



**CONTRACT NO: HK/2011/07**

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

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

**MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT**

**- NOVEMBER 2014 -**

**CLIENTS:**

**Civil Engineering and Development  
Department**

**and**

**Highways Department**

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**DATE:**

11 December 2014

Ref.: AACWBIECEM00\_0\_6037L.14

12 December 2014

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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**  
**Updated Monthly Environmental Monitoring and Audit Report (November 2014)**  
**for EP-356/2009, FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-**  
**06/356/2009 and FEP-07/356/2009**

Reference is made to the Environmental Team's submission of the captioned Updated Monthly Environmental Monitoring and Audit (EM&A) Report for November 2014 received by e-mail on 11 December 2014 for our review and comment.

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

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

Yours sincerely,



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Independent Environmental Checker

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**EXECUTIVE SUMMARY**

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report – **November 2014** for the Project of Wan Chai Development Phase II and Central-Wanchai Bypass under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009. This report presents the environmental monitoring findings and information recorded during the period **October 2014 to November 2014**. The cut-off date of reporting is at 27<sup>th</sup> of each reporting month.

Construction Activities for the Reported Period

- ii. During this reporting period, the major work activities for Contract no. HK/2009/01 included:
- **Rock trimming works**
- iii. During this reporting period, the major work activities for Contract no. HK/2009/02 included:
- **Works of covered walkway**
  - **Drainage work**
  - **ABWF work**
  - **Demolition of Existing Wan Chai Ferry Pier**
  - **Dredging and Reclamation at WCR3**
- iv. During this reporting period, the major work activities for Contract no. HY/2009/15 included:
- **Removal of temporary reclamation, D-wall and seawall blocks at TPCWAE & TS4**
  - **Temporary reclamation works and installation of seawall blocks at TPCWAW**
  - **Maintenance dredging**
- v. During this reporting period, the major work activities for Contract no. HY/2009/19 included:
- **Construction of Dolphin Cap**
- vi. During this reporting period, the major work activities for Contract no. HK/2012/08 included:
- **ELS for box culvert L at Lung King Street**
  - **Removal of rock armour**
  - **Dry dock construction**
  - **Installation of caisson seawall**
- vii. During this reporting period, the major work activities for Contract no. HY/2010/08.
- **Rock filling works**
  - **Dredging works**
  - **Seawall blocks installation**
  - **Sheet piling works, welding & struts installation works at Outfall Q**
  - **Seawater intake diversion works**

- Installation of water tank

#### Noise Monitoring

- viii. No action or limit level exceedance was recorded in this reporting month.
- ix. Noise monitoring during daytime and restricted hour were conducted at the stations M1a, M2b, M3a, M4b, M5b and M6 on a weekly basis in the reporting month.

#### Real-time Noise Monitoring

- x. 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.
- xi. 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.
- xii. 24-hour real time noise monitoring was conducted at RTN2a – Hong Kong Electric Centre. No project related exceedance was recorded in the reporting month.

#### Air Quality Monitoring

- xiii. Due to electricity interruption, the following 24hr TSP monitoring events were rescheduled in the reporting month, 24hr TSP monitoring at CMA3a, CMA4a and CMA5a were rescheduled from 20 November 2014 to 21 November 2014.
- xiv. 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.
- xv. The location ID of air monitoring station CMA1b was updated as Oil Street Site Office in April 2013.
- xvi. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at CMA1b – Oil Street Site Office; CMA2a – Causeway Bay Community Center; CMA3a – CWB PRE Site Office Area; CMA4a – Society for the Prevention of Cruelty to Animals; CMA5a – Children Garden opposite to Pedestrian Plaza.

#### Water Quality Monitoring

- xvii. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.
- xviii. With respect to the commencement of marine dredging works at WCR3 under contract HK/2009/02. The respective water quality monitoring station C1 were associated with

- [HK/2009/01 and HK/2009/02.](#)
- xix. As confirmed by CWB RSS, the operation of the pump station for Windsor House Cooling Water was suspended from 22 Oct 2014 for the Windsor House intake cooling intake scheme and temporary supply of freshwater from WSD water mains was provided to cooling water intake. The water quality monitoring for the respective cooling water intake at WQM station C7 was temporarily suspended from 22 Oct 2014. The water quality monitoring at monitoring station C7 for Windsor House Cooling water intake shall be resumed after the completion of the diversion scheme for the diverted intake subject to CWB RSS advice.
- xx. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- xxi. As confirmed by WDII RSS and IEC, the cross harbor dredging works have completed since 16 March 2012 while the dredging works for submarine outfall pipeline has completed since 29 November 2011, considering current construction stage and dredging Scenario, the water quality monitoring at stations WSD9 and WSD17 was temporarily suspended since 8 September 2014 flood tide.
- xxii. [Action and Limit level of water quality monitoring was transited from wet season to dry season from 1 October 2014.](#)
- xxiii. With respect to the switching over of cooling water intake location, the water quality monitoring at the relocated intake station RW21-P789 under HK/2009/02 was commenced since 29 July 2013 and monitoring station C5e and C5w were temporarily suspended and switched over to monitoring station RW21-P789 on 29 July 2013 due to suspension of pump house operation.
- xxiv. As advised by WDII RSS, the water quality monitoring for WSD21 pump station with respect to HK/2009/02 was switched over to the relocated location since 12 March 2014. According to the EM&A Manual, the water quality monitoring station WSD21 was relocated to station RW21-P789 and the water quality monitoring at station WSD21 was temporarily suspended since 12 March 2014.
- xxv. With respect to the commencement of marine dredging works under contract HY/2010/08. The respective water quality monitoring station C7 were associated with HY/2009/15 and HY/2010/08.
- xxvi. With respect to the commencement of marine dredging works under contract HK/2012/08/ The respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08 Since September 2013.
- xxvii. 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.
- xxviii. 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.
- xxix. As confirmed by CWB RSS, the marine piling 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.

- xxx. RSS confirmed that all Type III Dredging works under HK/2009/01 have been completed since Oct 2012.
- xxxi. 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.
- xxxii. 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.
- xxxiii. 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.
- xxxiv. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others remain unchanged.
- xxxv. 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. 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;
- xxxvi. 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.
- xxxvii. 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.
- xxxviii. 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.

**Table I Summary of Water Quality Monitoring Exceedances in Reporting Month**

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 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	0	2	0	0	0	0	0	1	0	0
	P1	0	0	0	0	0	0	0	0	0	0	0	0
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	1	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	RW21-P789	0	0	1	0	0	0	0	0	1	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>		0	0	2	2	0	0	0	0	1	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 water quality monitoring were temporarily suspended from 27 Apr 2012.
  - C2, C3 C4e and C4w water quality monitoring station was temporarily suspended since 24 Apr 2013
  - C5e and C5w water quality monitoring station was temporarily suspended since 29 July 2013
  - WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
  - Maintenance responsibility of silt screen C1, WSD19, P3, P4 and P5 are under Contract HK/2009/01.
  - WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
  - C7 water quality monitoring station was temporarily suspended since 22 October 2014.

- xxxix. There were 3 action level and 3 limit level exceedances of turbidity recorded in the reporting month. Investigation found that the exceedances were not related to Project works. The details of recorded exceedances can be referred to the **Section 6.4**.
- xl. 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 II**.



**Table II Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month**

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	0	0	1
	Ex-WPCWA SE	1	3	0	3
Total		1	3	0	4

- xli. There were 1 action level exceedances and 7 limit level exceedances of enhanced dissolved oxygen recorded in this reporting month. Investigation found that the exceedances are not related to the Project works. The details of the recorded exceedances can be referred to the **Section 6.4**.
- xlii. 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.
- xliii. 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.
- xliv. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- xlv. **With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.**

Complaints, Notifications of Summons and Successful Prosecutions

- xlvi. Three environmental complaints were received in this reporting month.
- xlvii. A public complaint regarding to malodour referred by EPD was received by ET on 10 November 2014 (EPD Ref.: H05/RS/00027815-14). The complainant reported that malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool on 7 November 2014.

- xlviii. According to the relevant site records under Contract HK/2009/02, ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area opposite to Wan Chai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during day time at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.
- xlix. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operation on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.
- i. A public complaint regarding to malodour and dark smoke referred by EPD was received by EP on 13 November 2014 (EPD Ref.: H05/RS/00028253-14). The complainant reported that malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affect the pedestrians on 12 November 2014.
  - ii. According to the relevant site records under Contract HK/2009/02, demolition works was conducted on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated.
  - iii. In addition, investigation found that due to malfunctioning of one of the excavators deployed at old Wan Chai Ferry Pier, dark smoke was emitted from the defective excavator for a short period of approximately 30 seconds at around 15:00 hrs on 12 November 2014. The operation of excavator was immediately suspended and followed by repair works. The normal operation of the excavator was resumed after repair.
  - iiii. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.
  - iv. A public complaint regarding to construction noise impact referred by EPD was received by ET via email on 21 November 2014 (EPD Ref: H08/RS/28263-14). Resident in Hing Fat Street complained about loud noise from dredging work in CBTS up to 10pm at night.
  - iv. EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14. EPD reminded the Contractor of HY/2011/08 to ensure the work strictly follow the permit conditions and endeavour to minimize the noise as so not to disturb the nearby residents.

#### Site Inspections and Audit

- lvi. The Environmental Team (ET) conducted weekly site inspections for Contract nos. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08 under EP no. EP-356/2009 in the reporting month. Major observations and recommendations made during the audit sessions were rectified by the Contractors. No non-conformance was identified during the site inspections.
- lvii. Construction works under HK/2010/06 was confirmed completed and the respective work area under FEP-05/356/2009 was handover and inspected under HK/2012/08 from 22 September 2014 onwards.

#### Future Key Issues

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

##### [Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC](#)

- Nil

##### [Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East](#)

- Works of covered walkway
- Drainage works
- ABWF works
- Demolition of the existing Wan Chai Ferry Pier
- Dredging and Reclamation at WCR3

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

- Removal of D-wall at TPCWAE & TS4
- Temporary reclamation and installation of seawall blocks at TPCWAW
- Maintenance dredging
- Reinstatement of existing bermstone and seawall at TS4

##### [Contract no. HY/2009/19- Wan Chai Bypass Tunnel \(North Point Section\) and Island Eastern Corridor Link](#)

- Construction of Dolphin Cap
- Construction of Pile Cap F1B



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

- ELS for box culvert L at Lung King Street
- Removal of rock armour
- Dry dock construction
- Installation of caisson seawall

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

- Rock filling works
- Dredging works
- Seawall blocks installation
- Sheet piling works, welding & struts installation works at Outfall Q
- Seawater intake diversion works
- Installation of water tank

## 1 Introduction

### 1.1 Scope of the Report

- 1.1.1. Lam Geotechnics Limited (LGL) has been appointed to work as the Environmental Team (ET) under Environmental Permit no. EP-356/2009 and Further Environmental permit nos. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Wan Chai Development phase II and Central-Wan Chai Bypass (Register No.: AEIAR-125/2008) and in the EM&A Manual of the approved EIA Report for Central-Wan Chai Bypass and Island Eastern Corridor Link (Register No. AEIAR-014/2001).
- 1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 10.3 of EM&A Manual and “*Environmental Monitoring and Audit Requirements*” under Particular Specification Section 27.
- 1.1.3. This report documents the finding of EM&A works for Environmental Permit no. EP-356/2009, Further Environmental Permit no. FEP-02/356/2009, FEP-03/356/2009, FEP-04/356/2009, FEP-06/356/2009 and FEP-07/356/2009 during the period of October 2014 to November 2014. The cut-off date of reporting is at 27<sup>th</sup> of each reporting month.

### 1.2 Structure of the Report

- Section 1**     ***Introduction*** – details the scope and structure of the report.
- Section 2**     ***Project Background*** – summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.
- Section 3**     ***Status of Regulatory Compliance*** – summarizes the status of valid Environmental Permits / Licenses during the reporting period.
- Section 4**     ***Monitoring Requirements*** – summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.
- Section 5**     ***Monitoring Results*** – summarizes the monitoring results obtained in the reporting period.
- Section 6**     ***Compliance Audit*** – summarizes the auditing of monitoring results, all exceedances environmental parameters.
- Section 7**     ***Cumulative Construction Impact due to the Concurrent Projects*** – summarizes the relevant cumulative construction impact due to the concurrent activities of the concurrent Projects.

- Section 8**     ***Site Inspection*** – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.
- Section 9**     ***Complaints, Notification of summons and Prosecution*** – summarizes the cumulative statistics on complaints, notification of summons and prosecution
- Section 10**    ***Conclusion***



## 2 Project Background

### 2.1 Background

- 2.1.1. “Wan Chai Development phase II and Central-Wan Chai Bypass” and “Central-Wan Chai Bypass and Island Eastern Corridor Link” (hereafter called “the Project”) are 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 water mains 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 **Table 2.2**.

