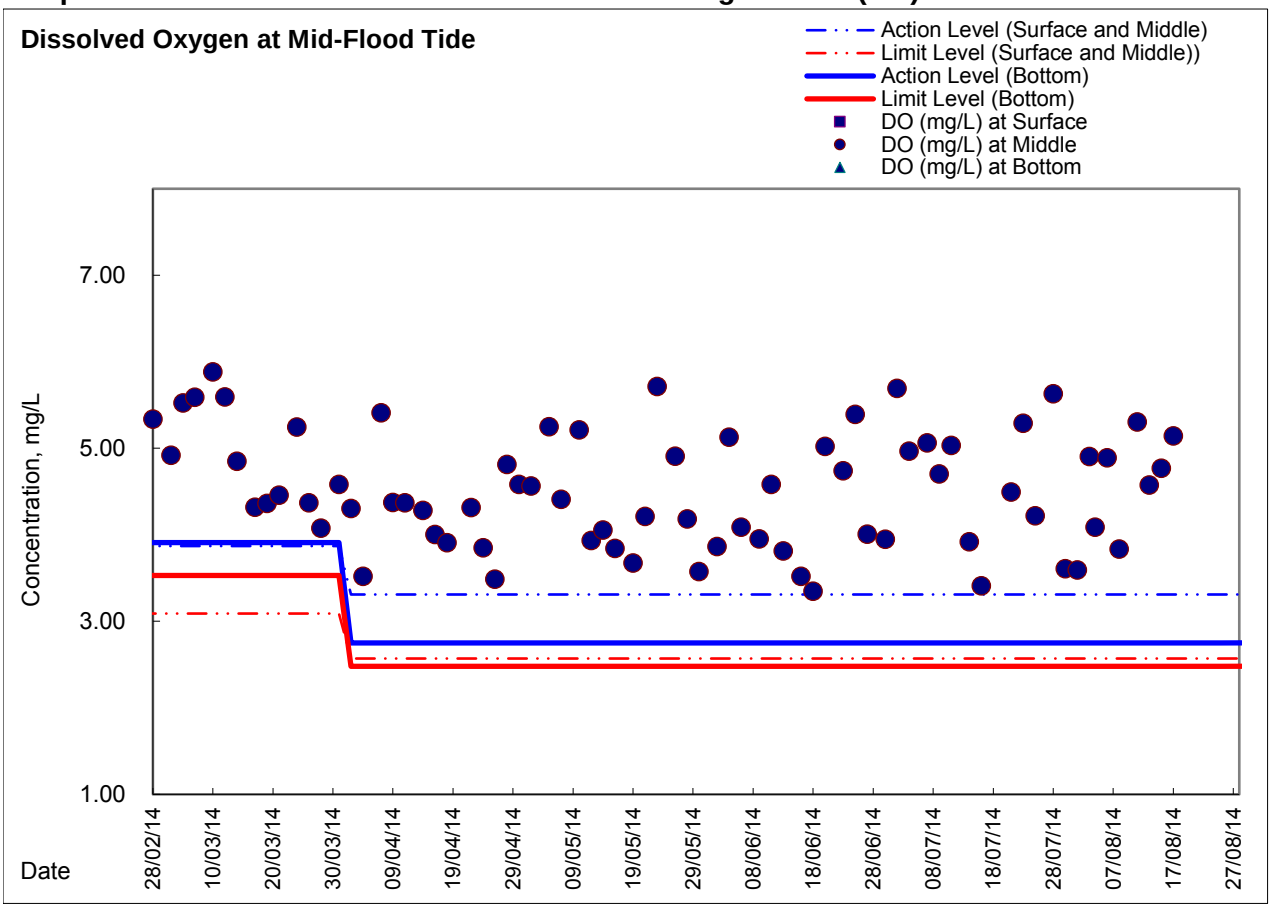
Additional Dissolved Oxygen Monitoring Results

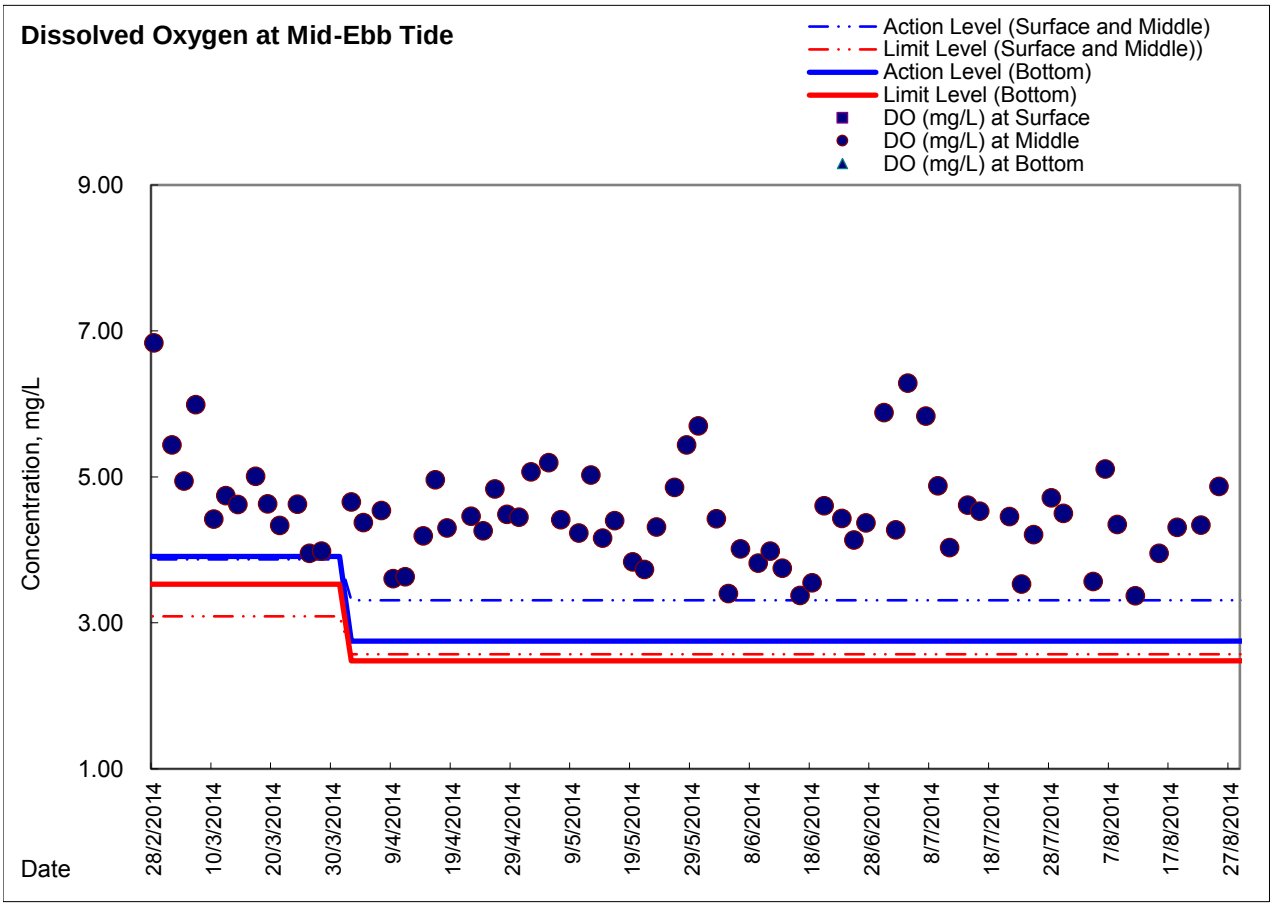
Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel



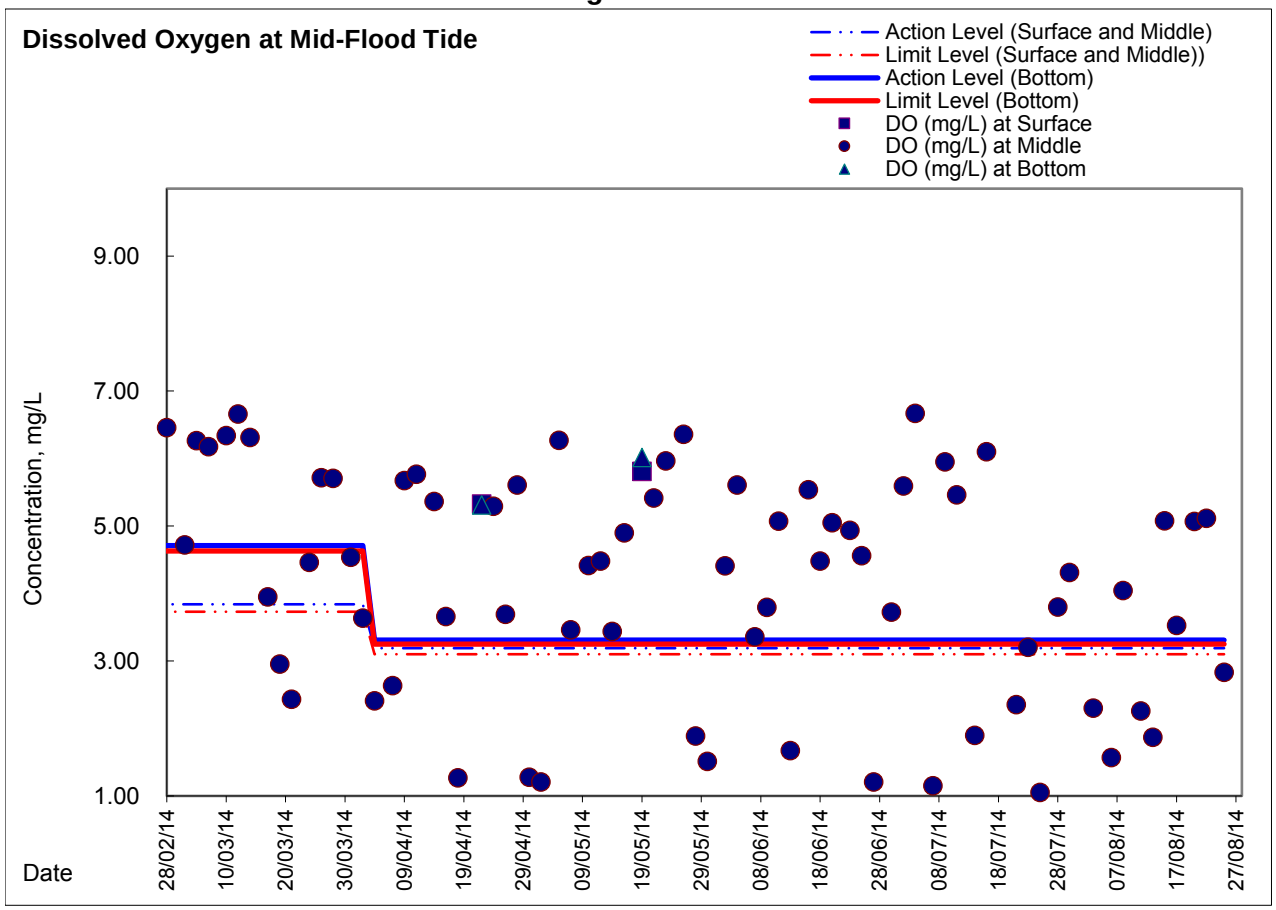


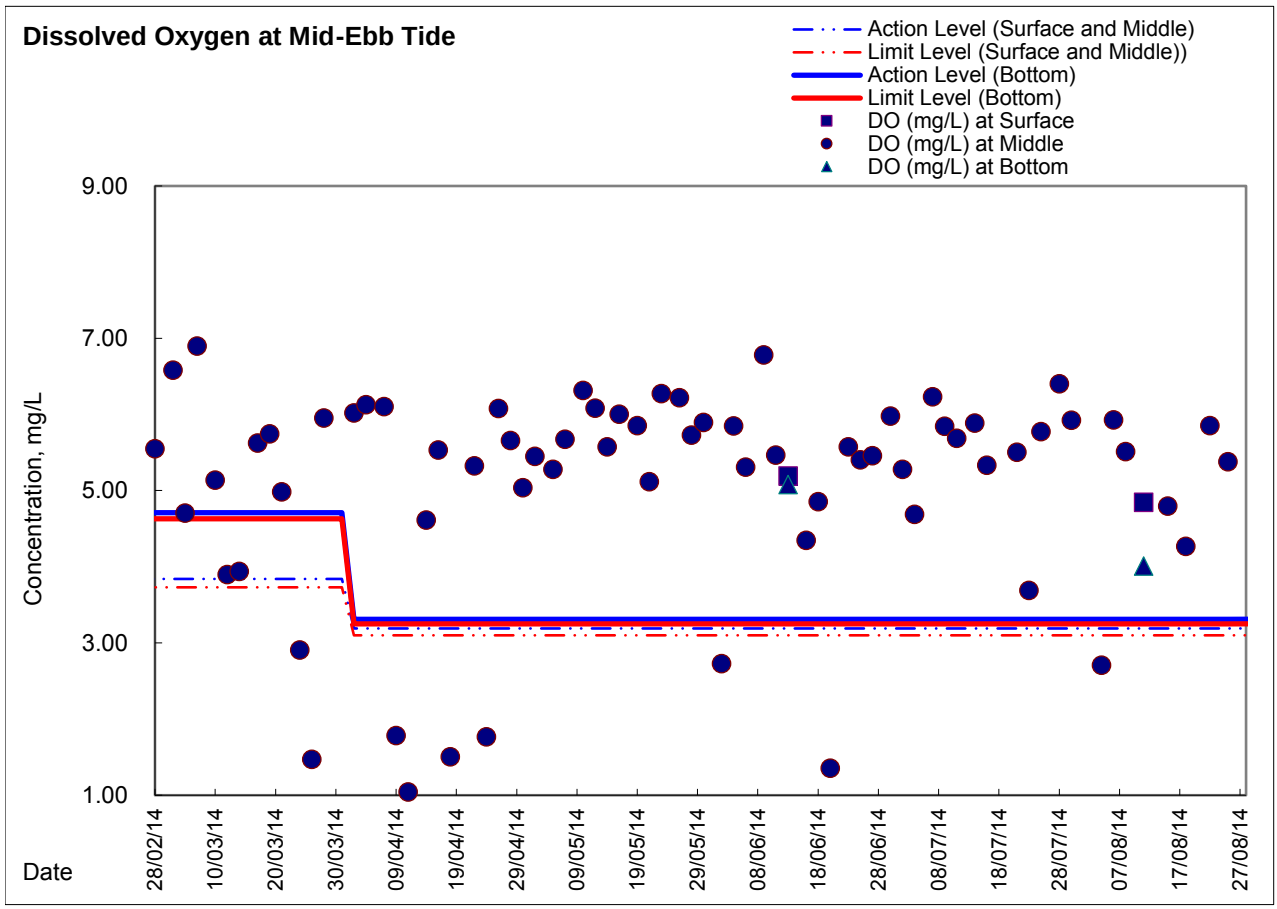
Graphic Presentation of Enhanced Water Monitoring Results (DO) at C7 - Windsor House



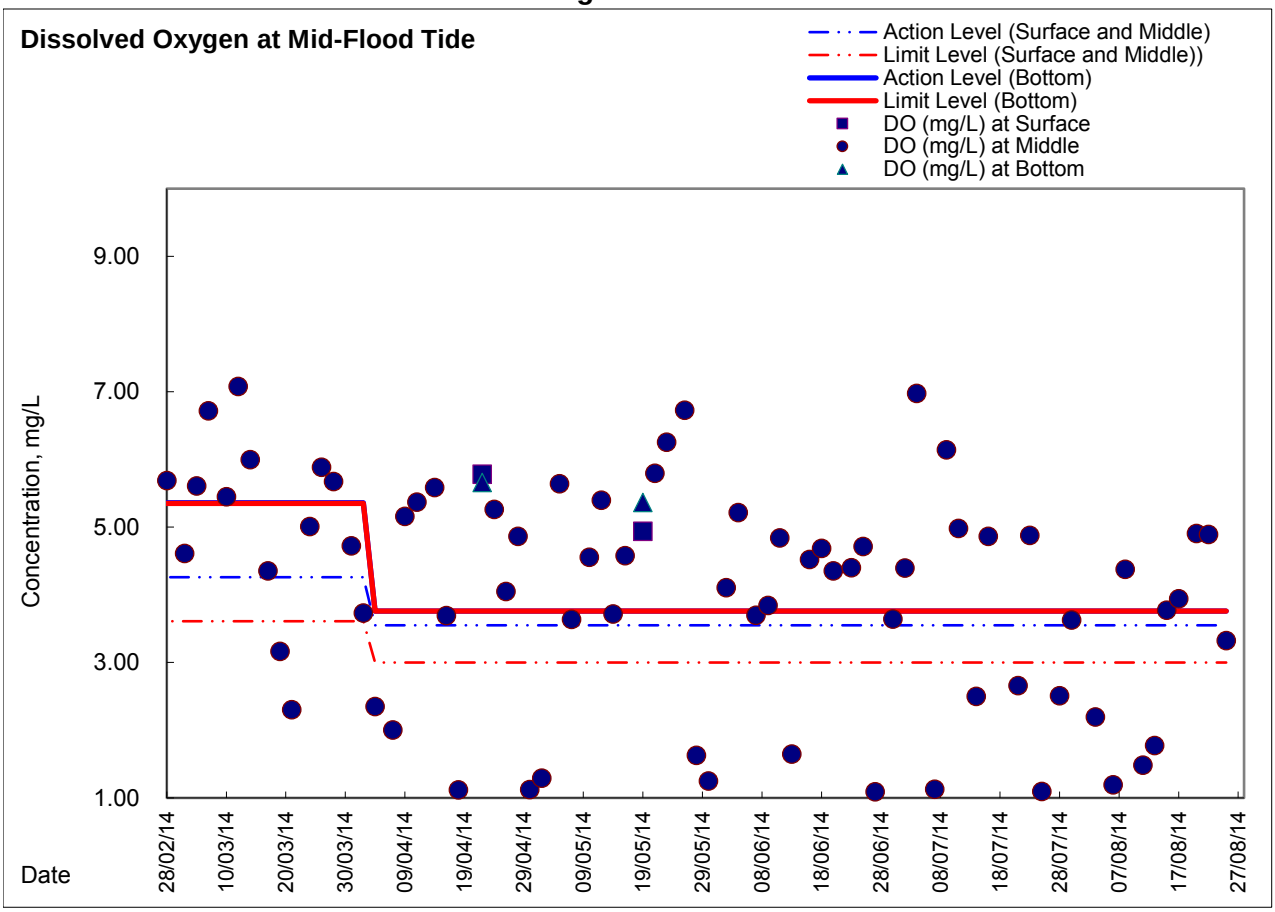


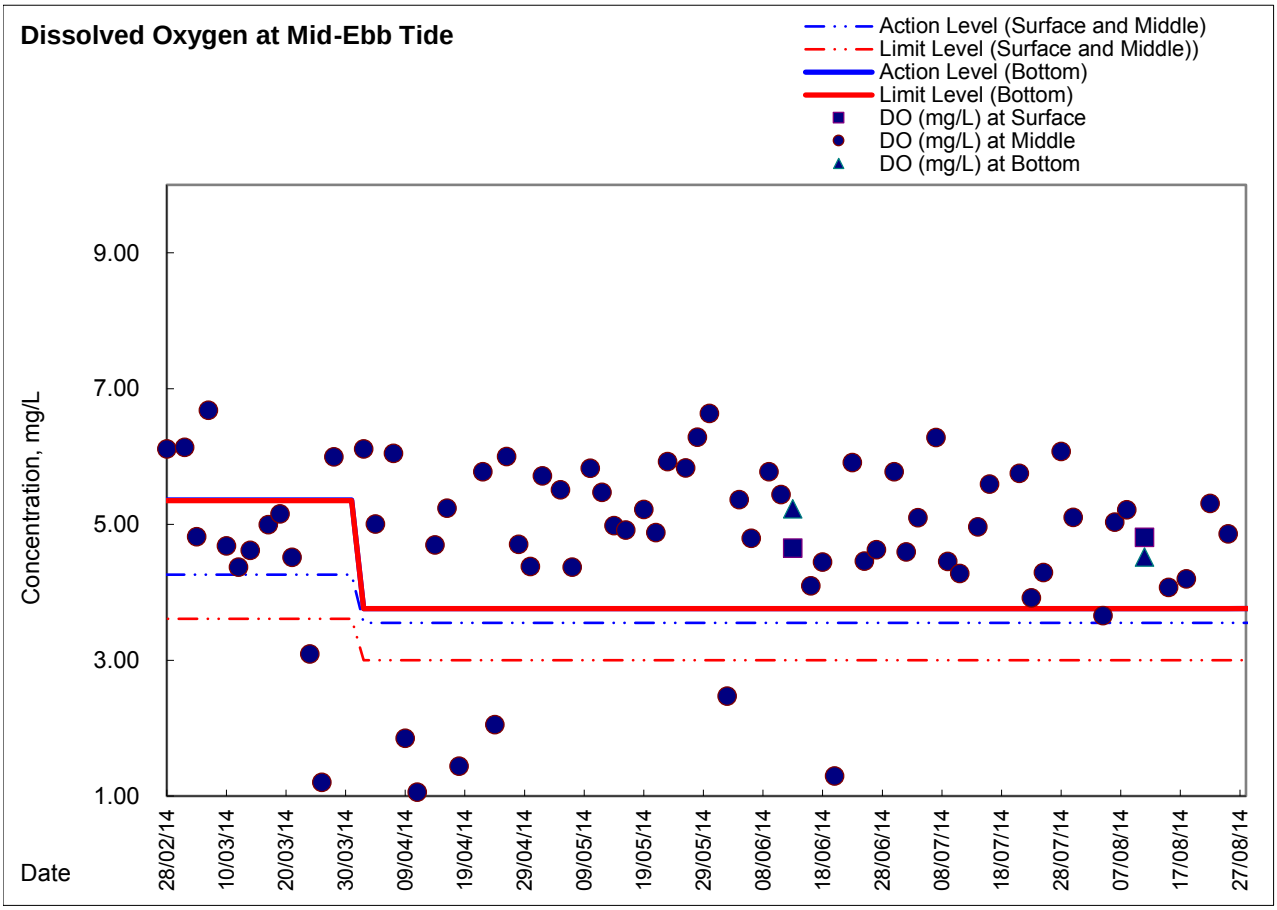
Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area





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

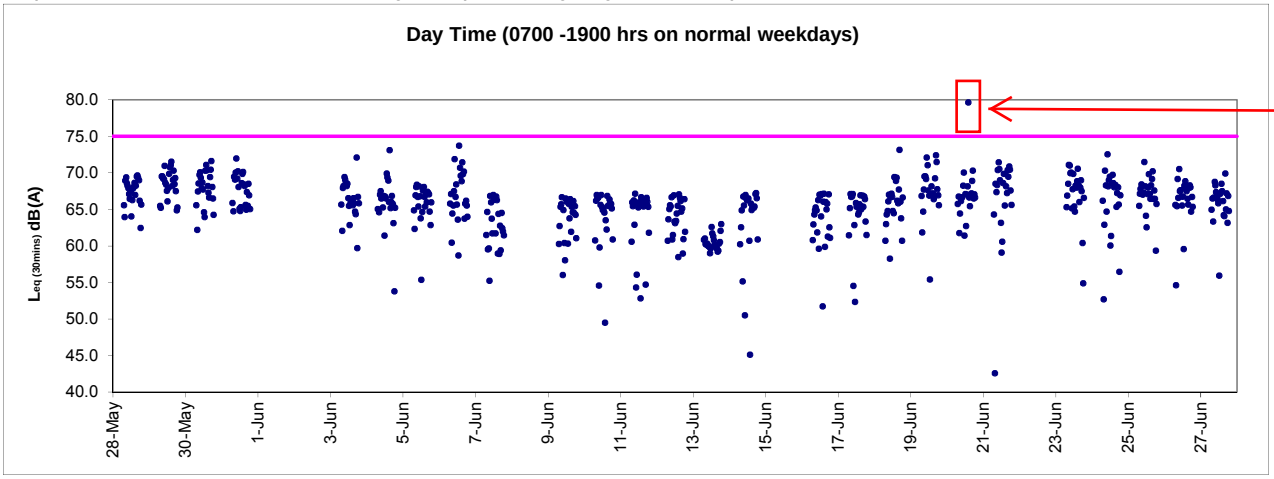


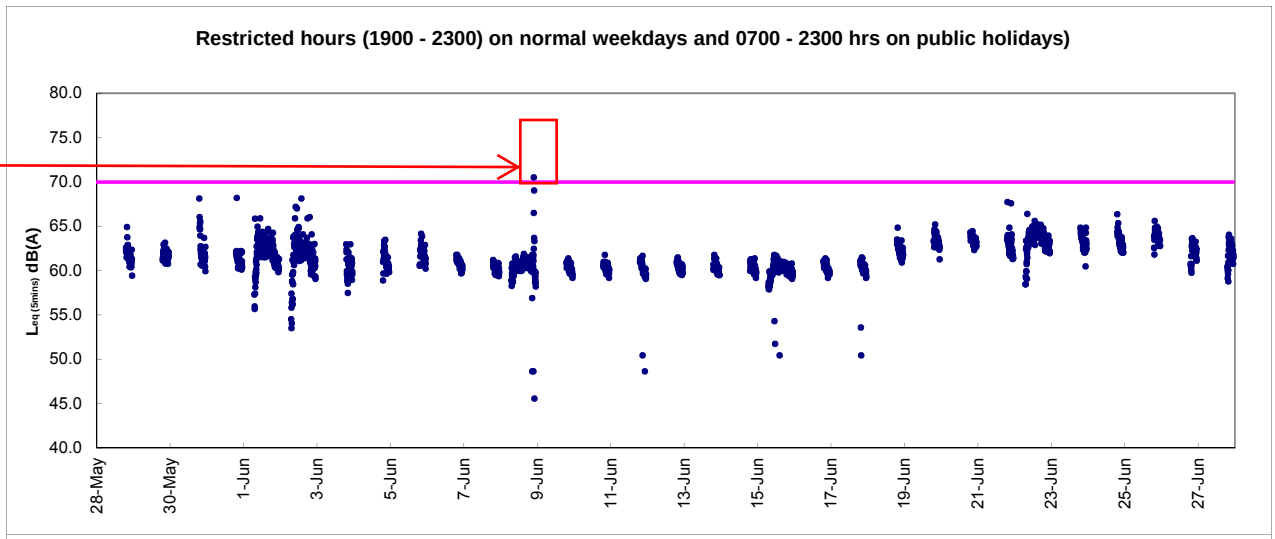


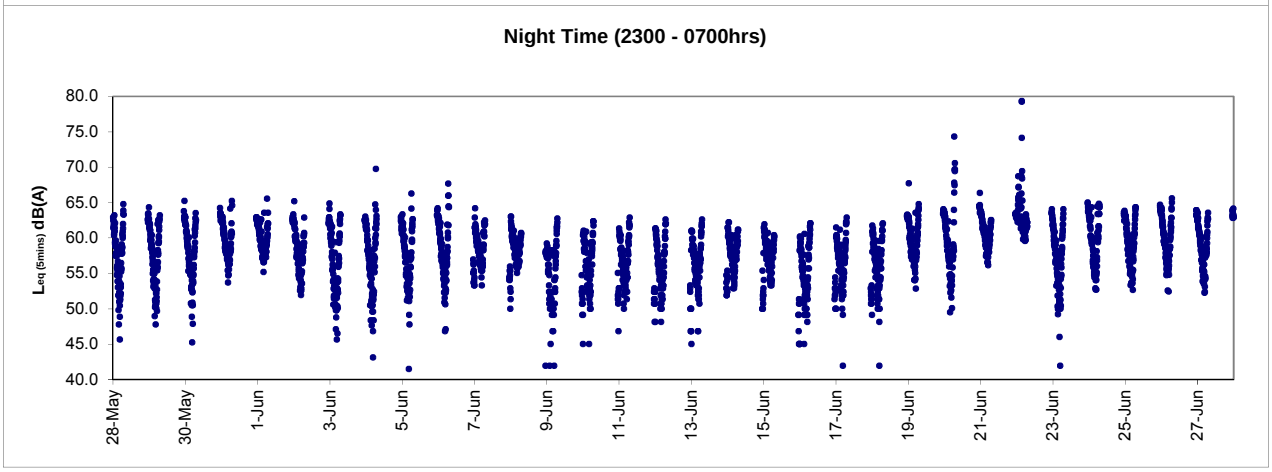
Appendix 4.4

Real-time Noise Monitoring Results and Graphical Presentations

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



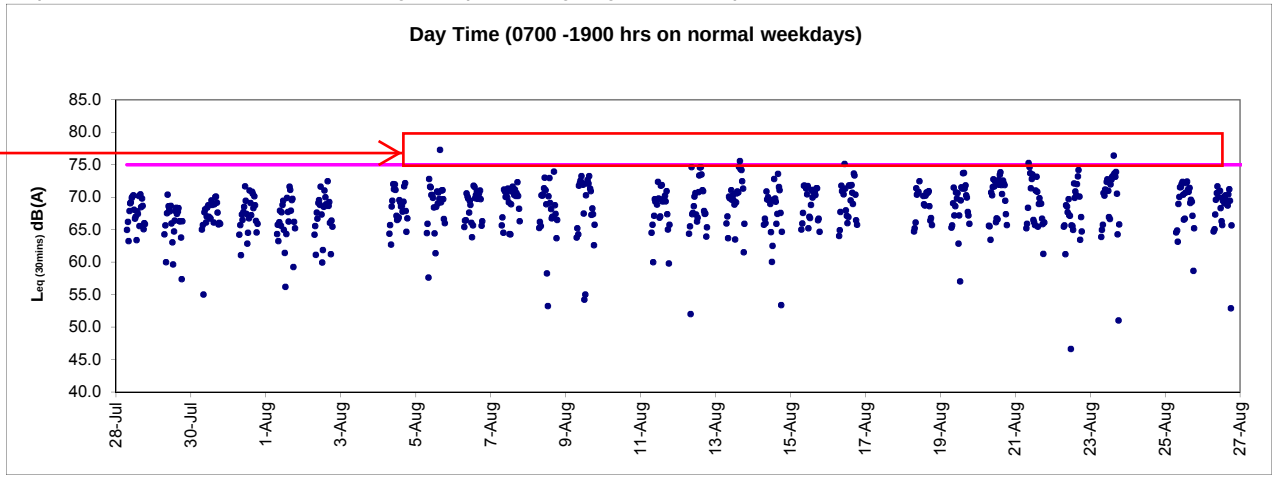


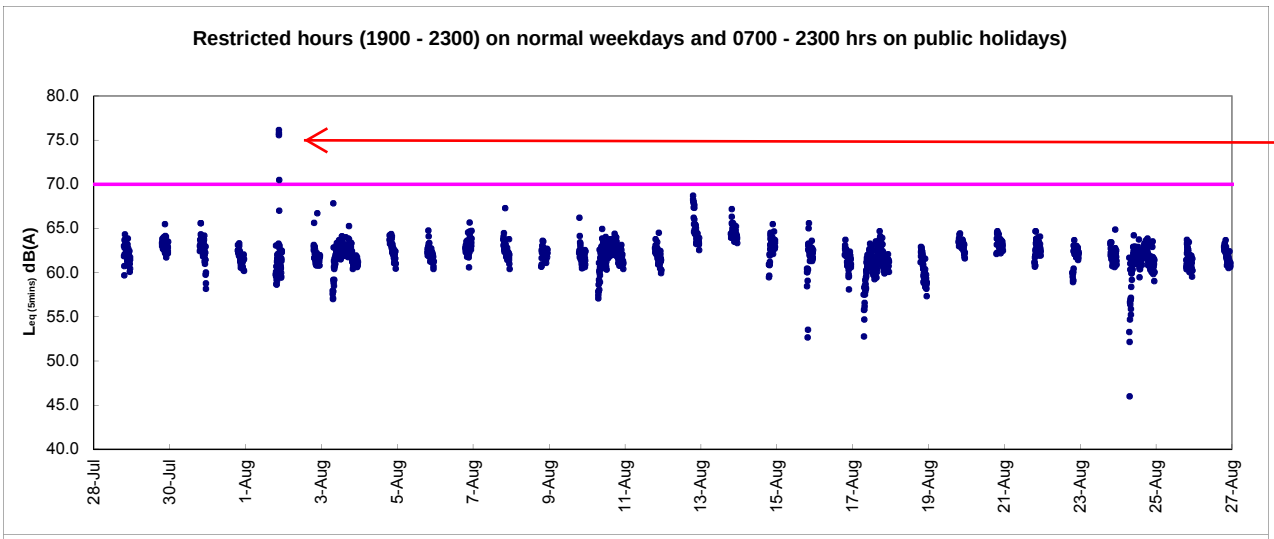


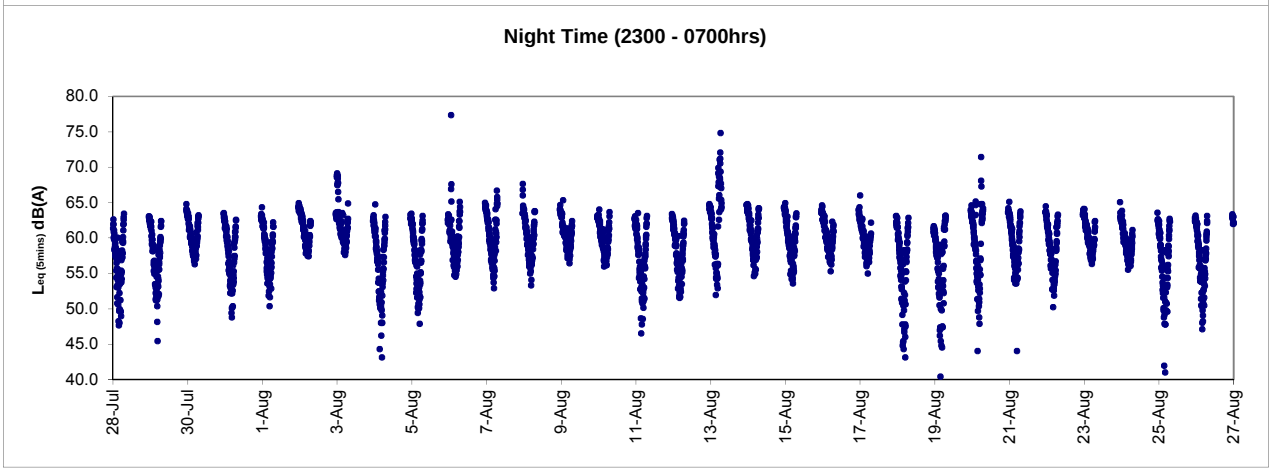
After checking with contractor HY/2009/19, no construction works were conducted at the concerned location during the recorded period and the major contribution was considered to be contributed by the adverse weather condition during the hoisting period of Rainstorm Warning Signal and not related to Projects

After checking with contractor HY/2009/19, bored piling and socket piling works were conducted at the concerned location on the monitoring day. Contractor mitigation measures including erection of temporary noise barrier was in place and piling works at adjacent non-CWB project was observed. In view of the exceedances are non-continuous, the exceedances are considered not related to Projects works

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



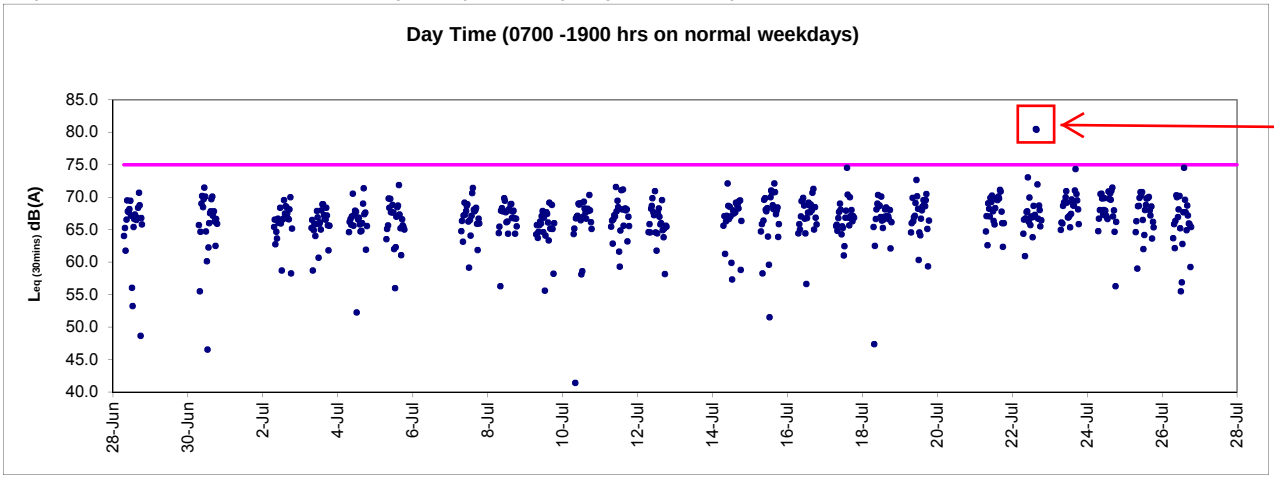


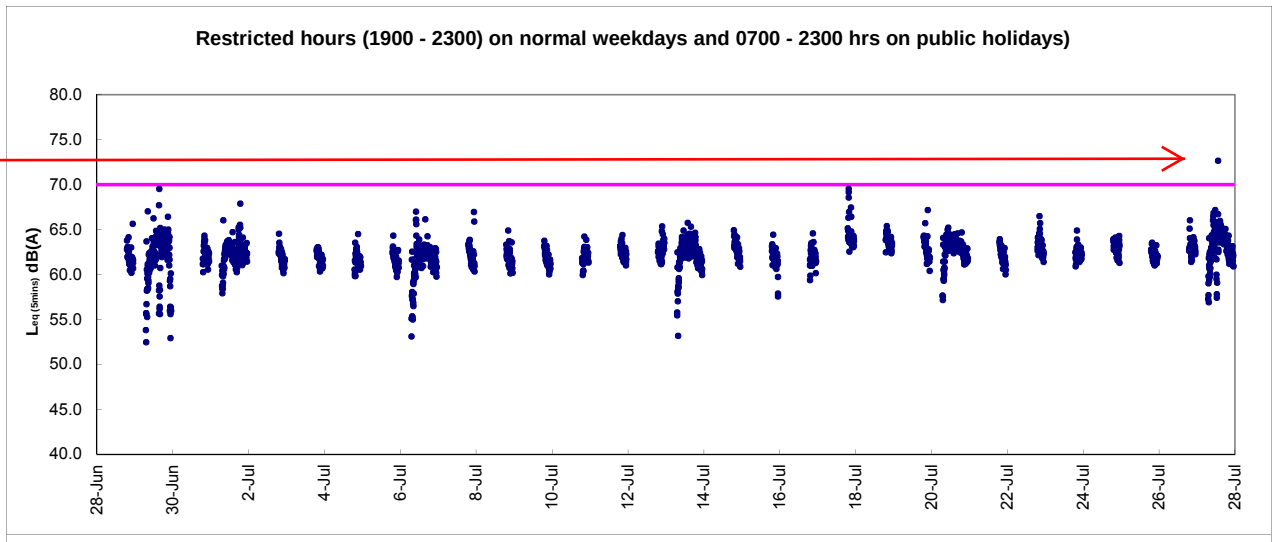


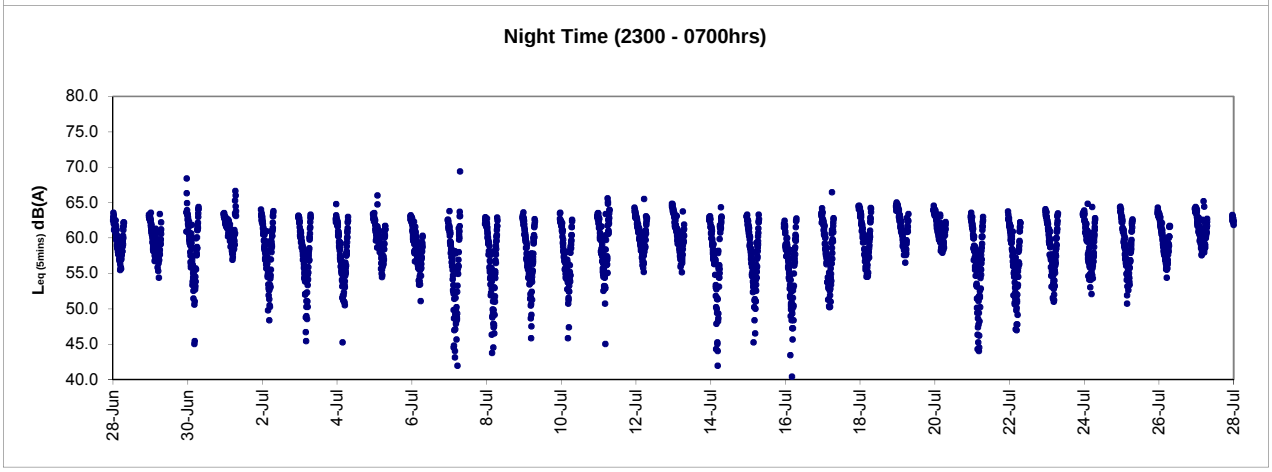
After checking with contractor HY/2009/19, despite bored piling works and occasionally breaking works were conducted, contractor mitigation measures including erection of temporary noise barrier was in place .In view of the exceedances are non-continuous, the exceedances are considered to be non-Project related and contributed by the IEC traffic and piling works at adjacent non-CWB piling site.

After checking with contractor HY/2009/19, bored piling work was conducted at the concerned location during the recorded period. Temporary noise barrier was implemented and CNP GW-RS0752-14 was in place and complied. The exceedance was considered to be contributed by nearby IEC traffic and not related to Project.

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







After checking with contractor HY/2009/19, no construction activity was conducted at the concerned location during the recorded period. As such, the exceedance was considered to be contributed by nearby IEC traffic and not related to Project.

After checking with contractor HY/2009/19, no despite socket H piling works was conducted, contractor mitigation measures including erection of temporary noise barrier was in place .The exceedances were considered to be contributed by the adverse weather condition during the hoisting period of rainstorm Warning Signal and thunder warning signal and not related to Projects

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)

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

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
				Central-Wanchai Bypass at noon rather than in morning at 7am.	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

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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.	Waiting RSS respond
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	Keep in view for three months from the date of complaint recevied

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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	Interim Report was submitted to EPD on 20 June 2014.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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.

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					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.	

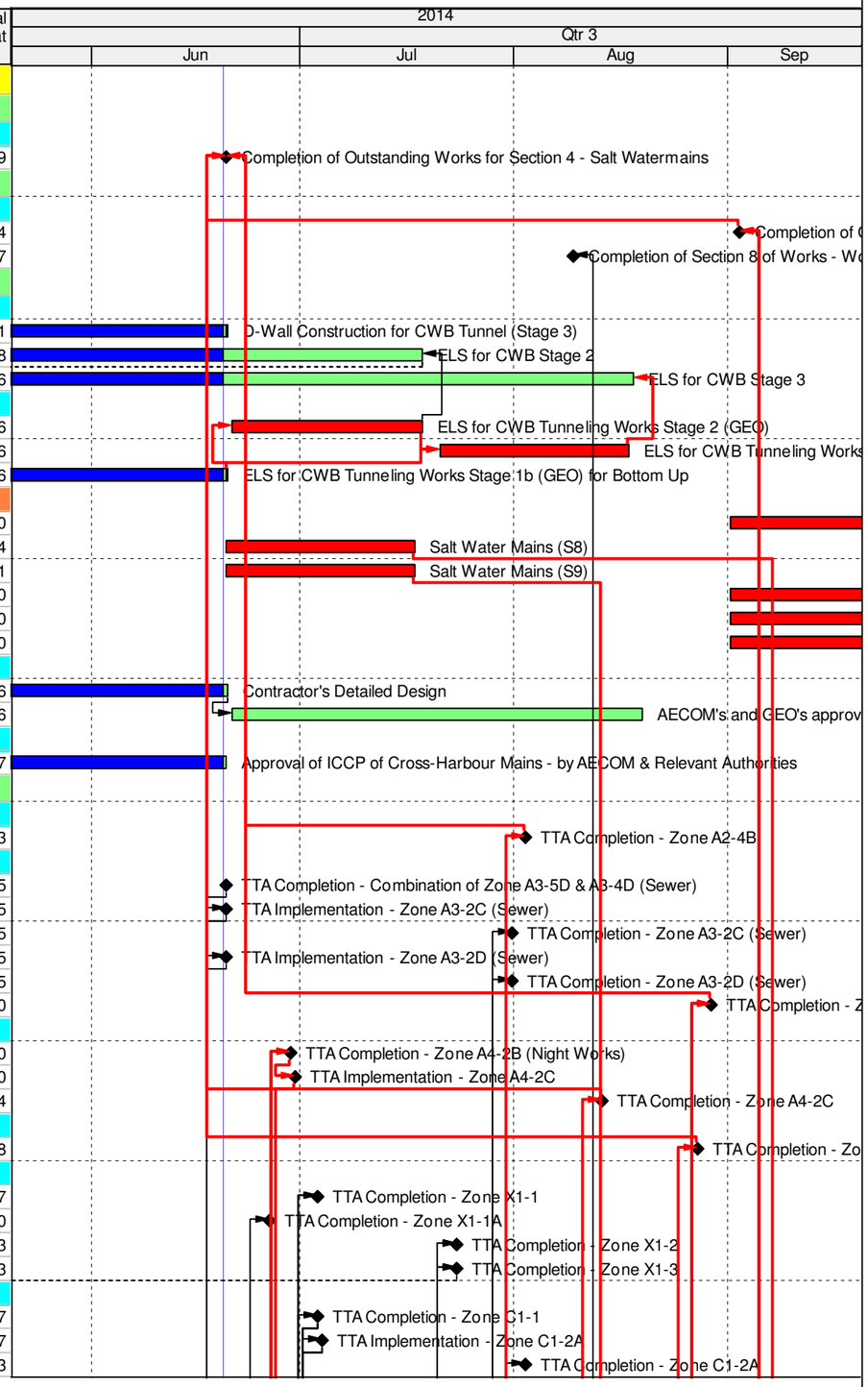
Appendix 7.1

Construction Programme of Individual Contracts

CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float
HK/2009/01 - Works Programme Rev.6D (Data Date: 20-Jun-14)							
Key Dates (Contractual)							
Major Works							
KD-0400B	Completion of Outstanding Works for Section 4 - Salt Watermains	0	0		20-Jun-14*	0%	-629
Key Dates (Forecast Completion)							
Major Works							
KD-0405B	Completion of Outstanding Works for Section 4 - Salt Watermains & Works in Area 3	0	0		02-Sep-14	0%	-704
KD-0805	Completion of Section 8 of Works - Works in Area 6	0	0		09-Aug-14	0%	87
Preliminaries							
Method Statement & Design (Major) Approval by AECOM							
PRE-2000G	D-Wall Construction for CWB Tunnel (Stage 3)	60	1	05-Nov-13 A	20-Jun-14*	0%	-181
PRE-2030B	ELS for CWB Stage 2	30	1	20-Mar-14 A	18-Jul-14	0%	758
PRE-2030C	ELS for CWB Stage 3	30	0	19-Apr-14 A	18-Aug-14	100%	-156
Statutory / Authority Approval							
PRE-3050B	ELS for CWB Tunneling Works Stage 2 (GEO)	28	28	21-Jun-14*	18-Jul-14	0%	-376
PRE-3050C	ELS for CWB Tunneling Works Stage 3 (GEO)	28	28	21-Jul-14	17-Aug-14	0%	-156
PRE-3050D	ELS for CWB Tunneling Works Stage 1b (GEO) for Bottom Up	28	1	20-Apr-11 A	20-Jun-14	0%	-376
Watermains Connection Submission Approval by WSD/Stakeholders							
PRE-3200C	Salt Water Mains (S3)	28	28	01-Sep-14*	28-Sep-14	0%	0
PRE-3200D	Salt Water Mains (S8)	28	28	20-Jun-14*	17-Jul-14	0%	-384
PRE-3200E	Salt Water Mains (S9)	28	28	20-Jun-14*	17-Jul-14	0%	-671
PRE-3200O	Cooling Watermains (BF)	28	28	01-Sep-14*	28-Sep-14	0%	0
PRE-3200P	Cooling Watermains (BG)	28	28	01-Sep-14*	28-Sep-14	0%	0
PRE-3200Q	Cooling Watermains (BI)	28	28	01-Sep-14*	28-Sep-14	0%	0
Contractor's Design (CWB Diaphragm Wall)							
PRE-4020	Contractor's Detailed Design	30	1	09-Jul-11 A	20-Jun-14	40%	726
PRE-4030	AECOM's and GEO's approval on Detailed Design	60	60	21-Jun-14	19-Aug-14	0%	726
Contractor's Design (PS1.94)							
PRE-5100C	Approval of ICCP of Cross-Harbour Mains - by AECOM & Relevant Authorities	28	0	04-Mar-11 A	20-Jun-14	100%	787
TTA Implementation and Completion Summary Milestone							
Zone A2 (At Convention Avenue)							
TTAM-A2-1040D	TTA Completion - Zone A2-4B	0	0		02-Aug-14	0%	-673
Zone A3 (At Fenwick Pier Street)							
AA1030	TTA Completion - Combination of Zone A3-5D & A3-4D (Sewer)	0	0		20-Jun-14	0%	85
AA1040	TTA Implementation - Zone A3-2C (Sewer)	0	0	20-Jun-14*		0%	85
AA1050	TTA Completion - Zone A3-2C (Sewer)	0	0		31-Jul-14	0%	745
AA1060	TTA Implementation - Zone A3-2D (Sewer)	0	0	20-Jun-14		0%	85
AA1070	TTA Completion - Zone A3-2D (Sewer)	0	0		31-Jul-14	0%	745
TTAM-A3-1090B	TTA Completion - Zone A3-5C - Salt Water	0	0		29-Aug-14	0%	-700
Zone A4 (At Convention Avenue)							
TTAM-A4-1020D	TTA Completion - Zone A4-2B (Night Works)	0	0		29-Jun-14	0%	-690
TTAM-A4-1120A	TTA Implementation - Zone A4-2C	0	0	30-Jun-14		0%	-690
TTAM-A4-1120B	TTA Completion - Zone A4-2C	0	0		13-Aug-14	0%	-684
Zone A5 (At Harbour Road)							
TTAM-A5-1050B	TTA Completion - Zone A5-6	0	0		27-Aug-14	0%	-698
Area X3 (Fleming Road b/w Harbour Road & Convention Avenue)							
TTAM-X3-1000B	TTA Completion - Zone X1-1	0	0		03-Jul-14	0%	107
TTAM-X3-1000D	TTA Completion - Zone X1-1A	0	0		26-Jun-14	0%	780
TTAM-X3-1010B	TTA Completion - Zone X1-2	0	0		23-Jul-14	0%	753
TTAM-X3-1020B	TTA Completion - Zone X1-3	0	0		23-Jul-14	0%	753
Zone C (Expo Drive East)							
TTAM-C1-1000B	TTA Completion - Zone C1-1	0	0		03-Jul-14	0%	27
TTAM-C1-1010C	TTA Implementation - Zone C1-2A	0	0	04-Jul-14		0%	27
TTAM-C1-1010D	TTA Completion - Zone C1-2A	0	0		02-Aug-14	0%	743



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

CEDD CONTRACT NO. HK/2009/01

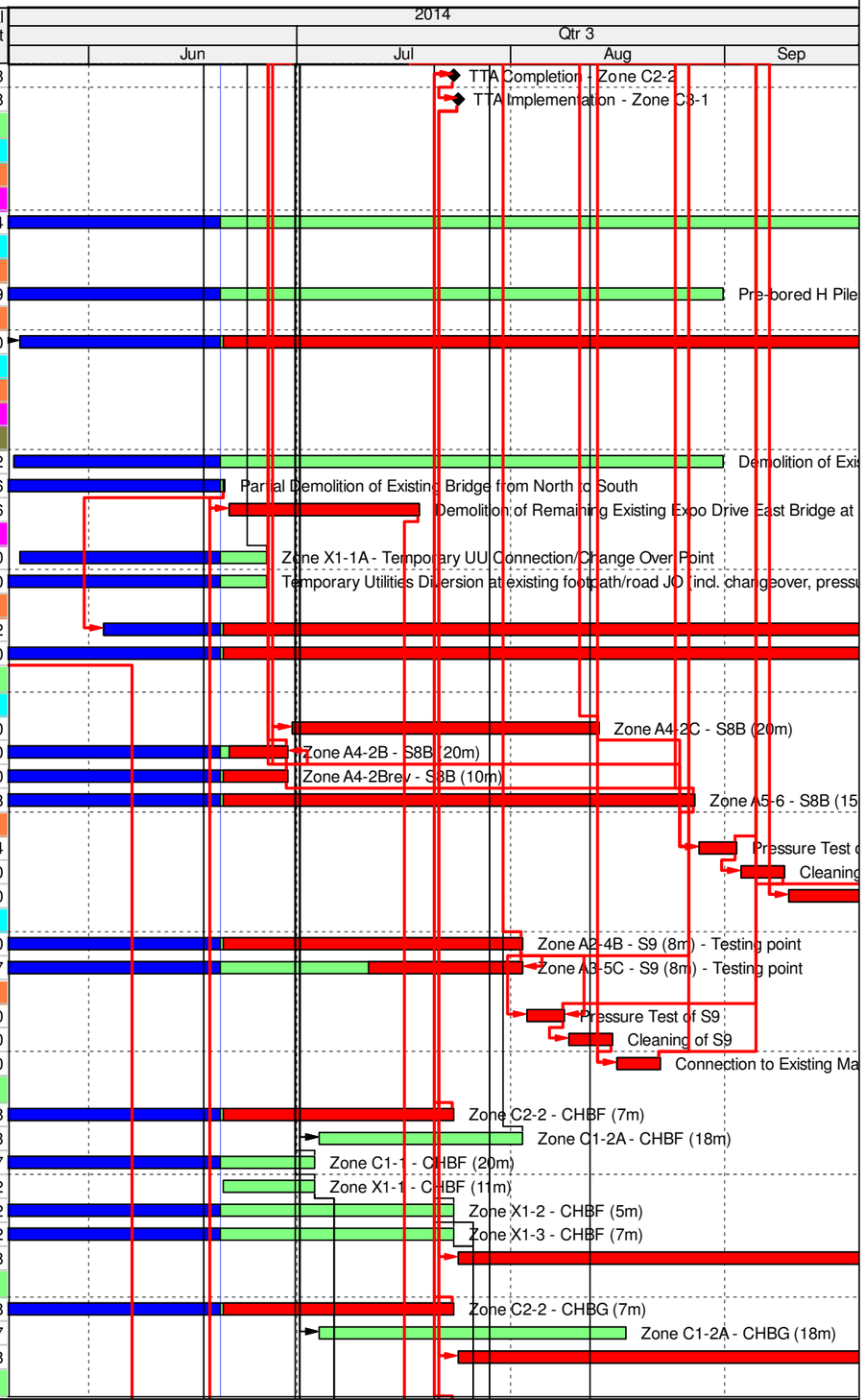
Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)

WORKS PROGRAMME Rev.6C - 3 Month Programme starting from 20-Jun-14

CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float
TTAM-C2-1100B	TTA Completion - Zone C2-2	0	0		23-Jul-14	0%	-8
TTAM-C3-1000A	TTA Implementation - Zone C3-1	0	0	24-Jul-14		0%	-8
Section 3 of the Works - CWB Tunnel, Slip Roads 2 & 3, Works in Area 8							
CWB Tunnelling Works (Stage 1 : CH2947 - CH3045)							
Stage 1 - Tunnel Structure Works (Bay 1 to Bay 7 : Ch2947 - Ch 3045)							
Tunnel Structure at Stage 1A & 1B (CH2947 - CH3045)							
S3A-TS-2000	Tunnel Structures Works including Waterproofing and OHVD	300	191	28-Feb-14 A	27-Dec-14	0%	224
CWB Tunnelling Works (Stage 2 : Ch3045 - Ch3129)							
Stage 2 - Foundation Works (Bottom Up Method : CH3045 - CH3129 / CH120 - CH225)							
S3B-FW-1060B	Pre-bored H Piles for CWB (38 Piles w/ 1 piling rig) - 4th row & ED	90	73	27-Jan-14 A	31-Aug-14	0%	679
Stage 2 - Excavation Works (For Bottom Slab Construction : CH3045 - CH3129)							
S3B-EW-1020	Excavate to -3.0 mPD for installation of waling/strut at +1.5mPD & -2.0 mPD (30,000 cu.m)	185	156	22-May-14 A	22-Nov-14	0%	-130
CWB Tunnelling Works (Stage 3 : Ch3129 - Ch3245)							
Stage 3 - Reclamation Works							
Demolition Works							
Demolition Works - Stage 3							
DW3-1000	Demolition of Existing 10nos. Pump Houses along Convention Avenue	90	73	21-May-14 A	31-Aug-14	18.89%	372
DW3-1015	Partial Demolition of Existing Bridge from North to South	60	1	02-May-14 A	20-Jun-14	0%	-236
DW3-1020	Demolition of Remaining Existing Expo Drive East Bridge at Southern Bound	28	28	21-Jun-14	18-Jul-14	0%	-236
Expo Drive East (Diversion and Reprovision)							
AA1150	Zone X1-1A - Temporary UU Connection/Change Over Point	60	7	22-May-14 A	26-Jun-14	0%	780
EDE-1040	Temporary Utilities Diversion at existing footpath/road JO (incl. changeover, pressure test and	60	7	22-Apr-14 A	26-Jun-14	0%	780
Stage 3 - Foundation Works							
S3C-FW-1040B	Remaining Stage 3 D- wall Construction for CWB (34 panels) - including adv. work & removal	96	96	03-Jun-14 A	23-Sep-14	0%	-202
S3C-FW-1050E	Stage 3 Pre-bored H-pile for CWB - 179 piles w/2 ~ 4 piling rigs) incl piles for culvert & loadi	253	213	02-May-14 A	18-Jan-15	0%	-310
Section 4 of the Works - Salt Water Mains, Works in Area 3							
S8B (DN800) Salt Watermains							
S4-1000	Zone A4-2C - S8B (20m)	45	45	30-Jun-14	13-Aug-14	0%	-690
S4-1010C	Zone A4-2B - S8B (20m)	48	9	07-Oct-13 A	29-Jun-14	0%	-690
S4-1010D	Zone A4-2Brev - S8B (10m)	21	10	14-Mar-14 A	29-Jun-14	0%	-690
S4-1100	Zone A5-6 - S8B (15m)	25	58	09-Jan-14 A	27-Aug-14	100%	-563
Testing and Commissioning							
S4-1500	Pressure Test of S8B	6	6	28-Aug-14	02-Sep-14	0%	-704
S4-1510	Cleaning of S8B	7	7	03-Sep-14	09-Sep-14	0%	-360
S4-1520	Connection to Existing Mains (S8B)	14	14	10-Sep-14	23-Sep-14	0%	-360
S9 (DN450) Salt Watermains & Sewer							
S4-2080	Zone A2-4B - S9 (8m) - Testing point	24	37	04-Dec-13 A	02-Aug-14	0%	-560
S4-2120	Zone A3-5C - S9 (8m) - Testing point	14	20	16-Jul-13 A	02-Aug-14	0%	-537
Testing and Commissioning							
S4-2500	Pressure Test of S9	6	6	03-Aug-14	08-Aug-14	0%	-700
S4-2510	Cleaning of S9	7	7	09-Aug-14	15-Aug-14	0%	-700
S4-2520	Connection to Existing Mains (S9)	7	7	16-Aug-14	22-Aug-14	0%	-700
Section 6A of the Works - Cooling Water Discharge System (3 nos. Govt Towers)							
S6A-1000	Zone C2-2 - CHBF (7m)	45	34	20-Jan-14 A	23-Jul-14	0%	-8
S6A-1020A	Zone C1-2A - CHBF (18m)	30	30	04-Jul-14	02-Aug-14	0%	743
S6A-1030	Zone C1-1 - CHBF (20m)	21	14	21-Feb-14 A	03-Jul-14	0%	27
S6A-1200	Zone X1-1 - CHBF (11m)	24	14	20-Jun-14*	03-Jul-14	0%	72
S6A-1210	Zone X1-2 - CHBF (5m)	24	34	10-Mar-14 A	23-Jul-14	0%	52
S6A-1220	Zone X1-3 - CHBF (7m)	24	34	10-Mar-14 A	23-Jul-14	0%	52
S6A-1240	Zone C3-1 - CHBF (16m) Test and Connection Point	60	60	24-Jul-14	21-Sep-14	0%	-8
Section 6B of the Works - Cooling Water Intake & Discharge System (Great Eagle / Harbour Centre)							
S6B-1000	Zone C2-2 - CHBG (7m)	45	34	20-Jan-14 A	23-Jul-14	0%	-8
S6B-1020A	Zone C1-2A - CHBG (18m)	30	45	04-Jul-14	17-Aug-14	0%	27
S6B-1220	Zone C3-1 - CHBG (16m) Test and Connection Point	60	60	24-Jul-14	21-Sep-14	0%	-8
Section 6C of the Works - Cooling Water Discharge System (China Resources Building)							



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

CEDD CONTRACT NO. HK/2009/01

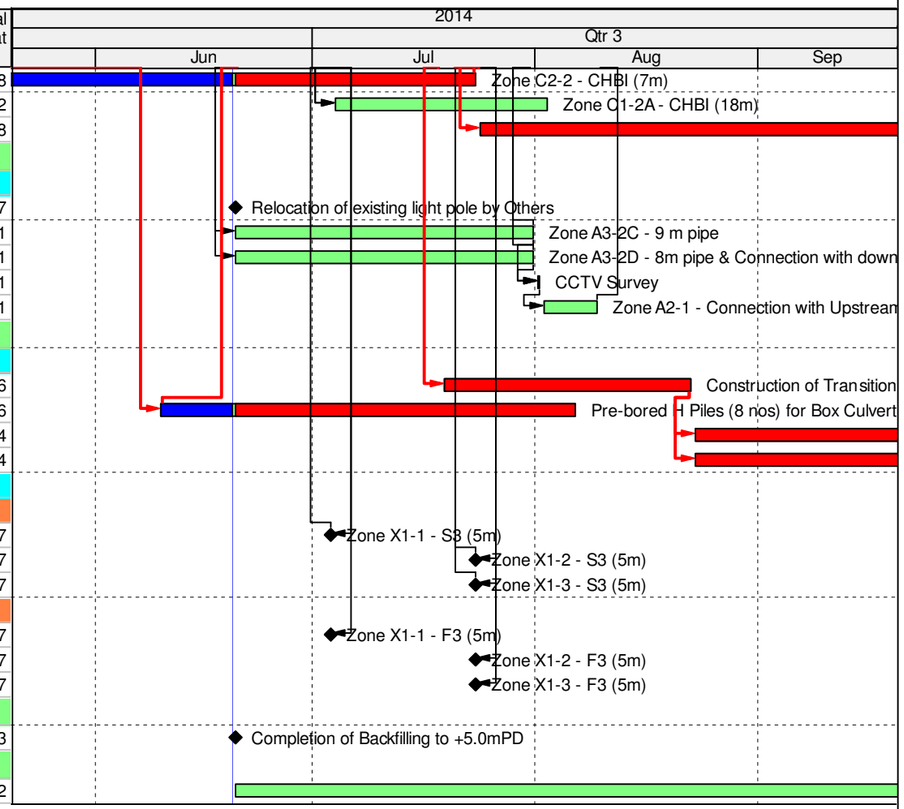
Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)

WORKS PROGRAMME Rev.6C - 3 Month Programme starting from 20-Jun-14

CEDD CONTRACT HK/2009/01

CHUN WO - LEADER JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float
S6C-1000	Zone C2-2 - CHBI (7m)	45	34	20-Jan-14 A	23-Jul-14	100%	-8
S6C-1020A	Zone C1-2A - CHBI (18m)	30	30	04-Jul-14	02-Aug-14	0%	42
S6C-1600	Zone C3-1 - CHBI (16m) Test and Connection Point	60	60	24-Jul-14	21-Sep-14	0%	-8
Section 8 of the Works - Works in Area 6 (Utilities other than Watermains in Fenwick Pier Street)							
Sewerage Works							
AA1170	Relocation of existing light pole by Others	0	0		20-Jun-14*	0%	787
S8-1040	Zone A3-2C - 9 m pipe	23	35	20-Jun-14	31-Jul-14	0%	71
S8-1050	Zone A3-2D - 8m pipe & Connection with downstream existing manhole	23	35	20-Jun-14	31-Jul-14	0%	71
S8-2500	CCTV Survey	1	1	01-Aug-14	01-Aug-14	0%	71
S8-3000	Zone A2-1 - Connection with Upstream Existing Manhole & Abandon Used Pipe	7	7	02-Aug-14	09-Aug-14	0%	71
Section 9 of the Works - Remaindar of the Works							
Box Culvert Construction							
S9-1030	Construction of Transition Chamber for Existing Box Culvert Diversion	30	30	19-Jul-14	22-Aug-14	0%	-186
S9-1040	Pre-bored H Piles (8 nos) for Box Culvert	40	40	10-Jun-14 A	06-Aug-14	0%	-186
S9-1040A	Installation of Sheet Pile for Bay7	45	45	23-Aug-14	06-Oct-14	0%	-234
S9-1040B	Installation of Sheet Pile for Bay 2	45	45	23-Aug-14	06-Oct-14	0%	-234
Waterworks in Area 9							
Salt Water Mains (S3, S5A & S5B)							
S9-5500A	Zone X1-1 - S3 (5m)	0	0		03-Jul-14	0%	107
S9-5500B	Zone X1-2 - S3 (5m)	0	0		23-Jul-14	0%	167
S9-5500C	Zone X1-3 - S3 (5m)	0	0		23-Jul-14	0%	167
Fresh Water Mains (F3)							
AA1180	Zone X1-1 - F3 (5m)	0	0		03-Jul-14	0%	187
AA1190	Zone X1-2 - F3 (5m)	0	0		23-Jul-14	0%	167
AA1200	Zone X1-3 - F3 (5m)	0	0		23-Jul-14	0%	167
Section 13 of the Works - Works in Area 11 (other than Section 11)							
S13-3000	Completion of Backfilling to +5.0mPD	0	0		20-Jun-14	0%	253
Section 9A of the Works - Landscape Softworks in Area 9							
S9A-1000	Transplanting at Expo Drive East and Convention Avenue Junction	180	180	20-Jun-14	16-Dec-14	0%	242



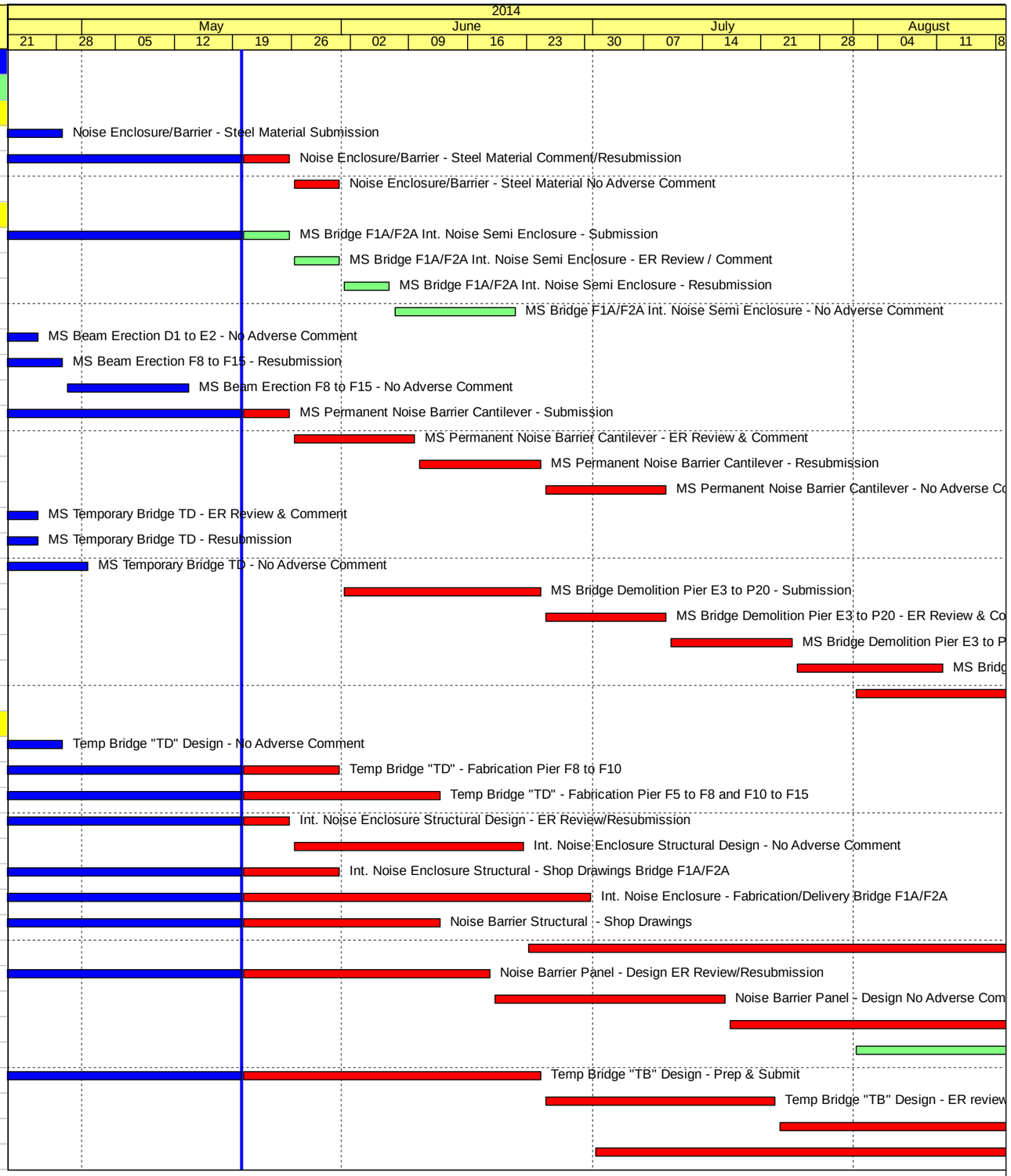
Remaining Work
Actual Work
Summary Bar
Critical Remaining Work
Milestone
Summary Bar

CEDD CONTRACT NO. HK/2009/01

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

WORKS PROGRAMME Rev.6C - 3 Month Programme starting from 20-Jun-14

Activity ID	Activity Name	Rem Dur	Start	Finish
3MRP - May 2014 to Aug 2014				
02 - PRE-CONSTRUCTION WORKS				
02.2 - Contractor's Submission				
0220-1560	Noise Enclosure/Barrier - Steel Material Submission	0	02-Jan-14 A	28-Apr-14 A
0220-1570	Noise Enclosure/Barrier - Steel Material Comment/Resubmission	6	12-Feb-14 A	25-May-14
0220-1580	Noise Enclosure/Barrier - Steel Material No Adverse Comment	6	26-May-14	31-May-14
02.3 - Method Statement / Shop Drawings				
0230-1580	MS Bridge F1A/F2A Int. Noise Semi Enclosure - Submission	6	01-Apr-14 A	25-May-14
0230-1590	MS Bridge F1A/F2A Int. Noise Semi Enclosure - ER Review / Comment	6	26-May-14	31-May-14
0230-1600	MS Bridge F1A/F2A Int. Noise Semi Enclosure - Resubmission	6	01-Jun-14	06-Jun-14
0230-1610	MS Bridge F1A/F2A Int. Noise Semi Enclosure - No Adverse Comment	15	07-Jun-14	21-Jun-14
0230-1960	MS Beam Erection D1 to E2 - No Adverse Comment	0	15-Apr-14 A	25-Apr-14 A
0230-2050	MS Beam Erection F8 to F15 - Resubmission	0	19-Feb-14 A	28-Apr-14 A
0230-2060	MS Beam Erection F8 to F15 - No Adverse Comment	0	29-Apr-14 A	13-May-14 A
0230-1420	MS Permanent Noise Barrier Cantilever - Submission	6	10-Feb-14 A	25-May-14
0230-1430	MS Permanent Noise Barrier Cantilever - ER Review & Comment	15	26-May-14	09-Jun-14
0230-1440	MS Permanent Noise Barrier Cantilever - Resubmission	15	10-Jun-14	24-Jun-14
0230-1450	MS Permanent Noise Barrier Cantilever - No Adverse Comment	15	25-Jun-14	09-Jul-14
0230-1790	MS Temporary Bridge TD - ER Review & Comment	0	20-Mar-14 A	25-Apr-14 A
0230-1800	MS Temporary Bridge TD - Resubmission	0	01-Apr-14 A	25-Apr-14 A
0230-1810	MS Temporary Bridge TD - No Adverse Comment	0	14-Apr-14 A	01-May-14 A
0230-1820	MS Bridge Demolition Pier E3 to P20 - Submission	24	01-Jun-14*	24-Jun-14
0230-1830	MS Bridge Demolition Pier E3 to P20 - ER Review & Comment	15	25-Jun-14	09-Jul-14
0230-1840	MS Bridge Demolition Pier E3 to P20 - Resubmission	15	10-Jul-14	24-Jul-14
0230-1850	MS Bridge Demolition Pier E3 to P20 - No Adverse Comment	18	25-Jul-14	11-Aug-14
0230-1740	MS Temporary Bridge TB & TC - Submission	28	01-Aug-14*	28-Aug-14
02.4 - Contractor's Design and Build Items				
0240-1044	Temp Bridge "TD" Design - No Adverse Comment	0	15-Apr-14 A	28-Apr-14 A
0240-1045	Temp Bridge "TD" - Fabrication Pier F8 to F10	12	03-Feb-14 A	31-May-14
0240-1046	Temp Bridge "TD" - Fabrication Pier F5 to F8 and F10 to F15	24	20-Apr-14 A	12-Jun-14
0240-1110	Int. Noise Enclosure Structural Design - ER Review/Resubmission	6	17-Jan-14 A	25-May-14
0240-1111	Int. Noise Enclosure Structural Design - No Adverse Comment	28	26-May-14	22-Jun-14
0240-1113	Int. Noise Enclosure Structural - Shop Drawings Bridge F1A/F2A	12	02-Jan-14 A	31-May-14
0240-1115	Int. Noise Enclosure - Fabrication/Delivery Bridge F1A/F2A	42	14-Apr-14 A	30-Jun-14
0240-1132	Noise Barrier Structural - Shop Drawings	24	21-Mar-14 A	12-Jun-14
0240-1133	Noise Barrier Structural - Fabrication/Delivery	90	23-Jun-14	20-Sep-14
0240-1136	Noise Barrier Panel - Design ER Review/Resubmission	30	01-Mar-14 A	18-Jun-14
0240-1137	Noise Barrier Panel - Design No Adverse Comment	28	19-Jun-14	16-Jul-14
0240-1138	Noise Barrier Panel - Fabrication Delivery	60	17-Jul-14	14-Sep-14
0240-1270	Landscaping Design - Submission	90	01-Aug-14*	29-Oct-14
0240-1050	Temp Bridge "TB" Design - Prep & Submit	36	21-Feb-14 A	24-Jun-14
0240-1060	Temp Bridge "TB" Design - ER review and comment	28	25-Jun-14	22-Jul-14
0240-1070	Temp Bridge "TB" Design - Resubmission	30	23-Jul-14	21-Aug-14
0240-1170	HGHK Permanent Carpark Design - Prep & Submit	90	01-Jul-14*	28-Sep-14



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

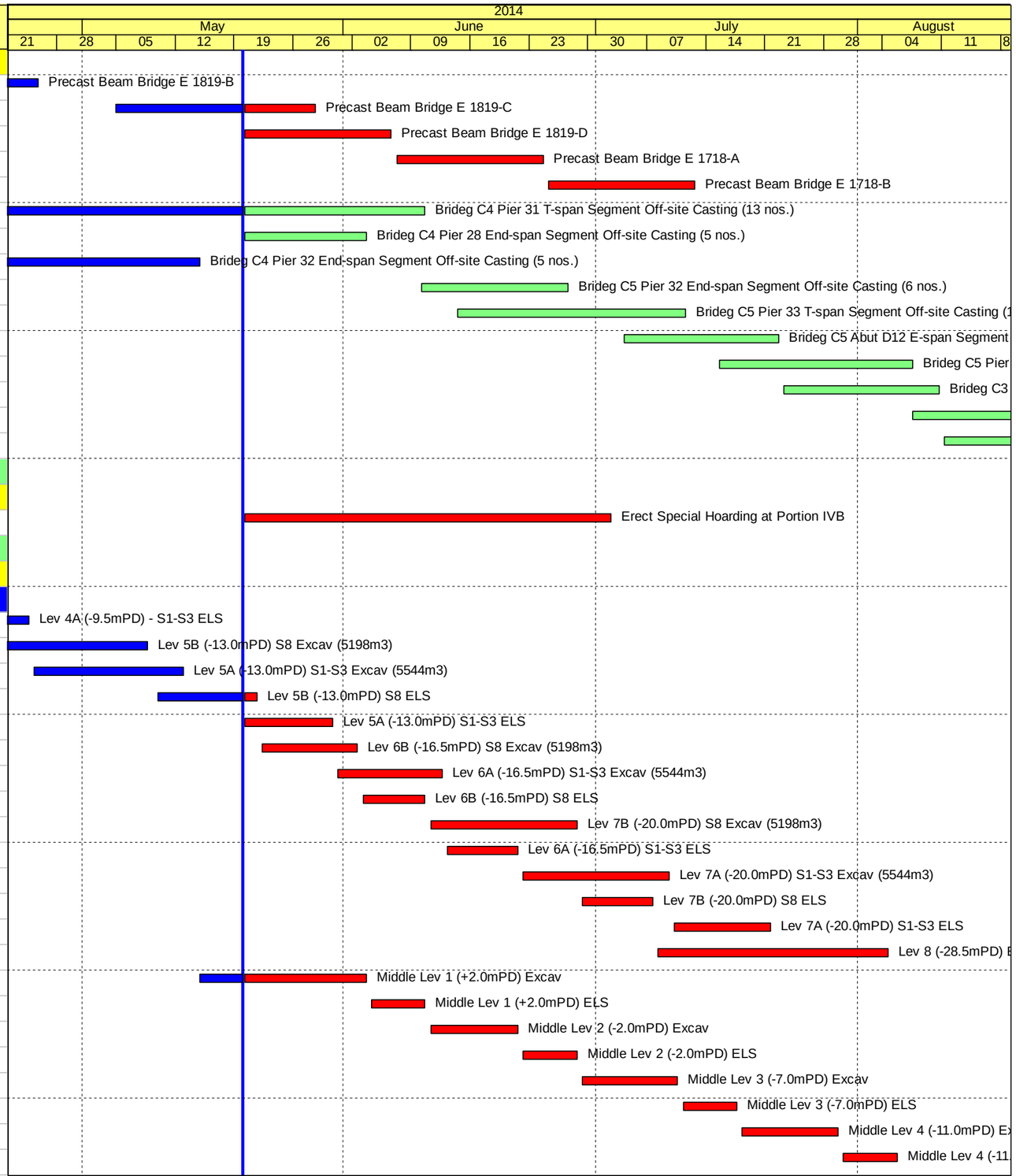
Contract HY/2009/19

Three Month Rolling Programme (20 May to 19 Aug 2014)

3MRP

3MRP - May 2014 to Aug 2014

Activity ID	Activity Name	Rem Dur	Start	Finish
02.5 - Bridge Segment/Beam Off-site Precasting				
0250-1720.06	Precast Beam Bridge E 1819-B	0	21-Mar-14 A	25-Apr-14 A
0250-1720.07	Precast Beam Bridge E 1819-C	9	05-May-14 A	28-May-14
0250-1720.08	Precast Beam Bridge E 1819-D	18	20-May-14	06-Jun-14
0250-1720.09	Precast Beam Bridge E 1718-A	18	07-Jun-14	24-Jun-14
0250-1720.10	Precast Beam Bridge E 1718-B	18	25-Jun-14	12-Jul-14
0250-1920	Brideg C4 Pier 31 T-span Segment Off-site Casting (13 nos.)	22	14-Apr-14 A	10-Jun-14
0250-1930	Brideg C4 Pier 28 End-span Segment Off-site Casting (5 nos.)	15	20-May-14	03-Jun-14
0250-1940	Brideg C4 Pier 32 End-span Segment Off-site Casting (5 nos.)	0	20-Apr-14 A	15-May-14 A
0250-1970	Brideg C5 Pier 32 End-span Segment Off-site Casting (6 nos.)	18	10-Jun-14	27-Jun-14
0250-1950	Brideg C5 Pier 33 T-span Segment Off-site Casting (11 nos.)	27	14-Jun-14	11-Jul-14
0250-1980	Brideg C5 Abut D12 E-span Segment Off-site Casting (6 nos.)	19	04-Jul-14	22-Jul-14
0250-1960	Brideg C5 Pier 34 T-span Segment Off-site Casting (9 nos.)	23	15-Jul-14	07-Aug-14
0250-2010	Brideg C3 Pier 28 End-span Segment Off-site Casting (6 nos.)	19	23-Jul-14	10-Aug-14
0250-1990	Brideg C3 Pier 27 T-span Segment Off-site Casting (11 nos.)	27	07-Aug-14	03-Sep-14
0250-2020	Brideg C3 Pier 25 End-span Segment Off-site Casting (5 nos.)	16	11-Aug-14	26-Aug-14
03 - PRELIMINARY WORKS				
03.3 - Interface Works				
0330-1350	Erect Special Hoarding at Portion IVB	36	20-May-14	02-Jul-14
05 - SECTION 2 & 2A OF THE WORKS				
05.1 - Cut & Cover Tunnel Ch 4855-4932 (APS Footprint)				
05.1.2 - ELS				
0512-1155	Lev 4A (-9.5mPD) - S1-S3 ELS	0	10-Apr-14 A	24-Apr-14 A
0512-1159	Lev 5B (-13.0mPD) S8 Excav (5198m3)	0	15-Apr-14 A	08-May-14 A
0512-1160	Lev 5A (-13.0mPD) S1-S3 Excav (5544m3)	0	25-Apr-14 A	13-May-14 A
0512-1163	Lev 5B (-13.0mPD) S8 ELS	2	10-May-14 A	21-May-14
0512-1165	Lev 5A (-13.0mPD) S1-S3 ELS	11	20-May-14	30-May-14
0512-1170	Lev 6B (-16.5mPD) S8 Excav (5198m3)	12	22-May-14	02-Jun-14
0512-1172	Lev 6A (-16.5mPD) S1-S3 Excav (5544m3)	13	31-May-14	12-Jun-14
0512-1175	Lev 6B (-16.5mPD) S8 ELS	8	03-Jun-14	10-Jun-14
0512-1180	Lev 7B (-20.0mPD) S8 Excav (5198m3)	18	11-Jun-14	28-Jun-14
0512-1178	Lev 6A (-16.5mPD) S1-S3 ELS	9	13-Jun-14	21-Jun-14
0512-1182	Lev 7A (-20.0mPD) S1-S3 Excav (5544m3)	18	22-Jun-14	09-Jul-14
0512-1185	Lev 7B (-20.0mPD) S8 ELS	9	29-Jun-14	07-Jul-14
0512-1187	Lev 7A (-20.0mPD) S1-S3 ELS	12	10-Jul-14	21-Jul-14
0512-1200	Lev 8 (-28.5mPD) Excav + Blinding (13811m3)	28	08-Jul-14	04-Aug-14
0512-1210	Middle Lev 1 (+2.0mPD) Excav	15	15-May-14 A	03-Jun-14
0512-1215	Middle Lev 1 (+2.0mPD) ELS	7	04-Jun-14	10-Jun-14
0512-1230	Middle Lev 2 (-2.0mPD) Excav	11	11-Jun-14	21-Jun-14
0512-1235	Middle Lev 2 (-2.0mPD) ELS	7	22-Jun-14	28-Jun-14
0512-1240	Middle Lev 3 (-7.0mPD) Excav	12	29-Jun-14	10-Jul-14
0512-1250	Middle Lev 3 (-7.0mPD) ELS	7	11-Jul-14	17-Jul-14
0512-1260	Middle Lev 4 (-11.0mPD) Excav	12	18-Jul-14	29-Jul-14
0512-1270	Middle Lev 4 (-11.0mPD) ELS	7	30-Jul-14	05-Aug-14

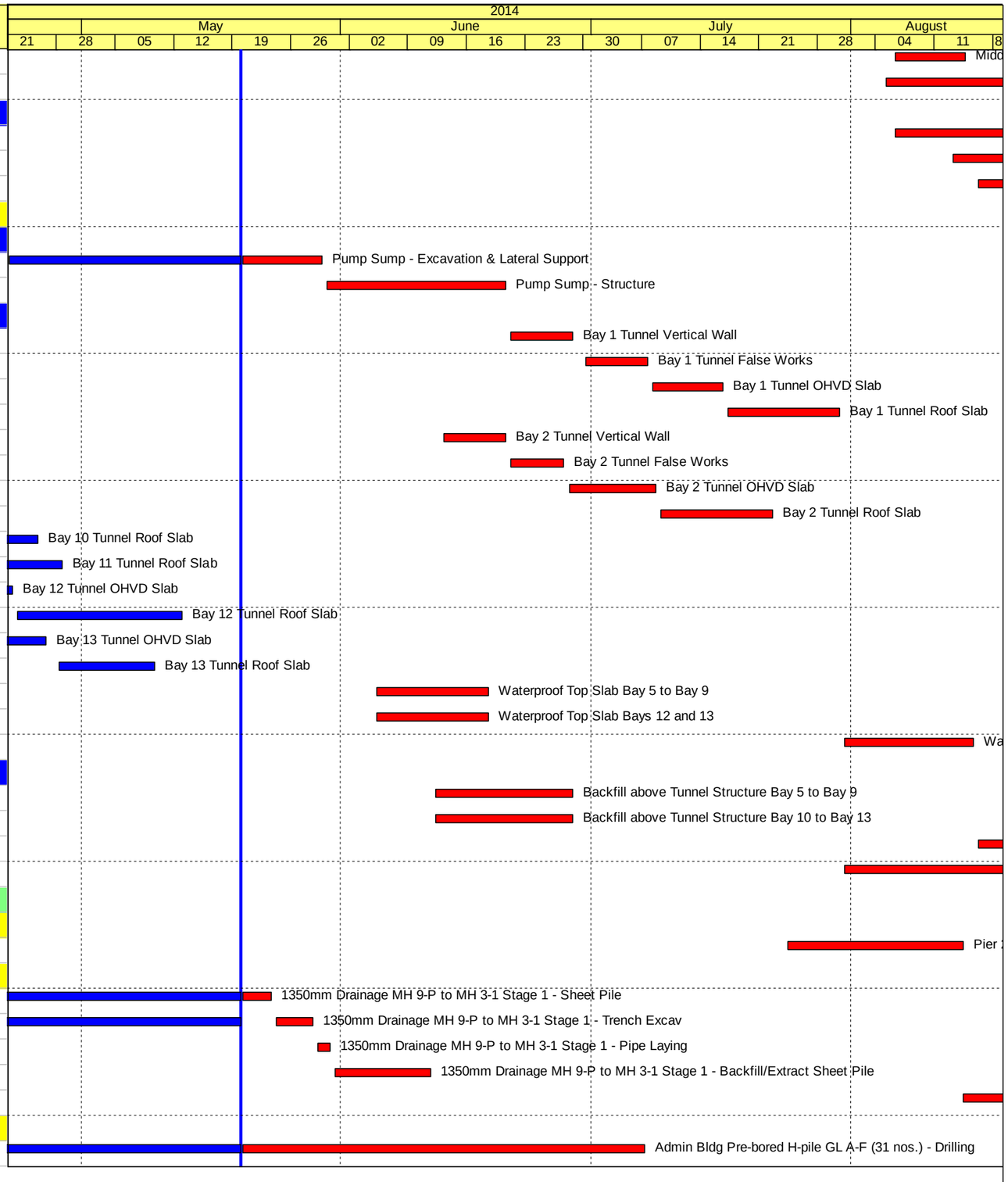


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 May to 19 Aug 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish
0512-1280	Middle Lev 5 (-15.0mPD) Excav + Blinding	9	06-Aug-14	14-Aug-14
0512-1220	Opening to Existing Bulkhead Wall	15	05-Aug-14	19-Aug-14
05.1.3 - APS Structure				
0513-1310	APS Basement Slab - Prepare CJ and form keys into D-wall	12	06-Aug-14	19-Aug-14
0513-1320	APS Basement Slab - Waterproofing Membrane	18	13-Aug-14	02-Sep-14
0513-1330	APS Basement Slab - Rebar Fixing	28	16-Aug-14	18-Sep-14
05.2 - Cut & Cover Tunnel Ch 4932-5149				
05.2.3 - ELS				
0524-2889	Pump Sump - Excavation & Lateral Support	9	22-Apr-14 A	29-May-14
0524-2890	Pump Sump - Structure	18	30-May-14	20-Jun-14
05.2.4 - Tunnel Structure				
0524-3015	Bay 1 Tunnel Vertical Wall	7	21-Jun-14	28-Jun-14
0524-3025	Bay 1 Tunnel False Works	6	30-Jun-14	07-Jul-14
0524-3035	Bay 1 Tunnel OHVD Slab	8	08-Jul-14	16-Jul-14
0524-3045	Bay 1 Tunnel Roof Slab	12	17-Jul-14	30-Jul-14
0524-3115	Bay 2 Tunnel Vertical Wall	7	13-Jun-14	20-Jun-14
0524-3125	Bay 2 Tunnel False Works	6	21-Jun-14	27-Jun-14
0524-3135	Bay 2 Tunnel OHVD Slab	8	28-Jun-14	08-Jul-14
0524-3145	Bay 2 Tunnel Roof Slab	12	09-Jul-14	22-Jul-14
0524-3525	Bay 10 Tunnel Roof Slab	0	04-Apr-14 A	25-Apr-14 A
0524-3575	Bay 11 Tunnel Roof Slab	0	14-Apr-14 A	28-Apr-14 A
0524-3615	Bay 12 Tunnel OHVD Slab	0	03-Apr-14 A	22-Apr-14 A
0524-3625	Bay 12 Tunnel Roof Slab	0	23-Apr-14 A	13-May-14 A
0524-3665	Bay 13 Tunnel OHVD Slab	0	18-Apr-14 A	26-Apr-14 A
0524-3675	Bay 13 Tunnel Roof Slab	0	28-Apr-14 A	09-May-14 A
0524-3475	Waterproof Top Slab Bay 5 to Bay 9	12	05-Jun-14	18-Jun-14
0524-3685	Waterproof Top Slab Bays 12 and 13	12	05-Jun-14	18-Jun-14
0524-3365	Waterproof Top Slab Bay 1 to Bay 4	14	31-Jul-14	15-Aug-14
05.2.5 - Road & Miscellaneous Works				
0525-2940	Backfill above Tunnel Structure Bay 5 to Bay 9	15	12-Jun-14	28-Jun-14
0525-2950	Backfill above Tunnel Structure Bay 10 to Bay 13	15	12-Jun-14	28-Jun-14
0525-2882	Backfill above Tunnel Structure Bay 1 to Bay 4	7	16-Aug-14	23-Aug-14
0525-2890	Tunnel Road Drainage (excl vent bldg)	45	31-Jul-14	22-Sep-14
06 - SECTION 3 OF THE WORKS				
06.1 - Westbound - Pier 29-34				
0610-2126	Pier 29-3 Bored Pile (Normal)	18	24-Jul-14	14-Aug-14
06.2 - Box Culvert U1				
0620-2632	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Sheet Pile	4	20-Mar-14 A	23-May-14
0620-2633	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Trench Excav	4	02-Apr-14 A	28-May-14
0620-2634	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Pipe Laying	2	29-May-14	30-May-14
0620-2635	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Backfill/Extract Sheet Pile	9	31-May-14	11-Jun-14
0620-2636	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Remove Pavement	7	14-Aug-14	22-Aug-14
06.3 - Admin Building				
0630-3111	Admin Bldg Pre-bored H-pile GL A-F (31 nos.) - Drilling	39	27-Feb-14 A	07-Jul-14

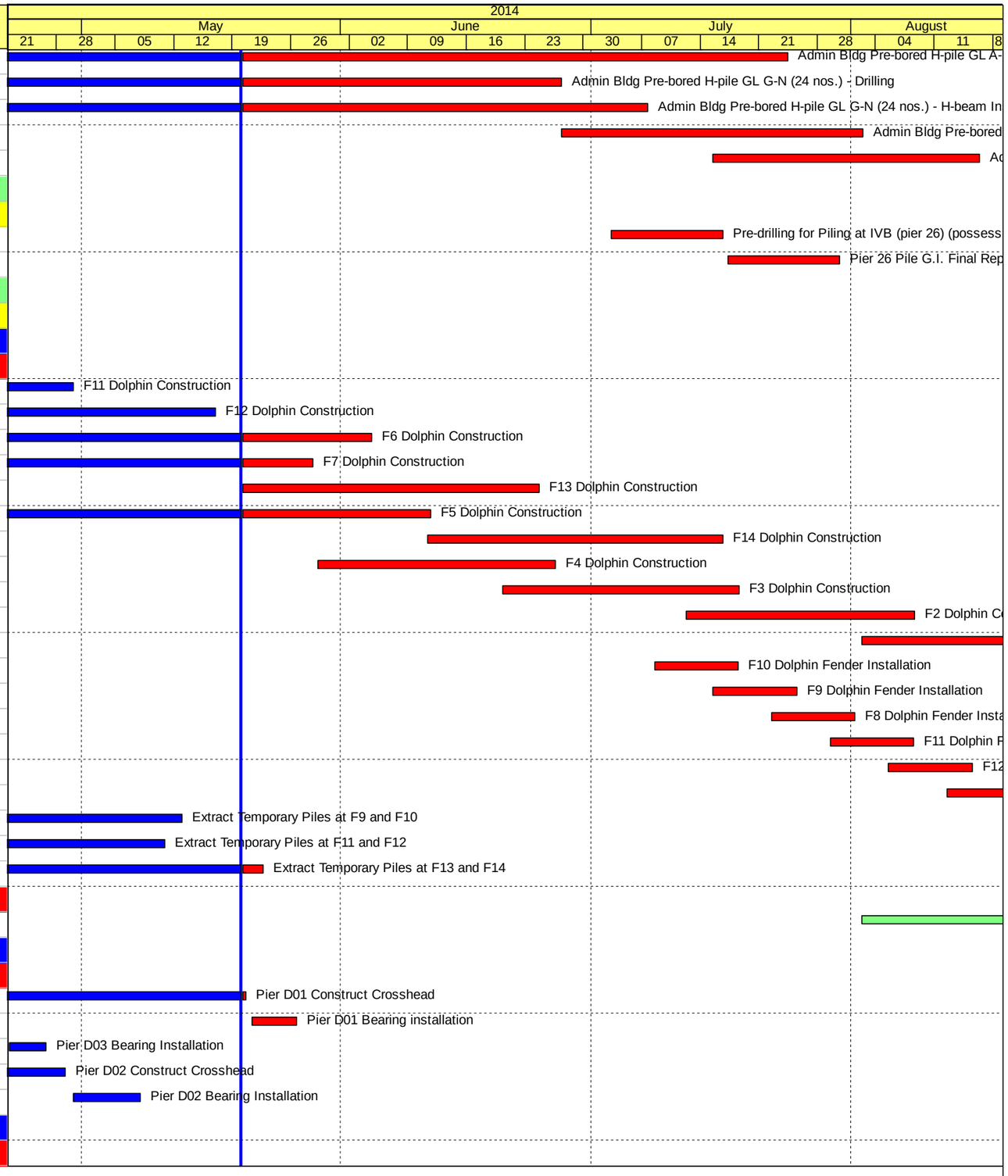


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 May to 19 Aug 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish
0630-3112	Admin Bldg Pre-bored H-pile GL A-F (31 nos.) - H-beam Install + Grouting	54	27-Mar-14 A	24-Jul-14
0630-3121	Admin Bldg Pre-bored H-pile GL G-N (24 nos.) - Drilling	32	21-Feb-14 A	27-Jun-14
0630-3122	Admin Bldg Pre-bored H-pile GL G-N (24 nos.) - H-beam Install + Grouting	40	21-Mar-14 A	07-Jul-14
0630-3131	Admin Bldg Pre-bored H-pile GL P-Q (10 nos.) - Drilling	30	27-Jun-14	02-Aug-14
0630-3132	Admin Bldg Pre-bored H-pile GL P-Q (10 nos.) - H-beam + Grouting	28	15-Jul-14	16-Aug-14
09 - SECTION 6 OF THE WORKS				
09.2 - Westbound - Pier 26-27				
0920-2100	Pre-drilling for Piling at IVB (pier 26) (possession on 25Feb14) (2 no)	12	03-Jul-14*	16-Jul-14
0920-2105	Pier 26 Pile G.I. Final Report / Founding Level	12	17-Jul-14	30-Jul-14
10 - SECTION X OF THE WORKS				
10.1 - E/B Bridges (Bridge D, E and F)				
10.1.1 - Marine Pier Construction				
Pier F03 to F15				
1011-3205	F11 Dolphin Construction	0	11-Mar-14 A	30-Apr-14 A
1011-3215	F12 Dolphin Construction	0	16-Mar-14 A	17-May-14 A
1011-3225	F6 Dolphin Construction	13	02-Apr-14 A	04-Jun-14
1011-3235	F7 Dolphin Construction	8	28-Mar-14 A	28-May-14
1011-3245	F13 Dolphin Construction	30	20-May-14	24-Jun-14
1011-3255	F5 Dolphin Construction	19	18-Apr-14 A	11-Jun-14
1011-3265	F14 Dolphin Construction	30	11-Jun-14	16-Jul-14
1011-3271	F4 Dolphin Construction	24	29-May-14	26-Jun-14
1011-3272	F3 Dolphin Construction	24	20-Jun-14	18-Jul-14
1011-3273	F2 Dolphin Construction	24	12-Jul-14	08-Aug-14
1011-3274	F1 Dolphin Construction	24	02-Aug-14	29-Aug-14
1011-3296	F10 Dolphin Fender Installation	9	08-Jul-14	18-Jul-14
1011-3297	F9 Dolphin Fender Installation	9	15-Jul-14	25-Jul-14
1011-3298	F8 Dolphin Fender Installation	9	22-Jul-14	01-Aug-14
1011-3306	F11 Dolphin Fender Installation	9	29-Jul-14	08-Aug-14
1011-3307	F12 Dolphin Fender Installation	9	05-Aug-14	15-Aug-14
1011-3308	F13 Dolphin Fender Installation	9	12-Aug-14	22-Aug-14
1011-3275	Extract Temporary Piles at F9 and F10	0	17-Mar-14 A	13-May-14 A
1011-3285	Extract Temporary Piles at F11 and F12	0	01-Apr-14 A	11-May-14 A
1011-3295	Extract Temporary Piles at F13 and F14	3	07-Apr-14 A	22-May-14
Pier F01 to F02				
1011-2890	F1B Pile Cap Shutter Cofferdam	18	02-Aug-14*	22-Aug-14
10.1.2 - Land Pier Construction				
Pier D01 to D04				
1012-1400	Pier D01 Construct Crosshead	1	04-Apr-14 A	20-May-14
1012-1570	Pier D01 Bearing installation	5	21-May-14	26-May-14
1012-1550	Pier D03 Bearing Installation	0	22-Apr-14 A	26-Apr-14 A
1012-1430	Pier D02 Construct Crosshead	0	10-Apr-14 A	29-Apr-14 A
1012-1560	Pier D02 Bearing Installation	0	30-Apr-14 A	08-May-14 A
10.1.3 - E/B Bridge Construction				
Bridge D3				