**Table 2.2 Details of Individual Contracts under the Project**

Contract No.	Contract Title	Associated DP(s)	Construction Commencement Date
HK/2009/01	Wan Chai Development Phase II – Central –Wanchai Bypass at Hong Kong Convention and Exhibition Centre	DP3, DP6	23 July 2010
		DP1, DP2	25 August 2011
HK/2009/02	Wan Chai Development Phase II – Central – Wan Chai Bypass at WanChai East	DP3, DP5	5 July 2010
		DP1	26 April 2011
HY/2009/11	Wan Chai Development Phase II and Central – Wan Chai Bypass – North Point Reclamation	DP3	17 March 2010 (Completed)
HY/2009/15	Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)	DP3	10 November 2010
		DP1	13 July 2011
HK/2010/06	Wan Chai Development Phase II-Central-Wan Chai Bypass over MTR Tsuen Wan Line	DP3	22 March 2011 (Completed)
04/HY/2006	Reconstruction of Bus Terminus near Man Yiu Street and Man Kwong Street	DP1	September 2010 (Completed)
HY/2009/17	Central – Wan Chai Bypass (CWB) at FEHD Whitfield Depot – Advanced piling works.	DP1	5 October 2010 (Completed)
HY/2009/18	Central – Wan Chai Bypass (CWB) – Central Interchange	DP1	21 April 2011
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	10 March 2014
HY/2010/08	Central- Wanchai Bypass Tunnel – Tunnel (Slip Road 8)	DP1, DP2, DP3	21 March 2013
HY/2011/08	Central-Wan Chai Bypass (CWB) – Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning	DP1	8 October 2014

## 2.4 Project Organization and Contact Personnel

- 2.4.1. Civil Engineering and Development Department and Highways Department are the overall project controllers for the Wan Chai Development Phase II and Central-Wan Chai Bypass respectively. For the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.
- 2.4.2. The proposed project organization and lines of communication with respect to environmental protection works are shown in **Figure 2.2**. Key personnel and contact particulars are summarized in **Table 2.3**:

**Table 2.3 Contact Details of Key Personnel**

Party	Role	Post	Name	Contact No.	Contact Fax
AECOM	Engineer's Representative for WDII	Principal Resident Engineer	Mr. Frankie Fan	2587 1778	2587 1877
	Engineer's Representative for CWB	Principal Resident Engineer	Mr. Peter Poon	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	
		Project Manager	Andrew Wong	3557 6358	
		Contractor's Representative	Gene Cheung	3557 6395	
		Senior Project Manager	Eddie Tang	35576452	
		Environmental Officer	Andy Mak	3557 6347	
Chun Wo – CRGL – MBEC Joint Venture	Contractor under Contract no. HY/2009/19	Project Manager	Mr. Rayland Lee	3758 8879	
		Site Agent	Mr. Eric Yip	252902068	
		Environmental Engineer	Mr. Calvin Leung	9286 9208	
		Environmental Manager / Environmental Officer	Mr. M.H. Isa	9884 0810	



Party	Role	Post	Name	Contact No.	Contact Fax
		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	
Leighton Joint Venture	Contractor under Contract no. HY/2011/08	Project Manager	Paul Evans	2823 1111	21406799
		Site Agent	Colman Wong	9730 0806	
		Environmental Officer	David Hung	9765 6161	
		Environmental Supervisor	Penny Yiu	2214 7738	
ENVIRON Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

2.4.3. For Contract no. HK/2009/01, the principal work activities in this reporting month included:

- Rock trimming works

2.4.4. For Contract no. HK/2009/02, the principal work activities in this reporting month included:

- Works of covered walkway
- Drainage work
- ABWF work
- Demolition of Existing Wan Chai Ferry Pier
- Dredging and Reclamation at WCR3

2.4.5. For Contract no. HY/2009/15, the principal work activities in this reporting month included:

- Removal of temporary reclamation, D-wall and seawall blocks at TPCWAE & TS4
- Temporary reclamation works and installation of seawall blocks at TPCWAW
- Maintenance dredging

2.4.6. For Contract no. HY/2009/19, the principal work activity in this reporting month included:

- Construction of Dolphin Cap

2.4.7. For Contract no. HK/2012/08, the principal work activity in this reporting month included:

- ELS for box culvert L at Lung King Street
- Removal of rock armour
- Dry dock construction
- Installation of caisson seawall

2.4.8. For Contract no. HY/2010/08, no principal work activities this reporting month.

- Rock filling works
- Dredging works
- Seawall blocks installation
- Sheet piling works, welding & struts installation works at outfall Q
- Seawater intake diversion works
- Installation of water tank



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

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

- Nil

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

- Works of covered walkway
- ABWF works
- Drainage works
- Demolition of the existing Wan Chai Ferry Pier
- Dredging and Reclamation at WCR3

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

- Removal of D-wall at TPCWAE & TS4
- Temporary reclamation and installation of seawall blocks at TPCWAW
- Maintenance dredging
- Reinstatement of existing bermstone and seawall at TS4

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

- Construction of Dolphin Cap
- Construction of Pile Cap F1B

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

- ELS for box culvert L at Lung King Street
- Removal of rock armour
- Dry dock construction
- Installation of caisson seawall

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

- Rock filling works
- Dredging works
- Seawall blocks installation
- Sheet piling works, welding & struts installation works at outfall Q



- Seawater intake diversion works
- Installation of water tank

### 3 Status of Regulatory Compliance

#### 3.1 Status of Environmental Licensing and Permitting under the Project

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

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

Permits and/or Licences	Reference No.	Issued Date	Status
Environmental Permit	EP-356/2009	30 Jul 2009	Valid
Environmental Permit	EP-364/2009	17 Aug 2009	Superseded
Environmental Permit	EP-364/2009/A	4 Aug 2010	Superseded
Environmental Permit	EP-364/2009/B	20 Sep 2012	Superseded
Environmental Permit	EP-364/2009/C	11 Jul 2014	Valid
Environmental Permit	EP-376/2009	13 Nov 2010	Valid
Further Environmental Permit	FEP-01/356/2009	18 Feb 2010	Surrendered
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-03/356/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	Valid
Further Environmental Permit	FEP-05/356/2009	24 Mar 2011	Surrendered
Further Environmental Permit	FEP-01/364/2009	24 Mar 2010	Valid
Further Environmental Permit	FEP-02/364/2009	21 Apr 2010	Valid
Further Environmental Permit	FEP-03/364/2009	12 Jul 2010	Surrendered
Further Environmental Permit	FEP-04/364/2009/A	14 Oct 2010	Surrendered
Further Environmental Permit	FEP-05/364/2009/A	15 Nov 2010	Valid
Further Environmental Permit	FEP-06/364/2009/A	22 Nov 2010	Valid
Further Environmental Permit	FEP-07/364/2009/B	20 Sep 2012	Valid
Further Environmental Permit	FEP-08/364/2009/A	15 Jun 2012	Surrendered
Further Environmental Permit	FEP-06/356/2009	5 Mar 2013	Valid
Further Environmental Permit	FEP-07/356/2009	26 July 2013	Valid
Further Environmental Permit	FEP-10/364/2009/B	26 July 2013	Valid
Further Environmental Permit	FEP-11/362/2009/B	2 May 2014	Valid

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

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

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

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

3.1.4. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2009/01 under FEP-02/356/2009 are shown in **Table 3.4** and **Table 3.5**.

**Table 3.4 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/01**

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-02/356/2009	24 Mar 2010	N/A	Valid
	FEP-02/364/2009	21 Apr 2010	N/A	Valid
Notification of Works Under APCO	313088	06 Jan 2010	N/A	Valid
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0765-14	30 Jul 2014	15 Aug 2014 to 14 Feb 2015	Valid
	GW-RS0381-14	8 Apr 2014	9 May 2014 to 11 Nov 2014	Replaced by GW-RS1056-14
	GW-RS0435-14	30 Apr 2014	13 May 2014 to 12 Nov 2014	Replaced by GW-RS1274-14
	GW-RS0437-14	2 May 2014	8 May 2014 to 7 Nov 2014	Expired
	GW-RS0451-14	5 May 2014	12 May 2014 to 11 Nov 2014	Expired
	GW-RS0462-14	7 May 2014	8 May 2014 to 7 Nov 2014	Valid
	GW-RS0498-14	22 May 2014	24 May 2014 to 22 Nov 2014	Expired
	GW-RS0875-14	21 Aug 2014	23 Aug 2014 to 21 Feb 2015	Valid
	GW-RS1056-14	29 Sept 2014	8 Oct 2014 to 7 April 2015	Valid
	GW-RS1274-14	17 Nov 2014	17 Nov 2014 to 16 May 2015	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1051-14	29 Sept 2014	9 Oct 2014 to 8 April 2015	Valid
	GW-RS1222-14	05 Nov 2014	08 Nov 2014 to 07 May 2015	Valid
	GW-RS1309-14	24 Nov 2014	26 Nov 2014 to 25 May 2015	Valid
Discharge Licence	WT00018110-2014	6 Jan 2014	31 Mar 2015	Valid
	WT00006220-2010	18 Mar 2010	31 Mar 2015	Valid
	WT00009641-2011	24 Jul 2011	31 Jul 2016	Valid
Billing account under Waste Disposal Ordinance	7010069	21 Jan 2010	N/A	Valid
Registration as a Chemical Waste Producer	WPN5213-134-C3585-01	21 Jan 2010	N/A	Valid

**Table 3.5 Summary of submission status under FEP-02/356/2009 Condition**

EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	13 Apr 2010
Condition 2.7	Works Schedule and Location Plan	8 Apr 2010
Condition 2.8	Silt Curtain Deployment Plan (Rev. 5)	24 Aug 2012
	Silt Curtain Deployment Plan (Rev. 4)	12 July 2012
	Silt Curtain Deployment Plan (Rev. 3)	27 June 2012
	Silt Curtain Deployment Plan	19 Apr 2010
Condition 2.9	Silt Screen Deployment Plan (Rev. 6)	20 Aug 2014
	Silt Screen Deployment Plan (Rev.5)	24 Jul 2013
	Silt Screen Deployment Plan (Rev.4)	15 Nov 2012
	Silt Screen Deployment Plan	19 Apr 2010

EP Condition	Submission	Date of Submission
Conditions 2.8 and 2.9	Supplementary Document on Silt Curtain and Silt Screen Deployment Plan	19 Jul 2010
	Report on Field Testing for Silt Curtain	26 Aug 2010
	Report on Field Testing for Silt Curtain (Rev. A)	15 Nov 2010
Condition 2.12(d)	Alternative Proposal on Concurrent Dredging for Sewage Pipeline and Cross Harbour Water Mains	15 Apr 2011
Condition 2.17	Noise Management Plan	23 Apr 2010
Condition 2.18	Landscape Plan (Erection of Decorative Screen Hoarding along Construction Site around Hong Kong Exhibition and Convention Centre)	15 May 2010
	Landscape Plan (Night-time Lighting)	22 Oct 2010
	Landscape Plan (Rev. B)	15 Nov 2010
Condition 1.12	Notification of Commencement Date	20 Jun 2011
Condition 2.6 to 2.8	Management Organization, Works Schedule and Location Plan	18 May 2011
Condition 2.9	Silt Screen Deployment Plan	10 Jun 2011
Condition 2.18	Landscape Plan	31 Oct 2013

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

- 3.1.5. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2009/02 under FEP-03/356/2009 are shown in **Table 3.6** and **Table 3.7**.

**Table 3.6 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2009/02**

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



Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Construction Noise Permit (CNP) for non-piling equipment	GW-RS0460-14	9 May 2014	10 May 2014 to 9 Nov 2014	Expired
	GW-RS0491-14	16 May 2014	17 May 2014 to 16 Nov 2014	Expired
	GW-RS0494-14	16 May 2014	22 May 2014 to 21 Nov 2014	Expired
	GW-RS0482-14	13 May 2014	14 May 2014 to 6 Nov 2014	Expired
	GW-RS0461-14	9 May 2014	10 May 2014 to 9 Nov 2014	Expired
	GW-RS0515-14	26 May 2014	29 May 2014 to 25 Nov 2014	Expired
	GW-RE0565-14	30 May 2014	30 May 2014 to 29 Nov 2014	Valid
	GW-RS0637-14	26 Jun 2014	2 Jul 2014 to 25 Nov 2014	Expired
	GW-RS0742-14	25 Jul 2014	15 Aug 2014 to 14 Feb 2015	Valid
	GW-RS0745-14	25 Jul 2014	14 Aug 2014 to 13 Feb 2015	Valid
	GW-RS0840-14	18 Aug 2014	23 Aug 2014 to 12 Feb 2015	Valid
	GW-RS0889-14	29 Aug 2014	20 Sep 2014 to 19 Mar 2015	Valid
	GW-RS0910-14	29 Aug 2014	20 Sep 2014 to 19 Mar 2015	Valid
	GW-RS0965-14	12 Sep 2014	14 Sep 2014 to 11 Mar 2015	Valid
	GW-RS0970-14	12 Sep 2014	12 Sep 2014 to 9 Mar 2015	Valid
	GW-RS0946-14	10 Sep 2014	25 Sep 2014 to 24 Mar 2015	Valid
	GW-RS1060-14	30 Sep 2014	3 Oct 2014 to 25 Mar 2015	Valid
	GW-RS1061-14	30 Sep 2014	2 Oct 2014 to 28 Mar 2015	Valid
	GW-RS1110-14	13 Oct 2014	17 Oct 2014 to 16 Apr 2015	Valid
GW-RS1109-14	13 Oct 2014	18 Oct 2014 to 17 Apr 2015	Valid	