Remaining Level of Effort
Actual Level of Effort
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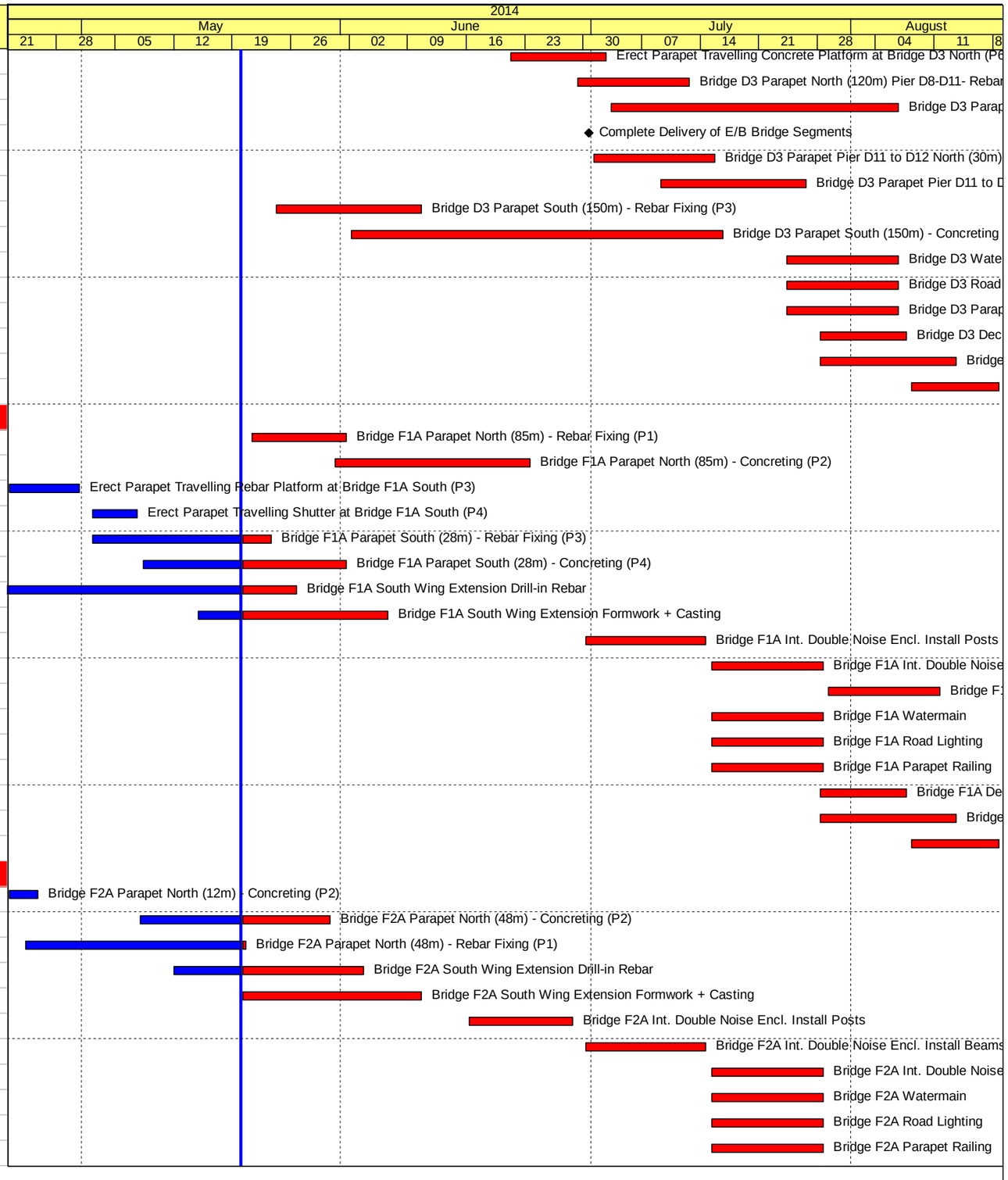
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 May to 19 Aug 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish
1013-1862	Erect Parapet Travelling Concrete Platform at Bridge D3 North (P6)	12	21-Jun-14	02-Jul-14
1013-1133.1	Bridge D3 Parapet North (120m) Pier D8-D11- Rebar Fixing (P3)	14	29-Jun-14	12-Jul-14
1013-1865	Bridge D3 Parapet North (150m) - Concreting (P6)	35	03-Jul-14	06-Aug-14
1013-1137	Complete Delivery of E/B Bridge Segments	0		30-Jun-14
1013-1138	Bridge D3 Parapet Pier D11 to D12 North (30m) - Rebar Fixing (Scaffold)	15	01-Jul-14	15-Jul-14
1013-1139	Bridge D3 Parapet Pier D11 to D12 North (30m) - Concreting (Scaffold)	18	09-Jul-14	26-Jul-14
1013-1131	Bridge D3 Parapet South (150m) - Rebar Fixing (P3)	18	24-May-14	10-Jun-14
1013-1132	Bridge D3 Parapet South (150m) - Concreting (P4)	45	02-Jun-14	16-Jul-14
1013-1141	Bridge D3 Watermain	12	24-Jul-14	06-Aug-14
1013-1869	Bridge D3 Road Lighting	12	24-Jul-14	06-Aug-14
1013-1870	Bridge D3 Parapet Railing	12	24-Jul-14	06-Aug-14
1013-1144	Bridge D3 Deck Waterproofing	10	28-Jul-14	07-Aug-14
1013-1886	Bridge D3 MJ at Abutment D12	15	28-Jul-14	13-Aug-14
1013-1145	Bridge D3 Deck Road Surfacing & Marking	9	08-Aug-14	18-Aug-14
Bridge F1A				
1013-1255	Bridge F1A Parapet North (85m) - Rebar Fixing (P1)	12	21-May-14	01-Jun-14
1013-1256	Bridge F1A Parapet North (85m) - Concreting (P2)	24	31-May-14	23-Jun-14
1013-1251	Erect Parapet Travelling Rebar Platform at Bridge F1A South (P3)	0	22-Apr-14 A	30-Apr-14 A
1013-1252	Erect Parapet Travelling Shutter at Bridge F1A South (P4)	0	02-May-14 A	07-May-14 A
1013-1253	Bridge F1A Parapet South (28m) - Rebar Fixing (P3)	4	02-May-14 A	23-May-14
1013-1254	Bridge F1A Parapet South (28m) - Concreting (P4)	13	08-May-14 A	01-Jun-14
1013-1257	Bridge F1A South Wing Extension Drill-in Rebar	6	10-Apr-14 A	26-May-14
1013-1258	Bridge F1A South Wing Extension Formwork + Casting	15	15-May-14 A	06-Jun-14
1013-1866	Bridge F1A Int. Double Noise Encl. Install Posts	12	30-Jun-14	14-Jul-14
1013-1867	Bridge F1A Int. Double Noise Encl. Install Beams	12	15-Jul-14	28-Jul-14
1013-1868	Bridge F1A Int. Double Noise Encl. Install Noise Panel	12	29-Jul-14	11-Aug-14
1013-1261	Bridge F1A Watermain	12	15-Jul-14	28-Jul-14
1013-1872	Bridge F1A Road Lighting	12	15-Jul-14	28-Jul-14
1013-1873	Bridge F1A Parapet Railing	12	15-Jul-14	28-Jul-14
1013-1265	Bridge F1A Deck Waterproofing	10	28-Jul-14	07-Aug-14
1013-1887	Bridge F1A MJ at Pier F3A	15	28-Jul-14	13-Aug-14
1013-1266	Bridge F1A Deck Road Surfacing & Marking	9	08-Aug-14	18-Aug-14
Bridge F2A				
1013-1363	Bridge F2A Parapet North (12m) - Concreting (P2)	0	22-Apr-14 A	25-Apr-14 A
1013-1365	Bridge F2A Parapet North (48m) - Concreting (P2)	11	08-May-14 A	30-May-14
1013-1369	Bridge F2A Parapet North (48m) - Rebar Fixing (P1)	1	24-Apr-14 A	20-May-14
1013-1366	Bridge F2A South Wing Extension Drill-in Rebar	12	12-May-14 A	03-Jun-14
1013-1367	Bridge F2A South Wing Extension Formwork + Casting	18	20-May-14	10-Jun-14
1013-1376	Bridge F2A Int. Double Noise Encl. Install Posts	12	16-Jun-14	28-Jun-14
1013-1377	Bridge F2A Int. Double Noise Encl. Install Beams	12	30-Jun-14	14-Jul-14
1013-1378	Bridge F2A Int. Double Noise Encl. Install Noise Panel	12	15-Jul-14	28-Jul-14
1013-1371	Bridge F2A Watermain	12	15-Jul-14	28-Jul-14
1013-1874	Bridge F2A Road Lighting	12	15-Jul-14	28-Jul-14
1013-1875	Bridge F2A Parapet Railing	12	15-Jul-14	28-Jul-14



Remaining Level of Effort
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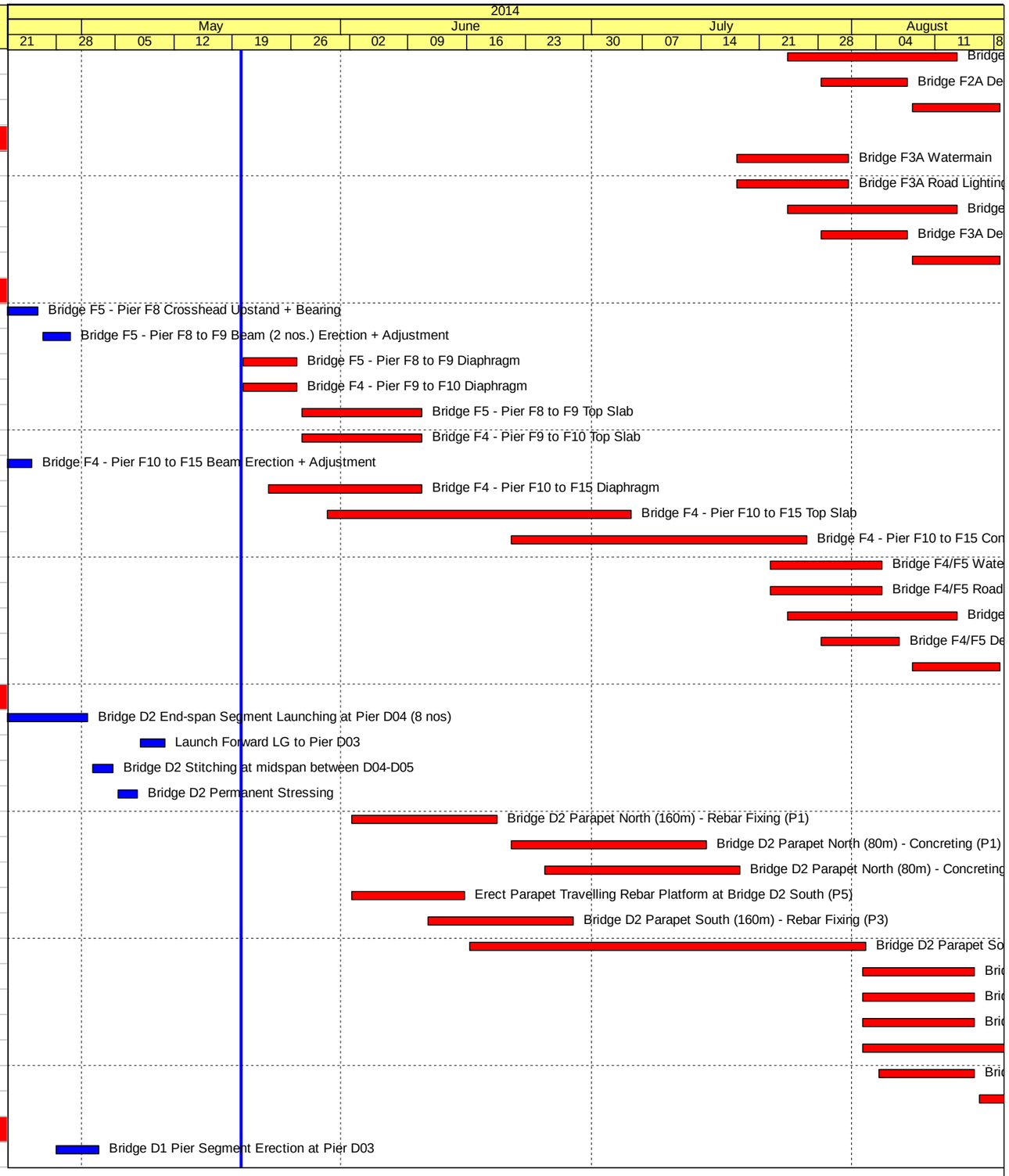
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 May to 19 Aug 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish
1013-1888	Bridge F2A MJ at Pier F5	18	24-Jul-14	13-Aug-14
1013-1374	Bridge F2A Deck Waterproofing	10	28-Jul-14	07-Aug-14
1013-1375	Bridge F2A Deck Road Surfacing & Marking	9	08-Aug-14	18-Aug-14
Bridge F3A				
1013-1876	Bridge F3A Watermain	12	18-Jul-14	31-Jul-14
1013-1877	Bridge F3A Road Lighting	12	18-Jul-14	31-Jul-14
1013-1889	Bridge F3A MJ at Pier F8	18	24-Jul-14	13-Aug-14
1013-1428	Bridge F3A Deck Waterproofing	10	28-Jul-14	07-Aug-14
1013-1430	Bridge F3A Deck Road Surfacing & Marking	9	08-Aug-14	18-Aug-14
Bridge F5/F4				
1013-1433	Bridge F5 - Pier F8 Crosshead Upstand + Bearing	0	02-Apr-14 A	25-Apr-14 A
1013-1434	Bridge F5 - Pier F8 to F9 Beam (2 nos.) Erection + Adjustment	0	26-Apr-14 A	29-Apr-14 A
1013-1435	Bridge F5 - Pier F8 to F9 Diaphragm	6	20-May-14	26-May-14
1013-1438	Bridge F4 - Pier F9 to F10 Diaphragm	6	20-May-14	26-May-14
1013-1436	Bridge F5 - Pier F8 to F9 Top Slab	12	27-May-14	10-Jun-14
1013-1439	Bridge F4 - Pier F9 to F10 Top Slab	12	27-May-14	10-Jun-14
1013-1445	Bridge F4 - Pier F10 to F15 Beam Erection + Adjustment	0	21-Apr-14 A	25-Apr-14 A
1013-1446	Bridge F4 - Pier F10 to F15 Diaphragm	15	23-May-14	10-Jun-14
1013-1447	Bridge F4 - Pier F10 to F15 Top Slab	30	30-May-14	05-Jul-14
1013-1448	Bridge F4 - Pier F10 to F15 Connection to Existing IEC	30	21-Jun-14	26-Jul-14
1013-1878	Bridge F4/F5 Watermain	12	22-Jul-14	04-Aug-14
1013-1879	Bridge F4/F5 Road Lighting	12	22-Jul-14	04-Aug-14
1013-1890	Bridge F4 MJ at Pier F9	18	24-Jul-14	13-Aug-14
1013-1454	Bridge F4/F5 Deck Waterproofing	9	28-Jul-14	06-Aug-14
1013-1455	Bridge F4/F5 Deck Road Surfacing & Marking	9	08-Aug-14	18-Aug-14
Bridge D2				
1013-1510	Bridge D2 End-span Segment Launching at Pier D04 (8 nos)	0	20-Apr-14 A	01-May-14 A
1013-1515	Launch Forward LG to Pier D03	0	08-May-14 A	11-May-14 A
1013-1550	Bridge D2 Stitching at midspan between D04-D05	0	02-May-14 A	04-May-14 A
1013-1560	Bridge D2 Permanent Stressing	0	05-May-14 A	07-May-14 A
1013-1565	Bridge D2 Parapet North (160m) - Rebar Fixing (P1)	18	02-Jun-14	19-Jun-14
1013-1705	Bridge D2 Parapet North (80m) - Concreting (P1)	24	21-Jun-14	14-Jul-14
1013-1566	Bridge D2 Parapet North (80m) - Concreting (P2)	24	25-Jun-14	18-Jul-14
1013-1861	Erect Parapet Travelling Rebar Platform at Bridge D2 South (P5)	14	02-Jun-14*	15-Jun-14
1013-1133	Bridge D2 Parapet South (160m) - Rebar Fixing (P3)	18	11-Jun-14	28-Jun-14
1013-1863	Bridge D2 Parapet South (160m) - Concreting (P5)	48	16-Jun-14	02-Aug-14
1013-1571	Bridge D2 Watermain	12	02-Aug-14	15-Aug-14
1013-1880	Bridge D2 Road Lighting	12	02-Aug-14	15-Aug-14
1013-1881	Bridge D2 Parapet Railing	12	02-Aug-14	15-Aug-14
1013-1891	Bridge D2 MJ at Pier D8	18	02-Aug-14	22-Aug-14
1013-1860	Bridge D2 Deck Waterproofing	11	04-Aug-14	15-Aug-14
1013-1561	Bridge D2 Deck Road Surfacing & Marking	9	16-Aug-14	26-Aug-14
Bridge D1				
1013-1591	Bridge D1 Pier Segment Erection at Pier D03	0	28-Apr-14 A	03-May-14 A



Remaining Level of Effort
Actual Level of Effort
Actual Work
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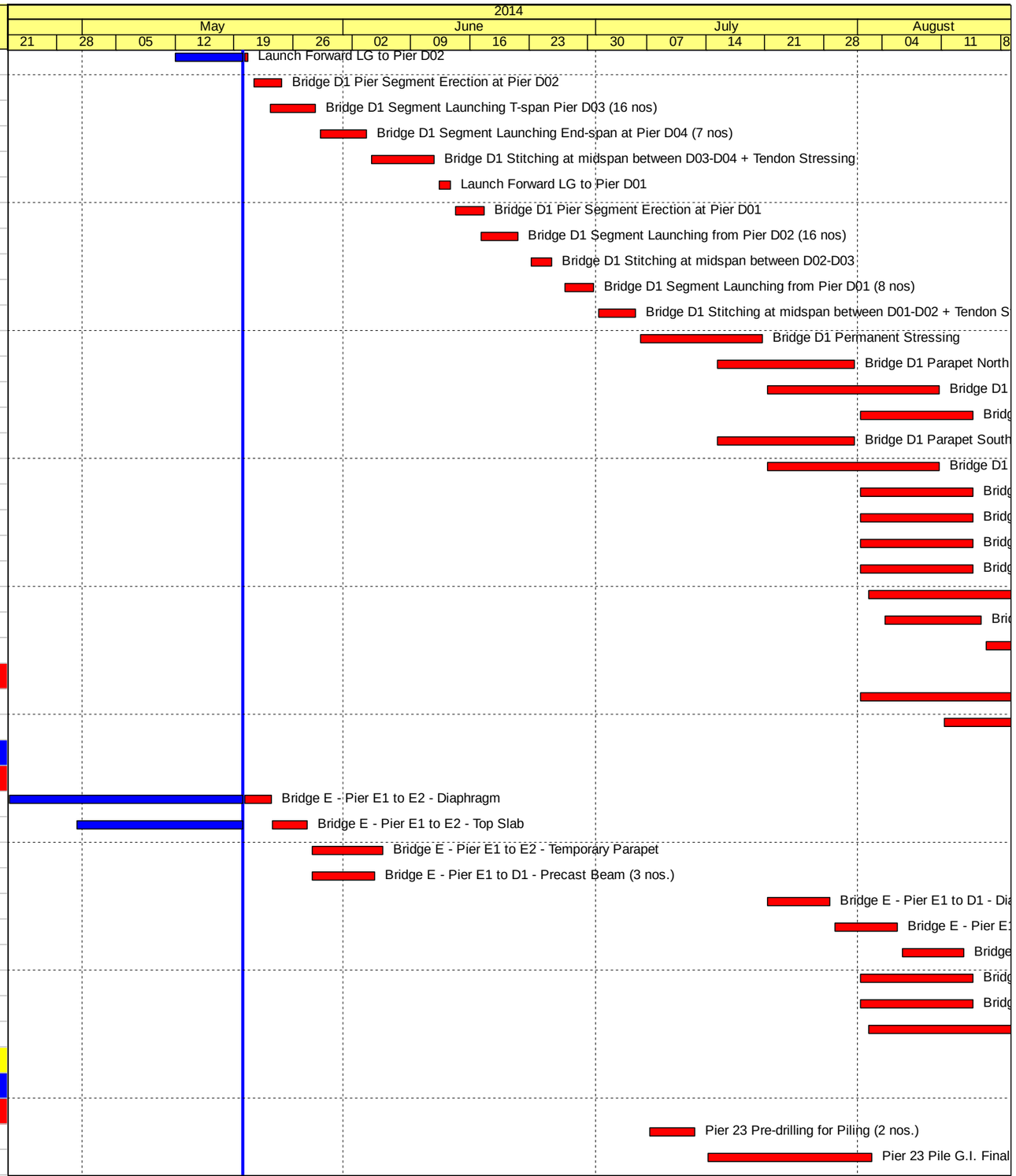
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 May to 19 Aug 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish
1013-1592	Launch Forward LG to Pier D02	1	12-May-14 A	20-May-14
1013-1593	Bridge D1 Pier Segment Erection at Pier D02	4	21-May-14	24-May-14
1013-1600	Bridge D1 Segment Launching T-span Pier D03 (16 nos)	5	23-May-14	28-May-14
1013-1605	Bridge D1 Segment Launching End-span at Pier D04 (7 nos)	4	29-May-14	03-Jun-14
1013-1606	Bridge D1 Stitching at midspan between D03-D04 + Tendon Stressing	7	04-Jun-14	11-Jun-14
1013-1607	Launch Forward LG to Pier D01	2	12-Jun-14	13-Jun-14
1013-1608	Bridge D1 Pier Segment Erection at Pier D01	3	14-Jun-14	17-Jun-14
1013-1610	Bridge D1 Segment Launching from Pier D02 (16 nos)	5	17-Jun-14	21-Jun-14
1013-1640	Bridge D1 Stitching at midspan between D02-D03	3	23-Jun-14	25-Jun-14
1013-1620	Bridge D1 Segment Launching from Pier D01 (8 nos)	4	27-Jun-14	30-Jun-14
1013-1650	Bridge D1 Stitching at midspan between D01-D02 + Tendon Stressing	5	01-Jul-14	05-Jul-14
1013-1660	Bridge D1 Permanent Stressing	15	06-Jul-14	20-Jul-14
1013-1704	Bridge D1 Parapet North (120m) - Rebar Fixing (P1)	17	15-Jul-14	31-Jul-14
1013-1708	Bridge D1 Parapet North (72m) - Concreting (P2)	21	21-Jul-14	10-Aug-14
1013-1706	Bridge D1 Parapet North (48m) - Concreting (P1)	14	01-Aug-14	14-Aug-14
1013-1701	Bridge D1 Parapet South (120m) - Rebar Fixing (P3)	17	15-Jul-14	31-Jul-14
1013-1709	Bridge D1 Parapet South (72m) - Concreting (P4)	21	21-Jul-14	10-Aug-14
1013-1703	Bridge D1 Parapet South (48m) - Concreting (P3)	14	01-Aug-14	14-Aug-14
1013-1711	Bridge D1 Watermain	12	01-Aug-14	14-Aug-14
1013-1882	Bridge D2 Road Lighting	12	01-Aug-14	14-Aug-14
1013-1883	Bridge D2 Parapet Railing	12	01-Aug-14	14-Aug-14
1013-1892	Bridge D1 MJ at Pier D1 and D4	18	02-Aug-14	22-Aug-14
1013-1715	Bridge D1 Deck Waterproofing	11	04-Aug-14	15-Aug-14
1013-1716	Bridge D1 Deck Road Surfacing & Marking	9	16-Aug-14	26-Aug-14
All E/B Bridges (Common)				
1013-1821	E/B Bridge Temp. Hydrant + Watermain Testing	24	01-Aug-14	28-Aug-14
1013-1710	Permanent Noise Barrier Type C1 E/B Bridge Ch 1059-1362 (304m)	42	11-Aug-14	29-Sep-14
10.1.4 - Bridge E / Hing Fat Slip Road				
Bridge Construction				
1014-1172	Bridge E - Pier E1 to E2 - Diaphragm	4	22-Apr-14 A	23-May-14
1014-1173	Bridge E - Pier E1 to E2 - Top Slab	4	30-Apr-14 A	27-May-14
1014-1174	Bridge E - Pier E1 to E2 - Temporary Parapet	7	28-May-14	05-Jun-14
1014-1175	Bridge E - Pier E1 to D1 - Precast Beam (3 nos.)	6	28-May-14	04-Jun-14
1014-1176	Bridge E - Pier E1 to D1 - Diaphragm	7	21-Jul-14	28-Jul-14
1014-1177	Bridge E - Pier E1 to D1 - Top Slab	7	29-Jul-14	05-Aug-14
1014-1178	Bridge E - Pier E1 to D1 - Temporary Parapet	7	06-Aug-14	13-Aug-14
1013-1884	Bridge D1 Watermain	12	01-Aug-14	14-Aug-14
1013-1885	Bridge D2 Road Lighting	12	01-Aug-14	14-Aug-14
1013-1893	Bridge D1 MJ at Pier D1 and D4	18	02-Aug-14	22-Aug-14
10.2 - W/B Bridges (Bridge C and F)				
10.2.1 - Pier Construction				
Pier 20 to 25				
1021-1010	Pier 23 Pre-drilling for Piling (2 nos.)	6	07-Jul-14*	12-Jul-14
1021-1015	Pier 23 Pile G.I. Final Report / Founding Level	18	14-Jul-14	02-Aug-14



Remaining Level of Effort
Actual Level of Effort
Actual Work
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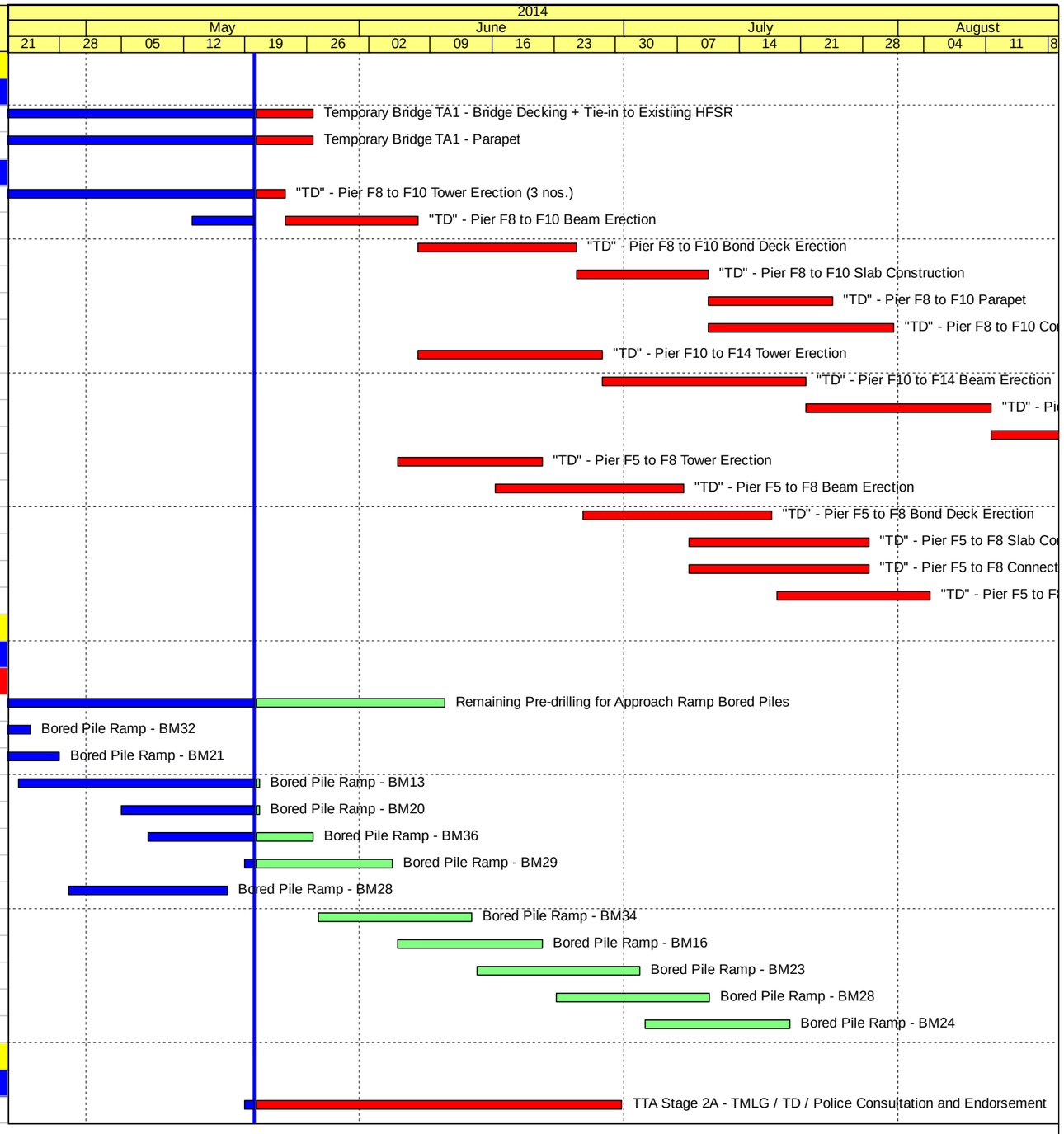
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 May to 19 Aug 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish
10.5 - Temporary Bridge				
10.5.1 - Temporary Bridge 'TA'				
1051-1017	Temporary Bridge TA1 - Bridge Decking + Tie-in to Existiing HFSR	6	23-Sep-13 A	26-May-14
1051-1018	Temporary Bridge TA1 - Parapet	6	13-Jan-14 A	26-May-14
10.5.3 - Temporary Bridge 'TD'				
1053-1010	"TD" - Pier F8 to F10 Tower Erection (3 nos.)	4	14-Apr-14 A	23-May-14
1053-1011	"TD" - Pier F8 to F10 Beam Erection	12	13-May-14 A	07-Jun-14
1053-1012	"TD" - Pier F8 to F10 Bond Deck Erection	15	07-Jun-14	25-Jun-14
1053-1013	"TD" - Pier F8 to F10 Slab Construction	12	25-Jun-14	10-Jul-14
1053-1014	"TD" - Pier F8 to F10 Parapet	12	10-Jul-14	24-Jul-14
1053-1015	"TD" - Pier F8 to F10 Connection to Bridge F4/F5	18	10-Jul-14	31-Jul-14
1053-1021	"TD" - Pier F10 to F14 Tower Erection	18	07-Jun-14	28-Jun-14
1053-1061	"TD" - Pier F10 to F14 Beam Erection	18	28-Jun-14	21-Jul-14
1053-1062	"TD" - Pier F10 to F14 Bond Deck Erection	18	21-Jul-14	11-Aug-14
1053-1063	"TD" - Pier F10 to F14 Slab Construction	18	11-Aug-14	01-Sep-14
1053-1074	"TD" - Pier F5 to F8 Tower Erection	15	05-Jun-14	21-Jun-14
1053-1094	"TD" - Pier F5 to F8 Beam Erection	18	16-Jun-14	07-Jul-14
1053-1104	"TD" - Pier F5 to F8 Bond Deck Erection	18	26-Jun-14	17-Jul-14
1053-1114	"TD" - Pier F5 to F8 Slab Construction	18	08-Jul-14	28-Jul-14
1053-1115	"TD" - Pier F5 to F8 Connection to Bridge F3A	18	08-Jul-14	28-Jul-14
1053-1124	"TD" - Pier F5 to F8 Parapet	15	18-Jul-14	04-Aug-14
10.6 - Tunnel Approach Ramp				
10.6.1 - Approach Ramp (Excluding Portion IIB)				
Bored Piles				
1061-1670	Remaining Pre-drilling for Approach Ramp Bored Piles	18	19-Jul-13 A	10-Jun-14
1061-1830	Bored Pile Ramp - BM32	0	09-Apr-14 A	24-Apr-14 A
1061-1840	Bored Pile Ramp - BM21	0	14-Apr-14 A	28-Apr-14 A
1061-1850	Bored Pile Ramp - BM13	1	23-Apr-14 A	20-May-14
1061-1860	Bored Pile Ramp - BM20	1	05-May-14 A	20-May-14
1061-1880	Bored Pile Ramp - BM36	6	08-May-14 A	26-May-14
1061-1890	Bored Pile Ramp - BM29	13	19-May-14 A	04-Jun-14
1061-1870	Bored Pile Ramp - BM28	0	29-Apr-14 A	17-May-14 A
1061-1900	Bored Pile Ramp - BM34	15	27-May-14	13-Jun-14
1061-1910	Bored Pile Ramp - BM16	15	05-Jun-14	21-Jun-14
1061-1920	Bored Pile Ramp - BM23	15	14-Jun-14	02-Jul-14
1061-1930	Bored Pile Ramp - BM28	15	23-Jun-14	10-Jul-14
1061-1940	Bored Pile Ramp - BM24	15	03-Jul-14	19-Jul-14
10.7 - Section X - Miscellaneous Works				
10.7.1 - TTM Stages				
1071-1005	TTA Stage 2A - TMLG / TD / Police Consultation and Endorsement	35	19-May-14 A	30-Jun-14



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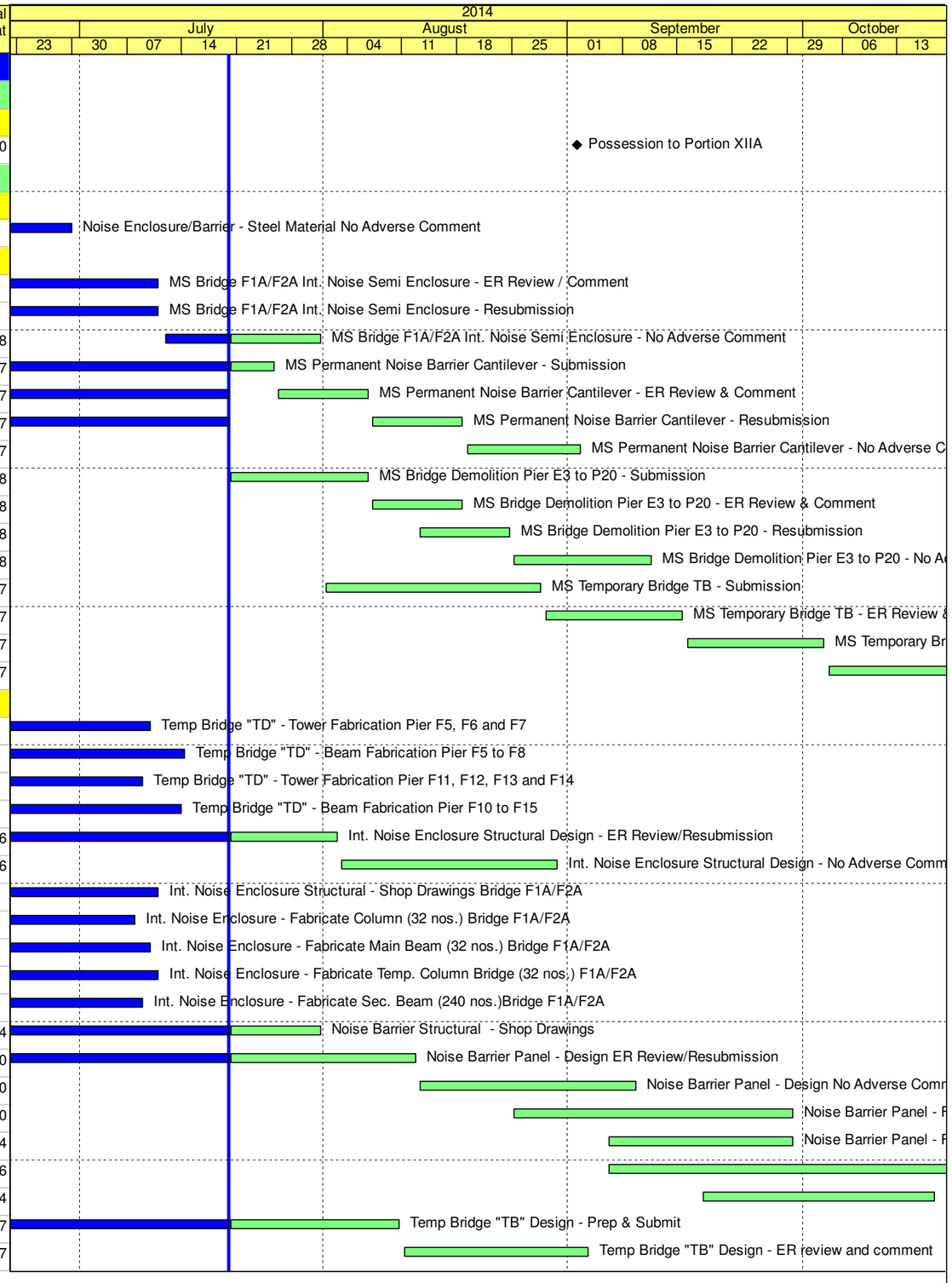
Three Month Rolling Programme (20 May to 19 Aug 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
3MRP - Jul 2014 to Oct 2014							
01 - CONTRACT DATES							
01.2 - Possession of Site							
0120-3300	Possession to Portion XIIA	0	02-Sep-14*		02-Sep-14		0
02 - PRE-CONSTRUCTION WORKS							
02.2 - Contractor's Submission							
0220-1580	Noise Enclosure/Barrier - Steel Material No Adverse Comment	0	02-Jun-14 A	30-Jun-14 A	11-Aug-19	11-Aug-19	
02.3 - Method Statement / Shop Drawings							
0230-1590	MS Bridge F1A/F2A Int. Noise Semi Enclosure - ER Review / Comment	0	26-May-14 A	11-Jul-14 A	30-Nov-15	30-Nov-15	
0230-1600	MS Bridge F1A/F2A Int. Noise Semi Enclosure - Resubmission	0	01-Jun-14 A	11-Jul-14 A	30-Nov-15	30-Nov-15	
0230-1610	MS Bridge F1A/F2A Int. Noise Semi Enclosure - No Adverse Comment	12	12-Jul-14 A	31-Jul-14	30-Nov-15	11-Dec-15	498
0230-1420	MS Permanent Noise Barrier Cantilever - Submission	6	10-Feb-14 A	25-Jul-14	26-Aug-14	31-Aug-14	37
0230-1430	MS Permanent Noise Barrier Cantilever - ER Review & Comment	12	26-May-14 A	06-Aug-14	01-Sep-14	12-Sep-14	37
0230-1440	MS Permanent Noise Barrier Cantilever - Resubmission	12	10-Jun-14 A	18-Aug-14	13-Sep-14	24-Sep-14	37
0230-1450	MS Permanent Noise Barrier Cantilever - No Adverse Comment	15	19-Aug-14	02-Sep-14	25-Sep-14	09-Oct-14	37
0230-1820	MS Bridge Demolition Pier E3 to P20 - Submission	18	20-Jul-14 A	06-Aug-14	28-Jul-14	14-Aug-14	8
0230-1830	MS Bridge Demolition Pier E3 to P20 - ER Review & Comment	12	07-Aug-14	18-Aug-14	15-Aug-14	26-Aug-14	8
0230-1840	MS Bridge Demolition Pier E3 to P20 - Resubmission	12	13-Aug-14	24-Aug-14	21-Aug-14	01-Sep-14	8
0230-1850	MS Bridge Demolition Pier E3 to P20 - No Adverse Comment	18	25-Aug-14	11-Sep-14	02-Sep-14	19-Sep-14	8
0230-1740	MS Temporary Bridge TB - Submission	28	01-Aug-14*	28-Aug-14	28-Aug-14	24-Sep-14	27
0230-1750	MS Temporary Bridge TB - ER Review & Comment	18	29-Aug-14	15-Sep-14	25-Sep-14	12-Oct-14	27
0230-1760	MS Temporary Bridge TB - Resubmission	18	16-Sep-14	03-Oct-14	13-Oct-14	30-Oct-14	27
0230-1770	MS Temporary Bridge TB - ER Approval	28	04-Oct-14	31-Oct-14	31-Oct-14	27-Nov-14	27
02.4 - Contractor's Design and Build Items							
0240-1046	Temp Bridge "TD" - Tower Fabrication Pier F5, F6 and F7	0	01-Jun-14 A	10-Jul-14 A	28-Jul-14	28-Jul-14	
0240-1047	Temp Bridge "TD" - Beam Fabrication Pier F5 to F8	0	01-Jun-14 A	14-Jul-14 A	19-Jul-14	19-Jul-14	
0240-1048	Temp Bridge "TD" - Tower Fabrication Pier F11, F12, F13 and F14	0	27-May-14 A	09-Jul-14 A	31-Jul-14	31-Jul-14	
0240-1049	Temp Bridge "TD" - Beam Fabrication Pier F10 to F15	0	24-May-14 A	14-Jul-14 A	31-Jul-14	31-Jul-14	
0240-1110	Int. Noise Enclosure Structural Design - ER Review/Resubmission	14	17-Jan-14 A	02-Aug-14	28-Nov-15	11-Dec-15	496
0240-1111	Int. Noise Enclosure Structural Design - No Adverse Comment	28	03-Aug-14	30-Aug-14	12-Dec-15	08-Jan-16	496
0240-1113	Int. Noise Enclosure Structural - Shop Drawings Bridge F1A/F2A	0	02-Jan-14 A	11-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1115	Int. Noise Enclosure - Fabricate Column (32 nos.) Bridge F1A/F2A	0	14-Apr-14 A	08-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1116	Int. Noise Enclosure - Fabricate Main Beam (32 nos.) Bridge F1A/F2A	0	14-Apr-14 A	10-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1117	Int. Noise Enclosure - Fabricate Temp. Column Bridge (32 nos.) F1A/F2A	0	14-Apr-14 A	11-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1118	Int. Noise Enclosure - Fabricate Sec. Beam (240 nos.)Bridge F1A/F2A	0	14-Apr-14 A	09-Jul-14 A	03-Sep-14	03-Sep-14	
0240-1132	Noise Barrier Structural - Shop Drawings	12	21-Mar-14 A	31-Jul-14	23-Aug-14	03-Sep-14	34
0240-1136	Noise Barrier Panel - Design ER Review/Resubmission	24	01-Mar-14 A	12-Aug-14	30-Jul-14	22-Aug-14	10
0240-1137	Noise Barrier Panel - Design No Adverse Comment	28	13-Aug-14	09-Sep-14	23-Aug-14	19-Sep-14	10
0240-1141	Noise Barrier Panel - Fabricate Type C Column (77 nos.)	36	25-Aug-14	29-Sep-14	04-Sep-14	09-Oct-14	10
0240-1142	Noise Barrier Panel - Fabricate Type B Column (25 nos.)	24	06-Sep-14	29-Sep-14	10-Oct-14	02-Nov-14	34
0240-1429	Noise Barrier Panel - Fabricate Beams (203 nos.)	48	06-Sep-14	23-Oct-14	22-Sep-14	08-Nov-14	16
0240-1143	Noise Barrier Panel - Fabricate Type A Column (38 nos.)	30	18-Sep-14	17-Oct-14	22-Oct-14	20-Nov-14	34
0240-1050	Temp Bridge "TB" Design - Prep & Submit	22	21-Feb-14 A	10-Aug-14	27-Jul-14	17-Aug-14	7
0240-1060	Temp Bridge "TB" Design - ER review and comment	24	13-Aug-14 A	03-Sep-14	18-Aug-14	10-Sep-14	7



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

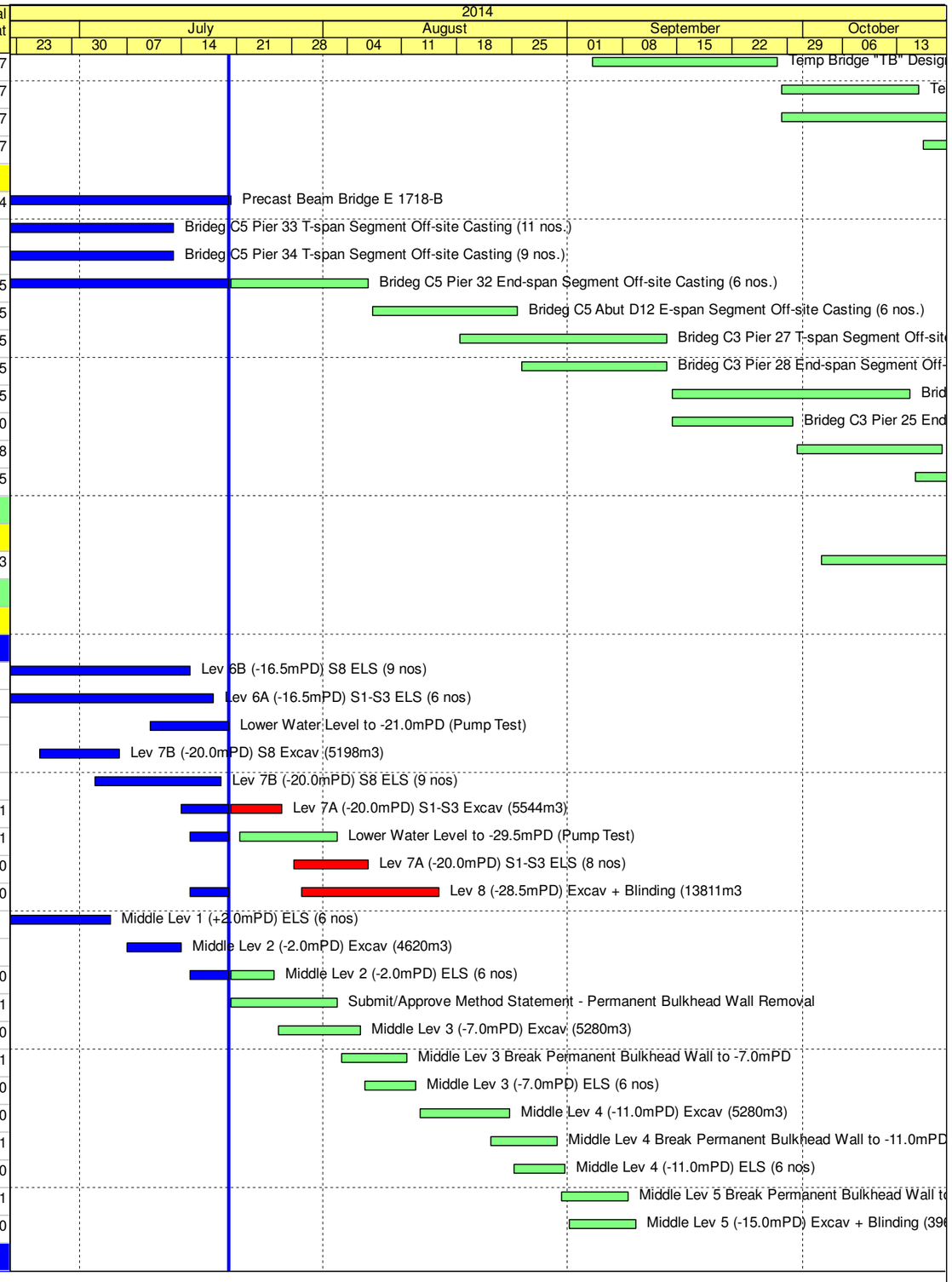
Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

3MRP

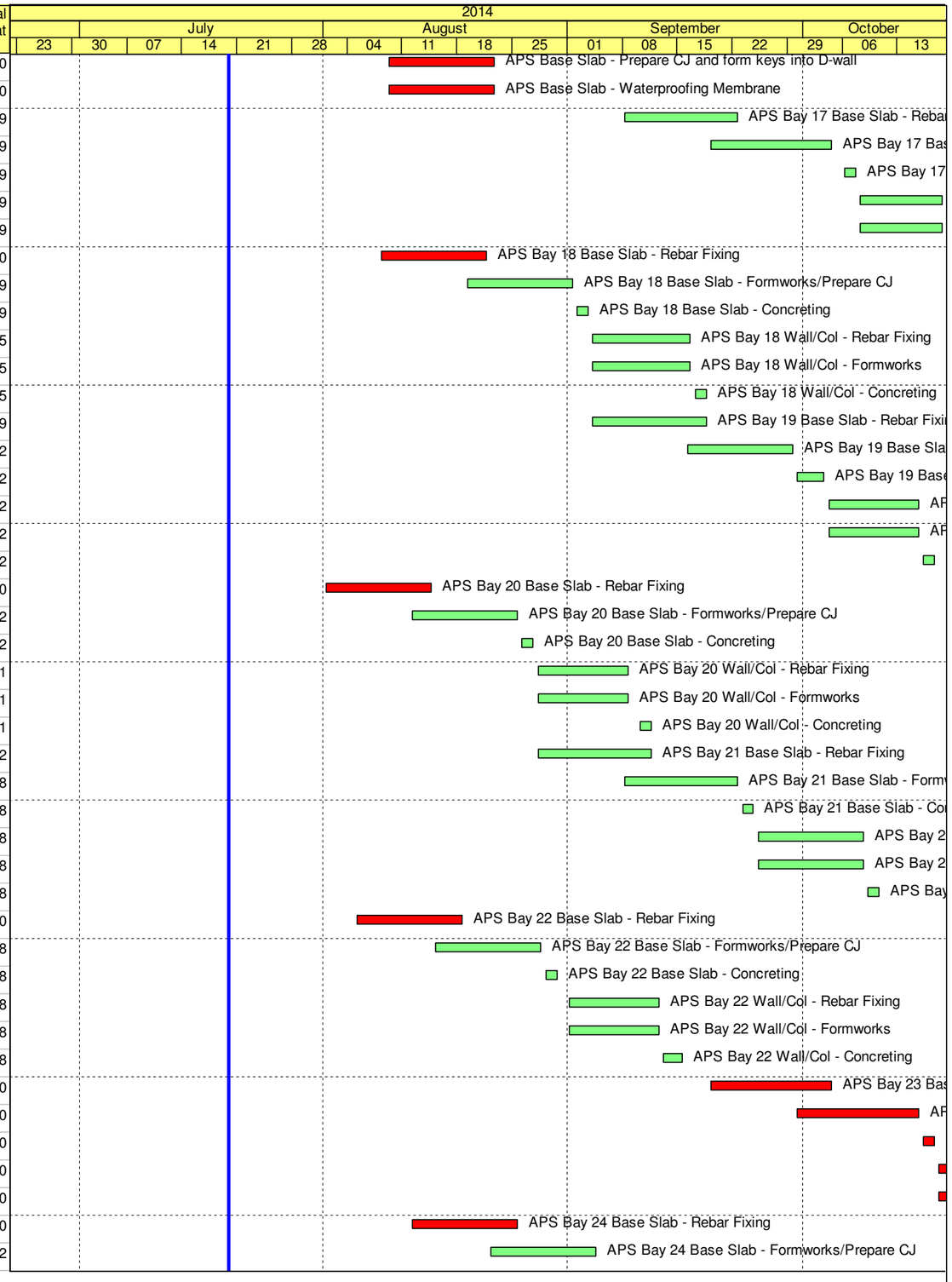
3MRP - Jul 2014 to Oct 2014

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0240-1070	Temp Bridge "TB" Design - Resubmission	24	04-Sep-14	27-Sep-14	11-Sep-14	04-Oct-14	7
0240-1080	Temp Bridge "TB" Design - ER Approval	18	28-Sep-14	15-Oct-14	05-Oct-14	22-Oct-14	7
0240-1082	Temp Bridge "TB" Tower Fabrication Fabrication	24	28-Sep-14	21-Oct-14	05-Oct-14	28-Oct-14	7
0240-1085	Temp Bridge "TB" Tower Fabrication Fabrication	36	16-Oct-14	20-Nov-14	23-Oct-14	27-Nov-14	7
02.5 - Bridge Segment/Beam Off-site Precasting							
0250-1720.10	Precast Beam Bridge E 1718-B	0	21-Jun-14 A	20-Jul-14*	31-Oct-14	31-Oct-14	104
0250-1950	Brideg C5 Pier 33 T-span Segment Off-site Casting (11 nos.)	0	10-Jun-14 A	13-Jul-14 A	10-Jan-15	10-Jan-15	
0250-1960	Brideg C5 Pier 34 T-span Segment Off-site Casting (9 nos.)	0	22-Jun-14 A	13-Jul-14 A	10-Jan-15	10-Jan-15	
0250-1970	Brideg C5 Pier 32 End-span Segment Off-site Casting (6 nos.)	18	20-Jun-14 A	06-Aug-14	12-Dec-14	29-Dec-14	145
0250-1980	Brideg C5 Abut D12 E-span Segment Off-site Casting (6 nos.)	19	07-Aug-14	25-Aug-14	30-Dec-14	17-Jan-15	145
0250-1990	Brideg C3 Pier 27 T-span Segment Off-site Casting (11 nos.)	27	18-Aug-14	13-Sep-14	10-Jan-15	05-Feb-15	145
0250-2010	Brideg C3 Pier 28 End-span Segment Off-site Casting (6 nos.)	19	26-Aug-14	13-Sep-14	18-Jan-15	05-Feb-15	145
0250-2000	Brideg C3 Pier 26 T-span Segment Off-site Casting (13 nos.)	31	14-Sep-14	14-Oct-14	06-Feb-15	08-Mar-15	145
0250-2020	Brideg C3 Pier 25 End-span Segment Off-site Casting (5 nos.)	16	14-Sep-14	29-Sep-14	21-Feb-15	08-Mar-15	160
0250-2050	Brideg C2 Pier 25 End-span Segment Off-site Casting (6 nos.)	19	30-Sep-14	18-Oct-14	17-Mar-15	04-Apr-15	168
0250-2030	Brideg C2 Pier 24 T-span Segment Off-site Casting (11 nos.)	27	15-Oct-14	10-Nov-14	09-Mar-15	04-Apr-15	145
03 - PRELIMINARY WORKS							
03.3 - Interface Works							
0330-1350	Erect Special Hoarding at Portion IV and V	36	03-Oct-14*	13-Nov-14	15-Jul-15	25-Aug-15	233
05 - SECTION 2 & 2A OF THE WORKS							
05.1 - Cut & Cover Tunnel Ch 4855-4932 (APS Footprint)							
05.1.2 - ELS							
0512-1175	Lev 6B (-16.5mPD) S8 ELS (9 nos)	0	11-Jun-14 A	15-Jul-14 A	21-Jul-14	21-Jul-14	
0512-1178	Lev 6A (-16.5mPD) S1-S3 ELS (6 nos)	0	13-Jun-14 A	18-Jul-14 A	21-Jul-14	21-Jul-14	
0512-1179	Lower Water Level to -21.0mPD (Pump Test)	0	10-Jul-14 A	20-Jul-14 A	06-Aug-14	06-Aug-14	
0512-1180	Lev 7B (-20.0mPD) S8 Excav (5198m3)	0	26-Jun-14 A	06-Jul-14 A	11-Aug-19	11-Aug-19	
0512-1185	Lev 7B (-20.0mPD) S8 ELS (9 nos)	0	03-Jul-14 A	19-Jul-14 A	29-Jul-14	29-Jul-14	
0512-1182	Lev 7A (-20.0mPD) S1-S3 Excav (5544m3)	7	14-Jul-14 A	26-Jul-14	21-Jul-14	27-Jul-14	1
0512-1189.1	Lower Water Level to -29.5mPD (Pump Test)	12	15-Jul-14 A	02-Aug-14	02-Aug-14	15-Aug-14	11
0512-1187.1	Lev 7A (-20.0mPD) S1-S3 ELS (8 nos)	9	28-Jul-14	06-Aug-14	28-Jul-14	06-Aug-14	0
0512-1200.1	Lev 8 (-28.5mPD) Excav + Blinding (13811m3	16	15-Jul-14 A	15-Aug-14	29-Jul-14	15-Aug-14	0
0512-1215	Middle Lev 1 (+2.0mPD) ELS (6 nos)	0	19-Jun-14 A	05-Jul-14 A	08-Aug-14	08-Aug-14	
0512-1230	Middle Lev 2 (-2.0mPD) Excav (4620m3)	0	07-Jul-14 A	14-Jul-14 A	08-Aug-14	08-Aug-14	
0512-1235	Middle Lev 2 (-2.0mPD) ELS (6 nos)	6	15-Jul-14 A	25-Jul-14	08-Aug-14	14-Aug-14	20
0512-1238	Submit/Approve Method Statement - Permanent Bulkhead Wall Removal	14	20-Jul-14	02-Aug-14	09-Aug-14	23-Aug-14	21
0512-1240	Middle Lev 3 (-7.0mPD) Excav (5280m3)	11	26-Jul-14	05-Aug-14	14-Aug-14	25-Aug-14	20
0512-1255	Middle Lev 3 Break Permanent Bulkhead Wall to -7.0mPD	9	03-Aug-14	11-Aug-14	23-Aug-14	01-Sep-14	21
0512-1250	Middle Lev 3 (-7.0mPD) ELS (6 nos)	7	06-Aug-14	12-Aug-14	25-Aug-14	01-Sep-14	20
0512-1260	Middle Lev 4 (-11.0mPD) Excav (5280m3)	12	13-Aug-14	24-Aug-14*	01-Sep-14	13-Sep-14	20
0512-1275	Middle Lev 4 Break Permanent Bulkhead Wall to -11.0mPD	9	22-Aug-14	30-Aug-14	22-Sep-14	30-Sep-14	31
0512-1270	Middle Lev 4 (-11.0mPD) ELS (6 nos)	7	25-Aug-14	31-Aug-14	24-Sep-14	30-Sep-14	30
0512-1290	Middle Lev 5 Break Permanent Bulkhead Wall to -15.0mPD	9	31-Aug-14	08-Sep-14	01-Oct-14	09-Oct-14	31
0512-1280	Middle Lev 5 (-15.0mPD) Excav + Blinding (3960m3)	9	01-Sep-14	09-Sep-14	01-Oct-14	09-Oct-14	30
05.1.3 - APS Structure							



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

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0513-1310	APS Base Slab - Prepare CJ and form keys into D-wall	12	09-Aug-14	22-Aug-14	08-Aug-14	22-Aug-14	0
0513-1312	APS Base Slab - Waterproofing Membrane	12	09-Aug-14	22-Aug-14	08-Aug-14	22-Aug-14	0
0513-1314	APS Bay 17 Base Slab - Rebar Fixing	12	08-Sep-14	22-Sep-14	19-Sep-14	04-Oct-14	9
0513-1316	APS Bay 17 Base Slab - Formworks/Prepare CJ	12	19-Sep-14	04-Oct-14	30-Sep-14	15-Oct-14	9
0513-1318	APS Bay 17 Base Slab - Concreting	2	06-Oct-14	07-Oct-14	16-Oct-14	17-Oct-14	9
0513-1320	APS Bay 17 Wall/Col - Rebar Fixing	10	08-Oct-14	18-Oct-14	18-Oct-14	29-Oct-14	9
0513-1322	APS Bay 17 Wall/Col - Formworks	10	08-Oct-14	18-Oct-14	18-Oct-14	29-Oct-14	9
0513-1326	APS Bay 18 Base Slab - Rebar Fixing	12	08-Aug-14	21-Aug-14	08-Aug-14	21-Aug-14	0
0513-1328	APS Bay 18 Base Slab - Formworks/Prepare CJ	12	19-Aug-14	01-Sep-14	29-Aug-14	12-Sep-14	9
0513-1330	APS Bay 18 Base Slab - Concreting	2	02-Sep-14	03-Sep-14	13-Sep-14	15-Sep-14	9
0513-1332	APS Bay 18 Wall/Col - Rebar Fixing	10	04-Sep-14	16-Sep-14	18-Oct-14	29-Oct-14	35
0513-1334	APS Bay 18 Wall/Col - Formworks	10	04-Sep-14	16-Sep-14	18-Oct-14	29-Oct-14	35
0513-1336	APS Bay 18 Wall/Col - Concreting	2	17-Sep-14	18-Sep-14	30-Oct-14	31-Oct-14	35
0513-1338	APS Bay 19 Base Slab - Rebar Fixing	12	04-Sep-14	18-Sep-14	16-Sep-14	29-Sep-14	9
0513-1340	APS Bay 19 Base Slab - Formworks/Prepare CJ	12	16-Sep-14	29-Sep-14	30-Sep-14	15-Oct-14	12
0513-1342	APS Bay 19 Base Slab - Concreting	2	30-Sep-14	03-Oct-14	16-Oct-14	17-Oct-14	12
0513-1344	APS Bay 19 Wall/Col - Rebar Fixing	10	04-Oct-14	15-Oct-14	18-Oct-14	29-Oct-14	12
0513-1346	APS Bay 19 Wall/Col - Formworks	10	04-Oct-14	15-Oct-14	18-Oct-14	29-Oct-14	12
0513-1348	APS Bay 19 Wall/Col - Concreting	2	16-Oct-14	17-Oct-14	30-Oct-14	31-Oct-14	12
0513-1350	APS Bay 20 Base Slab - Rebar Fixing	12	01-Aug-14	14-Aug-14	01-Aug-14	14-Aug-14	0
0513-1352	APS Bay 20 Base Slab - Formworks/Prepare CJ	12	12-Aug-14	25-Aug-14	26-Aug-14	08-Sep-14	12
0513-1354	APS Bay 20 Base Slab - Concreting	2	26-Aug-14	27-Aug-14	10-Sep-14	11-Sep-14	12
0513-1356	APS Bay 20 Wall/Col - Rebar Fixing	10	28-Aug-14	08-Sep-14	18-Oct-14	29-Oct-14	41
0513-1358	APS Bay 20 Wall/Col - Formworks	10	28-Aug-14	08-Sep-14	18-Oct-14	29-Oct-14	41
0513-1360	APS Bay 20 Wall/Col - Concreting	2	10-Sep-14	11-Sep-14	30-Oct-14	31-Oct-14	41
0513-1362	APS Bay 21 Base Slab - Rebar Fixing	12	28-Aug-14	11-Sep-14	12-Sep-14	25-Sep-14	12
0513-1364	APS Bay 21 Base Slab - Formworks/Prepare CJ	12	08-Sep-14	22-Sep-14	30-Sep-14	15-Oct-14	18
0513-1366	APS Bay 21 Base Slab - Concreting	2	23-Sep-14	24-Sep-14	16-Oct-14	17-Oct-14	18
0513-1368	APS Bay 21 Wall/Col - Rebar Fixing	10	25-Sep-14	08-Oct-14	18-Oct-14	29-Oct-14	18
0513-1370	APS Bay 21 Wall/Col - Formworks	10	25-Sep-14	08-Oct-14	18-Oct-14	29-Oct-14	18
0513-1372	APS Bay 21 Wall/Col - Concreting	2	09-Oct-14	10-Oct-14	30-Oct-14	31-Oct-14	18
0513-1374	APS Bay 22 Base Slab - Rebar Fixing	12	05-Aug-14	18-Aug-14	05-Aug-14	18-Aug-14	0
0513-1376	APS Bay 22 Base Slab - Formworks/Prepare CJ	12	15-Aug-14	28-Aug-14	30-Sep-14	15-Oct-14	38
0513-1378	APS Bay 22 Base Slab - Concreting	2	29-Aug-14	30-Aug-14	16-Oct-14	17-Oct-14	38
0513-1380	APS Bay 22 Wall/Col - Rebar Fixing	10	01-Sep-14	12-Sep-14	18-Oct-14	29-Oct-14	38
0513-1382	APS Bay 22 Wall/Col - Formworks	10	01-Sep-14	12-Sep-14	18-Oct-14	29-Oct-14	38
0513-1384	APS Bay 22 Wall/Col - Concreting	2	13-Sep-14	15-Sep-14	30-Oct-14	31-Oct-14	38
0513-1386	APS Bay 23 Base Slab - Rebar Fixing	12	19-Sep-14	04-Oct-14	19-Sep-14	04-Oct-14	0
0513-1388	APS Bay 23 Base Slab - Formworks/Prepare CJ	12	30-Sep-14	15-Oct-14	30-Sep-14	15-Oct-14	0
0513-1390	APS Bay 23 Base Slab - Concreting	2	16-Oct-14	17-Oct-14	16-Oct-14	17-Oct-14	0
0513-1392	APS Bay 23 Wall/Col - Rebar Fixing	10	18-Oct-14	29-Oct-14	18-Oct-14	29-Oct-14	0
0513-1394	APS Bay 23 Wall/Col - Formworks	10	18-Oct-14	29-Oct-14	18-Oct-14	29-Oct-14	0
0513-1398	APS Bay 24 Base Slab - Rebar Fixing	12	12-Aug-14	25-Aug-14	12-Aug-14	25-Aug-14	0
0513-1400	APS Bay 24 Base Slab - Formworks/Prepare CJ	12	22-Aug-14	04-Sep-14	30-Sep-14	15-Oct-14	32

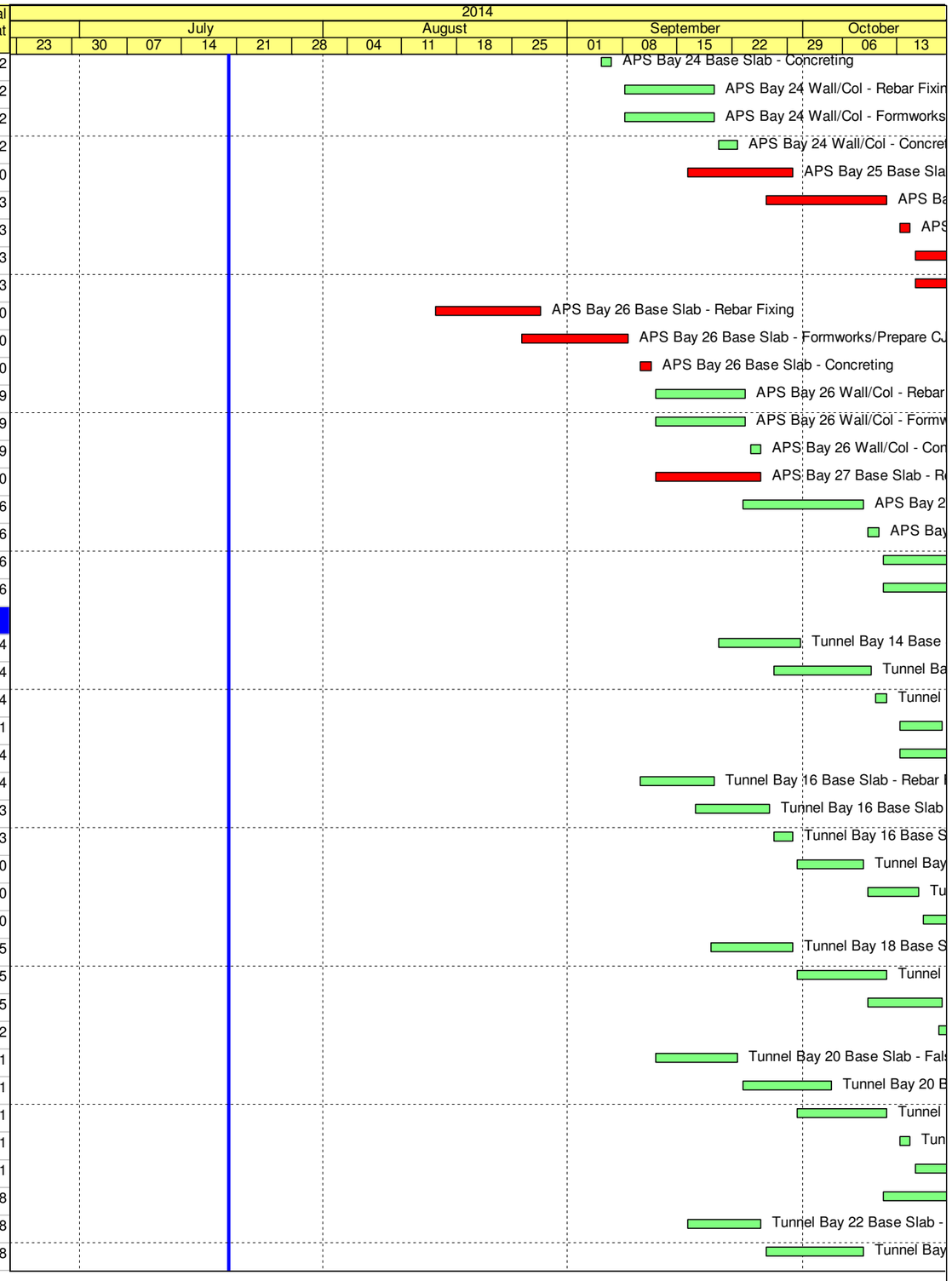


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0513-1402	APS Bay 24 Base Slab - Concreting	2	05-Sep-14	06-Sep-14	16-Oct-14	17-Oct-14	32
0513-1404	APS Bay 24 Wall/Col - Rebar Fixing	10	08-Sep-14	19-Sep-14	18-Oct-14	29-Oct-14	32
0513-1406	APS Bay 24 Wall/Col - Formworks	10	08-Sep-14	19-Sep-14	18-Oct-14	29-Oct-14	32
0513-1408	APS Bay 24 Wall/Col - Concreting	2	20-Sep-14	22-Sep-14	30-Oct-14	31-Oct-14	32
0513-1410	APS Bay 25 Base Slab - Rebar Fixing	12	16-Sep-14	29-Sep-14	16-Sep-14	29-Sep-14	0
0513-1412	APS Bay 25 Base Slab - Formworks/Prepare CJ	12	26-Sep-14	11-Oct-14	30-Sep-14	15-Oct-14	3
0513-1414	APS Bay 25 Base Slab - Concreting	2	13-Oct-14	14-Oct-14	16-Oct-14	17-Oct-14	3
0513-1416	APS Bay 25 Wall/Col - Rebar Fixing	10	15-Oct-14	25-Oct-14	18-Oct-14	29-Oct-14	3
0513-1418	APS Bay 25 Wall/Col - Formworks	10	15-Oct-14	25-Oct-14	18-Oct-14	29-Oct-14	3
0513-1422	APS Bay 26 Base Slab - Rebar Fixing	12	15-Aug-14	28-Aug-14	15-Aug-14	28-Aug-14	0
0513-1424	APS Bay 26 Base Slab - Formworks/Prepare CJ	12	26-Aug-14	08-Sep-14	26-Aug-14	08-Sep-14	0
0513-1426	APS Bay 26 Base Slab - Concreting	2	10-Sep-14	11-Sep-14	10-Sep-14	11-Sep-14	0
0513-1428	APS Bay 26 Wall/Col - Rebar Fixing	10	12-Sep-14	23-Sep-14	18-Oct-14	29-Oct-14	29
0513-1430	APS Bay 26 Wall/Col - Formworks	10	12-Sep-14	23-Sep-14	18-Oct-14	29-Oct-14	29
0513-1432	APS Bay 26 Wall/Col - Concreting	2	24-Sep-14	25-Sep-14	30-Oct-14	31-Oct-14	29
0513-1434	APS Bay 27 Base Slab - Rebar Fixing	12	12-Sep-14	25-Sep-14	12-Sep-14	25-Sep-14	0
0513-1436	APS Bay 27 Base Slab - Formworks/Prepare CJ	12	23-Sep-14	08-Oct-14	30-Sep-14	15-Oct-14	6
0513-1438	APS Bay 27 Base Slab - Concreting	2	09-Oct-14	10-Oct-14	16-Oct-14	17-Oct-14	6
0513-1440	APS Bay 27 Wall/Col - Rebar Fixing	10	11-Oct-14	22-Oct-14	18-Oct-14	29-Oct-14	6
0513-1442	APS Bay 27 Wall/Col - Formworks	10	11-Oct-14	22-Oct-14	18-Oct-14	29-Oct-14	6
05.1.4 - Tunnel Structure							
0514-1446	Tunnel Bay 14 Base Slab - Rebar Fixing	9	20-Sep-14	30-Sep-14	21-Oct-14	30-Oct-14	24
0514-1448	Tunnel Bay 14 Base Slab - Formwork/Prepare CJ	9	27-Sep-14	09-Oct-14	28-Oct-14	06-Nov-14	24
0514-1482	Tunnel Bay 14 Base Slab - Concreting	2	10-Oct-14	11-Oct-14	07-Nov-14	08-Nov-14	24
0514-1483	Tunnel Bay 14 Centre Wall - Remove Strut	6	13-Oct-14	18-Oct-14	29-Nov-14	05-Dec-14	41
0514-1502	Tunnel Bay 15 Base Slab - Rebar Fixing	9	13-Oct-14	22-Oct-14	10-Nov-14	19-Nov-14	24
0514-1526	Tunnel Bay 16 Base Slab - Rebar Fixing	9	10-Sep-14	19-Sep-14	10-Oct-14	20-Oct-14	24
0514-1528	Tunnel Bay 16 Base Slab - Formwork/Prepare CJ	9	17-Sep-14	26-Sep-14	28-Oct-14	06-Nov-14	33
0514-1530	Tunnel Bay 16 Base Slab - Concreting	2	27-Sep-14	29-Sep-14	07-Nov-14	08-Nov-14	33
0514-1531	Tunnel Bay 16 Centre Wall - Remove Strut	6	30-Sep-14	08-Oct-14	29-Nov-14	05-Dec-14	50
0514-1532	Tunnel Bay 16 Centre Wall - Rebar Fixing	6	09-Oct-14	15-Oct-14	06-Dec-14	12-Dec-14	50
0514-1534	Tunnel Bay 16 Centre Wall - Formwork	6	16-Oct-14	22-Oct-14	13-Dec-14	19-Dec-14	50
0514-1575	Tunnel Bay 18 Base Slab - Falsework/Formwork	9	19-Sep-14	29-Sep-14	01-Nov-14	11-Nov-14	35
0514-1576	Tunnel Bay 18 Base Slab - Rebar Fixing	9	30-Sep-14	11-Oct-14	12-Nov-14	21-Nov-14	35
0514-1577	Tunnel Bay 18 Base Slab - Formwork/Prepare CJ	9	09-Oct-14	18-Oct-14	19-Nov-14	28-Nov-14	35
0514-1589	Tunnel Bay 19 Base Slab - Falsework/Formwork	9	18-Oct-14	28-Oct-14	01-Nov-14	11-Nov-14	12
0514-1604	Tunnel Bay 20 Base Slab - Falsework/Formwork	9	12-Sep-14	22-Sep-14	01-Nov-14	11-Nov-14	41
0514-1606	Tunnel Bay 20 Base Slab - Rebar Fixing	9	23-Sep-14	04-Oct-14	12-Nov-14	21-Nov-14	41
0514-1608	Tunnel Bay 20 Base Slab - Formwork/Prepare CJ	9	30-Sep-14	11-Oct-14	19-Nov-14	28-Nov-14	41
0514-1610	Tunnel Bay 20 Base Slab - Concreting	2	13-Oct-14	14-Oct-14	29-Nov-14	01-Dec-14	41
0514-1612	Tunnel Bay 20 Centre Wall - Remove Strut	6	15-Oct-14	21-Oct-14	02-Dec-14	08-Dec-14	41
0514-1632	Tunnel Bay 21 Base Slab - Falsework/Formwork	9	11-Oct-14	21-Oct-14	01-Nov-14	11-Nov-14	18
0514-1660	Tunnel Bay 22 Base Slab - Falsework/Formwork	9	16-Sep-14	25-Sep-14	01-Nov-14	11-Nov-14	38
0514-1662	Tunnel Bay 22 Base Slab - Rebar Fixing	9	26-Sep-14	08-Oct-14	12-Nov-14	21-Nov-14	38



Remaining Level of Effort
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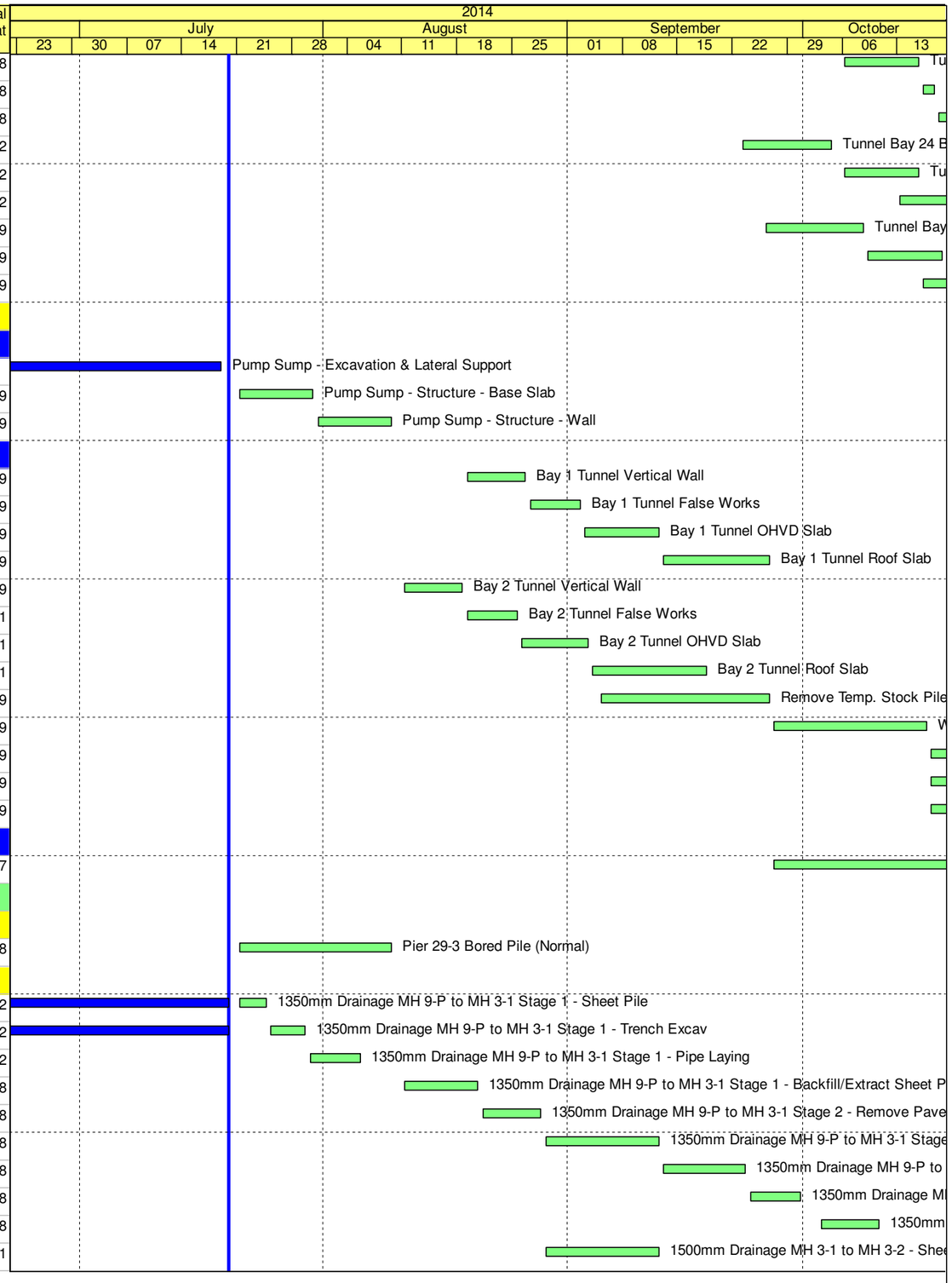
Milestone

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
0514-1664	Tunnel Bay 22 Base Slab - Formwork/Prepare CJ	9	06-Oct-14	15-Oct-14	19-Nov-14	28-Nov-14	38
0514-1666	Tunnel Bay 22 Base Slab - Concreting	2	16-Oct-14	17-Oct-14	29-Nov-14	01-Dec-14	38
0514-1668	Tunnel Bay 22 Centre Wall - Remove Strut	6	18-Oct-14	24-Oct-14	02-Dec-14	08-Dec-14	38
0514-1716	Tunnel Bay 24 Base Slab - Falsework/Formwork	9	23-Sep-14	04-Oct-14	01-Nov-14	11-Nov-14	32
0514-1718	Tunnel Bay 24 Base Slab - Rebar Fixing	9	06-Oct-14	15-Oct-14	12-Nov-14	21-Nov-14	32
0514-1720	Tunnel Bay 24 Base Slab - Formwork/Prepare CJ	9	13-Oct-14	22-Oct-14	19-Nov-14	28-Nov-14	32
0514-1772	Tunnel Bay 26 Base Slab - Falsework/Formwork	9	26-Sep-14	08-Oct-14	01-Nov-14	11-Nov-14	29
0514-1774	Tunnel Bay 26 Base Slab - Rebar Fixing	9	09-Oct-14	18-Oct-14	12-Nov-14	21-Nov-14	29
0514-1776	Tunnel Bay 26 Base Slab - Formwork/Prepare CJ	9	16-Oct-14	25-Oct-14	19-Nov-14	28-Nov-14	29
05.2 - Cut & Cover Tunnel Ch 4932-5149							
05.2.3 - ELS							
0524-2889	Pump Sump - Excavation & Lateral Support	0	22-Apr-14 A	19-Jul-14 A	04-Sep-14	04-Sep-14	
0524-2885	Pump Sump - Structure - Base Slab	9	21-Jul-14	30-Jul-14	04-Sep-14	15-Sep-14	39
0524-2890	Pump Sump - Structure - Wall	9	31-Jul-14	09-Aug-14	16-Sep-14	25-Sep-14	39
05.2.4 - Tunnel Structure							
0524-3015	Bay 1 Tunnel Vertical Wall	7	25-Aug-14 A	26-Aug-14	07-Oct-14	14-Oct-14	39
0524-3025	Bay 1 Tunnel False Works	6	27-Aug-14	02-Sep-14	15-Oct-14	21-Oct-14	39
0524-3035	Bay 1 Tunnel OHVD Slab	8	03-Sep-14	12-Sep-14	22-Oct-14	30-Oct-14	39
0524-3045	Bay 1 Tunnel Roof Slab	12	13-Sep-14	26-Sep-14	31-Oct-14	13-Nov-14	39
0524-3115	Bay 2 Tunnel Vertical Wall	7	11-Aug-14	18-Aug-14	26-Sep-14	06-Oct-14	39
0524-3125	Bay 2 Tunnel False Works	6	19-Aug-14	25-Aug-14	01-Nov-14	07-Nov-14	61
0524-3135	Bay 2 Tunnel OHVD Slab	8	26-Aug-14	03-Sep-14	08-Nov-14	17-Nov-14	61
0524-3145	Bay 2 Tunnel Roof Slab	12	04-Sep-14	18-Sep-14	18-Nov-14	01-Dec-14	61
0524-3472	Remove Temp. Stock Pile on top of Tunnel	18	05-Sep-14	26-Sep-14	24-Oct-14	13-Nov-14	39
0524-3474	Waterproofing Preparation + Tunnel Roof Remedial Works	15	27-Sep-14	16-Oct-14	14-Nov-14	01-Dec-14	39
0524-3365	Waterproof Top Slab Bay 1 to Bay 4	12	17-Oct-14	30-Oct-14	02-Dec-14	15-Dec-14	39
0524-3475	Waterproof Top Slab Bay 5 to Bay 9	12	17-Oct-14	30-Oct-14	02-Dec-14	15-Dec-14	39
0524-3685	Waterproof Top Slab Bays 12 and 13	12	17-Oct-14	30-Oct-14	02-Dec-14	15-Dec-14	39
05.2.5 - Road & Miscellaneous Works							
0525-2890	Tunnel Road Drainage (excl vent bldg)	45	27-Sep-14	20-Nov-14	05-Dec-14	28-Jan-15	57
06 - SECTION 3 OF THE WORKS							
06.1 - Westbound - Pier 29-34							
0610-2126	Pier 29-3 Bored Pile (Normal)	18	21-Jul-14	09-Aug-14	23-Oct-14	12-Nov-14	78
06.2 - Box Culvert U1							
0620-2632	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Sheet Pile	4	20-Mar-14 A	24-Jul-14	28-Oct-14	31-Oct-14	82
0620-2633	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Trench Excav	4	02-Apr-14 A	29-Jul-14	01-Nov-14	05-Nov-14	82
0620-2634	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Pipe Laying	6	30-Jul-14	05-Aug-14	06-Nov-14	12-Nov-14	82
0620-2635	1350mm Drainage MH 9-P to MH 3-1 Stage 1 - Backfill/Extract Sheet Pile	9	11-Aug-14	20-Aug-14	13-Nov-14	22-Nov-14	78
0620-2636	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Remove Pavement	7	21-Aug-14	28-Aug-14	24-Nov-14	01-Dec-14	78
0620-2637	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Sheet Pile	12	29-Aug-14	12-Sep-14	02-Dec-14	15-Dec-14	78
0620-2638	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Trench Excav	9	13-Sep-14	23-Sep-14	16-Dec-14	26-Dec-14	78
0620-2639	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Pipe Laying	6	24-Sep-14	30-Sep-14	27-Dec-14	03-Jan-15	78
0620-2641	1350mm Drainage MH 9-P to MH 3-1 Stage 2 - Backfill/Extract Sheet Pile	7	03-Oct-14	10-Oct-14	05-Jan-15	12-Jan-15	78
0620-2642	1500mm Drainage MH 3-1 to MH 3-2 - Sheet Pile	12	29-Aug-14	12-Sep-14	17-Dec-14	31-Dec-14	91



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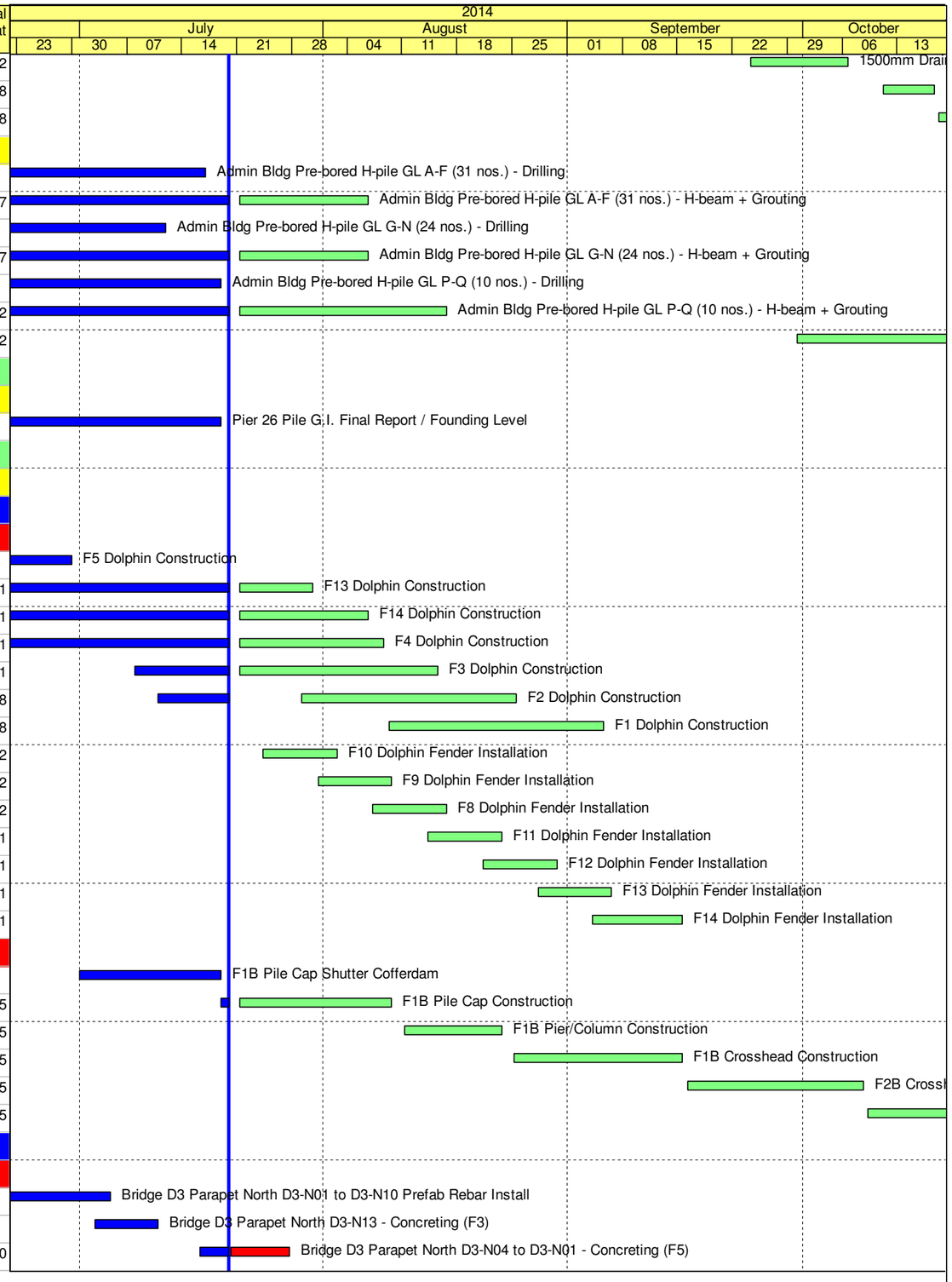
0620-2643	1500mm Drainage MH 3-1 to MH 3-2 - Trench Excav	9	24-Sep-14	06-Oct-14	02-Jan-15	12-Jan-15	82
0620-2644	1500mm Drainage MH 3-1 to MH 3-2 - Pipe Laying	6	11-Oct-14	17-Oct-14	13-Jan-15	19-Jan-15	78
0620-2645	1500mm Drainage MH 3-1 to MH 3-2 - Construct MH 3-1	12	18-Oct-14	31-Oct-14	20-Jan-15	02-Feb-15	78
06.3 - Admin Building							
0630-3111	Admin Bldg Pre-bored H-pile GL A-F (31 nos.) - Drilling	0	24-Feb-14 A	17-Jul-14 A	11-Aug-19	11-Aug-19	
0630-3112	Admin Bldg Pre-bored H-pile GL A-F (31 nos.) - H-beam + Grouting	15	27-Mar-14 A	06-Aug-14	26-Nov-14	12-Dec-14	107
0630-3121	Admin Bldg Pre-bored H-pile GL G-N (24 nos.) - Drilling	0	24-Feb-14 A	12-Jul-14 A	11-Aug-19	11-Aug-19	
0630-3122	Admin Bldg Pre-bored H-pile GL G-N (24 nos.) - H-beam + Grouting	15	27-Mar-14 A	06-Aug-14	26-Nov-14	12-Dec-14	107
0630-3131	Admin Bldg Pre-bored H-pile GL P-Q (10 nos.) - Drilling	0	07-Jun-14 A	19-Jul-14 A	11-Aug-19	11-Aug-19	
0630-3132	Admin Bldg Pre-bored H-pile GL P-Q (10 nos.) - H-beam + Grouting	24	21-Jun-14 A	16-Aug-14	04-Oct-14	31-Oct-14	62
0630-3119	Admin Bldg Ground Beam	48	30-Sep-14	26-Nov-14	13-Dec-14	09-Feb-15	62
09 - SECTION 6 OF THE WORKS							
09.2 - Westbound - Pier 26-27							
0920-2105	Pier 26 Pile G.I. Final Report / Founding Level	0	17-Jun-14 A	19-Jul-14 A	25-Sep-15	25-Sep-15	
10 - SECTION X OF THE WORKS							
10.1 - E/B Bridges (Bridge D, E and F)							
10.1.1 - Marine Pier Construction							
Pier F03 to F15							
1011-3255	F5 Dolphin Construction	0	06-May-14 A	30-Jun-14 A	09-Aug-14	09-Aug-14	
1011-3245	F13 Dolphin Construction	9	28-May-14 A	30-Jul-14	26-Aug-14	04-Sep-14	31
1011-3265	F14 Dolphin Construction	15	03-Jun-14 A	06-Aug-14	26-Aug-14	12-Sep-14	31
1011-3271	F4 Dolphin Construction	17	19-Jun-14 A	08-Aug-14	02-Aug-14	21-Aug-14	11
1011-3272	F3 Dolphin Construction	23	08-Jul-14 A	15-Aug-14	02-Aug-14	28-Aug-14	11
1011-3273	F2 Dolphin Construction	24	11-Jul-14 A	25-Aug-14	30-Dec-14	27-Jan-15	128
1011-3274	F1 Dolphin Construction	24	09-Aug-14	05-Sep-14	12-Jan-15	07-Feb-15	128
1011-3296	F10 Dolphin Fender Installation	9	24-Jul-14*	02-Aug-14	19-Aug-14	28-Aug-14	22
1011-3297	F9 Dolphin Fender Installation	9	31-Jul-14	09-Aug-14	26-Aug-14	04-Sep-14	22
1011-3298	F8 Dolphin Fender Installation	9	07-Aug-14	16-Aug-14	02-Sep-14	12-Sep-14	22
1011-3306	F11 Dolphin Fender Installation	9	14-Aug-14	23-Aug-14	08-Jan-15	17-Jan-15	121
1011-3307	F12 Dolphin Fender Installation	9	21-Aug-14	30-Aug-14	15-Jan-15	24-Jan-15	121
1011-3308	F13 Dolphin Fender Installation	9	28-Aug-14	06-Sep-14	22-Jan-15	31-Jan-15	121
1011-3309	F14 Dolphin Fender Installation	9	04-Sep-14	15-Sep-14	29-Jan-15	07-Feb-15	121
Pier F01 to F02							
1011-2890	F1B Pile Cap Shutter Cofferdam	0	01-Jul-14 A	19-Jul-14 A	11-Mar-17	11-Mar-17	
1011-2895	F1B Pile Cap Construction	18	19-Jul-14 A	09-Aug-14	11-Mar-17	31-Mar-17	795
1011-2900	F1B Pier/Column Construction	12	11-Aug-14	23-Aug-14	01-Apr-17	18-Apr-17	795
1011-2910	F1B Crosshead Construction	18	25-Aug-14	15-Sep-14	19-Apr-17	10-May-17	795
1011-2850	F2B Crosshead Construction	18	16-Sep-14	08-Oct-14	11-May-17	01-Jun-17	795
1011-2930	Bearing installation pier F1B/F2B	12	09-Oct-14	22-Oct-14	02-Jun-17	15-Jun-17	795
10.1.3 - E/B Bridge Construction							
Bridge D3							
1013-1921	Bridge D3 Parapet North D3-N01 to D3-N10 Prefab Rebar Install	0	16-Jun-14 A	05-Jul-14 A	20-Jul-14	20-Jul-14	
1013-1923	Bridge D3 Parapet North D3-N13 - Concreting (F3)	0	03-Jul-14 A	11-Jul-14 A	27-Jul-14	27-Jul-14	
1013-1133.1	Bridge D3 Parapet North D3-N04 to D3-N01 - Concreting (F5)	8	16-Jul-14 A	27-Jul-14	20-Jul-14	27-Jul-14	0