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
	GW-RS1148-14	21 Oct 2014	23 Oct 2014 to 9 Apr 2015	Valid
	GW-RS1189-14	31 Oct 2014	22 Nov 2014 to 21 May 2015	Valid
	GW-RS1190-14	31 Oct 2014	17 Nov 2014 to 16 May 2015	Valid
	GW-RS1192-14	31 Oct 2014	7 Nov 2014 to 6 May 2015	Valid
	GW-RS1199-14	31 Oct 2014	7 Nov 2014 to 6 May 2015	Valid
	GW-RS1208-14	31 Oct 2014	16 Nov 2014 to 3 May 2015	Valid
	GW-RS1218-14	5 Nov 2014	7 Nov 2014 to 2 May 2015	Valid
	GW-RS1321-14	21 Nov 2014	24 Nov 2014 to 16 May 2015	Valid
Discharge Licence	WT00006249-2010	22 Mar 2010	31 Mar 2015	Valid
	WT00006436-2010	15 Apr 2010	30 Apr 2015	Valid
	WT00006673-2010	14 May 2010	31 Mar 2015	Cancelled
	WT00006757-2010	28 May 2010	31 May 2015	Valid
	WT00007129-2010	28 July 2010	31 Jul 2015	Valid
	WT00008982-2011	26 Apr 2011	30 April 2016	Valid
	WT00009691-2011	1 Aug 2011	31 July 2016	Valid
Billing Account under Waste Disposal Ordinance (Land)	7010255	10 Feb 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance (Marine)	7011496	6 Oct 2010	N/A	Valid
Registration as Chemical Waste Producer (Wan Chai)	WPN5213-135-C3 593-01	10 Mar 2010	N/A	Valid
Registration as Chemical Waste Producer (TKO 137)	WPN5213-839-C3 593-02	22 Sep 2010	N/A	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-046	24 Jun 2014	1 Jul 2014 to 31 Dec 2014	Valid
Dumping Permit (Type 2 – Confined Marine Disposal)	EP/MD/15-135	13 Oct 2014	23 Oct 2014 to 22 Nov 2014	Expired
	EP/MD/15-155	18 Nov 2014	23 Nov 2014 – 22 Dec 2014	Valid

**Table 3.7 Summary of submission status under FEP-03/356/2009 Condition**

EP Condition	Submission	Date of Submission
Condition 1.12	Commencement Date of Construction of Marine Works	8 April 2010

EP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	10 April 2010
Condition 2.7	Works Schedule and Location Plans	8 April 2010
Condition 2.8	Silt Curtain Deployment Plan (Revision A)	20 April 2010
	Silt Curtain Deployment Plan (Revision B)	25 May 2010
	Silt Curtain Deployment Plan (Revision C)	14 Jun 2010
	Silt Curtain Deployment Plan (Revision H)	15 Feb 2011
	Silt Curtain Deployment Plan (Revision I)	17 Nov 2011
	Silt Curtain Deployment Plan (Revision J)	15 Feb 2012
	Silt Curtain Deployment Plan (Revision K)	3 May 2012
	Silt Curtain Deployment Plan (Revision L)	25 Oct 2012
	Silt Curtain Deployment Plan (Revision M)	30 Nov 2012
Condition 2.9	Silt Screen Deployment Plan	21 April 2010
	Supplementary Information for Existing WSD Salt Water Intakes at Quarry Bay and Sai Wan Ho	5 Oct 2010
	Silt Screen Deployment Plan (Revision B)	15 Feb 2012
	Silt Screen Deployment Plan (Revision C)	3 May 2012
	Silt Screen Deployment Plan (Revision D)	10 Dec 2012
Condition 2.17	Noise Management Plan	6 May 2010
Condition 2.18	Landscape Plan (Decorative Screen Hoarding)	11 May 2010
	Landscape Plan (Control of Night Time Lighting)	2 June 2010
	Landscape Plan (Combined Version)	20 July 2011
	Landscape Plan (Combined Version)	5 Aug 2011
-----	Acknowledge of Submission	22 Aug 2011

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

3.1.6. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HY/2009/15 under EP-356/2009 are shown in **Table 3.8** and **Table 3.9**.

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

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-04/356/2009	22 Nov 2010	N/A	Valid
Notification of Works Under APCO	321822	24 Sep 2010	N/A	Valid
Construction Noise Permit (CNP) for concreting works at Eastern Breakwater of CBTS	GW-RS0552-14	30 May 2014	1 Jun 2014 to 26 Nov 2014	Expired
	GW-RS1306-14	21 Nov 2014	27 Nov 2014 to 26 May 2015	Valid
Construction Noise Permit (CNP) for D-wall cutting and seawall removal works at TS4/ME4	GW-RS0721-14	16 Jul 2014	18 Jul 2014 to 15 Jan 2015	Valid
Construction Noise Permit (CNP) for maintenance dredging	GW-RS0368-14	22 Apr 2014	1 May 2014 to 31 Oct 2014	Expired
	GW-RS1183-14	31 Oct 2014	1 Nov 2014 to 30 Apr 2015	Valid
Construction Noise Permit (CNP) for reclamation and SI works at TPCWAW	GW-RS0944-14	8 Sep 2014	8 Sep 2014 to 7 Mar 2015	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C116 9-35	15 Nov 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance	7011553	30 Sep 2010	27 Sep 2010 to 27 Jan 2016	Valid
Billing Account under Waste Disposal Ordinance (Disposal by Vessel)	7011761	7 Oct 2014	17 Oct 2014 to 16 Jan 2015	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-063	16 Jul 2014	28 Jul 2014 to 27 Jan 2015	Valid
Dumping Permit (Type 1 – Open Sea Disposal(Dedicated Site) and Type 2 – Confined Marine Disposal)	EP/MD/15-093	7 Oct 2014	15 Oct 2014 to 14 Nov 2014	Expired
	EP/MD/15-148	3 Nov 2014	15 Nov 2014 to 14 Dec 2014	Valid

**Table 3.9 Summary of submission status under FEP-04/356/2009 Condition**

FEP Condition	Submission	Date of Submission
Condition 2.6	Management Organization of Main Construction Companies	30 Sep 2010
	Amendment for Management Organization of Main Construction Companies	16 May 2011
Condition 2.7	Works Schedule and Location Plans	27 Oct 2010
	Amendment for Works Schedule and Location Plans	12 Nov 2010
Condition 2.8	Silt Curtain Deployment Plan	30 Nov 2010
	Amendment for Silt Curtain Deployment Plan	24 Feb 2011
	Amendment for Silt Curtain Deployment Plan	11 May 2011
	Amendment for Silt Curtain Deployment Plan	11 Sep 2012
	Amendment for Silt Curtain Deployment Plan	30 Oct 2012
Condition 2.9	Silt Screen Deployment Plan	19 Oct 2010
	Amendment for Silt Screen Deployment Plan	18 Feb 2011
	Amendment for Silt Screen Deployment Plan	15 Jun 2011
Condition 2.18	Proposal for the Removal of Odorous Sediment and Slime	13 Jan 2011
	Amendment for Proposal for the Removal of Odorous Sediment and Slime	8 Mar 2011
	Amendment for Proposal for the Removal of Odorous Sediment and Slime	2 Aug 2011
Condition 2.21	Landscape Plan	18 Feb 2011
Condition 2.23	Noise Management Plan	20 Oct 2010
	Amendment for Noise Management Plan	27 Jan 2011

3.1.7. Implementation status of the recommended mitigation measures during this reporting period is presented in **Appendix 3.1**.

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

3.1.8. Summary of the current status on licences and/or permits on environmental protection pertinent for contract no. HY/2009/19 is shown in **Table 3.10**

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

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period / Expiry date	Status
Further Environmental Permit	FEP-07/364/2009/B	20 Sep 2012	Granted	Valid
Notification of Works Under APCO	326160	24 Jan 2011	Notified	Valid
Construction Noise Permit (CNP) (For Portion Vi Marine)	GW-RS10073-14	06-Feb-14	02-Aug-14	Cancelled

Permit / Licence / Notification / Approval	Reference No.	Issued Date	Valid Period / Expiry date	Status
	GW-RS0507-14	23-May-14	14-Nov-14	Valid
Discharge License (Sea)	WT00010865-2011	03 Nov 2011	30-Nov-16	Valid
C&D Waste Disposal	7012306	10 Feb 2011	Registered	-
Vessel Disposal	7013285	21 July 2011	Registered	-
Registration as Chemical Waste Producer	5213-151-C3654-01	24 Mar 2011	Registered	-

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

3.1.9. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HK/2012/08 under EP-356/2009 are shown in **Table 3.11** and **Table 3.12**.

**Table 3.11 Cumulative Summary of Valid Licences and Permits under Contract no. HK/2012/08**

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-06/356/2009	5 Mar 2013	N/A	Valid
Notification of Works Under APCO	355439	4 Feb 2013	N/A	Valid
Registration as a Chemical Waste Producer	5213-134-C3790-01	8 Mar 2013	N/A	Valid
Billing Account under Waste Disposal Ordinance	7016883	18 Feb 2013	18 Jul 2017	Valid
Water Discharge Licence	WT00018223-2014	28 Jan 2014	31 Jan 2019	Valid
Construction Noise Permit	GW-RS0966-14	12 Sep 2014	27 Sep 2014 to 26 Mar 2015	Valid
	GW-RS0930-14	8 Sep 2014	10 Sep 2014 to 8 Mar 2015	Valid
	GW-RS0919-14	5 Sep 2014	7 Sep 2014 to 4 Mar 2015	Valid
	PP-RS0023-14	18 Sep 2014	20 Sep 2014 to 17 Mar 2015	Valid
	GW-RS1006-14	19 Sep 2014	1 Oct 2014 to 31 Mar 2015	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-039	1 Jul 2014	31 Dec 2014	Valid

**Table 3.12 Summary of submission status under EP-356/2009 and FEP-06/356/2009 Condition**

FEP Condition	Submission	Date of Submission
Condition 2.8	Silt Curtain Deployment Plan (Rev. 3)	Submitted on 25 Nov 2013 was returned to CSLJV by EPD.
Condition 2.9	Silt Screen Deployment Plan (Rev. 2)	Generally in order as commented by EPD on 19 Sep 2013
Condition 2.23	Noise Management Plan (Rev. 2)	Generally in order as commented by EPD on 15 Aug 2013
Condition 2.24	Landscape Plan (Rev. 3)	Generally in order as commented by EPD on 31 Oct 2013

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

3.1.10. Summary of the current status on licences and/or permits on environmental protection pertinent and submission for contract no. HY/2010/08 under EP-356/2009 are shown in Table 3.13 and Table 3.14.

**Table 3.13 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2010/08**

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP-07/356/2009	26 Jul 2013	NA	Valid
	FEP-10/364/2009/B	26 Jul 2013	NA	Valid
Notification of Works Under APCO	357176	2 Apr 2013	NIL	Valid
Registration as a Chemical Waste Producer	WPN5213-147-C11 69-44	27 Mar 2013	NIL	Valid
Billing Account under Waste Disposal Ordinance	7017170	27 Mar 2013	NIL	Valid
Water Discharge Licence	WT00016561-2013	9 Jul 2013	31 Jul 2018	Valid
Construction Noise Permit	GW-RS0701-14	4 Jul 2014	5 Jul 2014 to 31 Dec 2014	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-033	9 Jun 2014	9 Dec 2014	Valid
Dumping Permit (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	EP/MD/15-131	15 Oct 2014	14 Nov 2014	Expired
	EP/MD/15-147	15 Nov 2014	14 Dec 2014	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Dumping Permit (Type 3) – Special Treatment	EP/MD/15-128	23 Oct 2014	24 Nov 2014	Expired
	EP/MD/15-160	6 Dec 2014	31 Dec 2014	Valid

**Table 3.14 Summary of submission status under EP-356/2009 and FEP-07/356/2009 Condition**

FEP Condition	Submission	Date of Submission
Condition 2.8	Silt Curtain Deployment Plan (rev03)	25 Nov 2014
Condition 2.9	Silt Screen Deployment Plan (rev01)	29 Nov 2013
Condition 2.23	Noise Management Plan (rev02)	25 Mar 2014
Condition 2.24	Landscape Plant (rev04)	23 Sep 2014



## Monitoring Requirements

### 4.1 Noise Monitoring

#### NOISE MONITORING STATIONS

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

**Table 4.1 Noise Monitoring Station**

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

- 4.1.2. The real-time noise monitoring stations for the Project are listed and shown in **Table 4.2** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.
- 4.1.3. 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.
- 4.1.4. 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 4.2 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

- 4.1.5. 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.

4.1.6. 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.

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

**MONITORING EQUIPMENT**

4.1.8. As referred to in the Technical Memorandum <sup>TM</sup> issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.

4.1.9. Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.

**4.2 Air Monitoring**

**AIR QUALITY MONITORING STATIONS**

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

**Table 4.3 Air Monitoring Station**

Station ID	Monitoring Location	Description
CMA1b	Oil Street Site Office	North Point
CMA2a	Causeway Bay Community Centre	Causeway Bay
CMA3a	CWB PRE Site Office *	Causeway Bay
CMA4a	Society for the Prevention of Cruelty to Animals	Wan Chai
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

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

#### SAMPLING PROCEDURE AND MONITORING EQUIPMENT

- 4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:
- 0.6 – 1.7 m<sup>3</sup> 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 cm<sup>2</sup>;
  - flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
  - equipped with a shelter to protect the filter and sampler;
  - incorporated with an electronic mass flow rate controller or other equivalent devices;
  - equipped with a flow recorder for continuous monitoring;
  - provided with a peaked roof inlet;
  - incorporated with a manometer;
  - able to hold and seal the filter paper to the sampler housing at horizontal position;
  - easily changeable filter; and
  - capable of operating continuously for a 24-hour period.
- 4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

#### LABORATORY MEASUREMENT / ANALYSIS

- 4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.
- 4.2.8. 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 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.
- 4.2.9. 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.
- 4.2.10. 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.
- 4.2.11. All the collected samples shall be kept in a good condition for 6 months before disposal.