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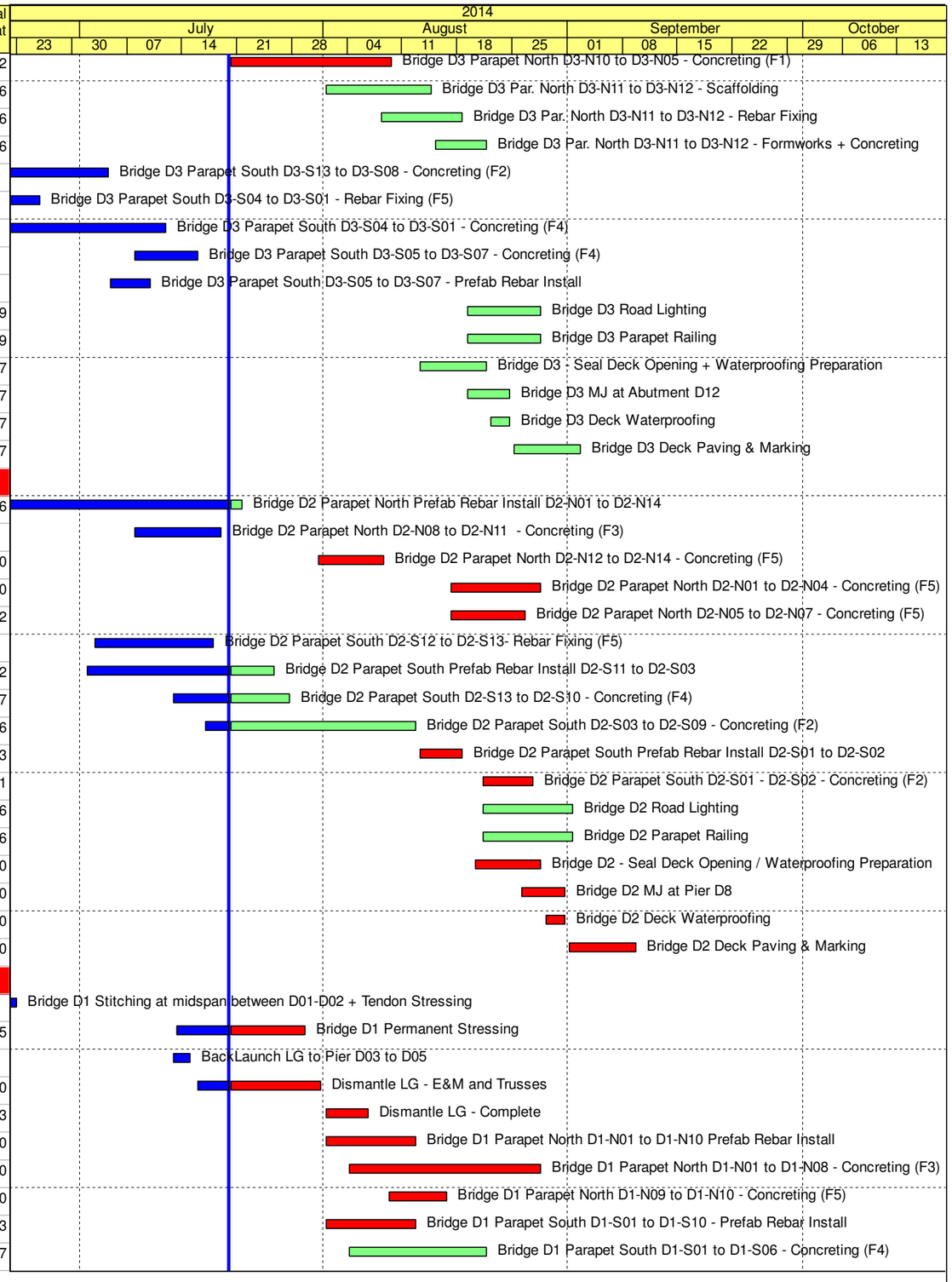
Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1013-1865	Bridge D3 Parapet North D3-N10 to D3-N05 - Concreting (F1)	21	20-Jul-14	09-Aug-14	22-Jul-14	11-Aug-14	2
1013-1138.1	Bridge D3 Par. North D3-N11 to D3-N12 - Scaffolding	12	01-Aug-14	14-Aug-14	08-Aug-14	21-Aug-14	6
1013-1138.2	Bridge D3 Par. North D3-N11 to D3-N12 - Rebar Fixing	9	08-Aug-14	18-Aug-14	15-Aug-14	25-Aug-14	6
1013-1138.3	Bridge D3 Par. North D3-N11 to D3-N12 - Formworks + Concreting	6	15-Aug-14	21-Aug-14	22-Aug-14	28-Aug-14	6
1013-1132	Bridge D3 Parapet South D3-S13 to D3-S08 - Concreting (F2)	0	08-Jun-14 A	04-Jul-14 A	11-Aug-19	11-Aug-19	
1013-1993	Bridge D3 Parapet South D3-S04 to D3-S01 - Rebar Fixing (F5)	0	13-Jun-14 A	26-Jun-14 A	11-Aug-19	11-Aug-19	
1013-1963	Bridge D3 Parapet South D3-S04 to D3-S01 - Concreting (F4)	0	19-Jun-14 A	12-Jul-14 A	27-Jul-14	27-Jul-14	
1013-1973	Bridge D3 Parapet South D3-S05 to D3-S07 - Concreting (F4)	0	08-Jul-14 A	16-Jul-14 A	11-Aug-19	11-Aug-19	
1013-2153	Bridge D3 Parapet South D3-S05 to D3-S07 - Prefab Rebar Install	0	05-Jul-14 A	10-Jul-14 A	11-Aug-19	11-Aug-19	
1013-1869	Bridge D3 Road Lighting	9	19-Aug-14	28-Aug-14	29-Aug-14	08-Sep-14	9
1013-1870	Bridge D3 Parapet Railing	9	19-Aug-14	28-Aug-14	29-Aug-14	08-Sep-14	9
1013-1144.1	Bridge D3 - Seal Deck Opening + Waterproofing Preparation	9	13-Aug-14	21-Aug-14	20-Aug-14	28-Aug-14	7
1013-1886	Bridge D3 MJ at Abutment D12	6	19-Aug-14	24-Aug-14	26-Aug-14	31-Aug-14	7
1013-1144	Bridge D3 Deck Waterproofing	3	22-Aug-14	24-Aug-14	29-Aug-14	31-Aug-14	7
1013-1145	Bridge D3 Deck Paving & Marking	9	25-Aug-14	02-Sep-14	01-Sep-14	09-Sep-14	7
Bridge D2							
1013-1565	Bridge D2 Parapet North Prefab Rebar Install D2-N01 to D2-N14	2	19-Jun-14 A	21-Jul-14	15-Aug-14	16-Aug-14	26
1013-1913	Bridge D2 Parapet North D2-N08 to D2-N11 - Concreting (F3)	0	08-Jul-14 A	19-Jul-14 A	11-Aug-19	11-Aug-19	
1013-1706	Bridge D2 Parapet North D2-N12 to D2-N14 - Concreting (F5)	9	31-Jul-14	08-Aug-14	31-Jul-14	08-Aug-14	0
1013-1566	Bridge D2 Parapet North D2-N01 to D2-N04 - Concreting (F5)	12	17-Aug-14	28-Aug-14	17-Aug-14	28-Aug-14	0
1013-1705	Bridge D2 Parapet North D2-N05 to D2-N07 - Concreting (F5)	10	17-Aug-14	26-Aug-14	19-Aug-14	28-Aug-14	2
1013-1133	Bridge D2 Parapet South D2-S12 to D2-S13- Rebar Fixing (F5)	0	03-Jul-14 A	18-Jul-14 A	03-Aug-14	03-Aug-14	
1013-1134	Bridge D2 Parapet South Prefab Rebar Install D2-S11 to D2-S03	6	02-Jul-14 A	25-Jul-14	11-Aug-14	16-Aug-14	22
1013-1863	Bridge D2 Parapet South D2-S13 to D2-S10 - Concreting (F4)	8	13-Jul-14 A	27-Jul-14	27-Jul-14	03-Aug-14	7
1013-1943	Bridge D2 Parapet South D2-S03 to D2-S09 - Concreting (F2)	24	17-Jul-14 A	12-Aug-14	05-Aug-14	28-Aug-14	16
1013-2143	Bridge D2 Parapet South Prefab Rebar Install D2-S01 to D2-S02	6	13-Aug-14	18-Aug-14	16-Aug-14	21-Aug-14	3
1013-1953	Bridge D2 Parapet South D2-S01 - D2-S02 - Concreting (F2)	7	21-Aug-14	27-Aug-14	22-Aug-14	28-Aug-14	1
1013-1880	Bridge D2 Road Lighting	10	21-Aug-14	01-Sep-14	28-Aug-14	08-Sep-14	6
1013-1881	Bridge D2 Parapet Railing	10	21-Aug-14	01-Sep-14	28-Aug-14	08-Sep-14	6
1013-1860.1	Bridge D2 - Seal Deck Opening / Waterproofing Preparation	9	20-Aug-14	28-Aug-14	20-Aug-14	28-Aug-14	0
1013-1891	Bridge D2 MJ at Pier D8	6	26-Aug-14	31-Aug-14	26-Aug-14	31-Aug-14	0
1013-1860	Bridge D2 Deck Waterproofing	3	29-Aug-14	31-Aug-14	29-Aug-14	31-Aug-14	0
1013-1561	Bridge D2 Deck Paving & Marking	9	01-Sep-14	09-Sep-14	01-Sep-14	09-Sep-14	0
Bridge D1							
1013-1650	Bridge D1 Stitching at midspan between D01-D02 + Tendon Stressing	0	16-Jun-14 A	23-Jun-14 A	25-Jul-14	25-Jul-14	
1013-1660	Bridge D1 Permanent Stressing	10	13-Jul-14 A	29-Jul-14	25-Jul-14	03-Aug-14	5
1013-1651	BackLaunch LG to Pier D03 to D05	0	13-Jul-14 A	15-Jul-14 A	11-Aug-19	11-Aug-19	
1013-1652	Dismantle LG - E&M and Trusses	12	16-Jul-14 A	31-Jul-14	20-Jul-14	31-Jul-14	0
1013-1653	Dismantle LG - Complete	6	01-Aug-14	06-Aug-14	04-Aug-14	09-Aug-14	3
1013-1704	Bridge D1 Parapet North D1-N01 to D1-N10 Prefab Rebar Install	12	01-Aug-14	12-Aug-14	01-Aug-14	12-Aug-14	0
1013-1933	Bridge D1 Parapet North D1-N01 to D1-N08 - Concreting (F3)	25	04-Aug-14	28-Aug-14	04-Aug-14	28-Aug-14	0
1013-1708	Bridge D1 Parapet North D1-N09 to D1-N10 - Concreting (F5)	8	09-Aug-14	16-Aug-14	09-Aug-14	16-Aug-14	0
1013-1701	Bridge D1 Parapet South D1-S01 to D1-S10 - Prefab Rebar Install	12	01-Aug-14	12-Aug-14	04-Aug-14	15-Aug-14	3
1013-1983	Bridge D1 Parapet South D1-S01 to D1-S06 - Concreting (F4)	18	04-Aug-14	21-Aug-14	11-Aug-14	28-Aug-14	7



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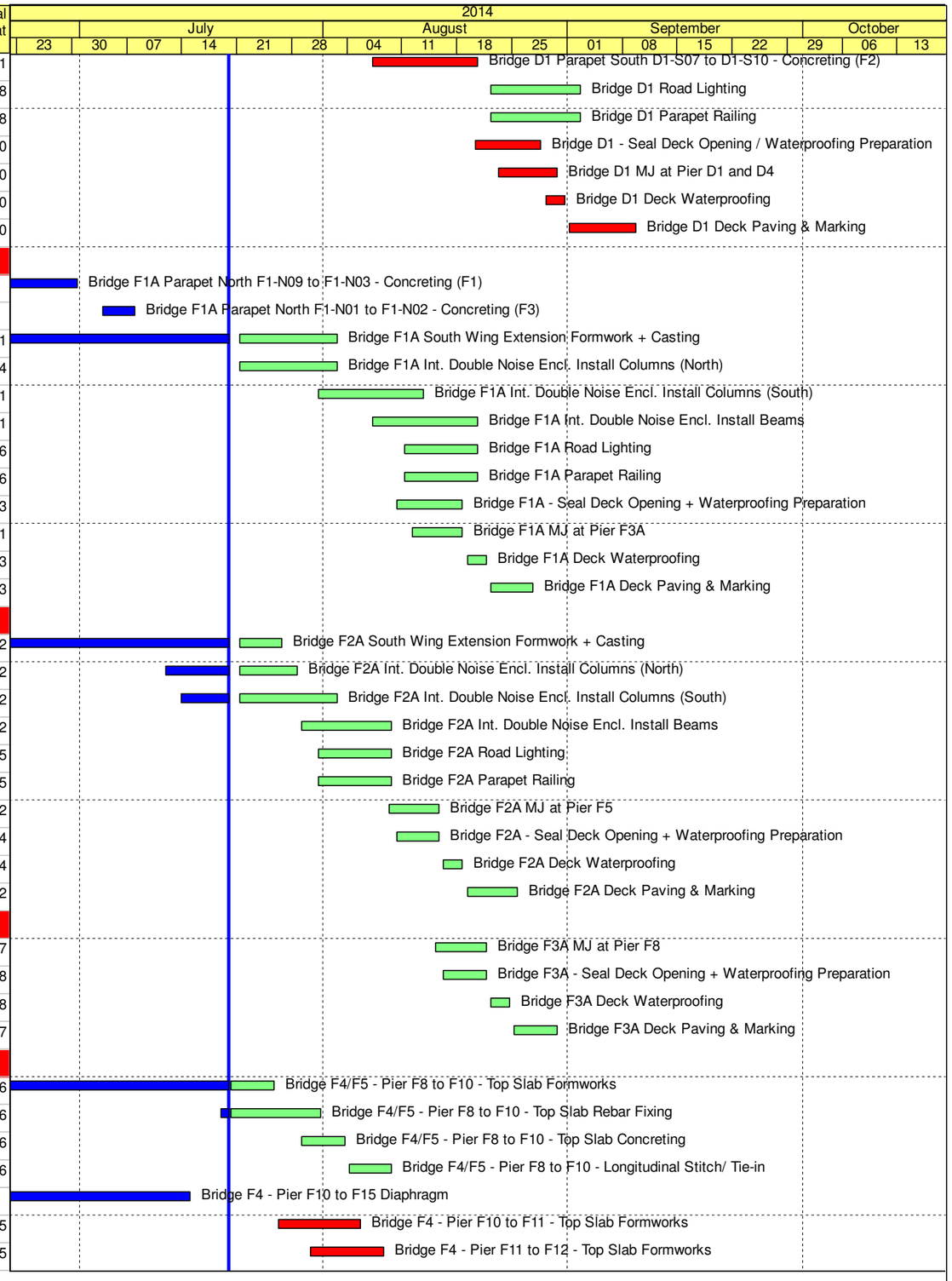
Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1013-1703	Bridge D1 Parapet South D1-S07 to D1-S10 - Concreting (F2)	14	07-Aug-14	20-Aug-14	08-Aug-14	21-Aug-14	1
1013-1882	Bridge D1 Road Lighting	10	22-Aug-14	02-Sep-14	01-Sep-14	12-Sep-14	8
1013-1883	Bridge D1 Parapet Railing	10	22-Aug-14	02-Sep-14	01-Sep-14	12-Sep-14	8
1013-1715.1	Bridge D1 - Seal Deck Opening / Waterproofing Preparation	9	20-Aug-14	28-Aug-14	20-Aug-14	28-Aug-14	0
1013-1892	Bridge D1 MJ at Pier D1 and D4	7	23-Aug-14	30-Aug-14	23-Aug-14	30-Aug-14	0
1013-1715	Bridge D1 Deck Waterproofing	3	29-Aug-14	31-Aug-14	29-Aug-14	31-Aug-14	0
1013-1716	Bridge D1 Deck Paving & Marking	9	01-Sep-14	09-Sep-14	01-Sep-14	09-Sep-14	0
Bridge F1A							
1013-1256	Bridge F1A Parapet North F1-N09 to F1-N03 - Concreting (F1)	0	11-Jun-14 A	30-Jun-14 A	22-Jul-14	22-Jul-14	
1013-1903	Bridge F1A Parapet North F1-N01 to F1-N02 - Concreting (F3)	0	04-Jul-14 A	08-Jul-14 A	27-Jul-14	27-Jul-14	
1013-1258	Bridge F1A South Wing Extension Formwork + Casting	12	15-May-14 A	02-Aug-14	02-Aug-14	15-Aug-14	11
1013-1866	Bridge F1A Int. Double Noise Encl. Install Columns (North)	12	21-Jul-14	02-Aug-14	06-Aug-14	19-Aug-14	14
1013-1867	Bridge F1A Int. Double Noise Encl. Install Columns (South)	12	31-Jul-14	13-Aug-14	13-Aug-14	26-Aug-14	11
1013-1868	Bridge F1A Int. Double Noise Encl. Install Beams	12	07-Aug-14	20-Aug-14	20-Aug-14	02-Sep-14	11
1013-1872	Bridge F1A Road Lighting	9	11-Aug-14	20-Aug-14	29-Aug-14	08-Sep-14	16
1013-1873	Bridge F1A Parapet Railing	9	11-Aug-14	20-Aug-14	29-Aug-14	08-Sep-14	16
1013-1265.1	Bridge F1A - Seal Deck Opening + Waterproofing Preparation	9	10-Aug-14	18-Aug-14	23-Aug-14	31-Aug-14	13
1013-1887	Bridge F1A MJ at Pier F3A	6	12-Aug-14	18-Aug-14	25-Aug-14	30-Aug-14	11
1013-1265	Bridge F1A Deck Waterproofing	3	19-Aug-14	21-Aug-14	01-Sep-14	03-Sep-14	13
1013-1266	Bridge F1A Deck Paving & Marking	6	22-Aug-14	27-Aug-14	04-Sep-14	09-Sep-14	13
Bridge F2A							
1013-1367	Bridge F2A South Wing Extension Formwork + Casting	6	20-May-14 A	26-Jul-14	04-Aug-14	09-Aug-14	12
1013-1376	Bridge F2A Int. Double Noise Encl. Install Columns (North)	7	12-Jul-14 A	28-Jul-14	04-Aug-14	11-Aug-14	12
1013-1377	Bridge F2A Int. Double Noise Encl. Install Columns (South)	12	14-Jul-14 A	02-Aug-14	04-Aug-14	16-Aug-14	12
1013-1378	Bridge F2A Int. Double Noise Encl. Install Beams	11	29-Jul-14	09-Aug-14	12-Aug-14	23-Aug-14	12
1013-1874	Bridge F2A Road Lighting	9	31-Jul-14	09-Aug-14	29-Aug-14	08-Sep-14	25
1013-1875	Bridge F2A Parapet Railing	9	31-Jul-14	09-Aug-14	29-Aug-14	08-Sep-14	25
1013-1888	Bridge F2A MJ at Pier F5	6	09-Aug-14	15-Aug-14	23-Aug-14	29-Aug-14	12
1013-1374.1	Bridge F2A - Seal Deck Opening + Waterproofing Preparation	6	10-Aug-14	15-Aug-14	24-Aug-14	29-Aug-14	14
1013-1374	Bridge F2A Deck Waterproofing	3	16-Aug-14	18-Aug-14	30-Aug-14	01-Sep-14	14
1013-1375	Bridge F2A Deck Paving & Marking	6	19-Aug-14	25-Aug-14	02-Sep-14	08-Sep-14	12
Bridge F3A							
1013-1889	Bridge F3A MJ at Pier F8	6	15-Aug-14	21-Aug-14	23-Aug-14	29-Aug-14	7
1013-1428.1	Bridge F3A - Seal Deck Opening + Waterproofing Preparation	6	16-Aug-14	21-Aug-14	24-Aug-14	29-Aug-14	8
1013-1428	Bridge F3A Deck Waterproofing	3	22-Aug-14	24-Aug-14	30-Aug-14	01-Sep-14	8
1013-1430	Bridge F3A Deck Paving & Marking	6	25-Aug-14	30-Aug-14	02-Sep-14	08-Sep-14	7
Bridge F5/F4							
1013-1436	Bridge F4/F5 - Pier F8 to F10 - Top Slab Formworks	6	11-Jun-14 A	25-Jul-14	26-Jul-14	31-Jul-14	6
1013-1439	Bridge F4/F5 - Pier F8 to F10 - Top Slab Rebar Fixing	12	19-Jul-14 A	31-Jul-14	15-Aug-14	26-Aug-14	26
1013-1441	Bridge F4/F5 - Pier F8 to F10 - Top Slab Concreting	6	29-Jul-14	03-Aug-14	24-Aug-14	29-Aug-14	26
1013-2103	Bridge F4/F5 - Pier F8 to F10 - Longitudinal Stitch/ Tie-in	6	04-Aug-14	09-Aug-14	30-Aug-14	04-Sep-14	26
1013-1446	Bridge F4 - Pier F10 to F15 Diaphragm	0	20-Jun-14 A	15-Jul-14 A	15-Aug-14	15-Aug-14	
1013-2160	Bridge F4 - Pier F10 to F11 - Top Slab Formworks	9	26-Jul-14	05-Aug-14	01-Aug-14	11-Aug-14	5
1013-2162	Bridge F4 - Pier F11 to F12 - Top Slab Formworks	9	30-Jul-14	08-Aug-14	05-Aug-14	14-Aug-14	5



Remaining Level of Effort
Actual Level of Effort
Actual Work
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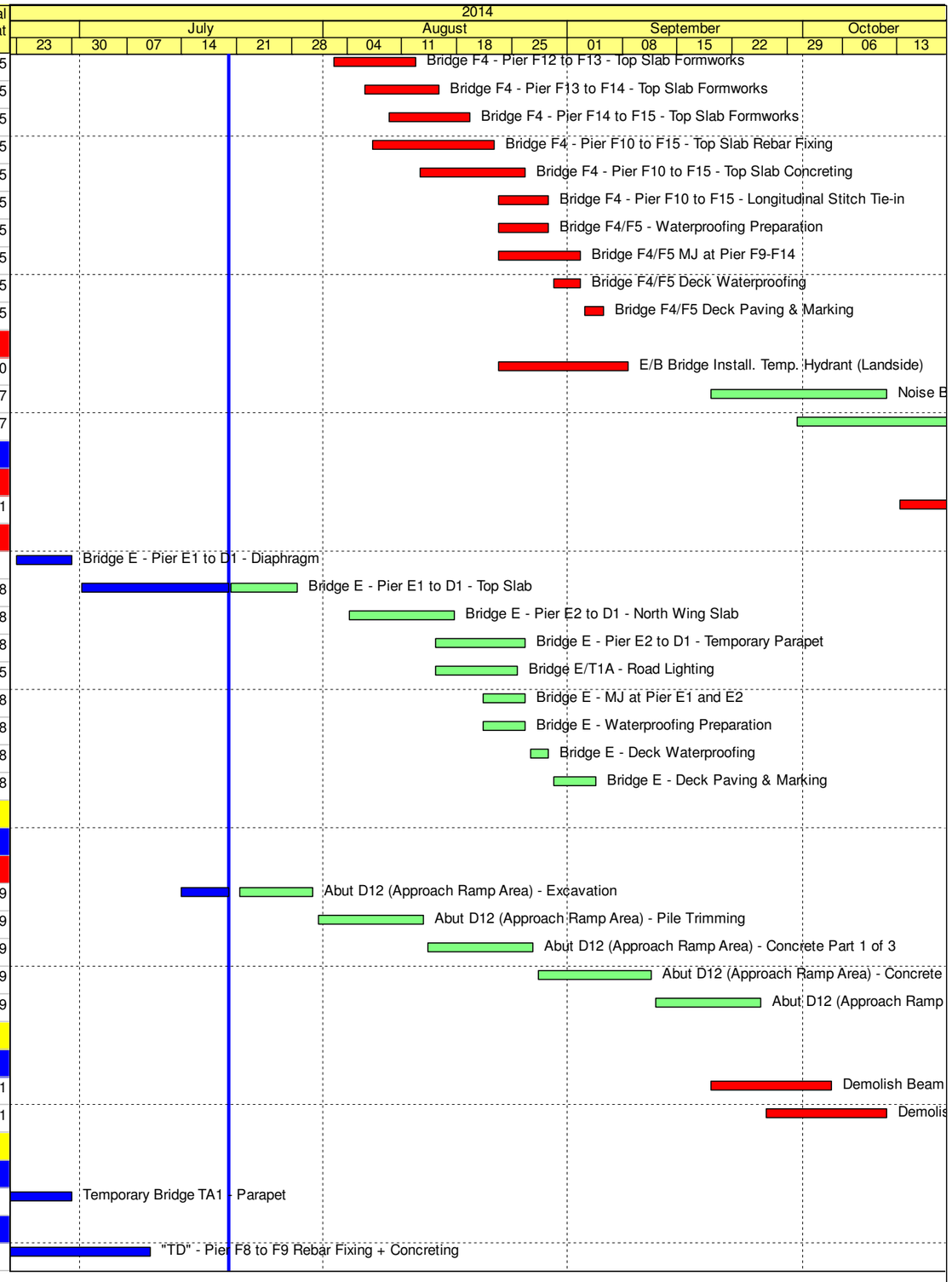
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1013-2164	Bridge F4 - Pier F12 to F13 - Top Slab Formworks	9	02-Aug-14	12-Aug-14	08-Aug-14	18-Aug-14	5
1013-2166	Bridge F4 - Pier F13 to F14 - Top Slab Formworks	9	06-Aug-14	15-Aug-14	12-Aug-14	21-Aug-14	5
1013-2168	Bridge F4 - Pier F14 to F15 - Top Slab Formworks	9	09-Aug-14	19-Aug-14	15-Aug-14	25-Aug-14	5
1013-2170	Bridge F4 - Pier F10 to F15 - Top Slab Rebar Fixing	14	07-Aug-14	22-Aug-14	13-Aug-14	28-Aug-14	5
1013-2172	Bridge F4 - Pier F10 to F15 - Top Slab Concreting	12	13-Aug-14	26-Aug-14	19-Aug-14	01-Sep-14	5
1013-2174	Bridge F4 - Pier F10 to F15 - Longitudinal Stitch Tie-in	6	23-Aug-14	29-Aug-14	29-Aug-14	04-Sep-14	5
1013-1454.1	Bridge F4/F5 - Waterproofing Preparation	6	23-Aug-14	29-Aug-14	29-Aug-14	04-Sep-14	5
1013-1890	Bridge F4/F5 MJ at Pier F9-F14	9	23-Aug-14	02-Sep-14	29-Aug-14	08-Sep-14	5
1013-1454	Bridge F4/F5 Deck Waterproofing	3	30-Aug-14	02-Sep-14	05-Sep-14	08-Sep-14	5
1013-1455	Bridge F4/F5 Deck Paving & Marking	3	03-Sep-14	05-Sep-14	10-Sep-14	12-Sep-14	5
All E/B Bridges (Common)							
1013-1826	E/B Bridge Install. Temp. Hydrant (Landside)	14	23-Aug-14	08-Sep-14	23-Aug-14	08-Sep-14	0
1013-1735	Noise Barrier Mock-up	18	19-Sep-14	11-Oct-14	27-Sep-14	20-Oct-14	7
1013-1710	Permanent Noise Barrier Type C1 E/B Bridge Ch 1059-1362 (304m)	36	30-Sep-14	12-Nov-14	10-Oct-14	20-Nov-14	7
10.1.4 - Bridge E / Hing Fat Slip Road							
Pier Construction							
1014-1170	Modify Slip Road E/B Cap, Pier and Crosshead (E1 & E2)	42	13-Oct-14	29-Nov-14	14-Oct-14	01-Dec-14	1
Bridge Construction							
1014-1176	Bridge E - Pier E1 to D1 - Diaphragm	0	23-Jun-14 A	30-Jun-14 A	28-Jul-14	28-Jul-14	
1014-1177	Bridge E - Pier E1 to D1 - Top Slab	9	01-Jul-14 A	28-Jul-14	28-Jul-14	05-Aug-14	8
1014-1178	Bridge E - Pier E2 to D1 - North Wing Slab	14	04-Aug-14	17-Aug-14	12-Aug-14	25-Aug-14	8
1014-1242	Bridge E - Pier E2 to D1 - Temporary Parapet	12	15-Aug-14	26-Aug-14	23-Aug-14	03-Sep-14	8
1013-1885	Bridge E/T1A - Road Lighting	9	15-Aug-14	25-Aug-14	02-Sep-14	12-Sep-14	15
1013-1893	Bridge E - MJ at Pier E1 and E2	6	21-Aug-14	26-Aug-14	29-Aug-14	03-Sep-14	8
1013-1895	Bridge E - Waterproofing Preparation	6	21-Aug-14	26-Aug-14	29-Aug-14	03-Sep-14	8
1013-1894	Bridge E - Deck Waterproofing	3	27-Aug-14	29-Aug-14	04-Sep-14	06-Sep-14	8
1013-2133	Bridge E - Deck Paving & Marking	6	30-Aug-14	04-Sep-14	07-Sep-14	12-Sep-14	8
10.3 - Middle Bridge (Bridge F)							
10.3.1 - Pier Construction							
Abutment D12							
1031-1052	Abut D12 (Approach Ramp Area) - Excavation	9	14-Jul-14 A	30-Jul-14	05-Jan-15	14-Jan-15	139
1031-1054	Abut D12 (Approach Ramp Area) - Pile Trimming	12	31-Jul-14	13-Aug-14	15-Jan-15	28-Jan-15	139
1031-1056	Abut D12 (Approach Ramp Area) - Concrete Part 1 of 3	12	14-Aug-14	27-Aug-14	29-Jan-15	11-Feb-15	139
1031-1057	Abut D12 (Approach Ramp Area) - Concrete Part 2 of 3	12	28-Aug-14	11-Sep-14	12-Feb-15	28-Feb-15	139
1031-1058	Abut D12 (Approach Ramp Area) - Concrete Part 3 of 3	12	12-Sep-14	25-Sep-14*	02-Mar-15	14-Mar-15	139
10.4 - Bridge Deck Demolition							
10.4.2 - Existing E/B Bridge							
1042-1010	Demolish Beam - Existing Hing Fat St Slip Rd Pier E3 to Pier 20 (9 beam)	12	19-Sep-14	04-Oct-14	20-Sep-14	06-Oct-14	1
1042-1011	Demolish Pier - Existing Hing Fat St Slip Rd Pier 19 an 20	12	26-Sep-14	11-Oct-14	27-Sep-14	13-Oct-14	1
10.5 - Temporary Bridge							
10.5.1 - Temporary Bridge 'TA'							
1051-1018	Temporary Bridge TA1 - Parapet	0	13-Jan-14 A	30-Jun-14 A	11-Aug-19	11-Aug-19	
10.5.3 - Temporary Bridge 'TD'							
1053-1013.1	"TD" - Pier F8 to F9 Rebar Fixing + Concreting	0	16-Jun-14 A	10-Jul-14 A	15-Aug-14	15-Aug-14	

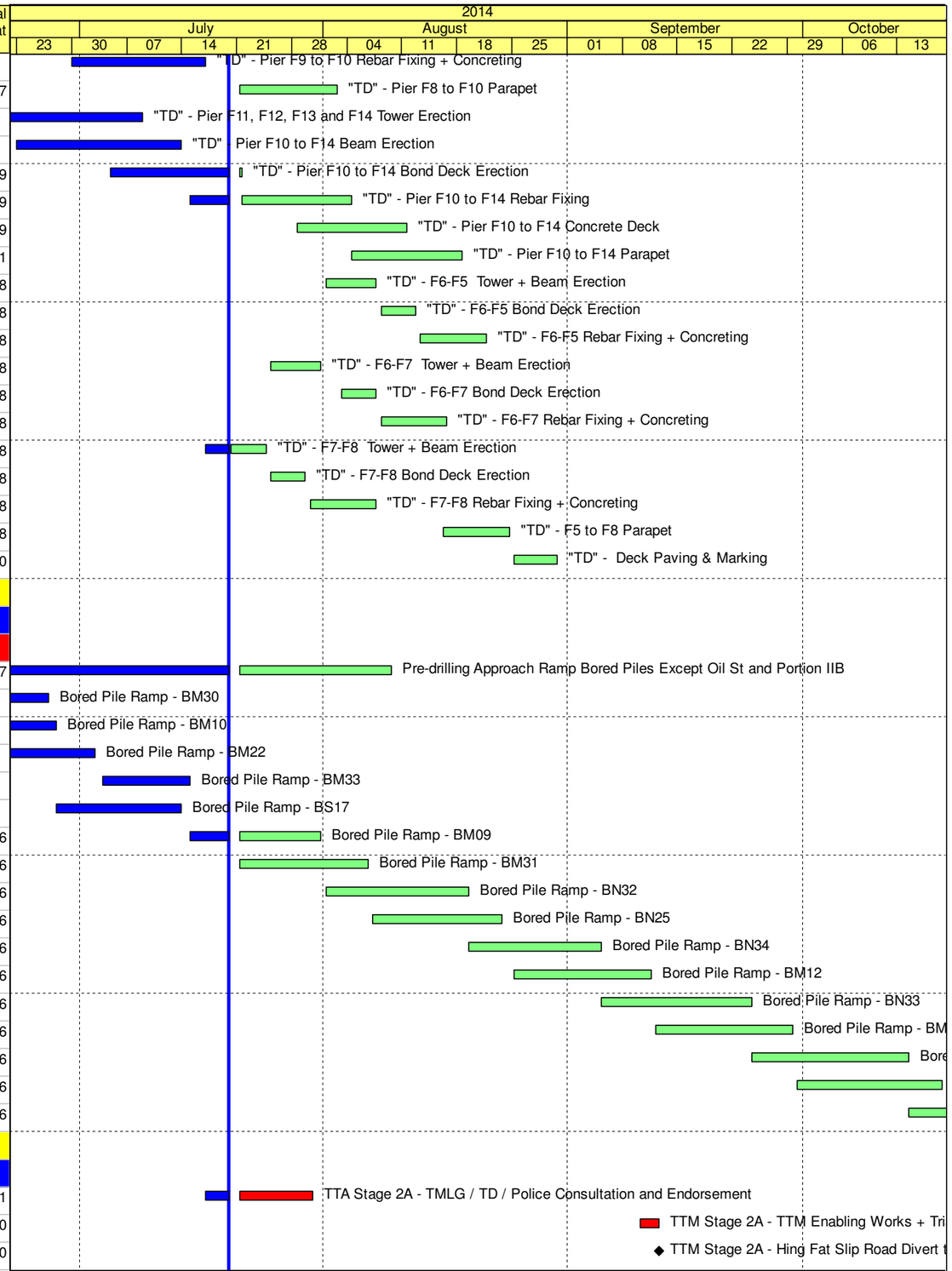


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float
1053-1013.2	"TD" - Pier F9 to F10 Rebar Fixing + Concreting	0	30-Jun-14 A	17-Jul-14 A	11-Aug-19	11-Aug-19	
1053-1014	"TD" - Pier F8 to F10 Parapet	12	21-Jul-14	02-Aug-14	21-Aug-14	03-Sep-14	27
1053-1021	"TD" - Pier F11, F12, F13 and F14 Tower Erection	0	27-May-14 A	09-Jul-14 A	31-Jul-14	31-Jul-14	
1053-1061	"TD" - Pier F10 to F14 Beam Erection	0	23-Jun-14 A	14-Jul-14 A	31-Jul-14	31-Jul-14	
1053-1062	"TD" - Pier F10 to F14 Bond Deck Erection	1	05-Jul-14 A	21-Jul-14	31-Jul-14	31-Jul-14	9
1053-1063	"TD" - Pier F10 to F14 Rebar Fixing	12	15-Jul-14 A	04-Aug-14	01-Aug-14	14-Aug-14	9
1053-1064	"TD" - Pier F10 to F14 Concrete Deck	12	28-Jul-14	11-Aug-14	08-Aug-14	21-Aug-14	9
1053-1065	"TD" - Pier F10 to F14 Parapet	12	04-Aug-14	18-Aug-14	29-Aug-14	12-Sep-14	21
1053-1150	"TD" - F6-F5 Tower + Beam Erection	7	01-Aug-14	07-Aug-14	09-Aug-14	15-Aug-14	8
1053-1152	"TD" - F6-F5 Bond Deck Erection	5	08-Aug-14	12-Aug-14	16-Aug-14	20-Aug-14	8
1053-1154	"TD" - F6-F5 Rebar Fixing + Concreting	9	13-Aug-14	21-Aug-14	21-Aug-14	29-Aug-14	8
1053-1140	"TD" - F6-F7 Tower + Beam Erection	7	25-Jul-14	31-Jul-14	02-Aug-14	08-Aug-14	8
1053-1142	"TD" - F6-F7 Bond Deck Erection	5	03-Aug-14	07-Aug-14	11-Aug-14	15-Aug-14	8
1053-1144	"TD" - F6-F7 Rebar Fixing + Concreting	9	08-Aug-14	16-Aug-14	16-Aug-14	24-Aug-14	8
1053-1130	"TD" - F7-F8 Tower + Beam Erection	5	17-Jul-14 A	24-Jul-14	28-Jul-14	01-Aug-14	8
1053-1132	"TD" - F7-F8 Bond Deck Erection	5	25-Jul-14	29-Jul-14	02-Aug-14	06-Aug-14	8
1053-1134	"TD" - F7-F8 Rebar Fixing + Concreting	9	30-Jul-14	07-Aug-14	07-Aug-14	15-Aug-14	8
1053-1160	"TD" - F5 to F8 Parapet	9	16-Aug-14	24-Aug-14	24-Aug-14	01-Sep-14	8
1053-1010.93	"TD" - Deck Paving & Marking	6	25-Aug-14	30-Aug-14	04-Sep-14	09-Sep-14	10
10.6 - Tunnel Approach Ramp							
10.6.1 - Approach Ramp (Excluding Portion IIB)							
Bored Piles							
1061-1670	Pre-drilling Approach Ramp Bored Piles Except Oil St and Portion IIB	18	19-Jul-13 A	09-Aug-14*	10-Oct-14	30-Oct-14	67
1061-1920	Bored Pile Ramp - BM30	0	10-Jun-14 A	27-Jun-14 A	19-Aug-14	19-Aug-14	
1061-1930	Bored Pile Ramp - BM10	0	16-Jun-14 A	28-Jun-14 A	11-Aug-19	11-Aug-19	
1061-1950	Bored Pile Ramp - BM22	0	20-Jun-14 A	03-Jul-14 A	11-Aug-19	11-Aug-19	
1061-1960	Bored Pile Ramp - BM33	0	04-Jul-14 A	15-Jul-14 A	11-Aug-19	11-Aug-19	
1061-1990	Bored Pile Ramp - BS17	0	28-Jun-14 A	14-Jul-14 A	11-Aug-19	11-Aug-19	
1061-2050	Bored Pile Ramp - BM09	10	15-Jul-14 A	31-Jul-14	19-Aug-14	30-Aug-14	26
1061-1970	Bored Pile Ramp - BM31	15	21-Jul-14	06-Aug-14	01-Sep-14	18-Sep-14	36
1061-2060	Bored Pile Ramp - BN32	15	01-Aug-14	19-Aug-14	30-Aug-14	18-Sep-14	26
1061-1980	Bored Pile Ramp - BN25	15	07-Aug-14	23-Aug-14	19-Sep-14	08-Oct-14	36
1061-2070	Bored Pile Ramp - BN34	15	19-Aug-14	05-Sep-14	19-Sep-14	08-Oct-14	26
1061-2000	Bored Pile Ramp - BM12	15	25-Aug-14	11-Sep-14	09-Oct-14	25-Oct-14	36
1061-2080	Bored Pile Ramp - BN33	15	05-Sep-14	24-Sep-14	09-Oct-14	25-Oct-14	26
1061-2010	Bored Pile Ramp - BM11	15	12-Sep-14	29-Sep-14	27-Oct-14	12-Nov-14	36
1061-2090	Bored Pile Ramp - BN35	15	24-Sep-14	14-Oct-14	27-Oct-14	12-Nov-14	26
1061-2020	Bored Pile Ramp - BM16	15	30-Sep-14	18-Oct-14	13-Nov-14	29-Nov-14	36
1061-2100	Bored Pile Ramp - BM08	15	14-Oct-14	31-Oct-14*	13-Nov-14	29-Nov-14	26
10.7 - Section X - Miscellaneous Works							
10.7.1 - TTM Stages							
1071-1005	TTA Stage 2A - TMLG / TD / Police Consultation and Endorsement	9	17-Jul-14 A	30-Jul-14	22-Jul-14	31-Jul-14	1
1071-1010	TTM Stage 2A - TTM Enabling Works + Trial Run	3	10-Sep-14	12-Sep-14	10-Sep-14	12-Sep-14	0
1071-1020	TTM Stage 2A - Hing Fat Slip Road Divert to New E/B Bridge through 'TA'	0		12-Sep-14*		12-Sep-14	0

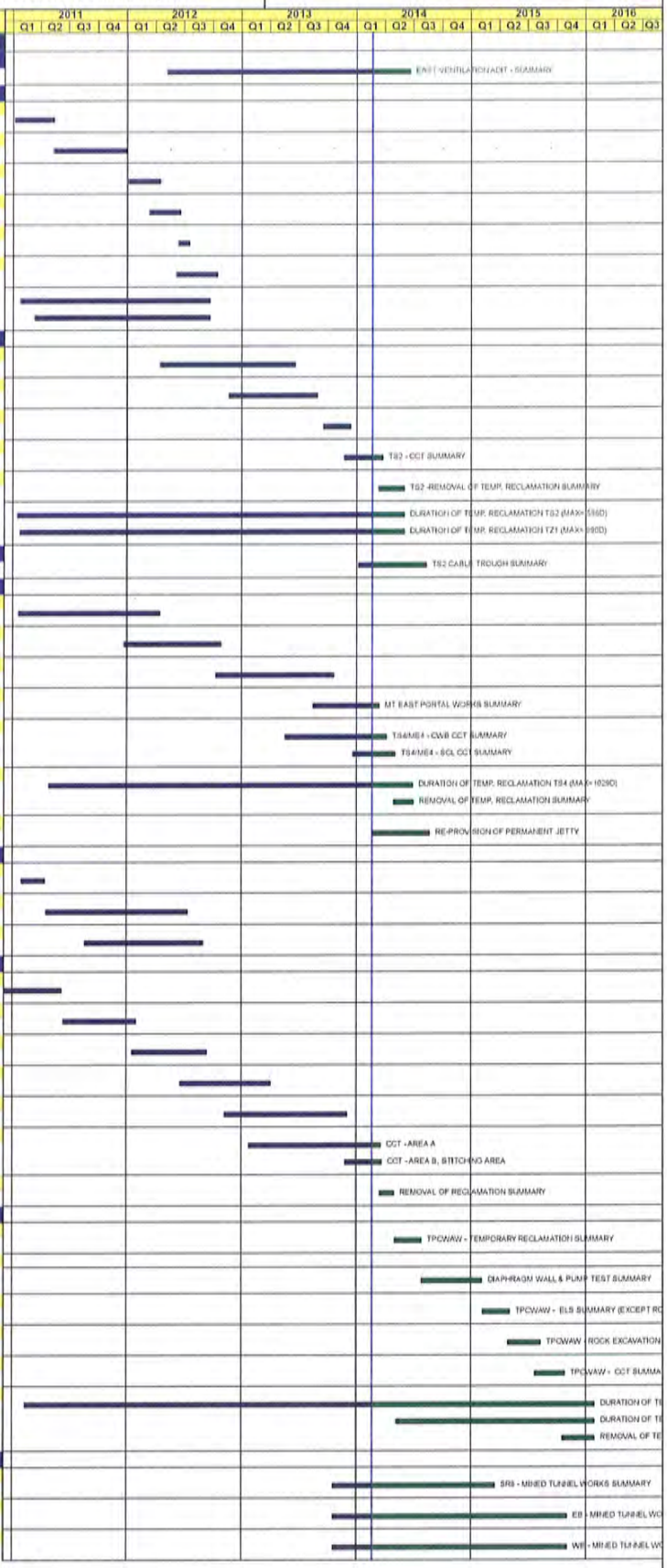


Remaining Level of Effort
Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work
Milestone

Contract HY/2009/19

Three Month Rolling Programme (20 Jul to 19 Oct 2014)

Activity Name	Duration (calendar days)	Start	Finish	Total Float
HY/2009/15 - Works Programme Rev. K (DD:20-Feb-14) 1st Submission				
Works in East Ventilation Adit - Based on Alternative Method				
EAST VENTILATION ADIT - SUMMARY	774d	09-May-12 A	26-Jun-14	14d
Works in TS1 Area (Portion 13A, 13B) & CCT at Portion 1,2,4,6,22				
TS1 - Temporary Reclamation				
TS1 - TEMPORARY RECLAMATION SUMMARY	127d	07-Jan-11 A	13-May-11 A	
TS1 - Diaphragm Wall				
TS1 DIAPHRAGM WALL & PUMP TEST SUMMARY	215d	19-May-11 A	30-Dec-11 A	
TS1 - ELS Works				
TS1 ELS SUMMARY	101d	05-Jan-12 A	16-Apr-12 A	
TS1- CCT RC Structure				
TS1 CCT - SUMMARY	180d	12-Jan-12 A	19-Jun-12 A	
EV Adit at Portion 1,2 6, 22				
EVA AT PORTION 1 & 2	27d	13-Jun-12 A	17-Jul-12 A	
TS1 - Removal of Temp. Reclamation				
TS1 - REMOVAL OF TEMP. RECLAMATION SUMMARY	133d	04-Jun-12 A	15-Oct-12 A	
Removal of Temp. Reclamation				
DURATION OF TEMP. RECLAMATION TS1W (MAX=391D)	604d	25-Jan-11 A	20-Sep-12 A	
DURATION OF TEMP. RECLAMATION TS1E (EXCLUDING TS1W) (MAX=261D)	557d	13-Mar-11 A	20-Sep-12 A	
Works in TS2 Area (Portion 13A, 13B)				
TS2 - Temporary Reclamation				
TS2 - TEMPORARY RECLAMATION SUMMARY	430d	16-Apr-12 A	20-Jun-13 A	
TS2 - Diaphragm Wall				
TS2 - DIAPHRAGM WALL SUMMARY	261d	21-Nov-12 A	28-Aug-13 A	
TS2 - ELS Works				
TS2 ELS SUMMARY	67d	17-Sep-13 A	13-Dec-13 A	
TS2 - CCT RC Structure				
TS2 - CCT SUMMARY	123d	23-Nov-13 A	25-Mar-14	-59d
TS2 - Removal of Temp. Reclamation				
TS2 -REMOVAL OF TEMP. RECLAMATION SUMMARY	82d	11-Mar-14	31-May-14	-122d
Removal of Temp. Reclamation				
DURATION OF TEMP. RECLAMATION TS2 (MAX= 586D)	1232d	15-Jan-11 A	31-May-14	-122d
DURATION OF TEMP. RECLAMATION TZ1 (MAX= 990D)	1223d	25-Jan-11 A	31-May-14	-122d
Works in TS1/TS2 - Cable Trough/Maintenance Walkway				
TS2 CABLE TROUGH SUMMARY	218d	06-Jan-14 A	11-Aug-14	-38d
Works in TS4/ME4 Area (Portion 14A, 14B, 15, 23)				
TS4 + ME4 (TS4+ & TZ6) Temporary Reclamation				
TS4 - TEMPORARY RECLAMATION SUMMARY	364d	26-Jan-11 A	16-Apr-12 A	
TS4/ME4 - Diaphragm Wall				
DIAPHRAGM WALL SUMMARY	310d	23-Dec-11 A	27-Oct-12 A	
TS4/ME4 - ELS Works & Rock Excavation				
TS4 - ELS + ROCK EXCAVATION SUMMARY	378d	10-Oct-12 A	22-Oct-13 A	
TS4/ME4 - Mined Tunnel East Portal Works				
MT EAST PORTAL WORKS SUMMARY	201d	16-Aug-13 A	13-Mar-14	-205d
TS4/ME4 - CCT RC Structure				
TS4/ME4 - CWB CCT SUMMARY	310d	20-May-13 A	06-Apr-14	-205d
TS4/ME4 - SCL CCT SUMMARY	125d	29-Dec-13 A	04-May-14	-205d
TS4/ME4 - Removal of Temporary Reclamation				
DURATION OF TEMP. RECLAMATION TS4 (MAX= 1029D)	1159d	26-Apr-11 A	29-Jun-14	-218d
REMOVAL OF TEMP. RECLAMATION SUMMARY	64d	28-Apr-14	30-Jun-14	-218d
Re-Provision of Permanent Jetty/ Floating Pontoon				
RE-PROVISION OF PERMANENT JETTY	150d	20-Feb-14	22-Aug-14	41d
CHT Protection Works at Location A,B,C				
ADMS Installation				
ADMS INSTALLATION - SUMMARY	74d	01-Feb-11 A	15-Apr-11 A	
Standby Dewatering System(CSD: Grout Curtain Cut-off Wall Scheme)				
STANDBY DEWATERING SYSTEM - SUMMARY	452d	19-Apr-11 A	13-Jul-12 A	
VO.NO. 8 - Steel Weights & Aluminum Cladding Inside CHT				
VO No. 8 & 14 - STEEL WEIGHTS & CLADDING SUMMARY	378d	20-Aug-11 A	31-Aug-12 A	
Works in TPCWAE Area (Portion 20A, 20B)				
TPCWAE - Temporary Reclamation				
TPCWAE - TEMPORARY RECLAMATION SUMMARY	143d	08-Dec-10 A	07-Jun-11 A	
TPCWAE - Diaphragm Wall				
DIAPHRAGM WALL & PUMP TEST SUMMARY	232d	13-Jun-11 A	30-Jan-12 A	
TPCWAE - ELS Works & Soft Excavation				
TPCWAE - ELS SUMMARY (EXCEPT ROCK EXCAVATION)	240d	17-Jan-12 A	12-Sep-12 A	
TPCWAE - Rock Excavation				
TPCWAE - ROCK EXCAVATION SUMMARY	276d	19-Jun-12 A	05-Apr-13 A	
MT West Portal Works				
MT WEST PORTAL WORKS SUMMARY	375d	08-Nov-12 A	04-Dec-13 A	
CCT RC Structure				
CCT - AREA A	359d	24-Jan-13 A	18-Mar-14	+127d
CCT - AREA B, STITCHING AREA	111d	27-Nov-13 A	23-Mar-14	+127d
Removal of Temporary Reclamation				
REMOVAL OF RECLAMATION SUMMARY	43d	15-Mar-14	30-Apr-14	+143d
Works in TPCWAW Area				
TPCWAW - Temporary Reclamation				
TPCWAW - TEMPORARY RECLAMATION SUMMARY	86d	02-May-14	30-Jul-14	0d
TPCWAW - Diaphragm Wall				
Diaphragm Wall				
DIAPHRAGM WALL & PUMP TEST SUMMARY	193d	27-Jul-14	04-Feb-15	0d
TPCWAW - ELS Works				
TPCWAW - ELS SUMMARY (EXCEPT ROCK EXCAVATION)	88d	06-Feb-15	04-May-15	0d
TPCWAW - ROCK EXCAVATION				
TPCWAW - ROCK EXCAVATION SUMMARY	104d	29-Apr-15	10-Aug-15	1d
TPCWAW - CCT RC Structure				
TPCWAW - CCT SUMMARY	94d	24-Jul-15	25-Oct-15	0d
TPCWAW - Removal of Temporary Reclamation				
DURATION OF TEMP. RECLAMATION TZ5 (MAX=1668D)	1812d	11-Feb-11 A	27-Jan-16	0d
DURATION OF TEMP. RECLAMATION TPCWAW MAX=618D)	629d	09-May-14	27-Jan-16	0d
REMOVAL OF TEMP. RECLAMATION SUMMARY	99d	19-Oct-15	27-Jan-16	0d
Works for Mined Tunnel (Portion 16, 17, 18)				
(SR8) Slip Road 8 Tunnel, Total L = 167m, less 13m at WP and less 5m at EP= 149m Tunnel Excav				
SR8 - MINED TUNNEL WORKS SUMMARY	515d	19-Oct-13 A	17-Mar-15	230d
(EB) East Bound Tunnel, L = 167m, less 7m at WP and less 1.5m at EP= 158.5m Tunnel Excav				
EB - MINED TUNNEL WORKS SUMMARY	745d	19-Oct-13 A	02-Nov-15	0d
(WB) West Bound Tunnel, L = 153m, less 7m at WP and less 1.5m at EP= 144.5m Tunnel Excav				
WB - MINED TUNNEL WORKS SUMMARY	745d	19-Oct-13 A	02-Nov-15	0d



Actual Level of Effort
Remaining Level of Effort
◆ Milestone
◆ Milestone

China State Construction Engineering (HK) Ltd :

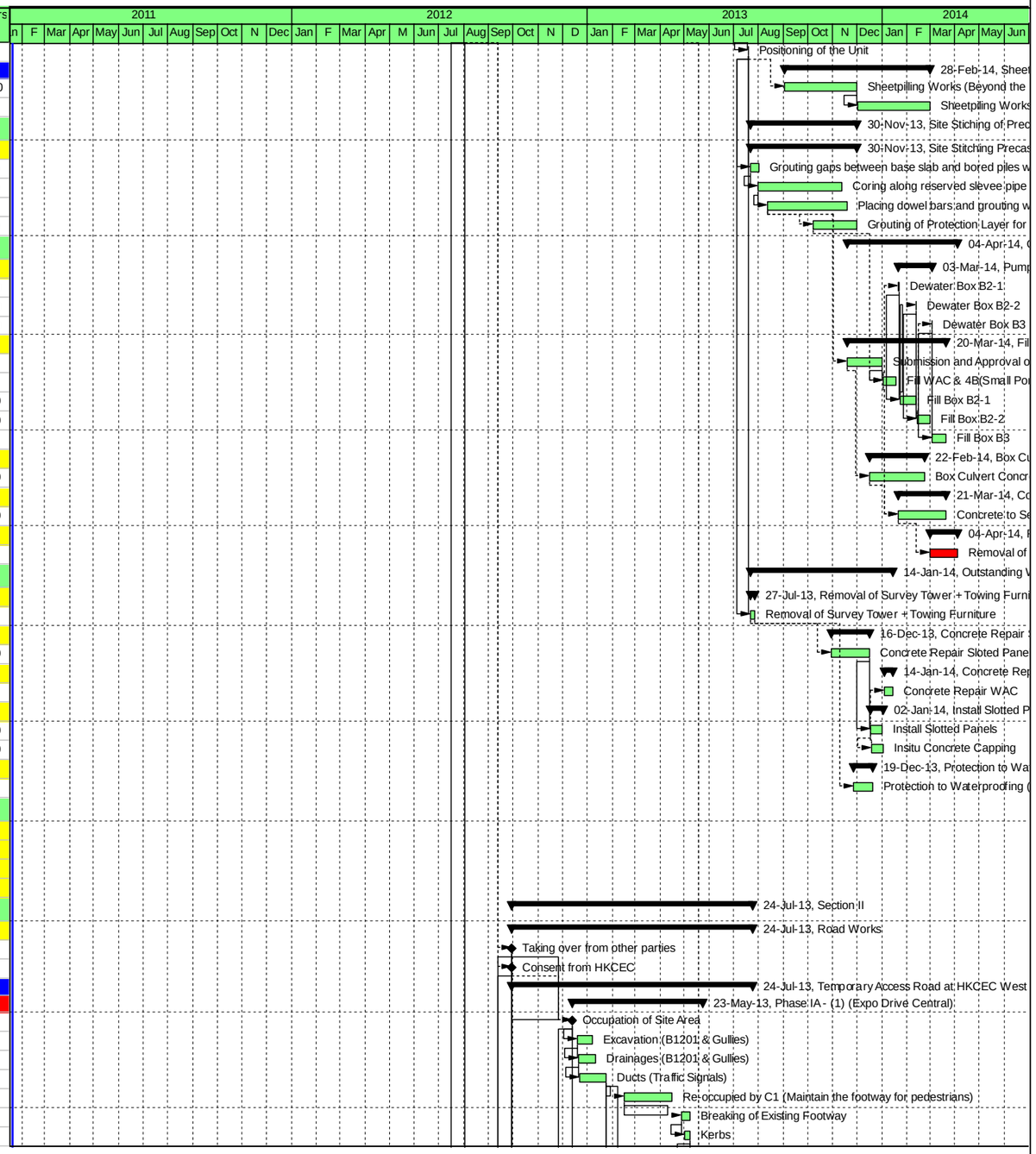
HY/2009/15 - CWB Tunnel(CBTS)