#### IMPACT MONITORING FOR ODOUR PATROL

- 4.2.12. 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
- 4.2.13. Odour patrol shall be conducted by independent trained personnel / competent persons patrolling and sniffing around the shore as shown in **Figure 4.1** to detect any odour at the concerned hours (afternoon is preferred for higher daily temperature).
- 4.2.14. 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.
- 4.2.15. 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.

4.2.16. 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 6.1**.

4.2.17. The qualified odour patrol member has individual n-butanol thresholds complied with the requirement of European Standard Method of Air Quality – Determination of Odour Concentration by Dynamic Olfactometry (EN13725) in the range of 20 to 80 ppb.

### 4.3 Water Quality Monitoring

4.3.1. 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.

4.3.2. 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

4.3.3. It is proposed to monitor the water quality at 1 WSD salt water intakes and 9 cooling water intakes along the seafront of the Victoria Harbour. The proposed water quality monitoring stations of the Project are shown in **Table 4.4** and **Figure 4.1**. **Appendix 4.1** shows the established Action/Limit Levels for the monitoring works.

**Table 4.4 Marine Water Quality Stations for Water Quality Monitoring**

Station Ref.	Location	Easting	Northing
<b>WSD Salt Water Intake</b>			
WSD19	Sheung Wan	833415.0	816771.0
<b>Cooling Water Intake</b>			
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

Station Ref.	Location	Easting	Northing
P5	Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)	835895.2	816215.2
<b>Cooling Water Intake / WSD Salt Water Intake</b>			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/ WSD Wanchai salt water intake	836268.0	816020.0

WATER QUALITY PARAMETERS

- 4.3.4. 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.
- 4.3.5. 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.

SAMPLING PROCEDURES AND MONITORING EQUIPMENT

- 4.3.6. 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 4.5** 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 4.5 Marine Water Quality Monitoring Frequency and Parameters**

Activities	Monitoring Frequency <sup>1</sup>	Parameters <sup>2</sup>
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

- 4.3.7. 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

4.3.8. 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).

4.3.9. 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

4.3.10. 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

4.3.11. A 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

4.3.12. 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

4.3.13. 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

4.3.14. 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

4.3.15. 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

4.3.16. 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.

- 4.3.17. 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.
- 4.3.18. 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.
- 4.3.19. Current calibration certificates of equipments are presented in [Appendix 4.2](#).

LABORATORY MEASUREMENT / ANALYSIS

- 4.3.20. 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

- 4.3.21. 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.
- 4.3.22. 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 4.6** and [Figure 4.1](#).

**Table 4.6 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

- [Water quality monitoring for Windsor House Cooling \(Station Ref: C7\) was temporarily suspended since 22 October 2014 with respect to the diversion scheme.](#)
  - [Enhanced DO monitoring stations \(Ex-PCWA SW and Ex-PCWA SE\) was finely adjusted to the PCWAE since 7 November 2014.](#)
- 4.3.23. 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 equal to or less than 3m, only the mid-depth will be monitored).



#### DAILY SS MONITORING AND 24 HOURS TURBIDITY MONITORING SYSTEM

- 4.3.24. 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.
- 4.3.25. The 24 hours monitoring of turbidity 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 quality monitoring at the cooling water intake locations.

#### ADDITIONAL DISSOLVED OXYGEN MONITORING FOR CULVERT L WATER DISCHARGE FLOW

- 4.3.26. 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.
- 4.3.27. 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
- 4.3.28. 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).

**5. Monitoring Results**

5.0.1. 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 4.1**. The monitoring results are presented in according to the Individual Contract(s).

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

- Contract no. HK/2009/01 – Wan Chai Development Phase II – Central-Wan Chai Bypass at Hong Kong Convention and Exhibition Centre; and
- Contract no. HK/2009/02 Wan Chai Development Phase II – Central-Wan Chai Bypass at Wan Chai East
- Contract no. HY/2009/15 - Central-Wanchai Bypass – Tunnel (Causeway Bay Typhoon Shelter Section)
- Contract no. HY/2009/19- Central- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link
- Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West
- Contract no. HY/2010/08 – Central- Wanchai Bypass Tunnel (Slip Road 8 Section)

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

**5.1 Noise Monitoring Results**

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

5.1.1. The proposed division of noise monitoring stations are summarized in **Table 5.2** below.

**Table 5.2 Noise Monitoring Station for Contract nos. HK/2009/01, HK/2009/02 and HK/2010/06**

Station	Description
M1a	Harbour Road Sports Centre

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

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

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

5.1.4. The noise monitoring for HY/2009/15 was commenced on 10 November 2010. The proposed division of noise monitoring stations are summarized in **Table 5.3** below.

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

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

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

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

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

5.1.6. The proposed division of noise monitoring stations are summarized in **Table 5.4** below.

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

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

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

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

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

5.1.9. The proposed division of noise monitoring stations are summarized in **Table 5.5** below.

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

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

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

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

## 5.2 Real-time Noise Monitoring

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

5.2.1 As the marine-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.

5.2.2 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.

5.2.3 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.

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

**Table 5.6 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

- 5.2.1. Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 8, 19, 20, 21, 25 and 26 November 2014 in the reporting month. After checking with Contractor of HY/2009/19, on 8 November 2014, sheet piling and socket H-piling works were conducted at the concerned location during the recorded period and mitigation measures including erection of temporary noise blanket was implemented by Contractor. In view of the exceedances are non-continuous, the exceedances are considered to be non-project related and are contributed by nearby non CWB Project works and nearby IEC traffic.
- 5.2.5 On 19 November 2014, sheet piling, socket H-piling works and breaking of U-beam structure were conducted at the concerned location during the recorded period while on 20, 21, 25 and 26 November 2014, sheet piling and socket H-piling works were conducted at the concerned location during the recorded period. Mitigation measures including erection of temporary noise barrier were implemented by Contractor. In addition, chilling system pipe work installation works (hammering and welding works) was observed conducting at the roof top of Hong Kong Electric Centre from 17 Nov 2014 to 28 Nov 2014 and the exceedances were considered to be non-Project related and contributed by maintenance work at Hong Kong Electric Centre.
- 5.2.6 Details of real time noise monitoring results and graphical presentation can be referred to **Appendix 5.5.**

**5.3 Air Monitoring Results**

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

- 5.3.1. 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 divisions of air monitoring stations are summarized in **Table 5.7** below. No exceedance was recorded in the reporting month.

**Table 5.7 Air Monitoring Stations for Contract no. HK/2009/01**

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

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

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

- 5.3.2. 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 are summarized in **Table 5.8** below. No exceedance was recorded in the reporting month.

**Table 5.8 Air Monitoring Station for Contract no. HK/2009/02**

Station	Description
CMA4a	Society for the Prevention of Cruelty to Animals

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

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

- 5.3.4. 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 5.9** below.

**Table 5.9 Air Monitoring Station for Contract no. HY/2009/15**

Station	Description
CMA3a	CWB PRE Site Office

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

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

- 5.3.6. The proposed division of air monitoring stations are summarized in Table 5.10 below. No exceedance was recorded in the reporting month.

**Table 5.10 Air Monitoring Stations for Contract no. HY/2009/19**

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

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

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

- 5.3.8. The proposed division of air monitoring stations are summarized in Table 5.11 below. No exceedance was recorded in the reporting month.

**Table 5.11 Air Monitoring Stations for Contract no. HK/2012/08**

Station	Description
CMA5a	Children Playgrounds opposite to Pedestrian Plaza

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

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

- 5.3.10. The proposed division of air monitoring stations are summarized in Table 5.12 below. No exceedance was recorded in the reporting month.

**Table 5.12 Air Monitoring Stations for Contract no. HY/2010/08**

Station	Description
CMA3a	CWB PRE Site Office

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

#### **5.4 Water Monitoring Results.**

- 5.4.1. [With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations \(Ex-PCWASW and Ex-PCWA SE\) were finely adjusted to the PCWAE since 7 November 2014.](#)
- 5.4.2. [With respect to the commencement of marine dredging works at WCR3 under contract HK/2009/02. The respective water quality monitoring station C1 were associated with HK/2009/01 and HK/2009/02.](#)
- 5.4.3. As confirmed by CWB RSS, the operation of the pump station for Windsor House Cooling Water was suspended from 22 Oct 2014 for the Windsor House intake cooling intake scheme and temporary supply of freshwater from WSD water mains was provided to cooling water intake. The water quality monitoring for the respective cooling water intake at WQM station C7 was temporarily suspended from 22 Oct 2014. The water quality monitoring at monitoring station C7 for Windsor House Cooling water intake shall be resumed after the completion of the diversion scheme for the diverted intake subject to CWB RSS advice.
- 5.4.4. With respect to the commencement of filling works at TS3 and the formation of TZ3 reclamation zone, the enhance DO monitoring at Enhance monitoring station C7 was temporarily suspended from 22 Oct 2014.
- 5.4.5. As confirmed by WDII RSS and IEC, the cross harbor dredging works have completed since 16 March 2012 while the dredging works for submarine outfall pipeline has completed since 29 November 2011, considering current construction stage and dredging Scenario, the water

- quality monitoring at stations WSD9 and WSD17 was temporarily suspended since 8 September 2014 flood tide.
- 5.4.6. [Action and Limit level of water quality monitoring was transited from wet season to dry season from 1 October 2014.](#)
- 5.4.7. With respect to the switching over of cooling water intake location, the water quality monitoring at the relocated intake station RW21-P789 under HK/2009/02 was commenced since 29 July 2013 and monitoring station C5e and C5w were temporarily suspended and switched over to monitoring station RW21-P789 on 29 July 2013 due to suspension of pump house operation.
- 5.4.8. As advised by WDII RSS, the water quality monitoring for WSD21 pump station with respect to HK/2009/02 was switched over to the relocated location since 12 March 2014. According to the EM&A Manual, the water quality monitoring station WSD21 was relocated to station RW21-P789 and the water quality monitoring at station WSD21 was temporarily suspended since 12 March 2014.
- 5.4.9. With respect to the commencement of marine dredging works under contract HY/2010/08. The respective water quality monitoring station C7 were associated with HY/2009/15 and HY/2010/08.
- 5.4.10. With respect to the commencement of marine dredging works under contract HK/2012/08/ The respective water quality monitoring station WSD19, P1, P3, P4, and P5 were associated with Contract HK/2012/08 Since September 2013.
- 5.4.11. 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.
- 5.4.12. 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.
- 5.4.13. As confirmed by CWB RSS, the marine piling 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.
- 5.4.14. RSS confirmed that all Type III Dredging works under HK/2009/01 have been completed since Oct 2012.
- 5.4.15. 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.
- 5.4.16. 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.



- 5.4.17. 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.
- 5.4.18. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others remain unchanged.
- 5.4.19. 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. 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;
- 5.4.20. 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.
- 5.4.21. 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.
- 5.4.22. 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.

**Table 5.13 Water Monitoring Stations for contracts with respect to remaining DP3 work areas after the completion of DP5 & DP6 in 2012 and intake diversion in 2013**

Contract No.	Remaining DP3 and work area(s)	Relevant Water Monitoring Stations,	Division of WQM w.r.t tentative works commenced / to be commenced
HK/2009/01	WCR3	C1 <sup>1</sup>	Apr 2013
HK/2009/02	WCR3, WCR4, TWCR4	RW21-P789 <sup>1</sup> , C1 <sup>1</sup>	Apr 2013
HK/2012/08	HKCEC2W, HKCEC2E	WSD19, P1 <sup>3</sup> , P3 <sup>3</sup> , P4 <sup>3</sup> , P5 <sup>3</sup>	Aug 2013
HY/2009/15	TCBR2, TCBR3, TCBR1W, TPCWAE, TPCWAW	C6 <sup>4</sup> , C7, Ex-WPCWA SW, Ex-WPCWA SE (plus enhanced DO monitoring)	Nov 2010

		described in 4.6.3)	
HY/2010/08	TCBR3, TCBR4	C6 <sup>4</sup> , C7 (plus enhanced DO monitoring described in 4.6.3)	Mar 2014

Remarks:

- The water monitoring stations for WSD19, P1, P3, P4, P5 shall be associated with Contract No. HK/2009/01 prior to their transition to Contract HK/2012/08.
- 4 intakes (re-provisioned Wanchai WSD intake, Great Eagle Centre, China Resources Centre & Sun Hung Kai Centre constructed adjacent to each other) taken as a single group for silt screen protection and monitoring.
- Re-provisioned intake reference: P1: HKCEC Phase 1; P3: APA, P4: Shui On; P5: Government Buildings (Wanchai Tower / Revenue Tower / Immigration Tower)
- Enhanced DO Monitoring at C6 since the intake abandon in May 2011.
- The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

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

5.4.23. Water monitoring for Contract no. HK/2009/01 was commenced on 23 July 2010. The proposed division of water monitoring stations are summarized in **Table 5.14** below.

**Table 5.14 Water Monitoring Stations for Contract no. HK/2009/01**

Station Ref.	Location	Easting	Northing
<b>Cooling Water Intake</b>			
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

5.4.24. Water monitoring for Contract no. HK/2009/02 was commenced on 8 July 2010. The proposed division of water monitoring stations are summarized in **Table 5.15** below.

**Table 5.15 Water Monitoring Stations for Contract no. HK/2009/02**

Station Ref.	Location	Easting	Northing
<b>Cooling Water Intake</b>			
C1	HKCEC Extension	835885.6	816223.0
<b>Cooling Water Intake / WSD Salt Water Intake</b>			
RW21-P789	Great Eagle Centre/ Sun Hung Kai Centre/WSD Wanchai salt water intake	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
- WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
- WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
- The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area.

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

5.4.25. 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 5.16** below.

**Table 5.16 Water Monitoring Stations for Contract no. HK/2012/08**

Station Ref.	Location	Easting	Northing
<b>WSD Salt Water Intake</b>			
WSD19	Sheung Wan	833415.0	816771.0
<b>Cooling Water Intake</b>			
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)

- 5.4.26. 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.
- 5.4.27. 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 are summarized in Table 5.15 below.
- 5.4.28. 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.

**Table 5.17 Water Monitoring Stations for Contract no. HY/2009/15**

Station Ref.	Location	Easting	Northing
<b>Cooling Water Intake</b>			
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.
- [Water quality monitoring for Windsor House Cooling \(Station Ref: C7\) was temporarily suspended since 22 October 2014 with respect to the diversion scheme.](#)

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

- 5.4.29. 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. The proposed division of water monitoring stations are summarized in *Table 5.16* below.
- 5.4.30. 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.
- 5.4.31. 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.
- 5.4.32. 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.
- 5.4.33. 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.
- 5.4.34. 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.
- 5.4.35. Water monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in **Appendix 5.4.**

**Table 5.18 Summary of Water Quality Monitoring Exceedances in Reporting Month**

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 & HK/2009/02	C1	0	0	0	0	0	0	0	0	0	0	0	0
HK/2012/08	WSD19	0	0	0	2	0	0	0	0	0	1	0	0
	P1	0	0	0	0	0	0	0	0	0	0	0	0
	P3	0	0	0	0	0	0	0	0	0	0	0	0
	P4	0	0	1	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	RW21-P789	0	0	1	0	0	0	0	0	1	0	0	0
HY/2009/15 & HY/2010/08	C7	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>		0	0	2	2	0	0	0	0	1	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, 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
  - WSD21 water quality monitoring station was temporarily suspended since 12 March 2014
  - Maintenance responsibility of silt screen C1, WSD19, P3, P4 and P5 are under Contract HK/2009/01.
  - WSD9 and WSD17 water quality monitoring station was temporarily suspended since 8 September 2014 flood tide.
  - Water quality monitoring for Windsor House Cooling (Station Ref: C7) was temporarily suspended since 22 October 2014 with respect to the diversion scheme.
  - The water monitoring station C1 shall be associated with Contract No. HK/2009/02 upon commencement of marine works under DP3 at WCR3 area

5.4.36. There were 3 action level and 3 limit level exceedances of turbidity recorded in the reporting month. Investigation found that the exceedances were not related to Project works. The details of recorded exceedances can be referred to the **Section 6.4**.

5.4.37. 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 5.19**.

**Table 5.19 Summary of Enhanced Dissolved Oxygen Monitoring Exceedances in Reporting Month**

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	0	0	1
	Ex-WPCWA SE	1	3	0	3
Total		1	3	0	4

- 5.4.38. There were 1 action level exceedances and 7 limit level exceedances of enhanced dissolved oxygen recorded in this reporting month. Investigation found that the exceedances were not related to the Project works. The details of the recorded exceedances can be referred to the [Section 6.4](#).
- 5.4.39. 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 5.4](#).
- 5.4.40. 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
- 5.4.41. With respect to the commencement of temporary reclamation works and seawall construction at Ex-PCWAW zone and diverted culvert extension, the location of the Enhance DO monitoring stations (Ex-PCWASW and Ex-PCWA SE) were finely adjusted to the PCWAE since 7 November 2014.

**5.5 Waste Monitoring Results**

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

5.5.1. No inert C&D waste and non- inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.20**.

**Table 5.20 Details of Waste Disposal for Contract no. HK/2009/01**

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m <sup>3</sup>	NIL	62116.405	TKO137, TM38
Inert C&D materials recycled, m <sup>3</sup>	NIL	5856.5	N/A
Non-inert C&D materials disposed, m <sup>3</sup>	NIL	1673.69	SENT Landfill
Non-inert C&D materials recycled, kg	NIL	203993	N/A
Chemical waste disposed, kg	NIL	10250	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m <sup>3</sup>	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 <sup>3</sup>	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

5.5.2. There were no marine sediment Type 1- Open Sea Disposal and no marine sediments Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

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

5.5.3. Inert C&D waste was disposed and no Non-inert C&D waste disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.21**.

**Table 5.21 Details of Waste Disposal for Contract no. HK/2009/02**

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds
Inert C&D materials disposed, m <sup>3</sup>	12370.65	276075.1	TKO137 / TM 38
Inert C&D materials recycled, m <sup>3</sup>	NIL	18161	N/A
Non-inert C&D materials disposed, m <sup>3</sup>	NIL	1515.103	SENT Landfill
Non-inert C&D materials recycled, m <sup>3</sup>	N/A	N/A	N/A
Chemical waste disposed, kg	NIL	13860	SENT Landfill
Marine Sediment (Type 1 – Open Sea Disposal), m <sup>3</sup> *	12501	198312 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m <sup>3</sup>	3995.5	133315.5 (Bulk volume)	East of Sha Chau

\* Remarks: Contractor clarified the quantity of marine sediment – type 1 open sea disposal for October reporting month was 3664, hence the cumulative quantity is updated in November reporting month.

5.5.4. There were marine sediment Type 1 – Open Sea Disposal and Type 1 Open Sea Disposal & Type 2 – Confined Marine Disposal disposed in this reporting month.



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

5.5.5. No Inert C&D waste and no non- inert C&D waste disposed of in this reporting month. Details of the waste flow table are summarized in **Table 5.22**

**Table 5.22 Details of Waste Disposal for Contract no. HY/2009/15**

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Inert C&D materials disposed, m <sup>3</sup>	NIL	141579.2	Tuen Mun Area 38	NIL
	NIL	65216	TKO137 FB	NIL
Inert C&D materials recycled, m <sup>3</sup>	NIL	304	ex-PCWA	NIL
	NIL	111.9	TS4	NIL
Non-inert C&D materials disposed, m <sup>3</sup>	NIL	252.2	SENT Landfill	NIL
Non-inert C&D materials recycled, kg	NIL	299361.5	N/A	NIL
Chemical waste disposed, kg	NIL	8,200	N/A	NIL
Marine Sediment (Type 1 – Open Sea Disposal), m <sup>3</sup>	NIL (Bulk Volume)	103488 (Bulk Volume)	Cheung Chau South	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m <sup>3</sup>	8380 (Bulk Volume)	273345 (Bulk Volume)	East of Sha Chau / South of the Brothers	Dredging from TCBR1E / TCBR1W / TCBR2/ TCBR3 / TCBR4 / Maintenance dredging
Marine Sediment (Type 3 – Special Treatment / Disposal contained in Geosynthetic Containers) m <sup>3</sup>	NIL (Bulk Volume)	12640 (Bulk Volume)	East of Sha Chau / South of the Brothers	Dredging from TCBR1W / Maintenance dredging
Marine Sediment (Type 2 – Confined Marine Disposal), m <sup>3</sup>	NIL	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

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
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 Geosynthetic Containers) , m3	NIL (Bulk Volume)	2,760 (Bulk Volume)	South of The Brothers	Dredging from Phase 3 Mooring Re-arrangement

5.5.6. There were Type 1 Open Sea Disposal & Type 2 – Confined Marine Disposal disposed in this reporting month.

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

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

**Table 5.23 Details of Waste Disposal for Contract no. HY/2009/19**

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

5.5.8. There was no marine sediment Type1- Open Sea Disposal and there was no Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal generated were disposed in this reporting month.

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

5.5.9. No Inert C&D waste and non-inert C&D waste were disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.24**.

**Table 5.24 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 <sup>3</sup>	NIL	1786	TM38
Inert C&D materials recycled, m <sup>3</sup>	NIL	NIL	N/A
Non-inert C&D materials disposed, m <sup>3</sup>	NIL	315	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A
Marine Sediment (Type 1 – Open Sea Disposal), m <sup>3</sup>	NIL (Bulk volume)	31759 (Bulk volume)	South of Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal) , m3	NIL (Bulk volume)	108485 (Bulk volume)	South of The Brothers (from 27 Aug 2013 onwards)

5.5.10. No Marine Sediment Type 1 – Open Sea Disposal and no marine sediment Type 1 – Open Sea Disposal (Delicate Sites) & Type 2 – Confined Marine Disposal disposed in this reporting month.

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

5.5.11. No Inert C&D waste and non-inert C&D waste disposed in this reporting month. Details of the waste flow table are summarized in **Table 5.25**

**Table 5.25 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 <sup>3</sup>	NIL	NIL	N/A
Inert C&D materials recycled, m <sup>3</sup>	NIL	NIL	N/A
Non-inert C&D materials disposed, m <sup>3</sup>	NIL	NIL	N/A
Non-inert C&D materials recycled, kg	NIL	NIL	N/A
Chemical waste disposed, L	NIL	NIL	N/A

<b>Waste Type</b>	<b>Quantity this month</b>	<b>Cumulative Quantity-to-Date</b>	<b>Disposal / Dumping Grounds</b>
Marine Sediment (Type 1 – Open Sea Disposal)	14170	54580	South Cheung Chau
Marine Sediment (Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine disposal)	NIL	24860	Brothers Island
Marine Sediment (Type 3 – Special Treatment)	NIL	NIL	Brothers Island

5.5.12. There was Type 1 – Open Sea Disposal disposed in this reporting month. No Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal, and Type 3 – Special Treatment disposed in this reporting month.

## 6. Compliance Audit

- 6.0.1. The Event Action Plan for construction noise, air quality and water quality are presented in [Appendix 6.1](#).

### 6.1 Noise Monitoring

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

- 6.1.1 No exceedance was recorded in the reporting month.

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

- 6.1.2 No exceedance was recorded in the reporting month.

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

- 6.1.3 No exceedance was recorded in the reporting month.

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

- 6.1.4 No exceedance was recorded in the reporting month.

### 6.2 Real-time noise Monitoring

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

- 6.2.1 Limit level exceedances were recorded at RTN2a-Electric Centre during daytime on 8, 19, 20, 21, 25 and 26 November 2014 in the reporting month. After checking with Contractor of HY/2009/19, on 8 November 2014, sheet piling and socket H-piling works were conducted at the concerned location during the recorded period and mitigation measures including erection of temporary noise blanket was implemented by Contractor. In view of the exceedances are non-continuous, the exceedances are considered to be non-project related and are contributed by nearby non CWB Project works and nearby IEC traffic.

On 19 November 2014, sheet piling, socket H-piling works and breaking of U-beam structure were conducted at the concerned location during the recorded period while on 20, 21, 25 and 26 November 2014, sheet piling and socket H-piling works were conducted at the concerned location during the recorded period. Mitigation measures including erection of temporary noise barrier were implemented by Contractor. In addition, chilling system pipe work installation works (hammering and welding works) was observed conducting at the roof top of Hong Kong Electric Centre from 17 Nov 2014 to 28 Nov 2014 and the exceedances were considered to be non-Project related and contributed by maintenance work at Hong Kong Electric Centre.

### 6.3 Air Monitoring

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

6.3.1 No exceedance was recorded in the reporting month.

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

6.3.2 No exceedance was recorded in the reporting month.

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

6.3.3 No exceedance was recorded in the reporting month.

### 6.4 Water Quality Monitoring

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

6.4.1 No exceedance was recorded in this reporting month

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

6.4.2 No exceedance was recorded in this reporting month.

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

6.4.3 There were turbidity exceedances at PW21-P789 monitoring station recorded on 29 October 2014 and 3 November 2014.

6.4.4 After checking with Contractor, despite Dredging work was conducted at WCR3 on 29 October 2014 and 3 November 2014, Contractor mitigation measures including the use of frame type silt curtain was generally in place and silt screen installed around intake location was generally in place. In view that the transition period from wet season to dry season, it was considered that exceedances were not related to Project.

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

6.4.5 There were occasionally DO exceedances at Ex-WPCWA SW and Ex-WPCWA SE recorded on 7, 12 and 17 November 2014. No odour nuisance was noted during DO monitoring.

6.4.6 After checking with Contractor, despite installation of seawall block was conducted at Ex-WPCWA on the 7, 12 and 17 November 2014. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. As such, it was considered the exceedances were not related to Project.

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

6.4.7 No exceedance was recorded in this reporting month.

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

6.4.8 There were turbidity exceedances recorded at WSD19 and P4 monitoring station on 29 and 31 October 2014 and 3 November 2014.

6.4.9 After checking with contractor, despite placing of levelling stone was conducted on 31 October 2014, Contractor's mitigation measures including the use of silt curtain was generally in order and the silt screen installed around intake location was generally in place. In view of the exceedances were not continuous, it was considered the exceedance was not related to Project.

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

6.4.10 No exceedance was recorded in this reporting month.

**6.5 Review of the Reasons for and the Implications of Non-compliance**

6.5.1 There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.

6.5.2 No non-compliances from monitoring was recorded in the reporting month.

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

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

## **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, pipe pile wall construction, removal of rock armour, and socket H piling works were performed in November 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 activities under Wan Chai Development Phase II were marine works at HKCEC areas, tunnel works and Wan Chai Ferry Pier demolition works at Wan Chai East and dredging works at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and road works at Central Interchange, land base bored piling works at Victoria Park Road and ELS works at Victoria Park, segment launching works and tunnel works at North Point area. Marine-based construction activities were removal of temporary reclamation at TS4 and seawall construction EX-PCWA and seawall construction and filling works at TS3 at Causeway Bay Typhoon Shelter in the reporting month.
- 7.0.5. No significant air impact from construction activities was anticipated in the reporting month. Besides, no project related exceedance was recorded during the air and noise environmental monitoring events in the reporting month. Thus, it is evaluated that the cumulative construction impact from the concurrent projects including Central Reclamation Phase III (CRIII), Wan Chai Development Phase II (WDII), Central-WanChai Bypass (CWB), Island Eastern Corridor Link projects (IECL) was insignificant.