EXECUTIVE SUMMARY PROGRAMME

Prepared by William Caluza

Date	Revision	Checked	Approved
20-Feb-14	Executive Summary Progra...	GC	KC

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	Predecessors	Successors
PPU8050	Positioning of the Unit	1	19-Jul-13	19-Jul-13	49	PPU8040	SSU9010
Sheetpilling (Beyond the Precast Box Unit) - II		180	02-Sep-13	28-Feb-14	35		
PCW1830	Sheetpilling Works (Beyond the Precast Box Unit - (Western) - (W329-W411)	75	02-Sep-13*	30-Nov-13	30	PPU8050	PCW1840
PCW1840	Sheetpiling Works (Beyond the Precast Box Unit) - (Eastern) - (E464-E637)	71	02-Dec-13	28-Feb-14	30	PCW1830	
Site Stiching of Precast Box Unit		132	22-Jul-13	30-Nov-13	107		
Site Stitching Precast Combined Unit		132	22-Jul-13	30-Nov-13	107		
SSU9010	Grouting gaps between base slab and bored piles within the gasket (51nos.)	10	22-Jul-13	01-Aug-13	78	PPU8050	SSU9020
SSU9020	Coring along reserved slevee pipe to bored piles (816nos.)	86	31-Jul-13	11-Nov-13	78	SSU9010	SSU9030
SSU9030	Placing dowel bars and grouting works (816nos.)	82	12-Aug-13	18-Nov-13	78	SSU9020	SSU9040
SSU9040	Grouting of Protection Layer for Exposed Dowel Bar (51nos.)	47	07-Oct-13*	30-Nov-13	85	SSU9030	MPU1110
Outstanding Works inside Precast Box Unit after Stitching		138	18-Nov-13	04-Apr-14	0		
Pump out Water from Pre-cast Box Unit		43	20-Jan-14	03-Mar-14	15		
MPU1000	Dewater Box B2-1	2	20-Jan-14*	21-Jan-14	14	MPU1110	MPU1120
MPU1010	Dewater Box B2-2	1	12-Feb-14*	12-Feb-14	14	MPU1120	MPU1130
MPU1020	Dewater Box B3	1	03-Mar-14*	03-Mar-14	13	MPU1130	MPU1140
Filling of Box Culvert		123	18-Nov-13	20-Mar-14	15		
MPU1100	Submission and Approval of Infill Proposal	36	18-Nov-13*	31-Dec-13	15	SSU9030	MPU1110
MPU1110	Fill WAC & 4B(Small Portion)	15	02-Jan-14*	18-Jan-14	15	MPU1100	MPU1000
MPU1120	Fill Box B2-1	15	23-Jan-14*	12-Feb-14	14	MPU1000	MPU1010
MPU1130	Fill Box B2-2	15	13-Feb-14*	01-Mar-14	14	MPU1010	MPU1020
MPU1140	Fill Box B3	15	04-Mar-14*	20-Mar-14	13	MPU1020	
Box Culvert Concreting to seal wall access opening		69	16-Dec-13	22-Feb-14	18		
MPU1200	Box Culvert Concreting to seal Wall Access opening	54	16-Dec-13*	22-Feb-14	15	MPU1100	MPU1300
Concrete to Seal Access Opening on Top Slab		61	20-Jan-14	21-Mar-14	14		
MPU1300	Concrete to Seal Access Opening on Top Slab	50	20-Jan-14*	21-Mar-14	12	MPU1110	MPU1400
Removal of Turrents		35	01-Mar-14	04-Apr-14	0		
MPU1400	Removal of Turrets	30	01-Mar-14*	04-Apr-14	0	MPU1300	
Outstanding Works outside Precast Unit after Stitching		177	22-Jul-13	14-Jan-14	80		
Removal of Survey Tower + Towing Furniture		6	22-Jul-13	27-Jul-13	156		
MPU2000	Removal of Survey Tower + Towing Furniture	6	22-Jul-13	27-Jul-13	128	PPU8050	MPU2100
Concrete Repair Sloted Panels		48	30-Oct-13	16-Dec-13	94		
MPU2100	Concrete Repair Sloted Panels	41	30-Oct-13*	16-Dec-13	75	MPU2000	MPU2300
Concrete Repair WAC		12	03-Jan-14	14-Jan-14	80		
MPU2200	Concrete Repair WAC	10	03-Jan-14*	14-Jan-14	66	MPU2310	
Install Slotted Panels		17	17-Dec-13	02-Jan-14	92		
MPU2300	Install Slotted Panels	11	17-Dec-13*	31-Dec-13	75	MPU2100	MPU2310
MPU2310	Insitu Concrete Capping	15	19-Dec-13*	02-Jan-14	92	MPU2300	MPU2200
Protection to Waterproofing		24	26-Nov-13	19-Dec-13	106		
MPU2500	Protection to Waterproofing (Box 4A & 4B)	21	26-Nov-13*	19-Dec-13	85	MPU2000	
Works To be Done After Tunnel Connection		0			0		
Dewater Box B4A-2 & Box 4B(B4B-1~B4B-3)		0			0		
Construction of Drain Pipes, Profile Barriers and Infill Concrete, etc.		0			0		
Intermediate Slab		0			0		
Removal of Bulkheads		0			0		
Section II		299	29-Sep-12	24-Jul-13	254		
Road Works		299	29-Sep-12	24-Jul-13	254		
TAR8000	Taking over from other parties	0	29-Sep-12*		254	CNO1010	P1A1000
TAR8010	Consent from HKCEC	0	29-Sep-12*		258	CNO1010	P1A1000
Temporary Access Road at HKCEC West Bridge		299	29-Sep-12	24-Jul-13	254		
Phase IA - (1) (Expo Drive Central)		162	13-Dec-12	23-May-13	266		
P1A1000	Occupation of Site Area	0	13-Dec-12		254	TAR8000	P1A1010
P1A1010	Excavation (B1201 & Gullies)	18	20-Dec-12	06-Jan-13	266	P1A1000	P1A1020
P1A1020	Drainages (B1201 & Gullies)	22	21-Dec-12	11-Jan-13	266	P1A1010	P1A1030
P1A1030	Ducts (Traffic Signals)	34	22-Dec-12	24-Jan-13	266	P1A1020	P1A1040
P1A1040	Re-occupied by C1 (Maintain the footway for pedestrians)	60	15-Feb-13	15-Apr-13	266	P1A1030	P1A1060
P1A1060	Breaking of Existing Footway	11	28-Apr-13	08-May-13	266	P1A1040	P1A1070
P1A1070	Kerbs	6	02-May-13	07-May-13	266	P1A1060	P1A1080



Actual Work
Remaining Work
Critical Remaining ...
Milestone
Summary

Date	Revision	Ch...	Approved
14-Aug-12	Rev. H	MF	KT
19-Sep-12	Rev. I	MF	KT
21-Nov-12	Rev. J	MF	KT
19-Feb-13	Rev. K	MF	KT
05-Mar-13	Rev. L	MF	KT
21-May-13	Rev. M	MF	KT
20-Aug-13	Rev. N	MF	EY
15-Nov-13	Rev. O	WC	EY

Contract No.: HK/2010/06

Wan Chai Development Phase II-

Central-Wan Chai Bypass over MTR Tuen Wan Line

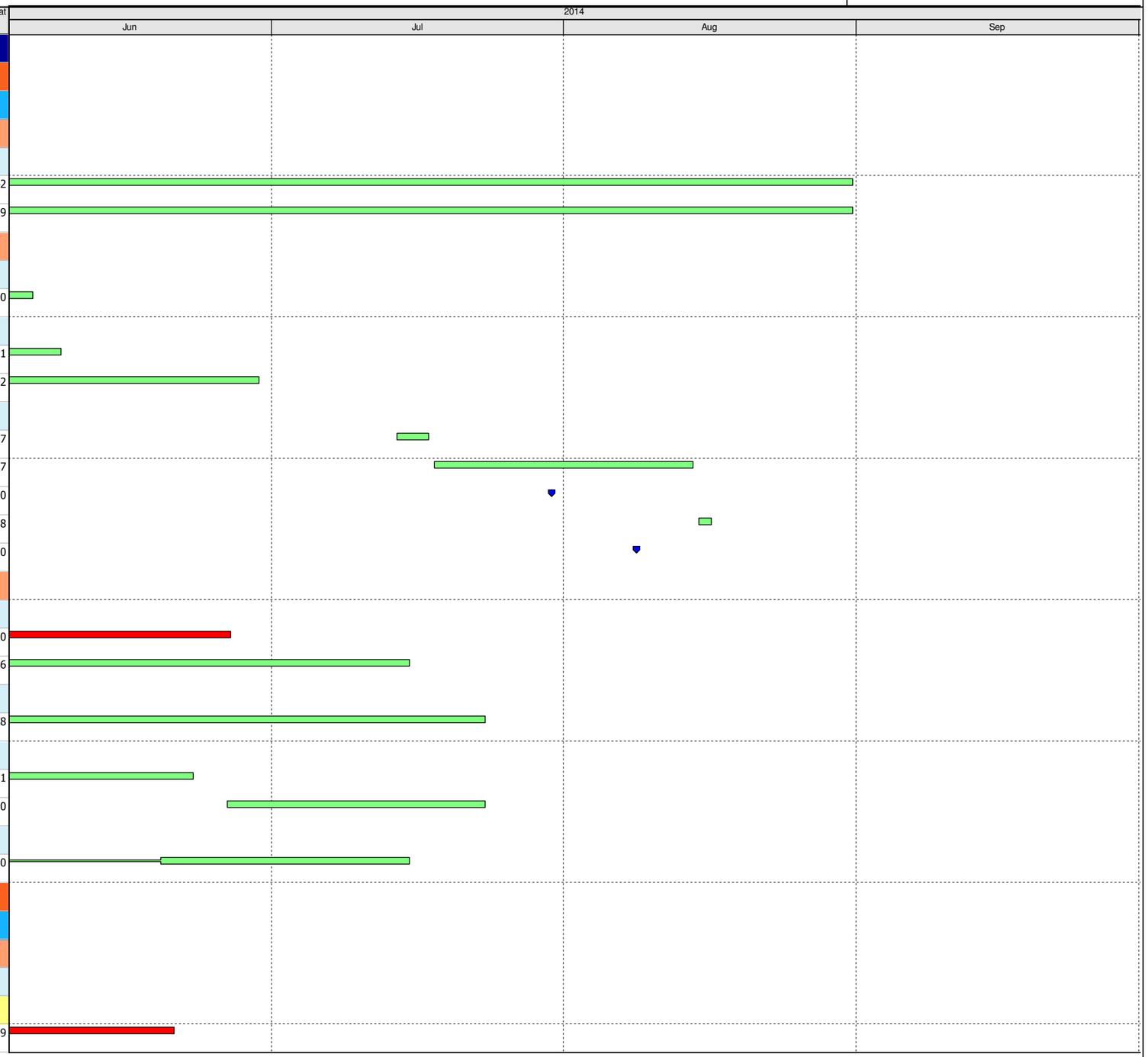
(Works Programme - Rev. O)

金門 - 利達聯營
Gammon – Leader Joint Venture

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	Orig Dur	Early Start	Early Finish	Total Float
HK/2012/08 3-Mth Rolling Programme for Jun 2014 - Aug 2014 Rev. 1 on 24Jun14					
Dredging and Reclamation					
Marine Work Construction					
Dredging					
Dredging - Zone D					
MAR11880	Zone D - Remove existing rock armour [S8-S10]	90	16-Apr-14 A	31-Aug-14	42
MAR11900	Zone D - dredging [R8-R10]	22	02-Dec-13 A	31-Aug-14	9
Seawall Construction					
Seawall Construction - Zone B					
MAR21430	Zone B - WDII Box 1 temp SW - place concrete block	6	31-May-14	05-Jun-14	1700
Seawall Construction - Zone A2					
MAR10765	Zone A2 - seawall - Type 4, 13 - fill rock mound to temp diversion channel I.L. at -1.5 mPD	18	22-Mar-14 A	08-Jun-14	1
MAR10769	Zone A2 - seawall - form temporary rock fill to temp diversion channel I.L. at -1.5 mPD	30	31-May-14	29-Jun-14	92
Seawall Construction - Zone D					
MAR11820	Zone D - fill rock mound for seawall 2F	4	14-Jul-14	17-Jul-14	7
MAR11882	Zone D - pile head treatment for caisson seawall 2F	24	18-Jul-14	14-Aug-14	7
MAR11884	Zone D - complete fabrication of Caisson Seawall 2F and ready for delivery	0		30-Jul-14*	0
MAR11885	Zone D - deliver and Install Caisson Seawall 2F	2	15-Aug-14	16-Aug-14	8
MAR11925	Zone D - complete fabrication of Caisson Seawall 1C and ready for delivery	0		08-Aug-14*	0
Filling					
Filling - Zone B					
MAR11135	Zone B - Public Fill (Remaining Area) -10.0 to +4.0mPD	39	05-May-14 A	26-Jun-14	0
MAR11140	Zone B - Sorted & Compacted Fill above MTR TWL	30	07-Apr-14 A	15-Jul-14	86
Filling - Zone A2					
MAR20360	Zone A2 - Public Fill -4.0 to +4.0mPD (portion beside Culvert L diversion only)	25	25-May-14 A	23-Jul-14	78
Filling - Zone A1					
MAR20400	Zone A1 - Public Fill -4.0 to +4.0mPD	22	29-May-14 A	22-Jun-14	1
MAR20420	Zone A1 & A2 - Form rock underlayer for temp channel	28	26-Jun-14	23-Jul-14	110
Filling - Above C4 Unit					
MAR21450	Zone above C4 Unit - Public fill above MTR TWL	30	15-Apr-14 A	15-Jul-14	150
Works for Section Completion					
Construction					
Box Culvert La, L1 & FRP-L Construction					
Sec VI A - Box Culvert La bay 1-3 and Roadwork					
Box Culvert La Bay 1-3					
CUL10480	Sec VI A - Area 1 - Culvert L bay 1-3 - excavation and ELS installation	90	14-Mar-14 A	20-Jun-14	-59



Data Date:
31-May-14

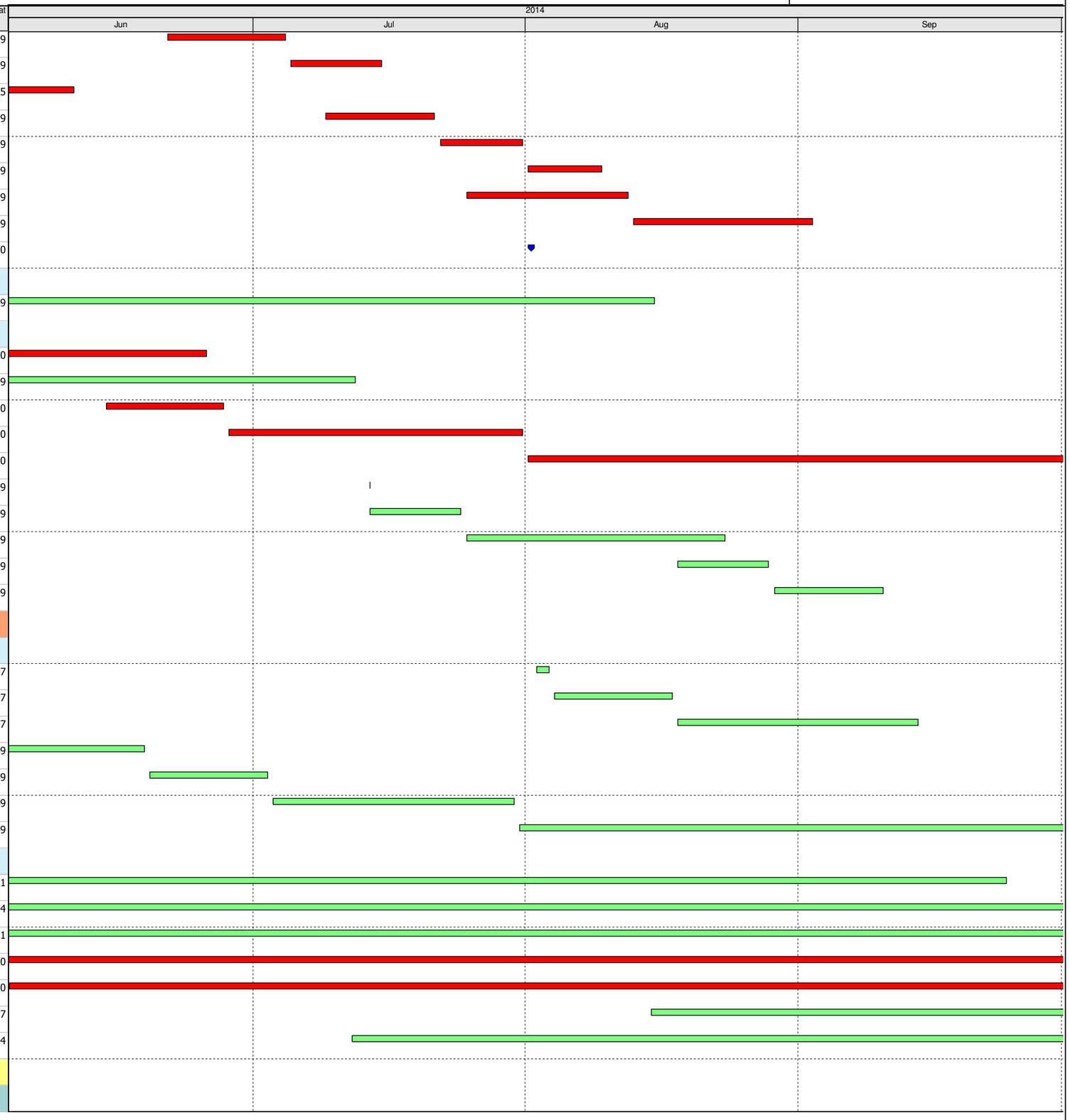
Current Milestone
Actual Work
Critical Remaining Work
Remaining Work
Remaining Level of Effort

3 - Months Rolling Programme (June 2014 to August 2014)

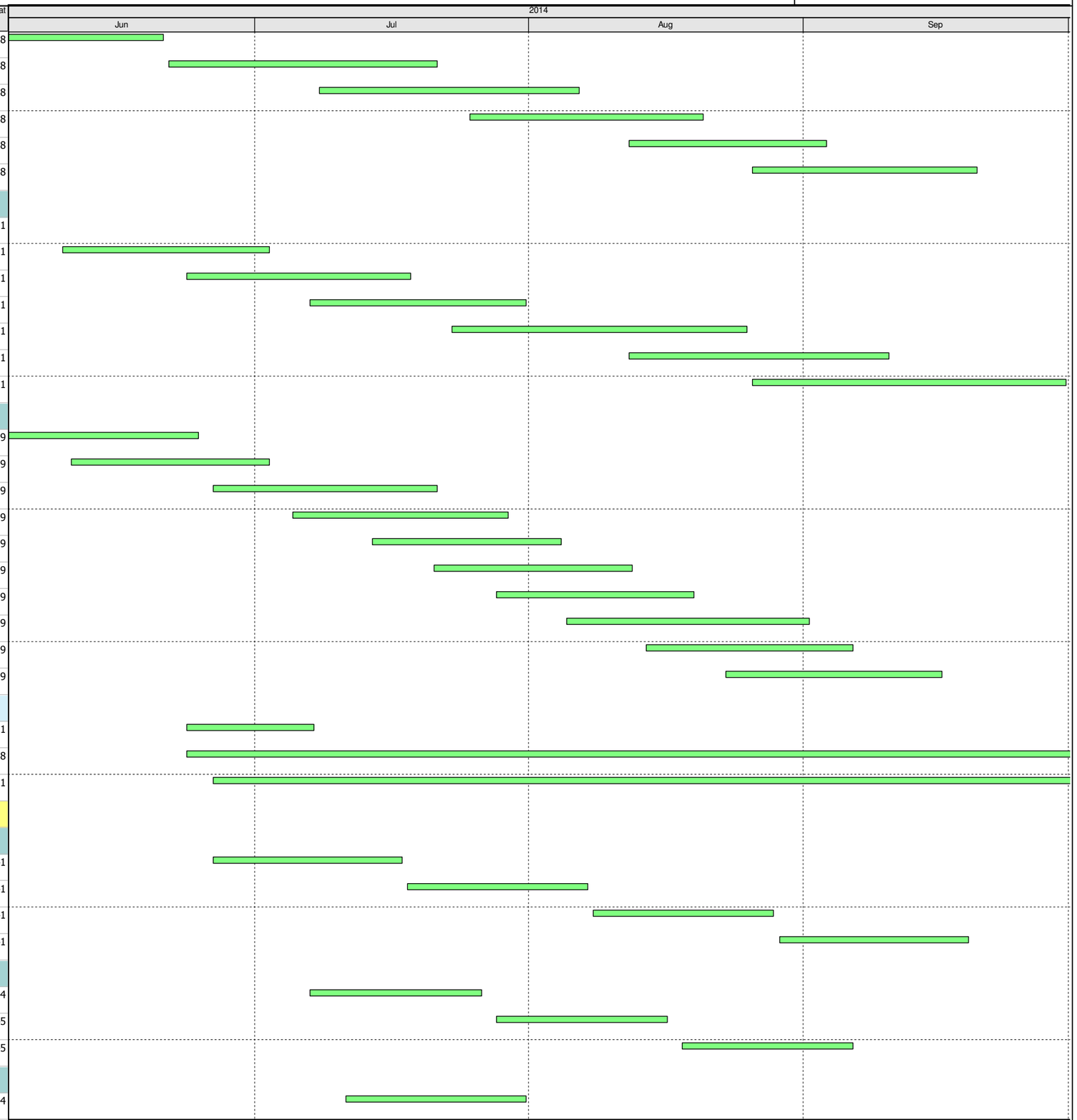
For Zone Non-CRIII Works

Date	Revision	Checked	Approved
31-May-14			

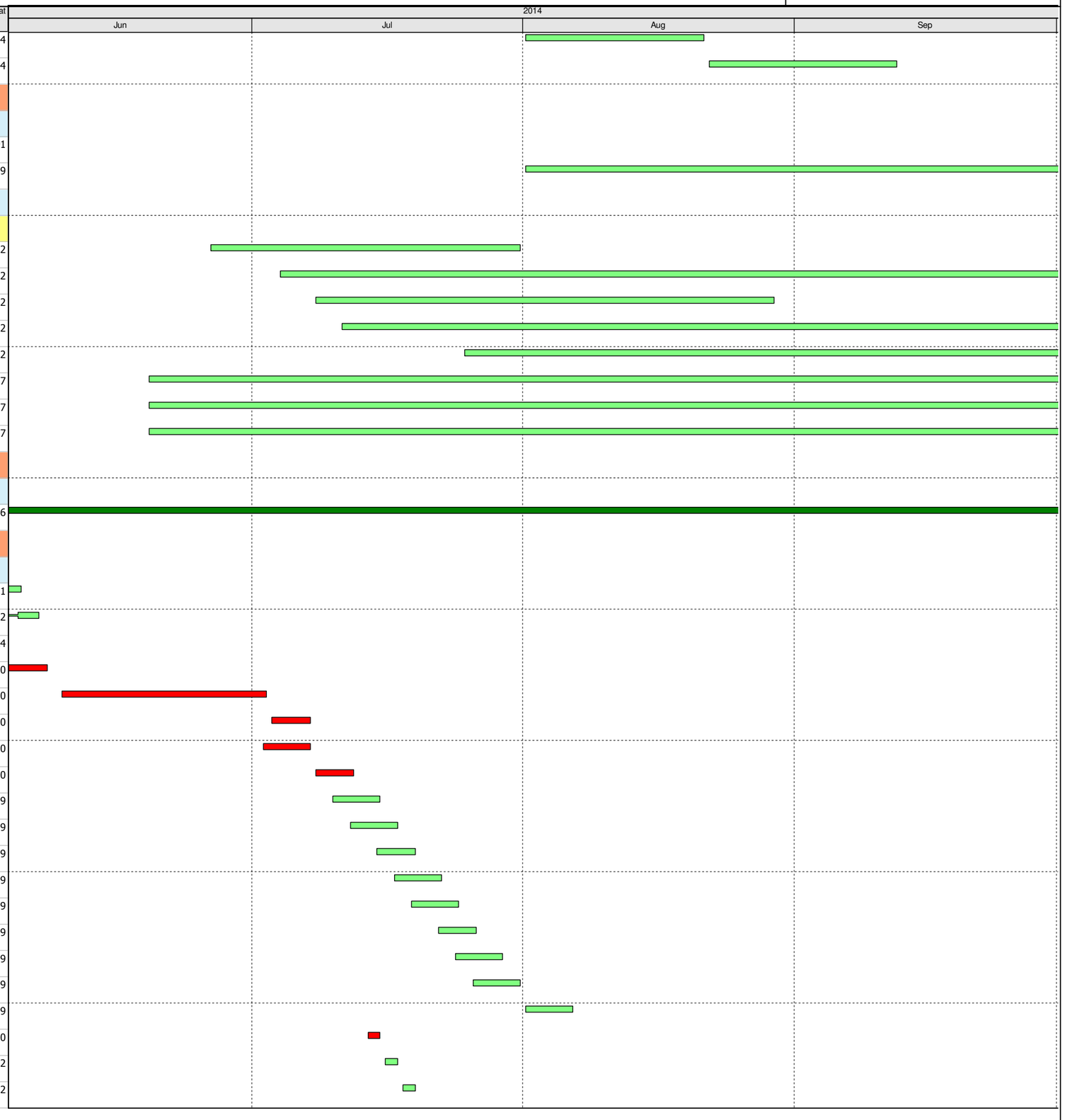
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
CUL10520	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 3 - base slab	11	21-Jun-14	04-Jul-14	-59
CUL10540	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 3 - wall	9	05-Jul-14	15-Jul-14	-59
CUL10560	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 3 - top slab	8	31-May-14	10-Jun-14	-25
CUL10600	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - base slab	11	09-Jul-14	21-Jul-14	-59
CUL10620	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - wall	9	22-Jul-14	31-Jul-14	-59
CUL10640	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - top slab	8	01-Aug-14	09-Aug-14	-39
CUL10660	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 1 - base slab	16	25-Jul-14	12-Aug-14	-59
CUL10680	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 1 - wall	18	13-Aug-14	02-Sep-14	-59
CUL12040	Sec VI A - Area 1 - 9M completion of Kiosk reinstatement	0		01-Aug-14*	0
Sec VI C - Box Culvert La bay 4 and Roadwork					
CUL11570	Sec VI C - Culvert L - bay 4 - sheetpile, ELS & Excavation	45	06-Jan-14 A	15-Aug-14	69
Box Culvert L1 & FRP-L - Bay 5 to 7					
CUL10010	Drainage Impact Assessment for ex. box culvert L diversion - Eng, DSD comment and approve	60	22-Jul-13 A	25-Jun-14	0
CUL10015	Culvert L - form temp opening at existing box culvert bay 4 for temp flow diversion	35	31-May-14	12-Jul-14	99
CUL10215	Sec VI C - Culvert L - bay 5,6,7 - Design of Temp Platform for Predrill & Piling Works	12	14-Jun-14	27-Jun-14	0
CUL10218	Sec VI C - Culvert L - bay 5,6,7 - Engineer's comment and approve of Temp Platform for Predrill & Piling Works	28	28-Jun-14	31-Jul-14	0
CUL10225	Sec VI C - Culvert L - bay 5,6,7 - Erect Temp Platform for Predrill & Piling Works	75	01-Aug-14	30-Oct-14	0
CUL10860	Sec VI C - Culvert L - bay 5-7 - pile loading test	0	14-Jul-14	14-Jul-14	99
CUL10880	Sec VI C - Culvert L - bay 5-7 - install sheetpile	10	14-Jul-14	24-Jul-14	99
CUL10900	Sec VI C - Culvert L - bay 5-7 - excavation & ELS	26	25-Jul-14	23-Aug-14	99
CUL10940	Sec VI C - Culvert L - bay 5 - pile head treatment and construct pile cap	10	18-Aug-14	28-Aug-14	99
CUL11020	Sec VI C - Culvert L - bay 6 - pile head treatment and construct pile cap	10	29-Aug-14	10-Sep-14	99
Section II - MVB Structure					
Section II - MVB Substructure - Design, Submission and Approval					
SII10180	Sec II - MVB - MS for pumping test - prepare and submit to ICE	2	02-Aug-14	03-Aug-14	97
SII10200	Sec II - MVB - MS for pumping test - ICE check & issue cert	14	04-Aug-14	17-Aug-14	97
SII10220	Sec II - MVB - MS for pumping test - Eng comment and approve	28	18-Aug-14	14-Sep-14	97
SII10240	Sec II - MVB - MS & temp work design for bulk exc & ELS - prepare and submit to ICE	60	22-Apr-14 A	18-Jun-14	69
SII10260	Sec II - MVB - MS & temp work design for bulk exc & ELS - ICE check & issue cert	14	19-Jun-14	02-Jul-14	69
SII10280	Sec II - MVB - MS & temp work design for bulk exc & ELS - Eng comment and approve	28	03-Jul-14	30-Jul-14	69
SII12321	Sec II - MVB - Temp work design for bulk exc & ELS - Prepare tender and sub-contract	120	31-Jul-14	27-Nov-14	69
MVB Substructure - Diaphragm Wall and Sheetpile Wall					
SII10440	Sec II - MVB - predrilling and ground pretreatment for Dwall	158	17-Mar-14 A	24-Sep-14	21
SII10460	Sec II - MVB A - construct guide wall [P1-P13, P33-P41]	177	12-Apr-14 A	20-Nov-14	4
SII10480	Sec II - MVB A - construct Dwall [P1-P13, P33-P41] (1.5m thk on rock)	177	28-May-14 A	16-Dec-14	1
SII10520	Sec II - MVB B - construct guide wall [P14-P32]	177	07-Apr-14 A	21-Nov-14	0
SII10540	Sec II - MVB B - construct Dwall [P14-P32] (1.5m thk on rock)	187	16-Apr-14 A	05-Dec-14	0
SII10560	Sec II - MVB B - contact grout / fissure grout / install pumping well	90	15-Aug-14	01-Dec-14	17
SII10590	Sec II - MVB A&B - grout curtain and fissure grout	135	12-Jul-14	19-Dec-14	4
MVB Substructure - Diaphragm Wall - Construction Sequences					
Group 1					



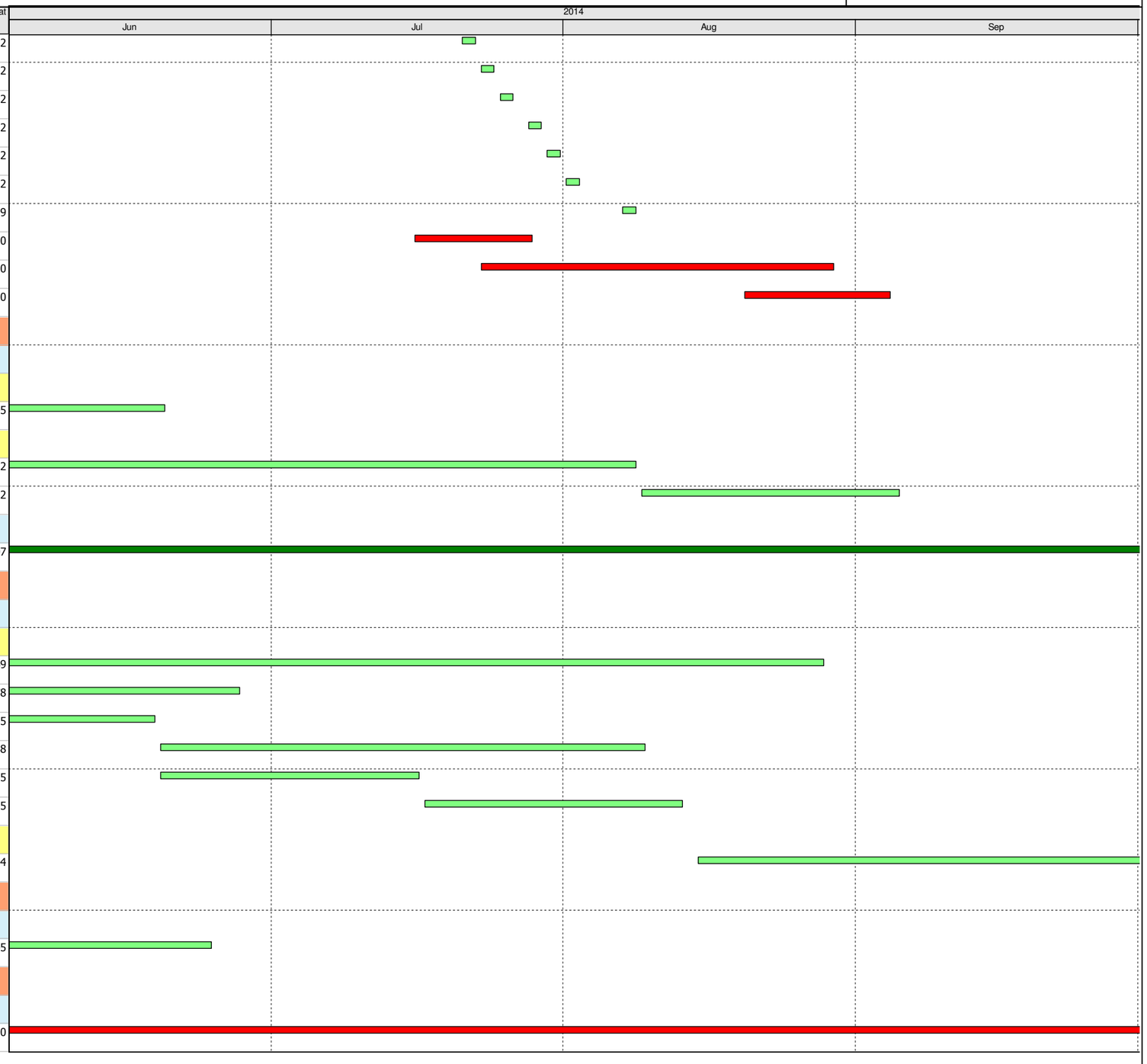
Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
SII-10110	Sec II - MVB - Dwall P19	13	26-May-14 A	20-Jun-14	8
SII-10120	Sec II - MVB - Dwall P17	25	21-Jun-14	21-Jul-14	8
SII-10140	Sec II - MVB - Dwall P28	26	08-Jul-14	06-Aug-14	8
SII-10150	Sec II - MVB - Dwall P18	23	25-Jul-14	20-Aug-14	8
SII-10160	Sec II - MVB - Dwall P27	20	12-Aug-14	03-Sep-14	8
SII-10170	Sec II - MVB - Dwall P22	22	26-Aug-14	20-Sep-14	8
Group 2					
SII-10230	Sec II - MVB - Dwall P30	12	19-May-14 A	31-May-14	11
SII-10240	Sec II - MVB - Dwall P29	20	09-Jun-14	02-Jul-14	11
SII-10250	Sec II - MVB - Dwall P20	22	23-Jun-14	18-Jul-14	11
SII-10260	Sec II - MVB - Dwall P13	22	07-Jul-14	31-Jul-14	11
SII-10270	Sec II - MVB - Dwall P21	29	23-Jul-14	25-Aug-14	11
SII-10280	Sec II - MVB - Dwall P16	25	12-Aug-14	10-Sep-14	11
SII-10290	Sec II - MVB - Dwall P26	30	26-Aug-14	30-Sep-14	11
Group 3					
SII-10330	Sec II - MVB - Dwall P37	23	28-May-14 A	24-Jun-14	19
SII-10340	Sec II - MVB - Dwall P01	19	10-Jun-14	02-Jul-14	19
SII-10350	Sec II - MVB - Dwall P11	21	26-Jun-14	21-Jul-14	19
SII-10360	Sec II - MVB - Dwall P36	21	05-Jul-14	29-Jul-14	19
SII-10370	Sec II - MVB - Dwall P02	19	14-Jul-14	04-Aug-14	19
SII-10380	Sec II - MVB - Dwall P10	20	21-Jul-14	12-Aug-14	19
SII-10390	Sec II - MVB - Dwall P39	20	28-Jul-14	19-Aug-14	19
SII-10400	Sec II - MVB - Dwall P03	24	05-Aug-14	01-Sep-14	19
SII-10410	Sec II - MVB - Dwall P09	21	14-Aug-14	06-Sep-14	19
SII-10510	Sec II - MVB - Dwall P40	20	23-Aug-14	16-Sep-14	19
MVB Substructure - Bored Pile and Prebored H-Pile					
SII10300	Sec II - MVB A&B - Bored Pile plant mobilisation	12	23-Jun-14	07-Jul-14	1
SII10320	Sec II - MVB A&B - Predrilling for bored pile	90	23-Jun-14	09-Oct-14	38
SII10340	Sec II - MVB A&B - Construct bored piles	148	26-Jun-14	19-Dec-14	1
MVB Substructure - Bored Pile - Construction Sequences					
Group 1					
SII-11000	Ssec II - MVB - Bored Pile BC1-A	18	26-Jun-14	17-Jul-14	41
SII-11020	Ssec II - MVB - Bored Pile BC2-A	18	18-Jul-14	07-Aug-14	41
SII-11030	Ssec II - MVB - Bored Pile BC1-B	18	08-Aug-14	28-Aug-14	41
SII-11040	Ssec II - MVB - Bored Pile BC8	18	29-Aug-14	19-Sep-14	41
Group 2					
SII-11090	Ssec II - MVB - Bored Pile BC2-B	18	07-Jul-14	26-Jul-14	44
SII-11100	Ssec II - MVB - Bored Pile BC3-A	18	28-Jul-14	16-Aug-14	45
SII-11110	Ssec II - MVB - Bored Pile BC14	18	18-Aug-14	06-Sep-14	45
Group 3					
SII-11160	Ssec II - MVB - Bored Pile BC4-A	18	11-Jul-14	31-Jul-14	44



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
SII-11170	Ssec II - MVB - Bored Pile BC11	18	01-Aug-14	21-Aug-14	44
SII-11180	Ssec II - MVB - Bored Pile BC4-B	18	22-Aug-14	12-Sep-14	44
Section II A - CWB Tunnel & Slip Road Structures and Facilities					
Section II A - CWB Tunnel - Design, Submission and Approval					
SIIA10420	CWB Tunnel - MS for DWall Construction - prepare & submit to ICE	30	01-Aug-13 A	31-May-14	91
SIIA10480	CWB Tunnel - MS & temp work design for bulk exc & ELS - prepare & submit to ICE	80	01-Aug-14	19-Oct-14	29
CWB CRIII & A1					
CWB CRIII & A1 - Dwall and Pile Construction					
SIIA11060	Sec II A - CWB A1 - predrilling for Dwall and piles	30	26-Jun-14	31-Jul-14	2
SIIA11080	Sec II A - CWB A1 - carry out ground pretreatment for Dwall	80	04-Jul-14	08-Oct-14	2
SIIA11100	Sec II A - CWB A1 - construct Guide Wall	46	08-Jul-14	29-Aug-14	2
SIIA11120	Sec II A - CWB A1 - construct temporary DWall and temp bulk head wall	70	11-Jul-14	03-Oct-14	2
SIIA11140	Sec II A - CWB A1 - Construct pre-bored H-pile	65	25-Jul-14	11-Oct-14	2
SIIA11180	Sec II A - CWB A1 - D-wall grout curtain / contact grout	90	19-Jun-14	06-Oct-14	7
SIIA11220	Sec II A - CWB A1 - D-wall Sonic test / interface core	90	19-Jun-14	06-Oct-14	7
SIIA11240	Sec II A - CWB A1 - install dewater/ recharge / observation well	90	19-Jun-14	06-Oct-14	7
Section VI A - Area 1 & 2 - Lung King Street					
Roadwork & Utilities					
SVIA10040	Sec VI A - Area 1 - Summary of Box Culvert La Construction	136	11-Nov-13 A	22-Nov-14	-56
Section VI B - Area 8					
Area 8 - Demolish Ex. Cooling Water Pumping Station					
SVIB10020	MS of cooling water pump station demolition - ICE check and issue check cert	14	22-Feb-14 A	04-Jun-14	1
SVIB10040	MS of cooling water pump station demolition Works - Eng comment and approve	28	22-Feb-14 A	06-Jun-14	2
SVIB10060	Completion of reclamation at Zone C	0		31-May-14	24
SVIB10070	Sec VI B - site clearance, u/g utilities detection	12	07-Apr-14 A	07-Jun-14	0
SVIB10080	Sec VI B - demolish existing air duct	20	09-Jun-14	02-Jul-14	0
SVIB10100	Sec VI B - remove existing crane	4	03-Jul-14	07-Jul-14	0
SVIB10120	Sec VI B - open cut excavation to expose ex. seawall and pump house	5	02-Jul-14	07-Jul-14	0
SVIB10140	Sec VI B - demolish existing pump house (cell 1)	5	08-Jul-14	12-Jul-14	0
SVIB10180	Sec VI B - demolish existing pump house (cell 2)	5	10-Jul-14	15-Jul-14	9
SVIB10200	Sec VI B - demolish existing pump house (cell 3)	5	12-Jul-14	17-Jul-14	9
SVIB10220	Sec VI B - demolish existing pump house (cell 4)	5	15-Jul-14	19-Jul-14	9
SVIB10240	Sec VI B - demolish existing pump house (cell 5)	5	17-Jul-14	22-Jul-14	9
SVIB10260	Sec VI B - demolish existing pump house (cell 6)	5	19-Jul-14	24-Jul-14	9
SVIB10280	Sec VI B - demolish existing pump house (cell 7)	5	22-Jul-14	26-Jul-14	9
SVIB10300	Sec VI B - demolish existing pump house (cell 8)	5	24-Jul-14	29-Jul-14	9
SVIB10320	Sec VI B - demolish existing pump house (cell 9)	5	26-Jul-14	31-Jul-14	9
SVIB10340	Sec VI B - demolish existing pump house (cell 10)	5	01-Aug-14	06-Aug-14	9
SVIB10360	Sec VI B - fill up void inside existing pump house (cell 1)	2	14-Jul-14	15-Jul-14	0
SVIB10380	Sec VI B - fill up void inside existing pump house (cell 2)	2	16-Jul-14	17-Jul-14	12
SVIB10400	Sec VI B - fill up void inside existing pump house (cell 3)	2	18-Jul-14	19-Jul-14	12



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float
SVIB10420	Sec VI B - fill up void inside existing pump house (cell 4)	2	21-Jul-14	22-Jul-14	12
SVIB10440	Sec VI B - fill up void inside existing pump house (cell 5)	2	23-Jul-14	24-Jul-14	12
SVIB10460	Sec VI B - fill up void inside existing pump house (cell 6)	2	25-Jul-14	26-Jul-14	12
SVIB10480	Sec VI B - fill up void inside existing pump house (cell 7)	2	28-Jul-14	29-Jul-14	12
SVIB10500	Sec VI B - fill up void inside existing pump house (cell 8)	2	30-Jul-14	31-Jul-14	12
SVIB10520	Sec VI B - fill up void inside existing pump house (cell 9)	2	01-Aug-14	02-Aug-14	12
SVIB10540	Sec VI B - fill up void inside existing pump house (cell 10)	2	07-Aug-14	08-Aug-14	9
SVIB10560	Sec VI B - demolish existing seawall coping	11	16-Jul-14	28-Jul-14	0
SVIB10580	Sec VI B - trim down existing seawall	33	23-Jul-14	29-Aug-14	0
SVIB10600	Sec VI B - backfill and compaction to formation level	14	20-Aug-14	04-Sep-14	0
Section VI C - Area 3, 6, 8A & 8C					
Area 8A & 8C - Seawall Modification (Reviewed)					
Design Submission & Approval					
PRS-1004	Sec VI C - Temp Work Design for Seawall Modification & MTR Pump Room Stabilization - Engineer / MTR comment and approve	28	02-Apr-14 A	19-Jun-14	95
Tenders for Sub-contractor and Procurement					
PCU60310	Sec VI C - Prepare Sub-contract for Seawall Modification and Procurement of Materials	90	14-Nov-13 A	08-Aug-14	12
PCU60320	Sec VI C - Assessement and Award of Sub-contract for Seawall Modification	28	09-Aug-14	05-Sep-14	12
Area 3 - Box Culvert bay 4 and Roadwork					
SVIC10220	Sec VI C - [Summary] Construct Box Culvert Bay 4	116	06-Jan-14 A	06-Dec-14	107
Section VI D - Area 8B & 10					
WDII Box 1 Construction (Reviewed)					
WDII Box 1 Submission and Approval / Material Procurement					
PCU60410	Sec VI D - WD II Box 1 - Prepare Subcontract for Box 1 structure	90	26-May-14 A	28-Aug-14	69
S0721040	Sec VI D - WD II Box 1 - temp work design - ICE check and issue check cert	28	31-May-14	27-Jun-14	1678
S0721060	Sec VI D - WD II Box 1 - temp work design - Engineer comment and approve	28	19-May-14 A	18-Jun-14	55
S0721070	Sec VI D - WD II Box 1 - method statement and temp work design - MTR comment and approve	52	19-Jun-14	09-Aug-14	88
S0721080	Sec VI D - WD II Box 1 - Prepare and submit method statement	28	19-Jun-14	16-Jul-14	55
S0721090	Sec VI D - WD II Box 1 - method statement - Engineer comment and approve	28	17-Jul-14	13-Aug-14	55
Pile Head Treatment and Dry Dock					
WD-C3030	Sec VI D - form dry dock	65	15-Aug-14	01-Nov-14	44
Section VIII - Landscape Softworks					
Soft Landscaping Works					
SVIII10020	Sec VIII - Tree Felling/Transplanting at Portion 2 & 2A	90	20-Nov-13 A	24-Jun-14	305
Section X - Protection & Preservation of Trees					
Soft Landscaping Works					
SX10020	Sec X - Protection & Preservation of Trees	1632	31-Jan-13 A	20-Jul-17	0