**8. Environmental Site Audit**

8.0.1. During this reporting month, weekly environmental site audits were conducted for Contracts no. HK/2009/01, HK/2009/02, HY/2009/15, HY/2009/19, HK/2012/08 and HY/2010/08. No non-conformance was identified during the site audits.

8.0.2. Five site inspections for Contract no. HK/2009/01 were conducted on 29 October, 5, 12, 19 and 26 November 2014 in reporting month. Results of these inspections and outcomes are summarized in **Table 8.1**.

**Table 8.1 Summary of Environmental Inspections for Contract no. HK/2009/01**

Item	Date	Observations	Action taken by Contractor	Outcome
141119_01	19-Nov-14	Dusty activity on site shall be sprayed with water for dust suppression at Stage 3	Spraying water was implemented during dusty activity at Stage 3.	Completion as observed on 26 Nov 2014
141126_01	26-Nov-14	Oil containers shall be placed on a drip tray and shall be placed properly to prevent from falling down at Stage 1.	Drip tray is provided for oil containers at Stage 1	Completion as observed on 3 Dec 2014

8.0.3. Five site inspections for Contract no. HK/2009/02 were carried out on 30 October, 6, 13, 20 and 27 November 2014 in reporting month. Results of these inspections and outcomes are summarized in **Table 8.2**.

**Table 8.2 Summary of Environmental Inspections for Contract no. HK/2009/02**

Item	Date	Observations	Action taken by Contractor	Outcome
141106_01	6-Nov-14	Chemical waste shall be stored in a proper manner at old ferry pier.	Chemical waste was placed properly on a drip tray at old ferry pier	Completion as observed on 13 Nov 2014
141106_02	6-Nov-14	Oil container shall be put on a drip tray at Portion 2.	Oil container has been taken away and disposed at Portion 2.	Completion as observed on 13 Nov 2014
141120_01	20-Nov-14	Provide more frequent watering to haul road and dusty surface	Haul road and dusty surface was sprayed with water	Completion as observed on 27 Nov 2014.
141120_02	20-Nov-14	Provide tarpaulin sheeting during soil/excavated material transfer to barge to prevent drop off (WCR2)	Tarpaulin sheeting was provided during excavated material transfer.	Completion as observed on 27 Nov 2014.
141127_01	27-Nov-14	Oil containers shall be placed on a drip tray at Portion 3&4	Drip tray was provided for oil containers at Portion 3&4	Completion as observed on 4 Dec 2014

Item	Date	Observations	Action taken by Contractor	Outcome
141127_02	27-Nov-14	Chemical waste shall be handle properly at Portion 3&4	Chemical waste was properly treated and disposed at Portion 3 &4.	Completion as observed on 4 Dec 2014

8.0.4. Five site inspections for Contract no. HY/2009/15 were carried out on 28 October, 4, 11, 18 and 27 November 2014 in reporting month. The results of these inspections and outcomes are summarized in **Table 8.3**.

**Table 8.3 Summary of Environmental Inspections for Contract no. HY/2009/15**

Item	Date	Observations	Action taken by Contractor	Outcome
141028_1	28-Oct-2014	Critically review the operation and connection of wastewater treatment facility to prevent direct discharge of milky effluent (EX-PCWA)	No further milky discharge was observed and the wastewater treatment function resume normal	Completion as observed on 4 Nov 2014
141028_2	28-Oct-2014	Provide drip tray to chemical containers (EX-PCWA / TS1)	Chemical container has been removed.	Completion as observed on 4 Nov 2014
141104_1	4-Nov-2014	Floating refuses and scum within works area shall be collected (EX-PCWA / TS4)	Floating refuses and scum were removed	Completion as observed on 11 Nov 2014
141127_1	27-Nov-2014	Silt curtain shall be provided to drilling zone and enclosed to prevent seepage of muddy dispersion from filling area (EX-PCWA)	Silt curtain was provided to enclose filling zone and the seawall opening	Completion as observed on 9 Dec 2014
141127_2	27-Nov-2014	Collect floating refuse on-site (EX-PCWA)	Floating refuses was collected	Completion as observed on 4 Dec 2014

8.0.5. Five site inspections for Contract no. HY/2009/19 were carried out on 29 October, 5, 12, 19 and 26 November 2014 in reporting month. The results of these inspections and outcomes are summarized in **Table 8.4**.

**Table 8.4 Summary of Environmental Inspections for Contract no. HY/2019/19**

Item	Date	Observations	Action taken by Contractor	Outcome
141105_1	5/11/2014	Silt deposit on public road was observed and wheel washing shall be improved provided with proper cleaning (Watson Road)	Cleaning the public road more frequently	Completion as observed on 12/11/2014
141119_1	19/11/2014	Provide drip tray to chemical containers (Portion III)	Provide drip trap to chemical container	Completion as observed on 26/11/2014

8.0.6. Five site inspections for Contract no. HK/2012/08 were carried out on 30 October, 6, 11, 18 and 25 November 2014 in this reporting period. The results of these inspections and outcomes are summarized in **Table 8.5**

**Table 8.5 Summary of Environmental Inspections for Contract no. HK/2012/08**

Item	Date	Observations	Action taken by Contractor	Outcome
141106_01	6-Nov-14	Drip tray shall be provided for oil container at Portion 1A.	Oil container was taken away and disposed at Portion 1A.	Completion as observed on 11 Nov 2014.
141125_01	25-Nov-14	Plant on temporary platform next to Lung King Street shall be repair to rectify the leakage of oil	The plant on temporary platform has repaired.	Completion as observed on 2 Dec 2014

8.0.7. Five site inspections for Contract no. HY/2010/08 were carried out on 30 October, 6, 13, 20 and 27 November 2014 in this reporting period. The results of these inspections and outcomes are summarized in **Table 8.6**

**Table 8.6 Summary of Environmental Inspections for Contract no. HY/2010/08**

Item	Date	Observations	Action taken by Contractor	Outcome
141030_1	30-Oct-14	Silt curtain/impermeable barrier shall be provided to surrounding the area of filling by hopper barge (TZ2)	Additional silt curtain was provided and surrounding the area of filling by hopper barge	Completion as observed on 13 Nov 2014
141106_1	6-Nov-14	Floating refuses shall be collected (TS3)	Floating refuses was clear at TS3	Completion as observed on 13 Nov 2014
141120_1	20-Nov-14	Sufficient silt screen curtain shall be deployed to enclose the filling works area and derrick barge conducting filling works (East of TS3)	Silt curtain were deployed to enclose the filling works area	Completion as observed on 27 November 2014

## 9. Complaints, Notification of Summons and Prosecution

- 9.0.1. Three environmental complaints received in this reporting month.
- 9.0.2. A public complaint regarding to malodour referred by EPD was received by ET on 10 November 2014 (EPD Ref.: H05/RS/00027815-14). The complainant reported that malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool on 7 November 2014.
- 9.0.3. According to the relevant site records under Contract HK/2009/02, ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area opposite to Wan Chai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during day time at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.
- 9.0.4. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operation on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.
- 9.0.5. A public complaint regarding to malodour and dark smoke referred by EPD was received by EP on 13 November 2014 (EPD Ref.: H05/RS/00028253-14). The complainant reported that malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affect the pedestrians on 12 November 2014.
- 9.0.6. According to the relevant site records under Contract HK/2009/02, demolition works was conducted on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated.
- 9.0.7. In addition, investigation found that due to malfunctioning of one of the excavators deployed at old Wan Chai Ferry Pier, dark smoke was emitted from the defective excavator for a short period of approximately 30 seconds at around 15:00 hrs on 12 November 2014. The operation of excavator was immediately suspended and followed by repair works. The normal operation of the excavator was resumed after repair.
- 9.0.8. Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.
- 9.0.9. A public complaint regarding to construction noise impact referred by EPD was received by ET via email on 21 November 2014 (EPD Ref: H08/RS/28263-14). Resident in Hing Fat Street complained about loud noise from dredging work in CBTS up to 10pm at night.
- 9.0.10. EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14. EPD reminded the Contractor of HY/2011/08 to ensure the work strictly

follow the permit conditions and endeavour to minimize the noise as so not to disturb the nearby residents.

9.0.11. The details of cumulative complaint log and updated summary of complaints are presented in **Appendix 9.1**

9.0.12. Cumulative statistic on complaints and successful prosecutions are summarized in **Table 9.1** and **Table 9.2** respectively.

**Table 9.1 Cumulative Statistics on Complaints**

Reporting Period	No. of Complaints
Commencement works (Mar 2010) to last reporting month	31
November 2014	3
<b>Total</b>	<b>34</b>

**Table 9.2 Cumulative Statistics on Successful Prosecutions**

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

## 10. Conclusion

- 10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alterations to the programme proposed were made in response to changing circumstances.
- 10.0.2. WDII/RSS advised that the dredging works for submarine pipeline at Victoria Harbour had been completed in January 2012. Therefore, the concurrent dredging activities at Sewage Pipeline Zone and reclamation shoreline zone TCBR under the EP-356/2009 scenario 2B no longer exist. As such, with reference to Table 5.39 of the EIA Report for Wan Chai Development Phase II and Central-Wan Chai Bypass, the application of silt screen for cooling water intakes for Queensway Government Offices was suspended and the others were remains unchanged.
- 10.0.3. As the marine-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.
- 10.0.4. 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.
- 10.0.5. Water quality monitoring at WSD10 and WSD15 will be temporary suspended while water quality monitoring at WSD9 and WSD17 were implemented with respect to HK/2009/02 for the water quality monitoring scheduled on 8 Feb 12 onwards;
- 10.0.6. 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.
- 10.0.7. Water quality monitoring at 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, and conclude if any water deterioration had been identified during the 4-week water quality monitoring.
- 10.0.8. 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.
- 10.0.9. 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.

- 10.0.10. 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.
- 10.0.11. 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.
- 10.0.12. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in **Table 10.1**.

**Table 10.1 Construction Activities and Recommended Mitigation Measures in Coming Reporting Month**

Contract No.	Key Construction Works	Recommended Mitigation Measures
HK/2009/01	<ul style="list-style-type: none"> <li>Nil</li> </ul>	<ul style="list-style-type: none"> <li>Nil</li> </ul>
HK/2009/02	<ul style="list-style-type: none"> <li>Works of covered walkway</li> <li>Drainage work</li> <li>ABWF work</li> <li>Demolition of Existing Wan Chai Ferry Pier</li> <li>Dredging and Reclamation at WCR3</li> </ul>	<ul style="list-style-type: none"> <li>To cover the dusty material or stockpile by impervious sheet;</li> <li>To well maintain the mechanical equipments / machineries to avoid abnormal noise nuisance and dark smoke emission</li> <li>To conform the installation and setting as in the silt screen and silt curtain deployment plan</li> <li>Movable noise barrier shall be deployed for demolition works</li> <li>Daily visual inspection of silt screen and silt curtain to ensure its operation properly</li> <li>Review silt screen deployment and silt curtain deployment and resubmit associate plans to EPD</li> <li>Implement silt screen and silt curtain in accordance with the associated plans submitted to EPD.</li> </ul>
HY/2009/15	<ul style="list-style-type: none"> <li>Removal of D-wall at TPCWAE &amp; TS4</li> <li>Temporary reclamation and installation of seawall blocks at TPCWAW</li> <li>Maintenance dredging</li> </ul>	<ul style="list-style-type: none"> <li>Daily visual inspection of silt screen and silt curtain to ensure its operation properly</li> <li>Implement silt curtain in accordance with the associated plans submitted to EPD.</li> </ul>