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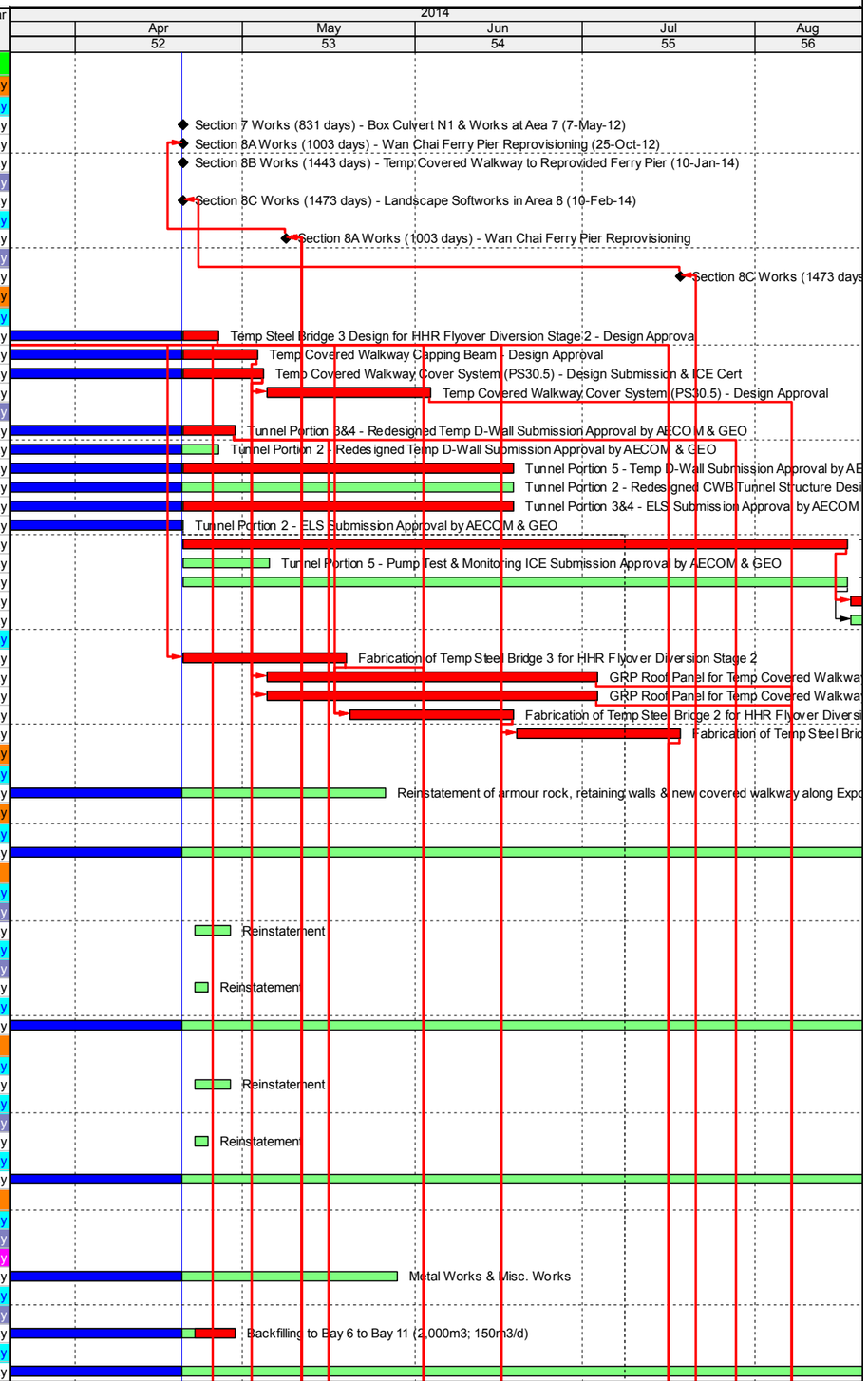
CHUN WO - CRGL JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (dd 20-Apr-14)		1909	693	06-Mar-08 A	27-Aug-16	576	
Programme Milestones (Revised up to EOTO No.10 Issued on 29-Nov-13)		90	90	20-Apr-14	18-Jul-14	-158	Calendar Day
Contractual Completion Dates		0	0	20-Apr-14	20-Apr-14	-68	Calendar Day
KDC0110	Section 7 Works (831 days) - Box Culvert N1 & Works at Aea 7 (7-May-12)	0	0		20-Apr-14*	-712	Calendar Day
KDC0120	Section 8A Works (1003 days) - Wan Chai Ferry Pier Reprovisioning (25-Oct-12)	0	0		20-Apr-14*	-541	Calendar Day
KDC0130	Section 8B Works (1443 days) - Temp Covered Walkway to Reprovided Ferry Pier (10-Jan-14)	0	0		20-Apr-14*	-99	Calendar Day
Soft Landscaping & Establishment Key Dates		0	0	20-Apr-14	20-Apr-14	-68	Calendar Day
KDC0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8 (10-Feb-14)	0	0		20-Apr-14*	-68	Calendar Day
Forecast Completion Dates		71	71	08-May-14	18-Jul-14	-158	Calendar Day
KDF0120	Section 8A Works (1003 days) - Wan Chai Ferry Pier Reprovisioning	0	0		08-May-14	-560	Calendar Day
Soft Landscaping & Establishment Key Dates		0	0	18-Jul-14	18-Jul-14	-158	Calendar Day
KDF0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8	0	0		18-Jul-14	-158	Calendar Day
Preliminaries		484	180	25-May-13 A	16-Oct-14	1400	Calendar Day
Critical Submission & Approval		484	180	25-May-13 A	16-Oct-14	1400	Calendar Day
PRE-SUB-1030B	Temp Steel Bridge 3 Design for HHR Flyover Diversion Stage 2 - Design Approval	60	7	25-May-13 A	26-Apr-14	-367	Calendar Day
PRE-SUB-1000B	Temp Covered Walkway Capping Beam - Design Approval	30	14	19-Jun-13 A	03-May-14	-421	Calendar Day
PRE-SUB-1010A	Temp Covered Walkway Cover System (PS30.5) - Design Submission & ICE Cert	90	15	18-Oct-13 A	04-May-14	-411	Calendar Day
PRE-SUB-1010B	Temp Covered Walkway Cover System (PS30.5) - Design Approval	30	30	05-May-14	03-Jun-14	-411	Calendar Day
CSD for CWB Tunnel		484	180	08-Jun-13 A	16-Oct-14	1400	Calendar Day
PRE-CSD-3000B	Tunnel Portion 3&4 - Redesigned Temp D-Wall Submission Approval by AECOM & GEO	30	10	08-Jun-13 A	29-Apr-14	-354	Calendar Day
PRE-CSD-2000B	Tunnel Portion 2 - Redesigned Temp D-Wall Submission Approval by AECOM & GEO	30	7	19-Jul-13 A	26-Apr-14	1573	Calendar Day
PRE-CSD-5000B	Tunnel Portion 5 - Temp D-Wall Submission Approval by AECOM & GEO	60	60	15-Aug-13 A	18-Jun-14	-15	Calendar Day
PRE-CSD-2030B	Tunnel Portion 2 - Redesigned CWB Tunnel Structure Design Submission Approval by AECOM	60	60	16-Nov-13 A	18-Jun-14	233	Calendar Day
PRE-CSD-3010B	Tunnel Portion 3&4 - ELS Submission Approval by AECOM & GEO	60	60	17-Jan-14 A	18-Jun-14	-77	Calendar Day
PRE-CSD-2010B	Tunnel Portion 2 - ELS Submission Approval by AECOM & GEO	60	0	30-Jan-14 A	20-Apr-14	130	Calendar Day
PRE-CSD-5010A	Tunnel Portion 5 - ELS ICE Submission	120	120	20-Apr-14	17-Aug-14	-18	Calendar Day
PRE-CSD-5020B	Tunnel Portion 5 - Pump Test & Monitoring ICE Submission Approval by AECOM & GEO	16	16	20-Apr-14	05-May-14	132	Calendar Day
PRE-CSD-6010A	Tunnel Portion 6 - ELS ICE Submission	120	120	20-Apr-14	17-Aug-14	215	Calendar Day
PRE-CSD-5010B	Tunnel Portion 5 - ELS Submission Approval by AECOM & GEO	60	60	18-Aug-14	16-Oct-14	-18	Calendar Day
PRE-CSD-6010B	Tunnel Portion 6 - ELS Submission Approval by AECOM & GEO	60	60	18-Aug-14	16-Oct-14	215	Calendar Day
Critical Procurement & Site Delivery		90	90	20-Apr-14	18-Jul-14	-367	Calendar Day
PRE-PRO-1200C	Fabrication of Temp Steel Bridge 3 for HHR Flyover Diversion Stage 2	30	30	20-Apr-14	19-May-14	-367	Calendar Day
PRE-PRO-1100A	GRP Roof Panel for Temp Covered Walkway (Type 1)	60	60	05-May-14	03-Jul-14	-381	Calendar Day
PRE-PRO-1100B	GRP Roof Panel for Temp Covered Walkway (Type 2)	60	60	05-May-14	03-Jul-14	-381	Calendar Day
PRE-PRO-1200B	Fabrication of Temp Steel Bridge 2 for HHR Flyover Diversion Stage 2	30	30	20-May-14	18-Jun-14	-367	Calendar Day
PRE-PRO-1200A	Fabrication of Temp Steel Bridge 1 for HHR Flyover Diversion Stage 2	30	30	19-Jun-14	18-Jul-14	-367	Calendar Day
Section 3 of the Works - Reprovisioning of Government Helipad and Public Toilet		254	28	11-Aug-12 A	26-May-14	1241	HK Working Day
Outstanding Works		254	28	11-Aug-12 A	26-May-14	1241	HK Working Day
S3-0070-1499	Reinstatement of armour rock, retaining walls & new covered walkway along Expo Drive East	254	28	11-Aug-12 A	26-May-14	1241	HK Working Day
Section 4A of the Works - Cooling Water Pumping System for Sun Hung Kai Centre (P8)		365	302	16-Feb-14 A	15-Feb-15	1278	Calendar Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	302	16-Feb-14 A	15-Feb-15	1278	Calendar Day
S4A-0900	Outstanding Works	365	302	16-Feb-14 A	15-Feb-15	1278	Calendar Day
Section 4B of the Works - Cooling Water Pumping System for China Resources Building (P9)		292	134	01-Oct-13 A	30-Sep-14	1135	
Cooling Mains Work within Hoarding Area		6	6	22-Apr-14	28-Apr-14	1263	HK Working Day
Zone 4A Pipe Installation CHAI 080-160		6	6	22-Apr-14	28-Apr-14	1263	HK Working Day
S4B-0060-180	Reinstatement	6	6	22-Apr-14	28-Apr-14	1263	HK Working Day
Cooling Mains Work at Junction between Convention Avenue and Tonnochy Road		3	3	22-Apr-14	24-Apr-14	1266	HK Working Day
Zone 4B-1& 4B-2 Pipe Installation CHAI 170-160		3	3	22-Apr-14	24-Apr-14	1266	HK Working Day
S4B-0060-300	Reinstatement	3	3	22-Apr-14	24-Apr-14	1266	HK Working Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	164	01-Oct-13 A	30-Sep-14	1416	Calendar Day
S4B-0900	Outstanding Works	365	164	01-Oct-13 A	30-Sep-14	1416	Calendar Day
Section 4C of the Works - Cooling Water Pumping System for Great Eagle Centre / Harbour Centre (P7)		293	176	21-Nov-13 A	20-Nov-14	1093	
Cooling Mains Work within Hoarding Area CHAG 210-150		6	6	22-Apr-14	28-Apr-14	1263	HK Working Day
S4C-0060-150	Reinstatement	6	6	22-Apr-14	28-Apr-14	1263	HK Working Day
Cooling Mains Work at Junction between Convention Avenue and Tonnochy Road		3	3	22-Apr-14	24-Apr-14	1266	HK Working Day
Zone 4B-1& 4B-2 Pipe Installation CHAG 210-220		3	3	22-Apr-14	24-Apr-14	1266	HK Working Day
S4C-0060 -240	Reinstatement	3	3	22-Apr-14	24-Apr-14	1266	HK Working Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	215	21-Nov-13 A	20-Nov-14	1365	Calendar Day
S4C-0900	Outstanding Works	365	215	21-Nov-13 A	20-Nov-14	1365	Calendar Day
Section 5 of the Works - WSD Salt Water Pumping System		804	257	06-Jun-12 A	05-Mar-15	1012	
WSD Salt Water Pumping Station		282	30	06-Jun-12 A	28-May-14	1239	HK Working Day
Builder and E&M works for WSD's pumping station		282	30	06-Jun-12 A	28-May-14	1239	HK Working Day
Finsihing works		282	30	06-Jun-12 A	28-May-14	1239	HK Working Day
S5-0060-1801	Metal Works & Misc. Works	282	30	06-Jun-12 A	28-May-14	1239	HK Working Day
Salt Water Intake Culvert Construction		23	7	20-Apr-13 A	29-Apr-14	-581	HK Working Day
Bay 6 - Bay 18: Ex-Pet Garden & Hung Hing Road		23	7	20-Apr-13 A	29-Apr-14	-581	HK Working Day
S5-100-3333	Backfilling to Bay 6 to Bay 11 (2,000m3; 150m3/d)	23	7	20-Apr-13 A	29-Apr-14	-581	HK Working Day
Overall Testing & Commissioning of Reprovisioned Salt Water Intake System		365	320	06-Mar-14 A	05-Mar-15	1260	Calendar Day
S5-0900	Outstanding Works	365	320	06-Mar-14 A	05-Mar-15	1260	Calendar Day



俊和－中國中鐵聯營
CHUN WO - CRGL JOINT VENTURE

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

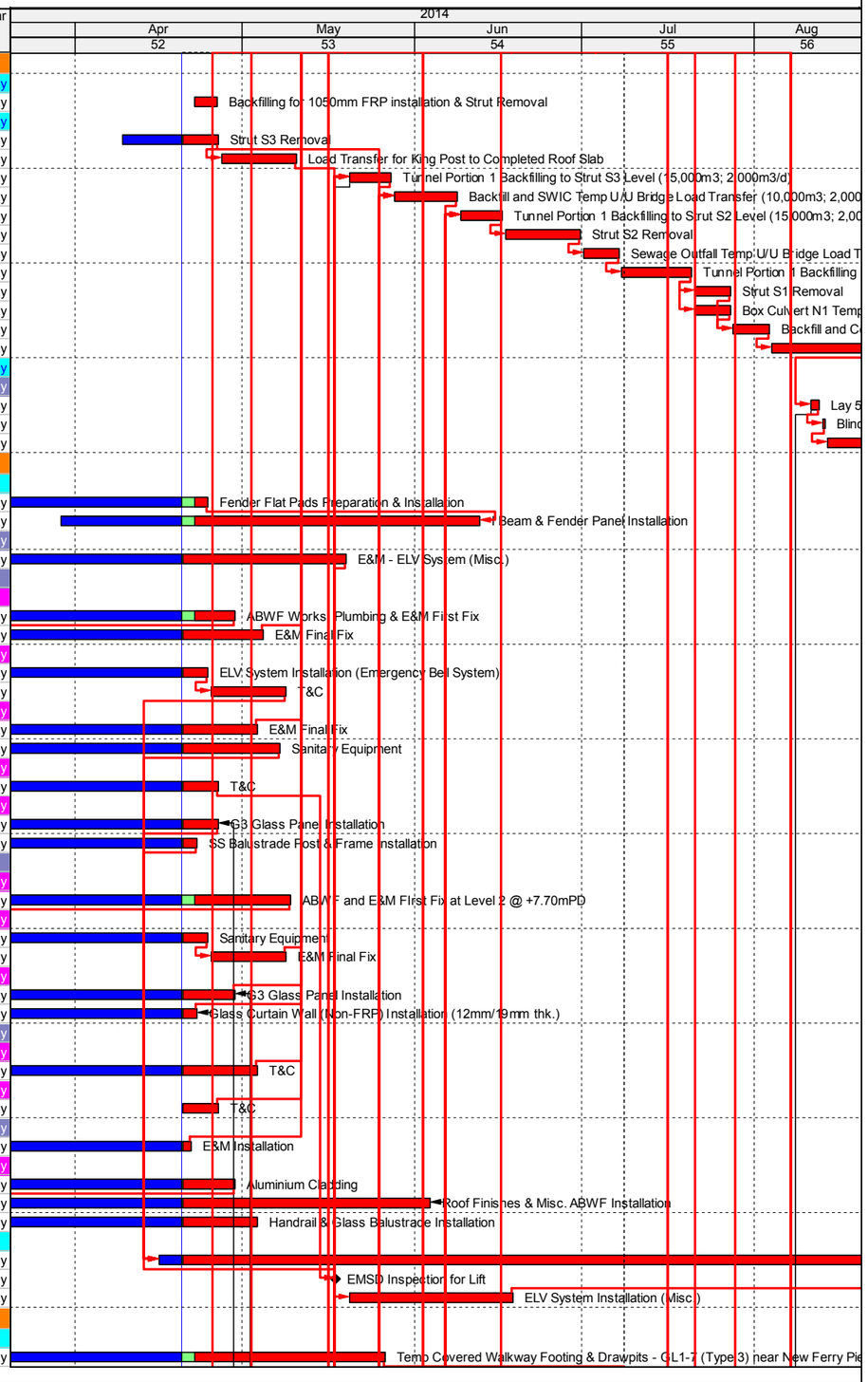
CEDD CONTRACT NO. HK/2009/02
Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Apr-14)

Date	Revision	Checked	Approved
20-Apr-14	3MRP		
20-Feb-14	Baseline Prog		

CEDD CONTRACT HK/2009/02

CHUN WO - CRGL JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
Section 7 of the Works - Box Culvert N1 & Flood Relief System		103	103	09-Apr-14 A	24-Aug-14	-312	
Box Culvert and Flood Relief System Construction		4	4	22-Apr-14	26-Apr-14	-213	HK Working Day
S7-191212-260	Backfilling for 1050mm FRP installation & Strut Removal	4	4	22-Apr-14	26-Apr-14	-213	HK Working Day
Works in Area 7		121	127	09-Apr-14 A	24-Aug-14	-1075	Calendar Day
S7-1200	Strut S3 Removal	7	7	09-Apr-14 A	26-Apr-14	-1066	Calendar Day
S7-1000	Load Transfer for King Post to Completed Roof Slab	14	14	27-Apr-14	10-May-14	-1066	Calendar Day
S7-1100	Tunnel Portion 1 Backfilling to Strut S3 Level (15,000m3; 2,000m3/d)	8	8	20-May-14	27-May-14	-1075	Calendar Day
S7-1250	Backfill and SWIC Temp U/U Bridge Load Transfer (10,000m3; 2,000m3/d)	12	12	28-May-14	08-Jun-14	-1075	Calendar Day
S7-1300	Tunnel Portion 1 Backfilling to Strut S2 Level (15,000m3; 2,000m3/d)	8	8	09-Jun-14	16-Jun-14	-1075	Calendar Day
S7-1400	Strut S2 Removal	14	14	17-Jun-14	30-Jun-14	-1075	Calendar Day
S7-1420	Sewage Outfall Temp U/U Bridge Load Transfer	7	7	01-Jul-14	07-Jul-14	-1075	Calendar Day
S7-1500	Tunnel Portion 1 Backfilling to Strut S1 Level (25,000m3; 2,000m3/d)	13	13	08-Jul-14	20-Jul-14	-1075	Calendar Day
S7-1600	Strut S1 Removal	7	7	21-Jul-14	27-Jul-14	-1075	Calendar Day
S7-1620	Box Culvert N1 Temp U/U Bridge Load Transfer	7	7	21-Jul-14	27-Jul-14	-1075	Calendar Day
S7-1640	Backfill and Cooling Mains Temp U/U Bridge Load Transfer (5,000m3; 2,000m3/d)	7	7	28-Jul-14	03-Aug-14	-1075	Calendar Day
S7-1700	D-Wall Trimming, Drain Installation & Backfilling to Ground Level (13,500m3; 1,000m3/d)	21	21	04-Aug-14	24-Aug-14	-1075	Calendar Day
Transformer Building for Dining Services at Ferry Pier (VO116)		10	10	11-Aug-14	21-Aug-14	-861	HK Working Day
Civil Works		10	10	11-Aug-14	21-Aug-14	-861	HK Working Day
S7-TB-2000	Lay 500mm thk. Rubble Mound	2	2	11-Aug-14	12-Aug-14	-861	HK Working Day
S7-TB-2010	Blinding Layer	1	1	13-Aug-14	13-Aug-14	-861	HK Working Day
S7-TB-2020	Base Slab Construction (9.3m x 4.9m x 1m thick)	7	7	14-Aug-14	21-Aug-14	-861	HK Working Day
Section 8A of the Works - Reprovisioning of Wan Chai Ferry Pier in Area 8		558	142	06-Mar-08 A	12-Oct-14	-218	
ABWF & E&M Installation		418	42	06-Mar-08 A	12-Jun-14	-118	
S8A-BS-0400	Fender Flat Pads Preparation & Installation	40	3	14-Feb-14 A	24-Apr-14	-183	HK Working Day
S8A-BS-0410	I Beam & Fender Panel Installation	54	42	29-Mar-14 A	12-Jun-14	-208	HK Working Day
Specific Procurement		60	30	29-May-13 A	19-May-14	-299	Calendar Day
S8A-BS-0280B	E&M - ELV System (Misc.)	60	30	29-May-13 A	19-May-14	-299	Calendar Day
Level 1		401	13	17-Dec-12 A	08-May-14	-203	
Public Area		223	10	17-Dec-12 A	04-May-14	-200	
S8A-BS-1000	ABWF Works, Plumbing & E&M First Fix	132	7	17-Dec-12 A	29-Apr-14	-197	HK Working Day
S8A-BS-1070	E&M Final Fix	15	15	05-Sep-13 A	04-May-14	-376	Calendar Day
Ticket Room, Changing Room & Storing Room		193	19	08-Oct-13 A	08-May-14	-258	Calendar Day
S8A-BS-1860	ELV System Installation (Emergency Bell System)	30	5	08-Oct-13 A	24-Apr-14	-258	Calendar Day
S8A-BS-1870	T&C	14	14	25-Apr-14	08-May-14	-258	Calendar Day
Toilet		120	18	05-Sep-13 A	07-May-14	-257	Calendar Day
S8A-BS-1170	E&M Final Fix	14	14	05-Sep-13 A	03-May-14	-555	Calendar Day
S8A-BS-1160	Sanitary Equipment	28	18	10-Jan-14 A	07-May-14	-257	Calendar Day
Lift		7	7	09-Jan-14 A	26-Apr-14	-267	Calendar Day
S8A-BS-1440	T&C	7	7	09-Jan-14 A	26-Apr-14	-267	Calendar Day
Metalworks		80	7	07-Aug-13 A	26-Apr-14	-246	Calendar Day
S8A-BS-1640	G3 Glass Panel Installation	15	7	07-Aug-13 A	26-Apr-14	-246	Calendar Day
S8A-BS-1630	SS Balustrade Post & Frame Installation	24	3	17-Oct-13 A	22-Apr-14	-242	Calendar Day
Level 2		401	14	06-Mar-08 A	09-May-14	-180	
General Area		123	14	17-Dec-12 A	09-May-14	-180	HK Working Day
S8A-BS-2000	ABWF and E&M FIrst Fix at Level 2 @ +7.70mPD	123	14	17-Dec-12 A	09-May-14	-180	HK Working Day
Toliet		257	19	30-Aug-13 A	08-May-14	-560	Calendar Day
S8A-BS-2150	Sanitary Equipment	10	5	30-Aug-13 A	24-Apr-14	-560	Calendar Day
S8A-BS-2160	E&M Final Fix	14	14	25-Apr-14	08-May-14	-560	Calendar Day
Metalworks & Glass Panel Installation		258	10	06-Mar-08 A	29-Apr-14	-551	Calendar Day
S8A-BS-2230	G3 Glass Panel Installation	14	10	06-Mar-08 A	29-Apr-14	-551	Calendar Day
S8A-BS-2210	Glass Curtain Wall (Non-FRP) Installation (12mm/19mm thk.)	21	3	25-Jul-13 A	22-Apr-14	-544	Calendar Day
Level M		33	14	20-Mar-14 A	03-May-14	-555	Calendar Day
Movable Ramp Machine Room		14	14	20-Mar-14 A	03-May-14	-555	Calendar Day
S8A-BS-3410	T&C	14	14	20-Mar-14 A	03-May-14	-555	Calendar Day
Cleaning/ Flushing Water Pump Room		7	7	20-Apr-14	26-Apr-14	-548	Calendar Day
S8A-BS-3620	T&C	7	7	20-Apr-14	26-Apr-14	-548	Calendar Day
Roof		359	45	26-Mar-13 A	03-Jun-14	-144	Calendar Day
S8A-BS-4010	E&M Installation	28	2	10-Sep-13 A	21-Apr-14	-543	Calendar Day
Works in Area 8 - ABWF Works at Observation Deck of Ferry Pier		359	45	26-Mar-13 A	03-Jun-14	-144	Calendar Day
S8B-FP-01200	Aluminium Cladding	95	10	26-Mar-13 A	29-Apr-14	-109	Calendar Day
S8B-FP-01100	Roof Finishes & Misc. ABWF Installation	120	45	28-Oct-13 A	03-Jun-14	-144	Calendar Day
S8B-FP-01300	Handrail & Glass Balustrade Installation	45	14	21-Dec-13 A	03-May-14	-113	Calendar Day
T&C and Handover		149	142	16-Apr-14 A	12-Oct-14	-332	
S8A-TC-9000	Fitting Out Works by Star Ferry (PS36.03(4))	180	176	16-Apr-14 A	12-Oct-14	-415	Calendar Day
S8A-TC-1500	EMSD Inspection for Lift	0	0		17-May-14	-211	HK Working Day
S8A-TC-8000	ELV System Installation (Misc.)	30	30	20-May-14	18-Jun-14	-299	Calendar Day
Section 8B of the Works - Temporary Covered Walkway & Works in Area 8		192	128	18-Nov-13 A	23-Sep-14	-324	
Temporary Covered Walkway		192	128	18-Nov-13 A	23-Sep-14	-324	
S8B-TCW-01200B	Temp Covered Walkway Footing & Drawpits - GL1-7 (Type 3) near New Ferry Pier (Remaining)	30	28	18-Nov-13 A	26-May-14	-299	HK Working Day



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CHUN WO - CRGL JOINT VENTURE

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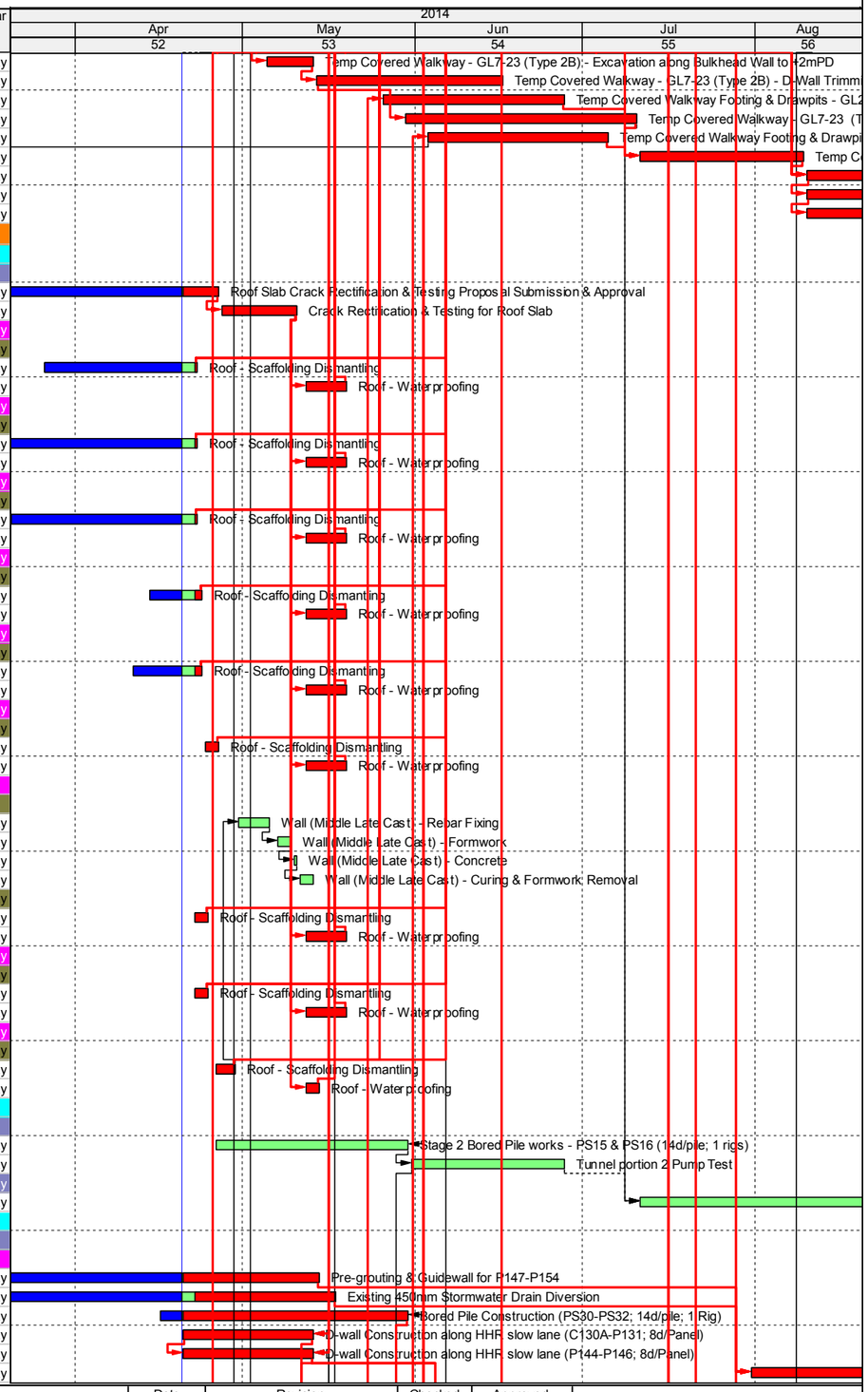
CEDD CONTRACT NO. HK/2009/02
Wan Chai Development Phase II - Central-Wan Chai Bypass at Wan Chai East (Contract 2)
3-MONTH ROLLING PROGRAMME (dd 20-Apr-14)

Date	Revision	Checked	Approved
20-Apr-14	3MRP		
20-Feb-14	Baseline Prog		

CEDD CONTRACT HK/2009/02

CHUN WO - CRGL JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
S8B-TCW-01300	Temp Covered Walkway - GL7-23 (Type 2B) - Excavation along Bulkhead Wall to +2mPD	7	7	05-May-14	13-May-14	-336	HK Working Day
S8B-TCW-01400	Temp Covered Walkway - GL7-23 (Type 2B) - D-Wall Trimming (50m@2m/d)	28	28	14-May-14	16-Jun-14	-336	HK Working Day
S8B-TCW-01100	Temp Covered Walkway Footing & Drawpits - GL23-34 (Type 2A) at WCR2	28	28	26-May-14	27-Jun-14	-326	HK Working Day
S8B-TCW-01500	Temp Covered Walkway - GL7-23 (Type 2B) - Capping Beam Construction (50m@1.5m/d)	34	34	30-May-14	10-Jul-14	-336	HK Working Day
S8B-TCW-01000	Temp Covered Walkway Footing & Drawpits - GL34-GL53 (Type 1) at Convention Avenue Footpath	28	28	03-Jun-14	05-Jul-14	-332	HK Working Day
S8B-TCW-01700	Temp Covered Walkway - Steelworks Fixing	30	30	11-Jul-14	09-Aug-14	-418	Calendar Day
S8B-TCW-01800	Temp Covered Walkway - Roof Panel Installation	30	30	10-Aug-14	08-Sep-14	-418	Calendar Day
S8B-TCW-02000	Temp Covered Walkway - Paving Block Laying & Planter	30	30	10-Aug-14	08-Sep-14	-403	Calendar Day
S8B-TCW-01850	Temp Covered Walkway - Drainage Installation	45	45	10-Aug-14	23-Sep-14	-403	Calendar Day
Section 9B of the Works - CWB Tunnel Structure (CH3400 - CH3796)		253	190	11-Nov-13 A	06-Dec-14	263	
Tunnel Portion 1 (CH3500-CH3630)		64	22	05-Mar-14 A	19-May-14	431	
CWB Structural Works		64	22	05-Mar-14 A	19-May-14	431	
S9B-T1-5000	Roof Slab Crack Rectification & Testing Proposal Submission & Approval	21	7	06-Mar-14 A	26-Apr-14	-1075	Calendar Day
S9B-T1-5001	Crack Rectification & Testing for Roof Slab	14	14	27-Apr-14	10-May-14	-1075	Calendar Day
Bay 1		41	22	26-Mar-14 A	19-May-14	-855	HK Working Day
Roof Concrete, Waterproofing & Scaffolding Removal		41	22	26-Mar-14 A	19-May-14	-855	HK Working Day
S9B-T1-B1-1440	Roof - Scaffolding Dismantling	3	1	26-Mar-14 A	22-Apr-14	-834	HK Working Day
S9B-T1-B1-1430	Roof - Waterproofing	7	7	12-May-14	19-May-14	-862	HK Working Day
Bay 2		64	22	05-Mar-14 A	19-May-14	-855	HK Working Day
Roof Concrete, Waterproofing & Scaffolding Removal		64	22	05-Mar-14 A	19-May-14	-855	HK Working Day
S9B-T1-B2-1440	Roof - Scaffolding Dismantling	3	1	05-Mar-14 A	22-Apr-14	-834	HK Working Day
S9B-T1-B2-1430	Roof - Waterproofing	7	7	12-May-14	19-May-14	-862	HK Working Day
Bay 3		44	22	20-Mar-14 A	19-May-14	-855	HK Working Day
Roof Concrete, Waterproofing & Scaffolding Removal		44	22	20-Mar-14 A	19-May-14	-855	HK Working Day
S9B-T1-B3-1440	Roof - Scaffolding Dismantling	3	1	20-Mar-14 A	22-Apr-14	-834	HK Working Day
S9B-T1-B3-1430	Roof - Waterproofing	7	7	12-May-14	19-May-14	-862	HK Working Day
Bay 4		25	22	14-Apr-14 A	19-May-14	-855	HK Working Day
Roof Concrete, Waterproofing & Scaffolding Removal		25	22	14-Apr-14 A	19-May-14	-855	HK Working Day
S9B-T1-B4-1450	Roof - Scaffolding Dismantling	3	2	14-Apr-14 A	23-Apr-14	-835	HK Working Day
S9B-T1-B4-1440	Roof - Waterproofing	7	7	12-May-14	19-May-14	-862	HK Working Day
Bay 4A		28	22	11-Apr-14 A	19-May-14	-855	HK Working Day
Roof Concrete, Waterproofing & Scaffolding Removal		28	22	11-Apr-14 A	19-May-14	-855	HK Working Day
S9B-T1-B4A-1450	Roof - Scaffolding Dismantling	3	2	11-Apr-14 A	23-Apr-14	-835	HK Working Day
S9B-T1-B4A-1440	Roof - Waterproofing	7	7	12-May-14	19-May-14	-862	HK Working Day
Bay 5		20	20	24-Apr-14	19-May-14	-855	HK Working Day
Roof Concrete, Waterproofing & Scaffolding Removal		20	20	24-Apr-14	19-May-14	-855	HK Working Day
S9B-T1-B5-1450	Roof - Scaffolding Dismantling	3	3	24-Apr-14	26-Apr-14	-838	HK Working Day
S9B-T1-B5-1440	Roof - Waterproofing	7	7	12-May-14	19-May-14	-862	HK Working Day
Bay 6 (For OHVD Base Slab & Side Wall, Combined to Bay 5)		22	22	22-Apr-14	19-May-14	431	
Wall		10	10	30-Apr-14	13-May-14	436	
S9B-T1-B6-1120	Wall (Middle Late Cast) - Rebar Fixing	4	4	30-Apr-14	05-May-14	436	HK Working Day
S9B-T1-B6-1130A	Wall (Middle Late Cast) - Formwork	3	3	07-May-14	09-May-14	436	HK Working Day
S9B-T1-B6-1130B	Wall (Middle Late Cast) - Concrete	1	1	10-May-14	10-May-14	436	HK Working Day
S9B-T1-B6-1140	Wall (Middle Late Cast) - Curing & Formwork Removal	3	3	11-May-14	13-May-14	538	Calendar Day
Roof Concrete, Waterproofing & Scaffolding Removal		22	22	22-Apr-14	19-May-14	-855	HK Working Day
S9B-T1-B6-1450	Roof - Scaffolding Dismantling	3	3	22-Apr-14	24-Apr-14	-836	HK Working Day
S9B-T1-B6-1440	Roof - Waterproofing	7	7	12-May-14	19-May-14	-862	HK Working Day
Bay 7		22	22	22-Apr-14	19-May-14	-855	HK Working Day
Roof Concrete, Waterproofing & Scaffolding Removal		22	22	22-Apr-14	19-May-14	-855	HK Working Day
S9B-T1-B7-1450	Roof - Scaffolding Dismantling	3	3	22-Apr-14	24-Apr-14	-836	HK Working Day
S9B-T1-B7-1440	Roof - Waterproofing	7	7	12-May-14	19-May-14	-862	HK Working Day
Bay 8		14	14	26-Apr-14	14-May-14	-851	HK Working Day
Roof Concrete, Waterproofing & Scaffolding Removal		14	14	26-Apr-14	14-May-14	-851	HK Working Day
S9B-T1-B8-1440	Roof - Scaffolding Dismantling	3	3	26-Apr-14	29-Apr-14	-840	HK Working Day
S9B-T1-B8-1430	Roof - Waterproofing	3	3	12-May-14	14-May-14	-858	HK Working Day
Tunnel Portion 2 (CH3425-CH3500)		186	186	26-Apr-14	06-Dec-14	41	
Foundation		51	51	26-Apr-14	27-Jun-14	51	
S9B-T2-1030	Stage 2 Bored Pile works - PS15 & PS16 (14d/pile; 1 rigs)	28	28	26-Apr-14	30-May-14	50	HK Working Day
S9B-T2-1130	Tunnel portion 2 Pump Test	28	28	31-May-14	27-Jun-14	61	Calendar Day
CWB Structural Works		125	125	11-Jul-14	06-Dec-14	41	HK Working Day
S9B-T2-2000	Tunnel portion 2 ELSW excavation (62,500m3; 500m3/d)	125	125	11-Jul-14	06-Dec-14	41	HK Working Day
Tunnel Portion 3 & Tunnel Portion 4 (CH3630-CH3790)		212	122	11-Nov-13 A	16-Sep-14	-158	
Foundation		212	122	11-Nov-13 A	16-Sep-14	-158	
Stage 2 - Southern Wall after HHR Flyover Diversion (Stage 1) (C130A-P131; P144-C154)		197	122	11-Feb-14 A	16-Sep-14	-170	
S9B-T34-1230C	Pre-grouting & Guidewall for P147-P154	28	25	11-Feb-14 A	14-May-14	-276	Calendar Day
S9B-T34-1270	Existing 450mm Stormwater Drain Diversion	21	21	17-Feb-14 A	17-May-14	-222	HK Working Day
S9B-T34-1260B	Bored Pile Construction (PS30-PS32; 14d/pile; 1 Rig)	42	41	16-Apr-14 A	30-May-14	-100	Calendar Day
S9B-T34-1250A	D-wall Construction along HHR slow lane (C130A-P131; 8d/Panel)	24	24	20-Apr-14	13-May-14	-368	Calendar Day
S9B-T34-1250B	D-wall Construction along HHR slow lane (P144-P146; 8d/Panel)	24	24	20-Apr-14	13-May-14	-368	Calendar Day
S9B-T34-1250C	D-wall Construction along HHR slow lane (P147-C154; 6d/Panel)	48	48	31-Jul-14	16-Sep-14	-353	Calendar Day



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CHUN WO - CRGL JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
Stage 3 - Northern Wall after TWCR4 Reclamation (C88-C105)		186	102	11-Nov-13 A	30-Jul-14	-147	Calendar Day
S9B-T34-1410	Pre-drilling at TWCR4	35	2	11-Nov-13 A	21-Apr-14	-89	Calendar Day
S9B-T34-1420C	Pre-grouting & Guide Wall Construction for P100-C105	21	14	19-Feb-14 A	03-May-14	-217	Calendar Day
S9B-T34-1420B	Pre-grouting & Guide Wall Construction for C88-P96	28	28	28-Mar-14 A	17-May-14	-333	Calendar Day
S9B-T34-1430A	D-wall Construction at TWCR4 (P97-P99; 8d/Panel)	24	24	14-May-14	06-Jun-14	-368	Calendar Day
S9B-T34-1440F	Bored Pile Construction (PN27; 14d/pile)	14	14	31-May-14	13-Jun-14	-100	Calendar Day
S9B-T34-1430B	D-wall Construction at TWCR4 (C88-P96; 6d/Panel)	54	54	07-Jun-14	30-Jul-14	-353	Calendar Day
Temp Works for HHR Flyover Diversion (Stage 2)		118	118	22-Apr-14	11-Sep-14	-278	
Bridge 1		37	37	07-Jun-14	21-Jul-14	-294	
S9B-TTA-1000	Excavation & D-Wall Modification for Supporting Bridge 1	21	21	07-Jun-14	02-Jul-14	-295	HK Working Day
S9B-TTA-1100	Overall Excavation to +1mPD	7	7	03-Jul-14	10-Jul-14	-295	HK Working Day
S9B-TTA-1300	Installation of S1 Strut & Bracing	7	7	11-Jul-14	18-Jul-14	-295	HK Working Day
S9B-TTA-1400	Installation of Bridge 1 spanning across CWB	3	3	19-Jul-14	21-Jul-14	-367	Calendar Day
Bridge 2		34	34	14-May-14	23-Jun-14	-286	
S9B-TTA-2000	D-Wall Modification for Supporting Bridge 2	14	14	14-May-14	29-May-14	-281	HK Working Day
S9B-TTA-2100	Excavation & Installation of S1 Strut	12	12	30-May-14	13-Jun-14	-281	HK Working Day
S9B-TTA-2200	Installation of Bridge 2 spanning across CWB	5	5	19-Jun-14	23-Jun-14	-356	Calendar Day
Bridge 3		42	42	28-Apr-14	18-Jun-14	-282	
S9B-TTA-3400	Steel Supporting Frame Erection for Bridge 3	30	30	28-Apr-14	04-Jun-14	-281	HK Working Day
S9B-TTA-3500	Installation of Bridge 3 connecting with Existing HHR Flyover	14	14	05-Jun-14	18-Jun-14	-351	Calendar Day
At-Grade Roadworks		118	118	22-Apr-14	11-Sep-14	-278	
S9B-TTA-4150	Concrete Deck & Steel Deck on Exiisting Box Culvert O Bay 17 - Bay 19	35	35	22-Apr-14	04-Jun-14	-285	HK Working Day
S9B-TTA-4100	At-Grade Temp Roadworks, Drainage & Furniture Installation in TWCR4 Area	45	45	07-Jun-14	30-Jul-14	-287	HK Working Day
S9B-TTA-4200	Road Furniture Installation & Pavement Works on Bridge 3	30	30	19-Jun-14	24-Jul-14	-282	HK Working Day
S9B-TTA-4000	Road Furniture Installation & Pavement Works on Bridge 2	30	30	24-Jun-14	29-Jul-14	-286	HK Working Day
S9B-TTA-4300	Road Furniture Installation & Pavement Works on Bridge 1	15	15	22-Jul-14	07-Aug-14	-294	HK Working Day
S9B-TTA-4400	Diversion of Traffic to Steel Bridges & TWCR4 (Stage 2 TTA)	0	0		07-Aug-14	-366	Calendar Day
S9B-TTA-4500	Demolish of Approach Ramp of Existing HHR Flyover for D-Wall Construction	24	24	08-Aug-14	04-Sep-14	-294	HK Working Day
S9B-TTA-4600	Utility Diversion for D-Wall near Existing HHR Flyover Approach Ramp	35	35	08-Aug-14	11-Sep-14	-347	Calendar Day
Section 11 of the Works - Remainder of Works		137	113	09-Apr-14 A	04-Sep-14	-237	
Marine Works at WCR2		66	35	09-Apr-14 A	24-May-14	-405	Calendar Day
S11-R2-1600	Removal of Existing SHK Pump House M&E equipment	7	5	09-Apr-14 A	24-Apr-14	-405	Calendar Day
S11-R2-1800B	Complete remaining reclamation at WCR2 (Stage 2) - Remaining at WCR2	30	30	25-Apr-14	24-May-14	-405	Calendar Day
Marine Works at WCR3		113	113	20-Apr-14	04-Sep-14	-237	
S11-R3-1100	Mobilisation of Dredger of 1st Stage Dredging	2	2	20-Apr-14	21-Apr-14	-300	Calendar Day
S11-R3-1200	Advanved Dredging at Permanent Seawall Area by Night Work (20,200m3 @ 250m3/d)	80	80	22-Apr-14	10-Jul-14	-300	Calendar Day
S11-R3-1300	Advanced Rockfilling for Seawall by Night Work (24,000m3 @ 500m3/d)	48	48	11-Jul-14	04-Sep-14	-237	HK Working Day
Demolition Works		42	42	20-Apr-14	31-May-14	-412	Calendar Day
S11-DEMO-1200	Advanced Works - Cutting Electricity Supply to existing WSD SWPS to HEC	42	42	20-Apr-14	31-May-14	-412	Calendar Day
Soft Landscaping & Establishment Works		2375	861	24-Feb-10 A	27-Aug-16	0	Calendar Day
Section 8C of the Works - Landscape Softworks in Area 8		90	90	20-Apr-14	18-Jul-14	-158	Calendar Day
S8C-0010	Carry out landscape soft work on new ferry pier	90	90	20-Apr-14	18-Jul-14	-158	Calendar Day
Section 8D of the Works - Establishment Works in Area 8		365	365	19-Jul-14	18-Jul-15	-158	Calendar Day
S8D-0010	Carry out establishment work on new ferry pier	365	365	19-Jul-14	18-Jul-15	-158	Calendar Day
Section 12 of the Works - Protection and Preservation of Existing Trees		2375	861	24-Feb-10 A	27-Aug-16	0	Calendar Day
S12-0010	Protection and preservation of existing trees	2375	861	24-Feb-10 A	27-Aug-16	0	Calendar Day
SUMMARY PROGRAMME		1071	437	25-Jul-12 A	30-Jun-15	-154	Calendar Day
CWB Tunnel Construction & Remaining Works (Section 9A, 9B, 10 & 11)		1071	437	25-Jul-12 A	30-Jun-15	-154	Calendar Day
CWB Tunnel Works in WCR1		97	97	20-May-14	24-Aug-14	-869	Calendar Day
SUM-CWB-14000	Backfilling for Tunnel Portion 1	97	97	20-May-14	24-Aug-14	-869	Calendar Day
CWB Tunnel Works in WCR2		865	231	25-Jul-12 A	06-Dec-14	52	Calendar Day
SUM-CWB-20000	Reclamation at WCR2	224	35	25-Jul-12 A	24-May-14	-405	Calendar Day
SUM-CWB-21000	Foundation for Tunnel Portion 2	366	41	27-Dec-12 A	30-May-14	61	Calendar Day
SUM-CWB-22000	Pump Test & Excavation for Tunnel Portion 2	190	190	31-May-14	06-Dec-14	52	Calendar Day
CWB Tunnel Works in WCR3		435	435	22-Apr-14	30-Jun-15	-413	Calendar Day
SUM-CWB-30000	Reclamation at WCR3 & Ferry Pier Demolition (Except Water Channel Maintained for HK/2009/01)	435	435	22-Apr-14	30-Jun-15	-413	Calendar Day
CWB Tunnel Works in WCR4/TWCR4		457	321	11-Nov-13 A	06-Mar-15	-330	Calendar Day
SUM-CWB-41000B	Foundation for Tunnel Portion 3&4 (except Eastern Bulkhead Wall)	457	321	11-Nov-13 A	06-Mar-15	-330	Calendar Day
Reprovisioning of Existing Facilities (Section 3, 4A, 4B, 4C, 5, 6, 7, 8A & 8B)		851	362	17-Dec-12 A	16-Apr-15	-371	Calendar Day
Reprovisioning of Box Culvert N (Section 7)		249	249	11-Aug-14	16-Apr-15	-1074	Calendar Day
SUM-FAC-52000	VO116 - New Transformer Building to Ferry Pier	249	249	11-Aug-14	16-Apr-15	-1074	Calendar Day
Reprovisioning of Wan Chai Ferry Pier & Covered Walkway (Section 8A & 8B)		463	179	17-Dec-12 A	15-Oct-14	-188	Calendar Day
SUM-FAC-62000	Ferry Pier ABWF Works	155	10	17-Dec-12 A	29-Apr-14	-19	Calendar Day
SUM-FAC-65000	ABWF Works on Observation Deck under Section 8B	150	45	07-May-13 A	03-Jun-14	-144	Calendar Day
SUM-FAC-66000	Temp Covered Walkway	217	179	10-Aug-13 A	15-Oct-14	-418	Calendar Day

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CHUN WO - CRGL JOINT VENTURE

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (dd 20-Jul-14)		2253	963	24-Feb-10 A	29-Oct-17	306	
Programme Milestones (Revised up to EOTO No.10 Issued on 29-Nov-13)		90	90	20-Jul-14	17-Oct-14	-249	Calendar Day
Contractual Completion Dates		0	0	20-Jul-14	20-Jul-14	-159	Calendar Day
KDC0110	Section 7 Works (831 days) - Box Culvert N1 & Works at Aea 7 (7-May-12)	0	0		20-Jul-14*	-803	Calendar Day
KDC0120	Section 8A Works (1003 days) - Wan Chai Ferry Pier Reprovisioning (25-Oct-12)	0	0		20-Jul-14*	-632	Calendar Day
KDC0130	Section 8B Works (1443 days) - Temp Covered Walkway to Reprovided Ferry Pier (10-Jan-14)	0	0		20-Jul-14*	-190	Calendar Day
Soft Landscaping & Establishment Key Dates		0	0	20-Jul-14	20-Jul-14	-159	Calendar Day
KDC0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8 (10-Feb-14)	0	0		20-Jul-14*	-159	Calendar Day
Forecast Completion Dates		74	74	04-Aug-14	17-Oct-14	-249	Calendar Day
KDF0120	Section 8A Works (1003 days) - Wan Chai Ferry Pier Reprovisioning	0	0		04-Aug-14	-648	Calendar Day
Soft Landscaping & Establishment Key Dates		0	0	17-Oct-14	17-Oct-14	-249	Calendar Day
KDF0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8	0	0		17-Oct-14	-249	Calendar Day
Preliminaries		575	180	25-May-13 A	15-Jan-15	1398	Calendar Day
Critical Submission & Approval		575	180	25-May-13 A	15-Jan-15	1398	Calendar Day
PRE-SUB-1030B	Temp Steel Bridge 3 Design for HHR Flyover Diversion Stage 2 - Design Approval	60	7	25-May-13 A	26-Jul-14	-360	Calendar Day
PRE-SUB-1000B	Temp Covered Walkway Capping Beam - Design Approval	30	14	19-Jun-13 A	02-Aug-14	1564	Calendar Day
PRE-SUB-1010B	Temp Covered Walkway Cover System (PS30.5) - Design Approval	30	7	12-Jun-14 A	26-Jul-14	-462	Calendar Day
CSD for CWB Tunnel		575	180	08-Jun-13 A	15-Jan-15	1398	Calendar Day
PRE-CSD-3000B	Tunnel Portion 3&4 - Redesigned Temp D-Wall Submission Approval by AECOM & GEO	30	10	08-Jun-13 A	29-Jul-14	1568	Calendar Day
PRE-CSD-2000B	Tunnel Portion 2 - Redesigned Temp D-Wall Submission Approval by AECOM & GEO	30	7	19-Jul-13 A	26-Jul-14	1571	Calendar Day
PRE-CSD-5000B	Tunnel Portion 5 - Temp D-Wall Submission Approval by AECOM & GEO	60	30	15-Aug-13 A	18-Aug-14	-67	Calendar Day
PRE-CSD-2030B	Tunnel Portion 2 - Redesigned CWB Tunnel Structure Design Submission Approval by AECOM	60	30	16-Nov-13 A	18-Aug-14	160	Calendar Day
PRE-CSD-3010B	Tunnel Portion 3&4 - ELS Submission Approval by AECOM & GEO	60	30	17-Jan-14 A	18-Aug-14	-117	Calendar Day
PRE-CSD-2010B	Tunnel Portion 2 - ELS Submission Approval by AECOM & GEO	60	10	30-Jan-14 A	29-Jul-14	19	Calendar Day
PRE-CSD-5010A	Tunnel Portion 5 - ELS ICE Submission	120	120	20-Jul-14	16-Nov-14	-161	Calendar Day
PRE-CSD-6010A	Tunnel Portion 6 - ELS ICE Submission	120	120	20-Jul-14	16-Nov-14	151	Calendar Day
PRE-CSD-5010B	Tunnel Portion 5 - ELS Submission Approval by AECOM & GEO	60	60	17-Nov-14	15-Jan-15	-161	Calendar Day
PRE-CSD-6010B	Tunnel Portion 6 - ELS Submission Approval by AECOM & GEO	60	60	17-Nov-14	15-Jan-15	151	Calendar Day
Critical Procurement & Site Delivery		121	25	22-Apr-14 A	13-Aug-14	1553	Calendar Day
PRE-PRO-1200B	Fabrication of Temp Steel Bridge 2 for HHR Flyover Diversion Stage 2	30	10	22-Apr-14 A	29-Jul-14	-363	Calendar Day
PRE-PRO-1200C	Fabrication of Temp Steel Bridge 3 for HHR Flyover Diversion Stage 2	30	10	22-Apr-14 A	29-Jul-14	1568	Calendar Day
PRE-PRO-1100A	GRP Roof Panel for Temp Covered Walkway (Type 1)	60	25	15-Jun-14 A	13-Aug-14	-450	Calendar Day
PRE-PRO-1100B	GRP Roof Panel for Temp Covered Walkway (Type 2)	60	25	15-Jun-14 A	13-Aug-14	-450	Calendar Day
PRE-PRO-1200A	Fabrication of Temp Steel Bridge 1 for HHR Flyover Diversion Stage 2	30	15	15-Jun-14 A	03-Aug-14	-350	Calendar Day
Section 3 of the Works - Reprovisioning of Government Helipad and Public Toilet		254	25	11-Aug-12 A	18-Aug-14	1244	HK Working Day
Outstanding Works		254	25	11-Aug-12 A	18-Aug-14	1244	HK Working Day
S3-0070-1499	Reinstatement of armour rock, retaining walls & new covered walkway along Expo Drive East	254	25	11-Aug-12 A	18-Aug-14	1244	HK Working Day
Section 4A of the Works - Cooling Water Pumping System for Sun Hung Kai Centre (P8)		365	211	16-Feb-14 A	15-Feb-15	1367	Calendar Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	211	16-Feb-14 A	15-Feb-15	1367	Calendar Day
S4A-0900	Outstanding Works	365	211	16-Feb-14 A	15-Feb-15	1367	Calendar Day
Section 4B of the Works - Cooling Water Pumping System for China Resources Building (P9)		292	61	01-Oct-13 A	30-Sep-14	1208	
Cooling Mains Work within Hoarding Area		6	3	08-May-14 A	23-Jul-14	1266	HK Working Day
Zone 4A Pipe Installation CHAI 080-160		6	3	08-May-14 A	23-Jul-14	1266	HK Working Day
S4B-0060-180	Reinstatement	6	3	08-May-14 A	23-Jul-14	1266	HK Working Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	73	01-Oct-13 A	30-Sep-14	1505	Calendar Day
S4B-0900	Outstanding Works	365	73	01-Oct-13 A	30-Sep-14	1505	Calendar Day
Section 4C of the Works - Cooling Water Pumping System for Great Eagle Centre / Harbour Centre (P7)		365	124	21-Nov-13 A	20-Nov-14	1454	Calendar Day
Cooling Mains Work above Tunnel Portion & connecting to Pump Station		365	124	21-Nov-13 A	20-Nov-14	1454	Calendar Day
S4C-0900	Outstanding Works	365	124	21-Nov-13 A	20-Nov-14	1454	Calendar Day
Section 5 of the Works - WSD Salt Water Pumping System		549	184	20-Apr-13 A	05-Mar-15	1085	
Salt Water Intake Culvert Construction		23	7	20-Apr-13 A	28-Jul-14	-654	HK Working Day
Bay 6 - Bay 18: Ex-Pet Garden & Hung Hing Road		23	7	20-Apr-13 A	28-Jul-14	-654	HK Working Day
S5-100-3333	Backfilling to Bay 6 to Bay 11 (2,000m3; 150m3/d)	23	7	20-Apr-13 A	28-Jul-14	-654	HK Working Day
Overall Testing & Commissioning of Reprovisioned Salt Water Intake System		365	229	06-Mar-14 A	05-Mar-15	1349	Calendar Day
S5-0900	Outstanding Works	365	229	06-Mar-14 A	05-Mar-15	1349	Calendar Day
Section 7 of the Works - Box Culvert N1 & Flood Relief System		179	110	09-Apr-14 A	28-Nov-14	1159	
Box Culvert and Flood Relief System Construction		4	4	21-Jul-14	25-Jul-14	-286	HK Working Day
S7-191212-260	Backfilling for 1050mm FRP installation & Strut Removal	4	4	21-Jul-14	25-Jul-14	-286	HK Working Day
Works in Area 7		139	70	09-Apr-14 A	13-Oct-14	1199	
S7-1020	Strut S3 Removal	7	7	09-Apr-14 A	26-Jul-14	-1086	Calendar Day
S7-1000	Load Transfer for King Post to Completed Roof Slab	14	4	24-Apr-14 A	23-Jul-14	1574	Calendar Day
S7-1010	Tunnel Portion 1 Backfilling to Strut S3 Level (15,000m3; 2,000m3/d)	8	10	26-May-14 A	29-Jul-14	1568	Calendar Day
S7-1030	Tunnel Portion 1 Backfilling to Strut S2 Level (14,000m3; 2,000m3/d)	7	7	20-Jun-14 A	26-Jul-14	-1095	Calendar Day
S7-1060	SWIC Temp U/U Bridge Load Transfer	12	7	23-Jun-14 A	26-Jul-14	-1079	Calendar Day
S7-1040	Sewage Outfall Temp U/U Bridge Load Transfer	3	3	23-Jun-14 A	22-Jul-14	-1069	Calendar Day
S7-1070	Cooling Mains Temp U/U Bridge Load Transfer & Deck B Removal	6	6	26-Jul-14	02-Aug-14	-879	HK Working Day
S7-1090	Tunnel Portion 1 Backfilling to Strut S1A Level (8,600m3; 2,000m3/d)	4	4	28-Jul-14	01-Aug-14	-865	HK Working Day
S7-1050	Tunnel Portion 1 Backfilling to Strut S2A Level (6,000m3; 1,500m3/d)	4	4	28-Jul-14	31-Jul-14	-871	HK Working Day

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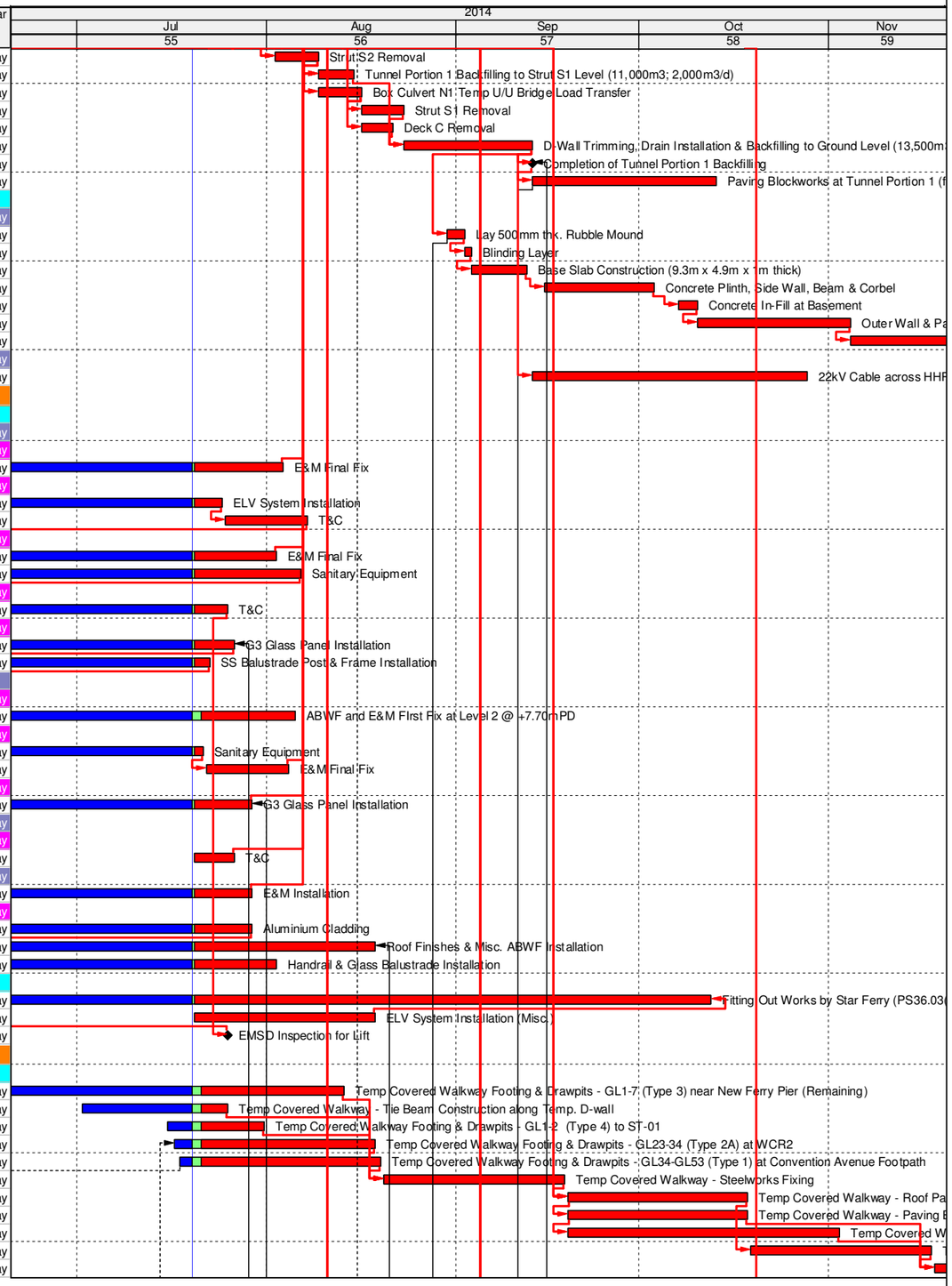
Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
S7-1080	Strut S2 Removal	7	7	02-Aug-14	09-Aug-14	-1095	Calendar Day
S7-1100	Tunnel Portion 1 Backfilling to Strut S1 Level (11,000m3; 2,000m3/d)	6	6	09-Aug-14	15-Aug-14	-1086	Calendar Day
S7-1110	Box Culvert N1 Temp U/U Bridge Load Transfer	7	7	09-Aug-14	16-Aug-14	-1095	Calendar Day
S7-1120	Strut S1 Removal	7	7	16-Aug-14	23-Aug-14	-1095	Calendar Day
S7-1130	Deck C Removal	4	4	16-Aug-14	21-Aug-14	-877	HK Working Day
S7-1140	D-Wall Trimming, Drain Installation & Backfilling to Ground Level (13,500m3; 1,000m3/d)	21	21	23-Aug-14	13-Sep-14	-1095	Calendar Day
S7-1150	Completion of Tunnel Portion 1 Backfilling	0	0		13-Sep-14	-859	Calendar Day
S7-1160	Paving Blockworks at Tunnel Portion 1 (for Works in Area 7)	30	30	13-Sep-14	13-Oct-14	-524	Calendar Day
Transformer Building for Dining Services at Ferry Pier (VO116)		74	74	30-Aug-14	28-Nov-14	-827	
Civil Works		74	74	30-Aug-14	28-Nov-14	-879	HK Working Day
S7-TB-2000	Lay 500mm thk. Rubble Mound	2	2	30-Aug-14	02-Sep-14	-879	HK Working Day
S7-TB-2010	Blinding Layer	1	1	02-Sep-14	03-Sep-14	-879	HK Working Day
S7-TB-2020	Base Slab Construction (9.3m x 4.9m x 1m thick)	7	7	03-Sep-14	12-Sep-14	-879	HK Working Day
S7-TB-2030	Concrete Plinth, Side Wall, Beam & Corbel	14	14	15-Sep-14	03-Oct-14	-879	HK Working Day
S7-TB-2040	Concrete In-Fill at Basement	3	3	07-Oct-14	10-Oct-14	-879	HK Working Day
S7-TB-2050	Outer Wall & Partition Wall	21	21	10-Oct-14	04-Nov-14	-879	HK Working Day
S7-TB-2060	Scaffolding Erection & Roof Construction	21	21	04-Nov-14	28-Nov-14	-879	HK Working Day
E&M Works		45	45	13-Sep-14	28-Oct-14	-993	Calendar Day
S7-TB-4100	22kV Cable across HHR to Transformer Building by HEC	45	45	13-Sep-14	28-Oct-14	-993	Calendar Day
Section 8A of the Works - Reprovisioning of Wan Chai Ferry Pier in Area 8		558	69	17-Dec-12 A	12-Oct-14	-218	
ABWF & E&M Installation		477	25	17-Dec-12 A	18-Aug-14	-174	
Level 1		336	19	07-Aug-13 A	07-Aug-14	-377	Calendar Day
Public Area		15	15	05-Sep-13 A	03-Aug-14	-467	Calendar Day
S8A-BS-1070	E&M Final Fix	15	15	05-Sep-13 A	03-Aug-14	-467	Calendar Day
Ticket Room, Changing Room & Storing Room		284	19	08-Oct-13 A	07-Aug-14	-377	Calendar Day
S8A-BS-1860	ELV System Installation	30	5	08-Oct-13 A	24-Jul-14	-377	Calendar Day
S8A-BS-1870	T&C	14	14	25-Jul-14	07-Aug-14	-377	Calendar Day
Toilet		120	18	05-Sep-13 A	06-Aug-14	-376	Calendar Day
S8A-BS-1170	E&M Final Fix	14	14	05-Sep-13 A	02-Aug-14	-646	Calendar Day
S8A-BS-1160	Sanitary Equipment	28	18	10-Jan-14 A	06-Aug-14	-376	Calendar Day
Lift		7	6	09-Jan-14 A	25-Jul-14	-364	Calendar Day
S8A-BS-1440	T&C	7	6	09-Jan-14 A	25-Jul-14	-364	Calendar Day
Metalworks		80	7	07-Aug-13 A	26-Jul-14	-365	Calendar Day
S8A-BS-1640	G3 Glass Panel Installation	15	7	07-Aug-13 A	26-Jul-14	-365	Calendar Day
S8A-BS-1630	SS Balustrade Post & Frame Installation	24	3	17-Oct-13 A	22-Jul-14	-361	Calendar Day
Level 2		474	14	17-Dec-12 A	05-Aug-14	-294	
General Area		123	14	17-Dec-12 A	05-Aug-14	-294	HK Working Day
S8A-BS-2000	ABWF and E&M FIrst Fix at Level 2 @ +7.70mPD	123	14	17-Dec-12 A	05-Aug-14	-294	HK Working Day
Toilet		345	16	30-Aug-13 A	04-Aug-14	-648	Calendar Day
S8A-BS-2150	Sanitary Equipment	10	2	30-Aug-13 A	21-Jul-14	-648	Calendar Day
S8A-BS-2160	E&M Final Fix	14	14	22-Jul-14	04-Aug-14	-648	Calendar Day
Metalworks & Glass Panel Installation		14	10	06-Mar-14 A	29-Jul-14	-642	Calendar Day
S8A-BS-2230	G3 Glass Panel Installation	14	10	06-Mar-14 A	29-Jul-14	-642	Calendar Day
Level M		7	7	20-Jul-14	26-Jul-14	-639	Calendar Day
Cleaning/ Flushing Water Pump Room		7	7	20-Jul-14	26-Jul-14	-639	Calendar Day
S8A-BS-3620	T&C	7	7	20-Jul-14	26-Jul-14	-639	Calendar Day
Roof		359	30	26-Mar-13 A	18-Aug-14	-220	Calendar Day
S8A-BS-4010	E&M Installation	28	10	10-Sep-13 A	29-Jul-14	-642	Calendar Day
Works in Area 8 - ABWF Works at Observation Deck of Ferry Pier		359	30	26-Mar-13 A	18-Aug-14	-220	Calendar Day
S8B-FP-01200	Aluminium Cladding	95	10	26-Mar-13 A	29-Jul-14	-200	Calendar Day
S8B-FP-01100	Roof Finishes & Misc. ABWF Installation	120	30	28-Oct-13 A	18-Aug-14	-220	Calendar Day
S8B-FP-01300	Handrail & Glass Balustrade Installation	45	14	21-Dec-13 A	02-Aug-14	-204	Calendar Day
T&C and Handover		149	69	16-Apr-14 A	12-Oct-14	-356	
S8A-TC-9000	Fitting Out Works by Star Ferry (PS36.03(4)) & VO173 Works	180	85	16-Apr-14 A	12-Oct-14	-443	Calendar Day
S8A-TC-8000	ELV System Installation (Misc.)	30	30	20-Jul-14	18-Aug-14	-388	Calendar Day
S8A-TC-1500	EMSD Inspection for Lift	0	0		25-Jul-14	-292	HK Working Day
Section 8B of the Works - Temporary Covered Walkway & Works in Area 8		243	106	18-Nov-13 A	24-Nov-14	-393	
Temporary Covered Walkway		243	106	18-Nov-13 A	24-Nov-14	-393	
S8B-TCW-01200B	Temp Covered Walkway Footing & Drawpits - GL1-7 (Type 3) near New Ferry Pier (Remaining)	30	21	18-Nov-13 A	13-Aug-14	-387	HK Working Day
S8B-TCW-01600	Temp Covered Walkway - Tie Beam Construction along Temp. D-wall	21	5	02-Jul-14 A	25-Jul-14	-371	HK Working Day
S8B-TCW-01200C	Temp Covered Walkway Footing & Drawpits - GL1-2 (Type 4) to ST-01	14	10	16-Jul-14 A	31-Jul-14	-376	HK Working Day
S8B-TCW-01100	Temp Covered Walkway Footing & Drawpits - GL23-34 (Type 2A) at WCR2	28	25	17-Jul-14 A	18-Aug-14	-391	HK Working Day
S8B-TCW-01000	Temp Covered Walkway Footing & Drawpits - GL34-GL53 (Type 1) at Convention Avenue Footpath	28	26	18-Jul-14 A	19-Aug-14	-392	HK Working Day
S8B-TCW-01800	Temp Covered Walkway - Steelworks Fixing	30	30	20-Aug-14	18-Sep-14	-486	Calendar Day
S8B-TCW-01850	Temp Covered Walkway - Roof Panel Installation	30	30	19-Sep-14	18-Oct-14	-486	Calendar Day
S8B-TCW-02000	Temp Covered Walkway - Paving Block Laying & Planter	30	30	19-Sep-14	18-Oct-14	-471	Calendar Day
S8B-TCW-01900	Temp Covered Walkway - Drainage Installation	45	45	19-Sep-14	02-Nov-14	-471	Calendar Day
S8B-TCW-01950	Temp Covered Walkway - Cable & Lighting Installation	30	30	19-Oct-14	17-Nov-14	-486	Calendar Day
S8B-TCW-02100	Inspection & Handing Over	7	7	18-Nov-14	24-Nov-14	-486	Calendar Day



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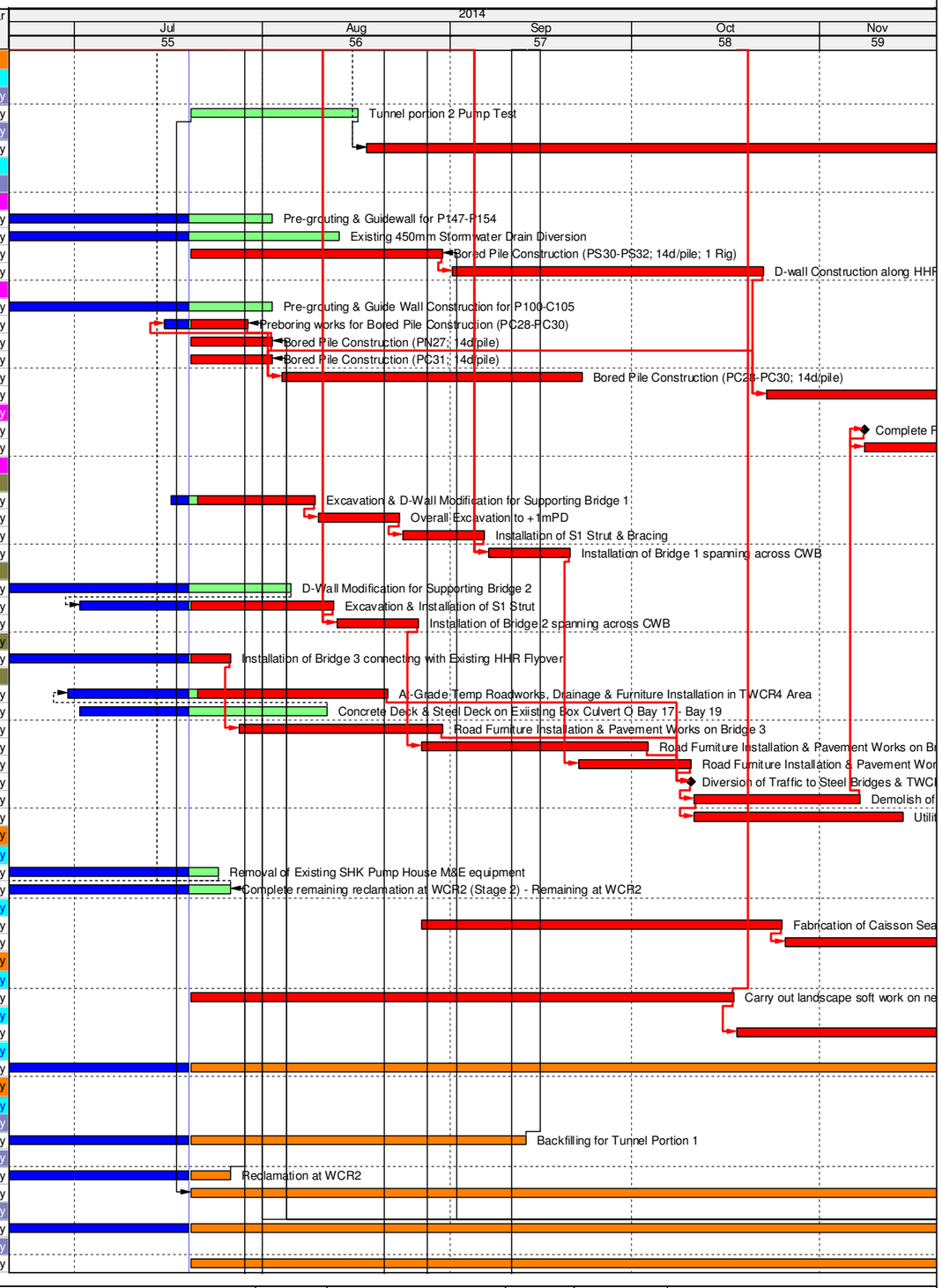
Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar
Section 9B of the Works - CWB Tunnel Structure (CH3400 - CH3796)		270	149	11-Feb-14 A	16-Jan-15	1120	
Tunnel Portion 2 (CH3425-CH3500)		149	149	20-Jul-14	16-Jan-15	0	
Foundation		28	28	20-Jul-14	16-Aug-14	1	Calendar Day
S9B-T2-1130	Tunnel portion 2 Pump Test	28	28	20-Jul-14	16-Aug-14	1	Calendar Day
CWB Structural Works		125	125	18-Aug-14	16-Jan-15	0	HK Working Day
S9B-T2-2000	Tunnel portion 2 ELSW excavation (62,500m3; 500m3/d)	125	125	18-Aug-14	16-Jan-15	0	HK Working Day
Tunnel Portion 3 & Tunnel Portion 4 (CH3630-CH3790)		247	126	11-Feb-14 A	17-Dec-14	1143	
Foundation		247	126	11-Feb-14 A	17-Dec-14	1143	
Stage 2 - Southern Wall after HHR Flyover Diversion (Stage 1) (C130A-P131; P144-C154)		199	78	11-Feb-14 A	22-Oct-14	1191	
S9B-T34-1230C	Pre-grouting & Guidewall for P147-P154	28	14	11-Feb-14 A	02-Aug-14	1564	Calendar Day
S9B-T34-1270	Existing 450mm Stormwater Drain Diversion	21	21	17-Feb-14 A	13-Aug-14	1248	HK Working Day
S9B-T34-1260B	Bored Pile Construction (PS30-PS32; 14d/pile; 1 Rig)	42	42	20-Jul-14	30-Aug-14	-403	Calendar Day
S9B-T34-1250D	D-wall Construction along HHR slow lane (P147-P153; 6d/Panel)	42	42	01-Sep-14	22-Oct-14	-326	HK Working Day
Stage 3 - Northern Wall after TWCR4 Reclamation (P96-P101)		214	126	19-Feb-14 A	17-Dec-14	1143	
S9B-T34-1420C	Pre-grouting & Guide Wall Construction for P100-C105	21	14	19-Feb-14 A	02-Aug-14	1564	Calendar Day
S9B-T34-1440E	Preboring works for Bored Pile Construction (PC28-PC30)	14	10	16-Jul-14 A	29-Jul-14	-161	Calendar Day
S9B-T34-1440G	Bored Pile Construction (PN27; 14d/pile)	14	14	20-Jul-14	02-Aug-14	-326	Calendar Day
S9B-T34-1440H	Bored Pile Construction (PC31; 14d/pile)	14	14	20-Jul-14	02-Aug-14	-115	Calendar Day
S9B-T34-1440F	Bored Pile Construction (PC28-PC30; 14d/pile)	42	42	04-Aug-14	22-Sep-14	-134	HK Working Day
S9B-T34-1430D	D-wall Construction at TWCR4 (C88-P95; 6d/Panel)	48	48	23-Oct-14	17-Dec-14	-326	HK Working Day
Stage 4 - Southern Wall after HHR Flyover Diversion (Stage 2) (P132-P143)		26	26	08-Nov-14	03-Dec-14	-383	Calendar Day
S9B-T34-1600	Complete Removal of Approach Ramp of Existing HHR Flyover	0	0	08-Nov-14		-383	Calendar Day
S9B-T34-1610	Pre-drilling at HHR Flyover	26	26	08-Nov-14	03-Dec-14	-383	Calendar Day
Temp Works for HHR Flyover Diversion (Stage 2)		136	98	19-May-14 A	14-Nov-14	1171	
Bridge 1		78	53	17-Jul-14 A	20-Sep-14	-309	
S9B-TTA-1000	Excavation & D-Wall Modification for Supporting Bridge 1	21	18	17-Jul-14 A	09-Aug-14	-310	HK Working Day
S9B-TTA-1100	Overall Excavation to +1mPD	14	14	10-Aug-14	23-Aug-14	-384	Calendar Day
S9B-TTA-1300	Installation of S1 Strut & Bracing	14	14	24-Aug-14	06-Sep-14	-384	Calendar Day
S9B-TTA-1400	Installation of Bridge 1 spanning across CWB	14	14	07-Sep-14	20-Sep-14	-384	Calendar Day
Bridge 2		57	32	19-May-14 A	26-Aug-14	1237	
S9B-TTA-2000	D-Wall Modification for Supporting Bridge 2	14	14	19-May-14 A	05-Aug-14	1255	HK Working Day
S9B-TTA-2100	Excavation & Installation of S1 Strut	7	24	02-Jul-14 A	12-Aug-14	-377	Calendar Day
S9B-TTA-2200	Installation of Bridge 2 spanning across CWB	14	14	13-Aug-14	26-Aug-14	-377	Calendar Day
Bridge 3		14	7	30-May-14 A	26-Jul-14	-346	Calendar Day
S9B-TTA-3500	Installation of Bridge 3 connecting with Existing HHR Flyover	14	7	30-May-14 A	26-Jul-14	-346	Calendar Day
At-Grade Roadworks		123	98	30-Jun-14 A	14-Nov-14	1171	
S9B-TTA-4100	At-Grade Temp Roadworks, Drainage & Furniture Installation in TWCR4 Area	45	28	30-Jun-14 A	21-Aug-14	-269	HK Working Day
S9B-TTA-4150	Concrete Deck & Steel Deck on Exiisting Box Culvert O Bay 17 - Bay 19	35	19	02-Jul-14 A	11-Aug-14	1250	HK Working Day
S9B-TTA-4200	Road Furniture Installation & Pavement Works on Bridge 3	30	30	28-Jul-14	30-Aug-14	-277	HK Working Day
S9B-TTA-4000	Road Furniture Installation & Pavement Works on Bridge 2	30	30	27-Aug-14	03-Oct-14	-303	HK Working Day
S9B-TTA-4300	Road Furniture Installation & Pavement Works on Bridge 1	15	15	22-Sep-14	10-Oct-14	-309	HK Working Day
S9B-TTA-4400	Diversion of Traffic to Steel Bridges & TWCR4 (Stage 2 TTA)	0	0		10-Oct-14	-387	Calendar Day
S9B-TTA-4500	Demolish of Approach Ramp of Existing HHR Flyover for D-Wall Construction	24	24	11-Oct-14	07-Nov-14	-309	HK Working Day
S9B-TTA-4600	Utility Diversion for D-Wall near Existing HHR Flyover Approach Ramp	35	35	11-Oct-14	14-Nov-14	-364	Calendar Day
Section 11 of the Works - Remainder of Works		310	188	09-Apr-14 A	23-Jan-15	1390	Calendar Day
Marine Works at WCR2		66	7	09-Apr-14 A	26-Jul-14	1571	Calendar Day
S11-R2-1600	Removal of Existing SHK Pump House M&E equipment	7	5	09-Apr-14 A	24-Jul-14	1573	Calendar Day
S11-R2-1800B	Complete remaining reclamation at WCR2 (Stage 2) - Remaining at WCR2	30	7	02-May-14 A	26-Jul-14	1571	Calendar Day
Marine Works at WCR3		150	150	27-Aug-14	23-Jan-15	-382	Calendar Day
S11-R3-0500A	Fabrication of Caisson Seawalls for WCR3 Reclamation (1st Stage - 2 Nos.)	60	60	27-Aug-14	25-Oct-14	-382	Calendar Day
S11-R3-0500B	Fabrication of Caisson Seawalls for WCR3 Reclamation (2nd Stage - 3 Nos.)	90	90	26-Oct-14	23-Jan-15	-382	Calendar Day
Soft Landscaping & Establishment Works		2375	770	24-Feb-10 A	27-Aug-16	0	Calendar Day
Section 8C of the Works - Landscape Softworks in Area 8		90	90	20-Jul-14	17-Oct-14	-249	Calendar Day
S8C-0010	Carry out landscape soft work on new ferry pier	90	90	20-Jul-14	17-Oct-14	-249	Calendar Day
Section 8D of the Works - Establishment Works in Area 8		365	365	18-Oct-14	17-Oct-15	-249	Calendar Day
S8D-0010	Carry out establishment work on new ferry pier	365	365	18-Oct-14	17-Oct-15	-249	Calendar Day
Section 12 of the Works - Protection and Preservation of Existing Trees		2375	770	24-Feb-10 A	27-Aug-16	0	Calendar Day
S12-0010	Protection and preservation of existing trees	2375	770	24-Feb-10 A	27-Aug-16	0	Calendar Day
SUMMARY PROGRAMME		1923	1198	25-Jul-12 A	29-Oct-17	380	Calendar Day
CWB Tunnel Construction & Remaining Works (Section 9A, 9B, 10 & 11)		1923	1198	25-Jul-12 A	29-Oct-17	380	Calendar Day
CWB Tunnel Works in WCR1		97	56	26-May-14 A	13-Sep-14	-859	Calendar Day
SUM-CWB-14000	Backfilling for Tunnel Portion 1	97	56	26-May-14 A	13-Sep-14	-859	Calendar Day
CWB Tunnel Works in WCR2		906	181	25-Jul-12 A	16-Jan-15	1397	Calendar Day
SUM-CWB-20000	Reclamation at WCR2	224	7	25-Jul-12 A	26-Jul-14	1571	Calendar Day
SUM-CWB-22000	Pump Test & Excavation for Tunnel Portion 2	181	181	20-Jul-14	16-Jan-15	0	Calendar Day
CWB Tunnel Works in WCR4/TWCR4		457	307	11-Nov-13 A	22-May-15	-327	Calendar Day
SUM-CWB-41000B	Foundation for Tunnel Portion 3&4 (except Eastern Bulkhead Wall)	457	307	11-Nov-13 A	22-May-15	-327	Calendar Day
Misc. Remaining Works		1198	1198	20-Jul-14	29-Oct-17	-428	Calendar Day
SUM-CWB-52000	Interface Work with HY/2009/15 after Portion 7 Re-Possession	717	717	20-Jul-14	05-Jul-16	-277	Calendar Day



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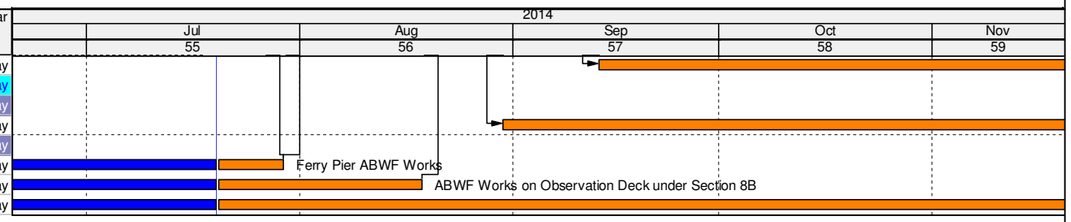
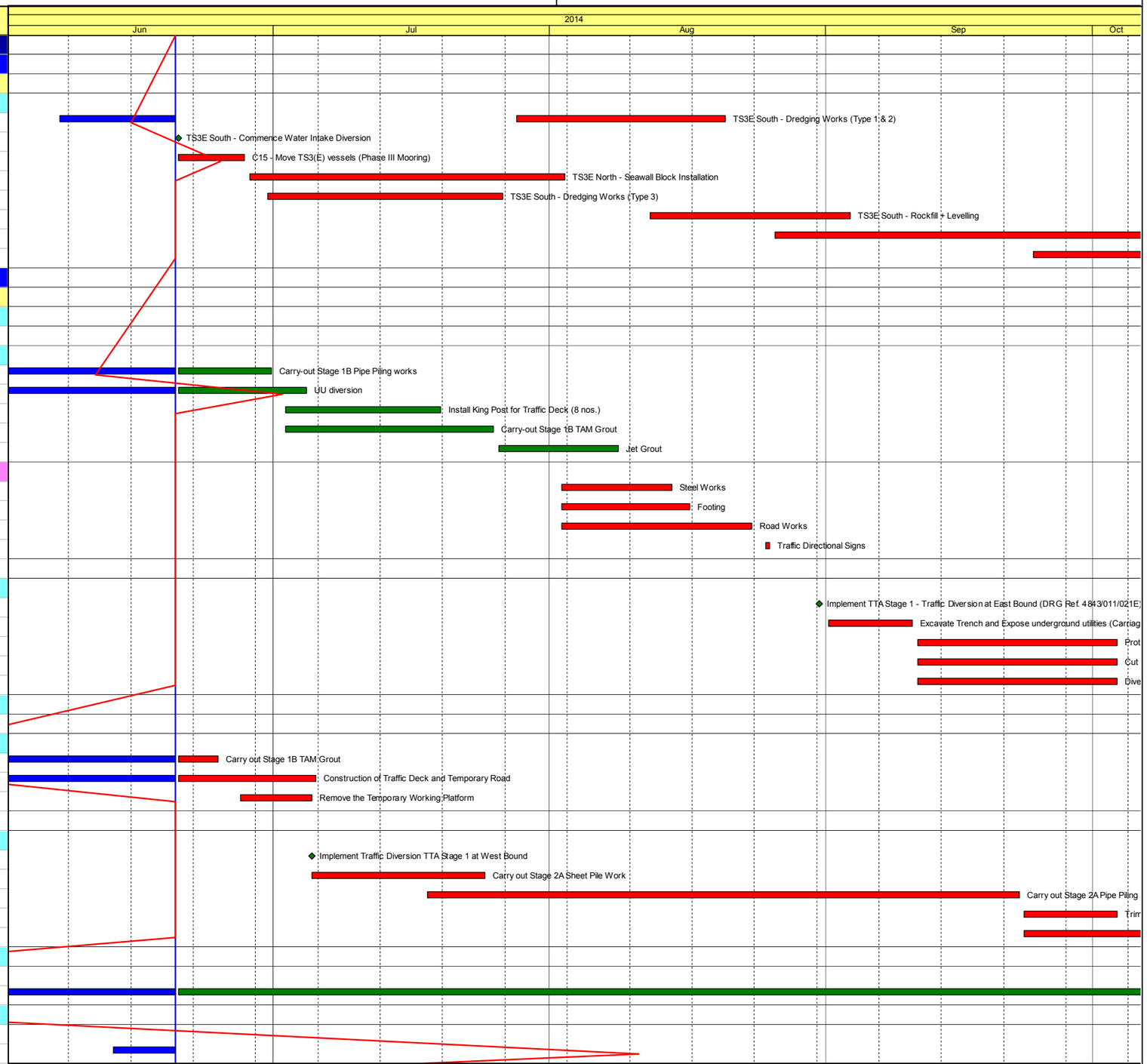
SUM-CWB-50000	Paving Block Installation (Whole Newly Reclaimed Area)	1142	1142	13-Sep-14	29-Oct-17	-428	Calendar Day
Reprovisioning of Existing Facilities (Section 3, 4A, 4B, 4C, 5, 6, 7, 8A & 8B)		872	292	17-Dec-12 A	07-May-15	-356	Calendar Day
Reprovisioning of Box Culvert N (Section 7)		250	250	30-Aug-14	07-May-15	-1095	Calendar Day
SUM-FAC-52000	VO116 - New Transformer Building to Ferry Pier	250	250	30-Aug-14	07-May-15	-1095	Calendar Day
Reprovisioning of Wan Chai Ferry Pier & Covered Walkway (Section 8A & 8B)		463	128	17-Dec-12 A	24-Nov-14	-192	Calendar Day
SUM-FAC-62000	Ferry Pier ABWF Works	155	10	17-Dec-12 A	29-Jul-14	-74	Calendar Day
SUM-FAC-65000	ABWF Works on Observation Deck under Section 8B	150	30	07-May-13 A	18-Aug-14	-220	Calendar Day
SUM-FAC-66000	Temp Covered Walkway	217	128	10-Aug-13 A	24-Nov-14	-486	Calendar Day



SR8_DWP_1406_Jun_14 | SR8 - Layout for 3MRP_201406 | **Appendix C.5**

Activity ID	Activity Name	Original Duration	Start	Finish
DWP: HY/2010/08- Central-Wan Chai Bypass Tunnel (Slip Road 8 Section) (Open Cut Method)				
Works in TS3				
TS3 East & West Reclamation Works				
TS3E - Reclamation (Advance Works)				
TS3E.MW.1085	TS3E South - Dredging Works (Type 1 & 2)	28	07-Jun-14 A	20-Aug-14
TS3E.MW.1110	TS3E South - Commence Water Intake Diversion	0	20-Jun-14	
TS3E.MW.1150	C15 - Move TS3(E) vessels (Phase III Mooring)	12	20-Jun-14 A	27-Jun-14
TS3E.MW.1040	TS3E North - Seawall Block Installation	30	28-Jun-14	02-Aug-14
TS3E.MW.1080	TS3E South - Dredging Works (Type 3)	23	30-Jun-14*	26-Jul-14
TS3E.MW.1090	TS3E South - Rockfill + Levelling	20	12-Aug-14	03-Sep-14
TS3E.MW.1100	TS3E South - Seawall Block Installation	48	26-Aug-14	23-Oct-14
TS3E.MW.1120	TS3 East - General Fill	39	24-Sep-14	10-Nov-14
Works in SR8 (Open Cut Method)				
SR8 - Cofferdam & Cut & Cover Tunnel Works				
SR8 East Bound - (Seaside to Victoria Road / IEC Central Divider)				
TTA Stage 0 - East Bound				
Stage 1B - East Bound (Seaside) (Ref. DRG. No.CDD/SR8/082)				
SR8.EB.1230	Carry-out Stage 1B Pipe Piling works	24	21-May-14 A	30-Jun-14
SR8.EB.1270	UU diversion	24	23-May-14 A	04-Jul-14
SR8.EB.1250	Install King Post for Traffic Deck (8 nos.)	16	02-Jul-14	19-Jul-14
SR8.EB.1255	Carry-out Stage 1B TAM Grout	21	02-Jul-14	25-Jul-14
SR8.EB.1260	Jet Grout	12	26-Jul-14	08-Aug-14
Traffic Deck and Temporary Road				
SR8.EB.1265	Steel Works	11	02-Aug-14	14-Aug-14
SR8.EB.1280	Footing	13	02-Aug-14*	16-Aug-14
SR8.EB.1275	Road Works	19	02-Aug-14	23-Aug-14
SR8.EB.1285	Traffic Directional Signs	1	25-Aug-14	25-Aug-14
TTA Stage 1 - East Bound				
Stage 2 - East Bound (Ref. DRG. No.CDD/SR8/083)				
SR8.EB.1310	Implement TTA Stage 1 - Traffic Diversion at East Bound (DRG Ref. 4843/011/021E)	0	31-Aug-14*	
SR8.EB.1315	Excavate Trench and Expose underground utilities (Carriage way)	8	01-Sep-14	10-Sep-14
SR8.EB.1325	Protect and Shift HV 22kv Cable on carraige way (as required)	18	11-Sep-14	03-Oct-14
SR8.EB.1327	Cut and By pass Drainage to the next (existing) collection point (MH)	18	11-Sep-14	03-Oct-14
SR8.EB.1320	Divert Gas Main to pre-laid Gas Main Pipe at Planter Area Gas Main Trough	18	11-Sep-14	03-Oct-14
SR8 West Bound - Ch. 369.000 to 495.000 (Victoria Road / IEC Central Divider)				
TTA Stage 0 (West Bound)				
Stage 1B - West Bound (Inside VP) (Ref. DRG. No.CDD/SR8/085)				
SR8.WB.1240	Carry out Stage 1B TAM Grout	6	24-Mar-14 A	24-Jun-14
SR8.WB.1250	Construction of Traffic Deck and Temporary Road	30	22-Apr-14 A	05-Jul-14
SR8.WB.1260	Remove the Temporary Working Platform	6	27-Jun-14	05-Jul-14
TTA Stage 1 - West Bound				
Stage 2A - West Bound (Ref. DRG. No.CDD/SR8/086)				
SR8.WB.2010	Implement Traffic Diversion TTA Stage 1 at West Bound	0	05-Jul-14	
SR8.WB.2020	Carry out Stage 2A Sheet Pile Work	17	05-Jul-14	24-Jul-14
SR8.WB.2030	Carry out Stage 2A Pipe Piling Work	56	18-Jul-14	22-Sep-14
SR8.WB.2050	Trim Down Sheet Pile / Pipe Pile and construct Gas Main Trough	8	23-Sep-14	03-Oct-14
SR8.WB.2040	Carry out Stage 2A TAM Grout	12	23-Sep-14	08-Oct-14
SR8 Ch.369.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)				
Stage 4 - SR8 Ch.369.000 to Ch317.500 (Tunnel Portal) (Ref. DRG. No.CDD/SR8/087)				
SR8.VP.4010	Carry Out Stage 4 Sheet Pile Works	90	13-Mar-14 A	07-Oct-14
SR8 Ch 317.500 to Ch 210.000 - U-Structure & Slab (Victoria Park)				
Excavation and Lateral Support				
SR8_2230	ELS - Excavation to formation level + Lateral Support	96	13-Jun-14 A	02-Mar-15



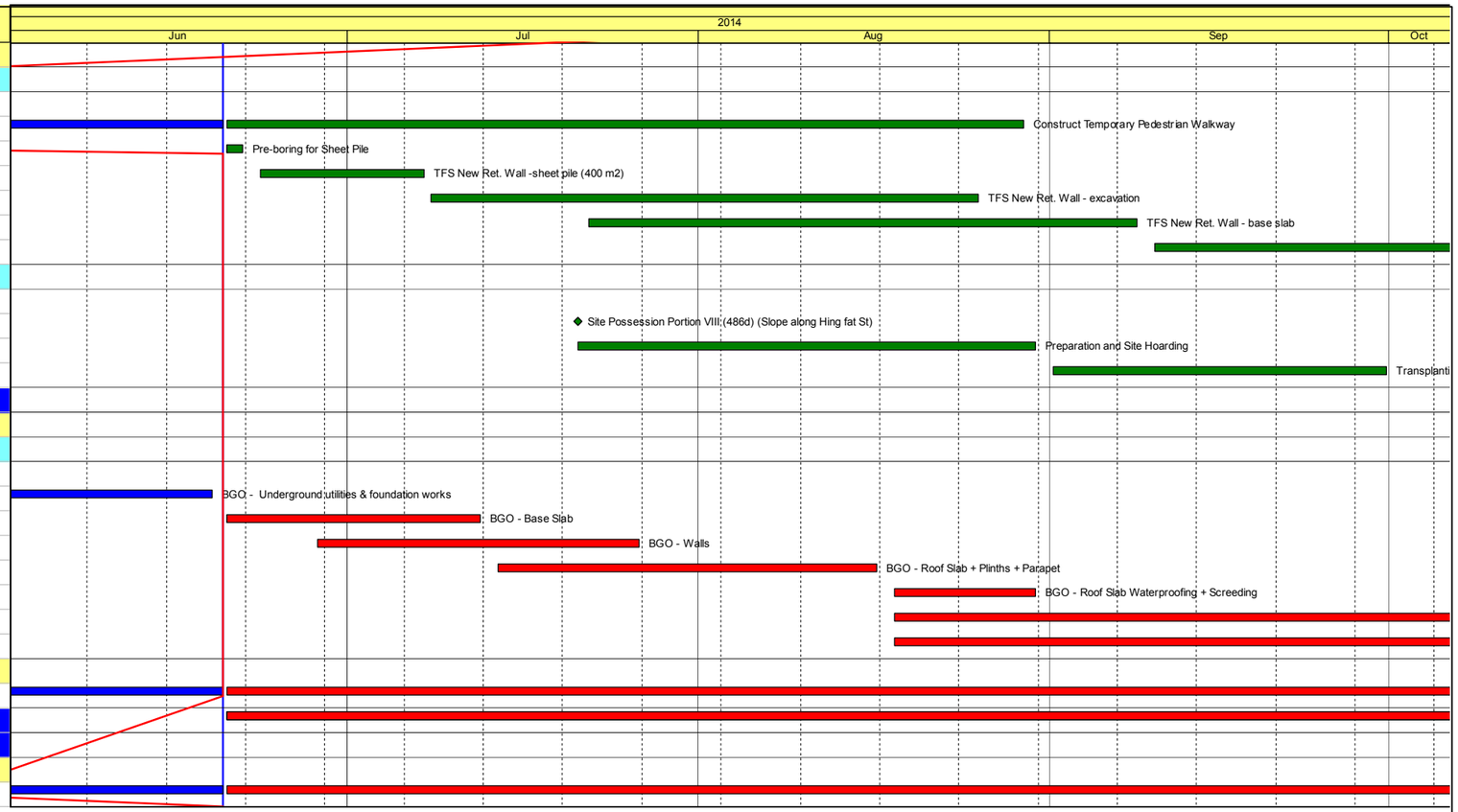
中國建築工程(香港)有限公司
CHINA STATE CONSTRUCTION ENGRG. (HONG KONG) LTD.

Actual Work
Remaining Work
Critical Remaining Work
Milestone

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

Date	Revision	Checked	Approved
20-Jun-14	Updated to 20th Jun 2014	DML/WC	

Activity ID	Activity Name	Original Duration	Start	Finish
Tsing Fung St - RW & Subway Extension & Toe Wall at Hing Fat St				
Ret. Wall & TF Subway Extension (Portion V)				
Retaining Wall at Tsing Fung Street (Portion V)				
VP_1215	Construct Temporary Pedestrian Walkway	60	26-Mar-14 A	29-Aug-14
VP_1225	Pre-boring for Sheet Pile	2	20-Jun-14 A	21-Jun-14
VP_1235	TFS New Ret. Wall -sheet pile (400 m2)	12	23-Jun-14	07-Jul-14
VP_1240	TFS New Ret. Wall - excavation	42	08-Jul-14	25-Aug-14
VP_1260	TFS New Ret. Wall - base slab	42	22-Jul-14	08-Sep-14
VP_1290	TFS New Ret. Wall - wall stem + Railing	60	10-Sep-14	20-Nov-14
Retaining Wall + Toe Wall at Hing Fat Street				
Tree Transplanting at Portion VIII (Tree Zone 20) (6 trees)				
VP_1130	Site Possession Portion VIII (486d) (Slope along Hing fat St)	0	21-Jul-14	
VP_1700	Preparation and Site Hoarding	36	21-Jul-14	30-Aug-14
VP_1140.01	Transplanting <300mm dia trees (3months, 4nos) - Stage 1 root pruning	25	01-Sep-14	30-Sep-14
Works in Victoria Park				
Re-Provisioning Works				
Bowling Green Office				
BGO - Construction Works				
VP_1150	BGO - Underground utilities & foundation works	36	20-Mar-14 A	19-Jun-14 A
VP_1180.01	BGO - Base Slab	19	20-Jun-14 A	12-Jul-14
VP_1180.02	BGO - Walls	24	28-Jun-14	26-Jul-14
VP_1180.03	BGO - Roof Slab + Plinths + Parapet	30	14-Jul-14	16-Aug-14
VP_1180.04	BGO - Roof Slab Waterproofing + Screeding	12	18-Aug-14	30-Aug-14
VP_1190	BGO - ABWF	62	18-Aug-14	31-Oct-14
VP_1220	BGO - E&M Works	62	18-Aug-14	31-Oct-14
Tree Transplanting at Portion XIV (Victoria Park Open Space)				
VP_1040	Tree Transplanting & Upkeep at Portion XIV	348	16-Oct-13 A	15-Dec-14
Mooring Components Upkeep (CBTS and ATS)				
Works for Public Works Regional Laboratory (North Lantau)				
Maintenance and Upkeep of New PWRL (Portion XVII)				
PWRL_1050	Maintenance/ Upkeep of New PWRL	1301	19-Jul-13 A	20-Dec-17



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