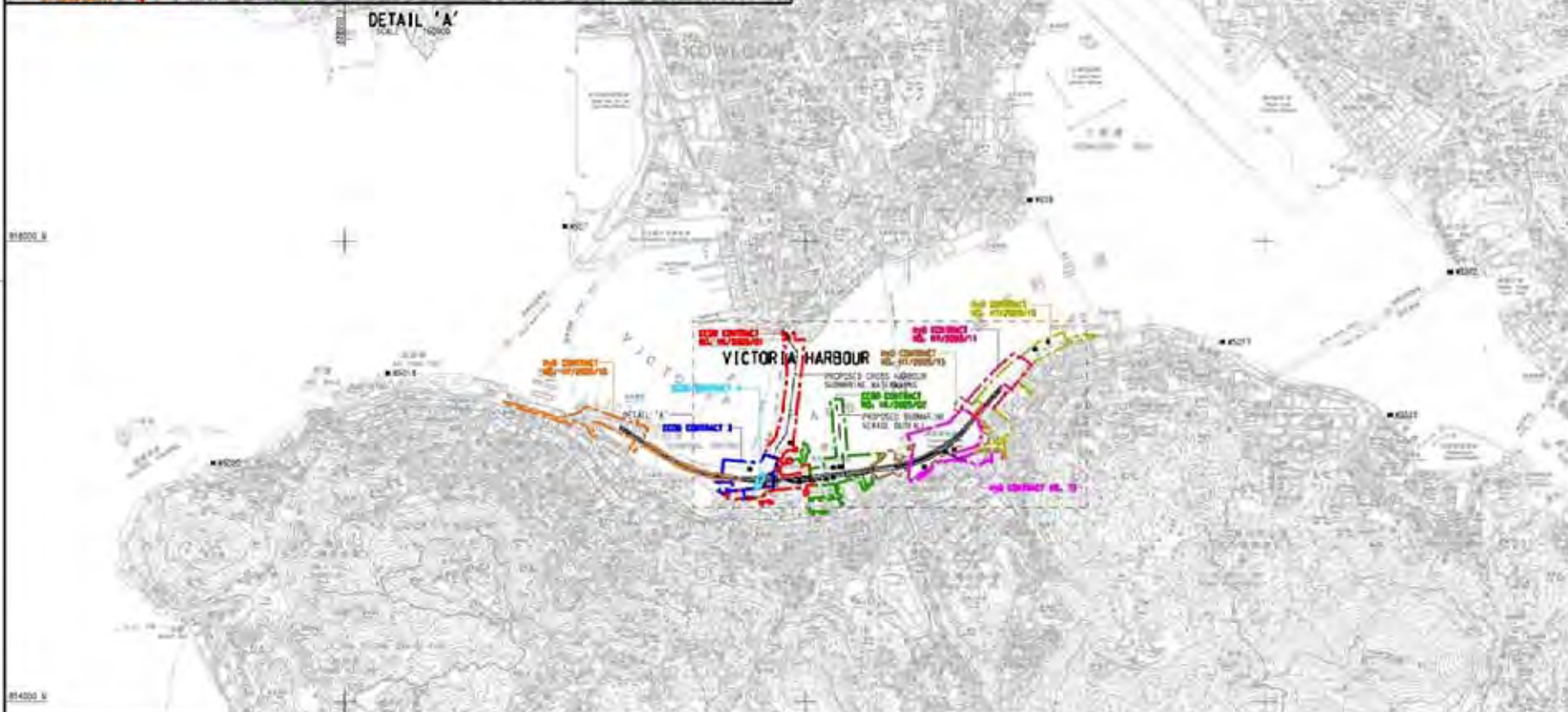
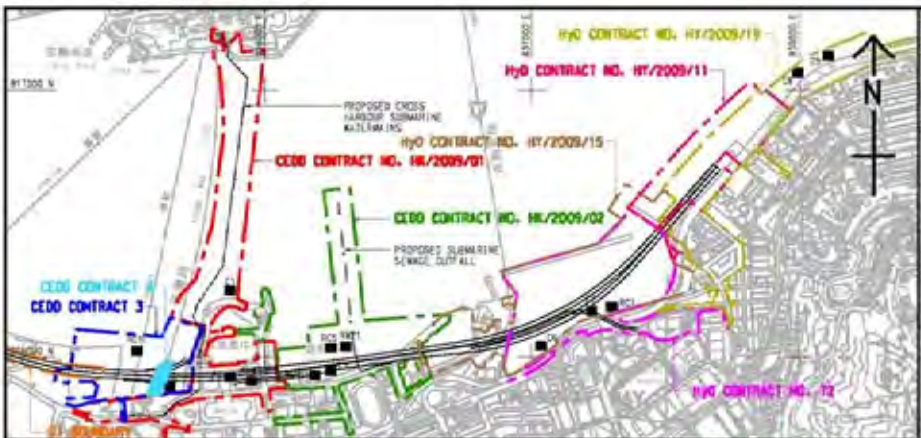
Contract No.	Key Construction Works	Recommended Mitigation Measures
	<ul style="list-style-type: none"> <li>Reinstatement of existing bermstone and seawall at TS4</li> </ul>	
HY/2009/19	<ul style="list-style-type: none"> <li>Construction of Dolphin Cap</li> <li>Construction of Pile Cap F1B</li> </ul>	<ul style="list-style-type: none"> <li>To space out noisy equipment and position as far as possible from sensitive receiver.</li> </ul>
HK/2012/08	<ul style="list-style-type: none"> <li>ELS for box culvert L at Lung King Street</li> <li>Removal of rock armour</li> <li>Dry dock construction</li> <li>Installation of caisson seawall</li> </ul>	<ul style="list-style-type: none"> <li>To conform the installation and setting as in the silt screen and silt curtain deployment plan</li> <li>To space out noisy equipment and position as far as possible from sensitive receiver.</li> <li>Daily visual inspection of silt screen and silt curtain to ensure its operation properly</li> </ul>
HY/2010/08	<ul style="list-style-type: none"> <li>Rock filling works</li> <li>Dredging works</li> <li>Seawall blocks installation</li> <li>Sheet piling works, welding &amp; struts installation works at Outfall Q</li> <li>Seawater intake diversion works</li> <li>Installation of water tank</li> </ul>	<ul style="list-style-type: none"> <li>To conform the installation and setting as in the silt screen and silt curtain deployment plan</li> <li>Daily visual inspection of silt screen and silt curtain to ensure its operation properly</li> </ul>





***Figure 2.1***

***Project Layout***



- LEGEND:**
- WATER QUALITY MONITORING STATIONS
- COOLING WATER INTAKES**
- 01 HONG KONG CONVENTION AND EXHIBITION CENTRE EXTENSION
  - 02 TELECOM HONG KONG ACADEMY 1.01 PERFORMANCE ARTS / SALT ON CENTRE
  - 03 HONG KONG CONVENTION AND EXHIBITION CENTRE PHASE 1
  - 04 NEW ECOLI TOWER AND GREAT EXHIBITION CENTRE
  - 05 SUN HANG KAI CENTRE
  - 06 PROPOSED EXHIBITION STATION / WORLD TRADE CENTRE
  - 07 WINDSOR HOUSE
  - 08 CITY GREEN
  - 09 PROVIDENT CENTRE
  - 102 PROPOSED HERPA EXTENSION
  - 103 SUN HANG KAI CENTRE / REPRODUCTION
  - 107 WINDSOR HOUSE / TEMPORARY REPRODUCTION
- WSD SALT WATER INTAKE**
- #201 WAN CHAI
  - #401 WAN CHAI (REPRODUCTION)
  - #501 CEMILION BAY
  - #601 SA. BAY
  - #620 CHA KWO LING
  - #621 SA. BAY (2)
  - #621T CLARITY BAY
  - #621B SWIRE MAR
  - #621C KENNEDY TOWN

DESIGNATED PROJECT'S TOP	WORK CONTRACT	DESIGNATED PROJECT NUMBER	COMPLETION (APPROXIMATE)
SP1 - CENTRAL WAN CHAI STYASS WORKS INCLUDING 15 ROAD TUNNEL AND SLOPE ROADS	CEOD CONTRACT NO. HK/2009/01	SP1 - SP3 - SP6	APRIL 2010
SP2 - ROAD P2 AND OTHER ROADS (PRIMARY + DISTRICT DISTRIBUTION ROADS)	CEOD CONTRACT NO. HK/2009/02	SP1 - SP3 - SP5	APRIL 2010
SP3 - PERMANENT AND TEMPORARY REDUNDANT WORKS INCLUDING ASSOCIATED DREDGING WORKS IN WAN CHAI DEVELOPMENT PHASE 1T / WSD11 AREA	CEOD CONTRACT 3	SP1 - SP3	END 2011
SP4 - TEMPORARY BRIDGE-SHELTER 1 (SP4 NOT TO BE IMPLEMENTED)	CEOD CONTRACT 4	SP1 - SP3	END 2011
SP5 - WAN CHAI EAST SEWAGE DUCT/FALL	CEOD CONTRACT 5	SP3	2010
SP6 - DREDGING FOR THE CROSS-HARBOUR WATER MAINS	HYD CONTRACT NO. HY/2009/11	SP3	18 AUGUST 2010
	HYD CONTRACT NO. HY/2009/15	SP1 - SP3	SEPTEMBER 2010
	HYD CONTRACT NO. HY/2009/16	SP1	OCTOBER 2010
	HYD CONTRACT NO. HY/2009/18	SP1	NOVEMBER 2010
	HYD CONTRACT 12	SP1 - SP3	MID 2010



**CEOD** 土木工程發展局  
Civil Engineering and Development Department

**WAN CHAI DEVELOPMENT PHASE II**

WAN CHAI DEVELOPMENT PHASE II, PHASE CENTRE - SANITARY FITTING REVISIONS AND TESTING WORKS (STAGE 1)

**LOCATIONS OF WATER QUALITY MONITORING STATIONS**

**AECOM**

DWG NO: 60041297/C5/SK001

DATE: 05/11/2010	SCALE: 1:1000	DATE: 05/11/2010	SCALE: 1:1000
BY: [Signature]	CHECKED BY: [Signature]	DATE: 05/11/2010	SCALE: 1:1000

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**NOTES:**

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

**LEGEND:**

[Dotted pattern]	PORTION NPR1	[Cross-hatch pattern]	PORTION NPR4
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B	WORKING DRAWING	09 DEC 09
A	TENDER ADDENDUM NO. 1	09 OCT 09
-	TENDER DRAWING	09 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**

DRGNO.	60095653/NP/1651B
DESIGNED BY	TTF
CHECKED BY	CJH
DATE	11/2/2009
SCALE	AS SHOWN
UNIT	METRES
APPROVED BY	CW
DATE	11/2/2009
PROJECT NO.	HW/2009/11
WORKING DRAWING	
COPYRIGHT RESERVED	





LOCATION PLAN  
SCALE 1 : 5000

NOTES:  
1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.  
2. THE RESTRICTION ZONE IS THIS DRAWING WILL COME INTO EFFECT AFTER THE OPERATION OF THE GOVERNMENT HULLING AT EDP/D/D/E LAST.

LEGEND:

	CONTRACT BOUNDARY
	WORKING RESTRICTION ZONE
	NAVIGATION AND WORKING RESTRICTION ZONE
	WORKING BARGE, NAVIGATION AND WORKING RESTRICTION ZONE

TENDER ADDENDUM NO. 4	DATE: 21/11/09
TENDER ADDENDUM NO. 1	DATE: 21/11/09
TENDER DRAWING	DATE: 21/11/09

CEDD 土木工程發展署  
Civil Engineering and Development Department

WAN CHAI DEVELOPMENT PHASE II

WAN CHAI DEVELOPMENT PHASE II -  
KONG KONG CONVENTION AND EXHIBITION CENTRE  
**RESTRICTED ZONE FOR  
CONSTRUCTION VESSELS**  
(Contract no: HK/2009/01)

**AECOM**

DRGNO. 圖號	60041297/C1/100/1010B
DATE 日期	16/2009/01
SCALE 比例	AS 1:5000
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INSET 'A'  
SCALE 1:1000

CENTRAL DISTRICT



EIA-141/2007  
DP3

INT	COORDINATES	
	EASTING	NORTHING
C41	85996.526	818105.708
C42	85979.417	818104.468
C43	85962.943	818079.706
C44	85962.543	818086.581
C45	85964.818	818085.528
C46	85969.524	818083.814
C46	85970.797	818081.208
C47	85974.956	818082.441
C48	85980.846	818079.887
C49	85987.347	818077.238
C50	85995.828	818066.814
C51	85998.478	818080.846
C52	85975.226	818089.224
C53	85973.504	818077.897
C54	85975.827	818084.764
C55	85983.745	818070.883
C56	85997.071	818078.764
C56-1	85995.679	818078.873
C56-2	85982.468	818078.765
C56-3	85987.248	818182.758
C57	85989.463	818181.878
C58	85978.496	818087.198
C58	85978.574	818083.818
C59	85978.507	818120.744
C60	85980.881	818184.524
C60	85982.476	818171.812
C61	85975.504	818080.788
C64	85985.818	818076.507

INT	COORDINATES	
	EASTING	NORTHING
C65	85988.903	818418.438
C66	85934.000	818418.614
C67	85922.816	818418.240
C68	85919.515	818418.882
C69	85925.110	818418.000
C70	85927.289	818417.880
C71	85941.050	818418.270
C72	85948.415	818407.187
C72-1	85955.589	818106.587
C73	85947.435	818385.890
C74	85949.797	818374.107
C75	85924.185	818327.148
C76	85938.298	818308.000
C77	85948.906	818362.888
C78	85948.439	818334.038
C79	85942.430	818351.015
C80	85924.635	818328.880
C81	85928.417	818308.182
C82	85924.882	818378.148
C83	859107.025	818326.084
C84	85926.473	818322.444
C85	85982.342	818348.714
C86	85968.499	818348.925
C87	85968.196	818348.388
C88	85962.512	818348.142
C89	85978.987	818425.898
C90	85977.430	818437.198



KEY PLAN  
SCALE 1:10000

NOTE:  
1. FOR NOTES & LEGEND, REFER TO DRAWING NO. 60041297/C1/100/1006.

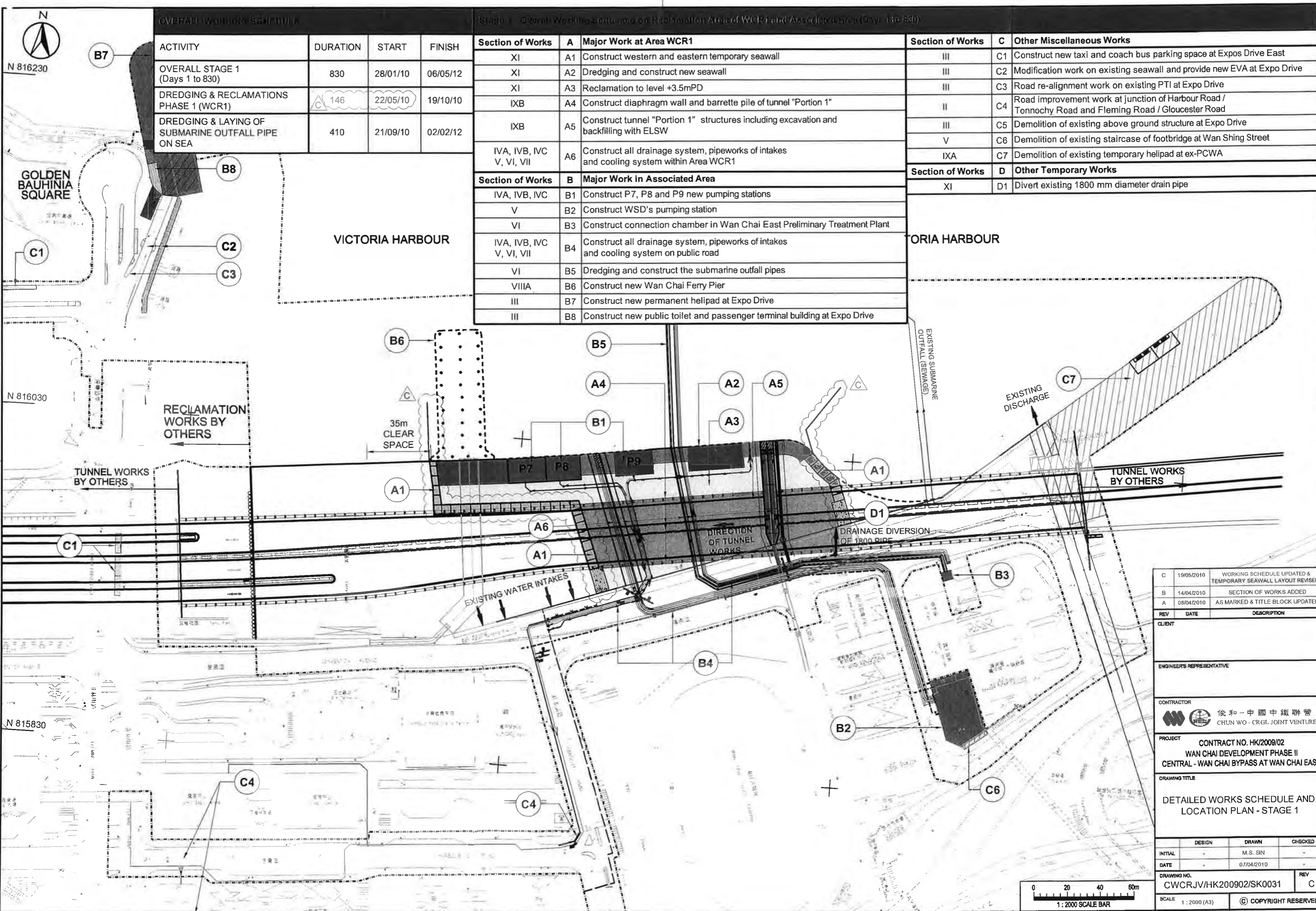
INT	COORDINATES	
	EASTING	NORTHING
C1	859879.205	818222.559
C2	85979.271	818082.299
C3	85944.561	818084.825
C4	85941.020	818081.014
C5	85982.482	818029.522
C6	85983.584	818081.612
C7	85986.545	818081.787
C8	85989.191	818081.147
C9	85948.433	818082.241
C10	85949.182	818081.060
C11	85948.389	818080.075
C12	85947.486	818080.107
C13	85955.468	818084.817
C14	85948.433	818081.122
C15	859474.285	818084.500
C16	85947.195	818084.525
C17	85948.138	818084.441
C18	85946.085	818084.816
C19	85978.421	818080.587
C20	85970.537	818120.881
C21	85971.285	818121.484
C22	85973.182	818084.545
C23	85987.086	818080.074
C24	85978.984	818081.670
C25	85975.280	818080.251
C26	85981.647	818082.286
C27	85984.025	818083.836
C28	85978.218	818084.545
C29	85981.525	818080.180
C30	85983.781	818080.687
C31	85983.216	818082.470
C32	85984.142	818082.117
C33	85981.081	818084.582
C34	85982.290	818084.700
C35	85982.428	818084.586
C36	85980.187	818084.280
C37	85982.812	818084.080
C38	85979.747	818084.285
C39	85982.850	818084.784
C40	85981.190	818084.037
C41	85982.810	818083.285
C42	85981.806	818084.080
C43	85985.682	818084.582

C	TENDER ADDENDUM NO.4	SHEN JYL SEP 08
B	TENDER ADDENDUM NO.2	SHEN JYL SEP 08
A	TENDER ADDENDUM NO.1	SHEN JYL SEP 08
-	TENDER DRAWING	SHEN JYL AUG 08
00	REVISION	SHEN JYL SEP 08


**土木工程發展署**  
 Civil Engineering and Development Department  
**WAN CHAI DEVELOPMENT PHASE II**  
 WAI CHAI DEVELOPMENT PHASE II -  
 CENTRAL AND WEST DISTRICTS  
 HONG KONG CONVENTION AND EXHIBITION CENTRE  
**SITE BOUNDARY SETTING OUT PLAN**  
 (Contract no. HK/2009/01)

**AECOM**  
 DRGNO. 60041297/C1/100/1006C  
 SHEET NO. 01 OF 01  
 DATE: 08/2009/01  
 SCALE: AS SHOWN  
 DRAWN BY: JYL  
 CHECKED BY: JYL  
 APPROVED BY: JYL  
 DATE: 08/2009/01  
 PROJECT NO.: HK/2009/01  
 CONTRACT NO.: HK/2009/01  
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**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)	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 Schedules 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 heliport 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 heliport at ex-PCWA
Section of Works	D	Other Temporary Works
XI	D1	Divert existing 1800 mm diameter drain pipe

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: \_\_\_\_\_

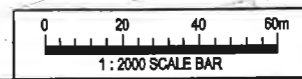
ENGINEER'S REPRESENTATIVE: \_\_\_\_\_

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

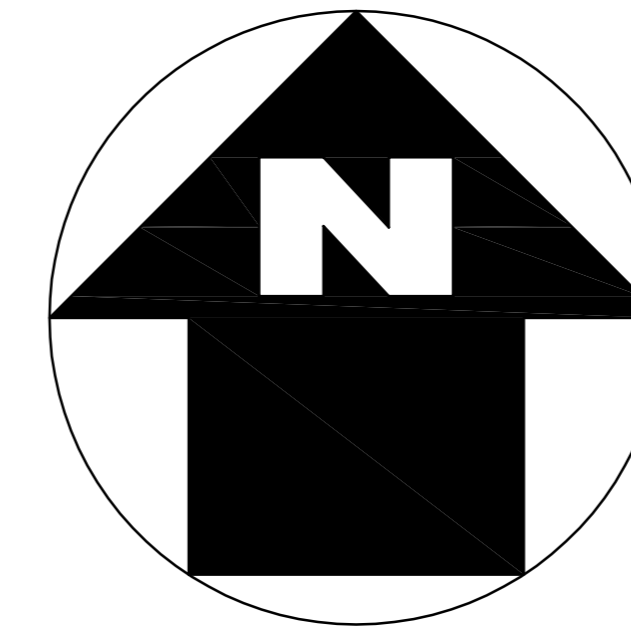
DRAWING TITLE: DETAILED WORKS SCHEDULE AND LOCATION PLAN - STAGE 1

DESIGN	DRAWN	CHECKED
INITIAL: -	M.S. SIN	-
DATE: -	07/04/2010	-
DRAWING NO. CWCRJV/HK200902/SK0031	REV C	
SCALE: 1:2000 (A3)	© COPYRIGHT RESERVED	

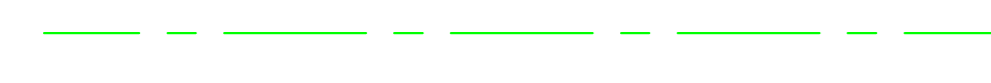




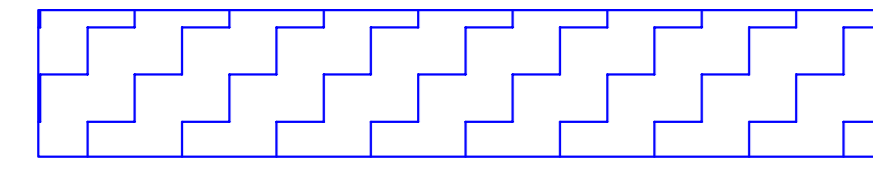
港口  
HARBOUR



LEGEND:



WORKS AREA



DREDGING AREA FOR  
MITIGATION OF ODOUR(DP3)



SITE BOUNDARY

TCBR1E

TCBR2  
AND  
TCBR3

TCBR4

TCBR1W

TPCWAW

TPCWAE

DP3

銅鑼灣避風塘  
CAUSEWAY BAY TYPHOON SHELTER

吉列島  
KELLETT ISLAND

貨物裝卸灣  
Cargo Handling Basin

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

Highways Department  
CONTRACT NO. HY/2009/15  
CENTRAL-WAN CHAI BYPASS -TUNNEL  
(CAUSEWAY BAY TYPHOON  
SHELTER SECTION)

TITLE  
LOCATION PLAN OF WORKS AREA

DRG. NO.  
CWBT/EPD/001B

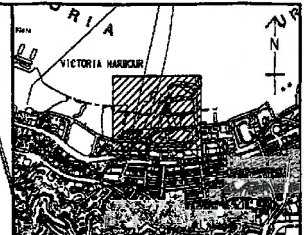
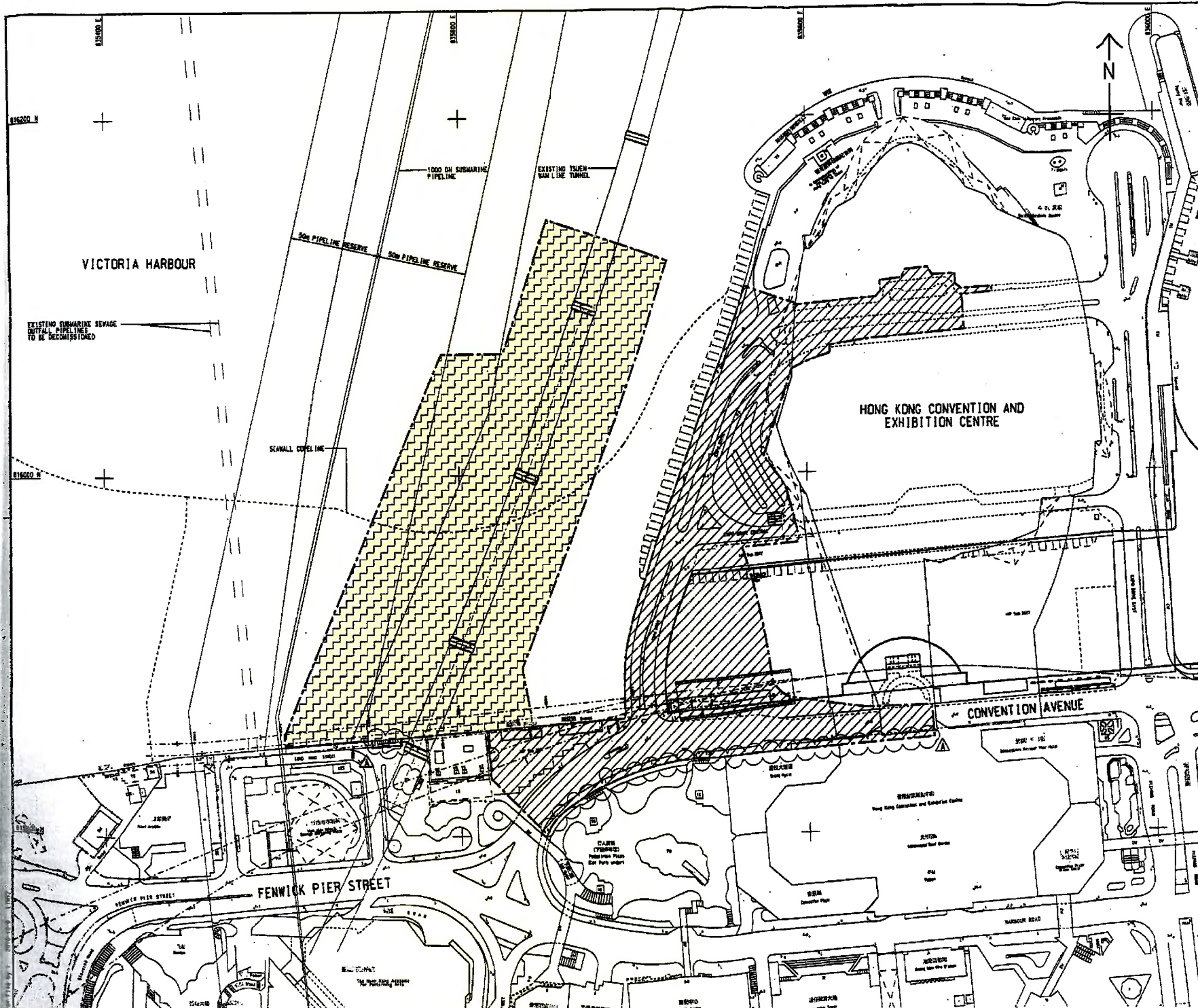
SCALE  
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STATUS  
DIMENSIONS ARE IN  
MILLIMETERS

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Victoria Park





**KEY PLAN**  
SCALE 1 : 20000

- NOTES:**
- COORDINATES ARE BASED ON HONG KONG METRIC GRID (1980) UNLESS OTHERWISE NOTED.
  - LEVELS ARE IN METRES RELATIVE TO HONG KONG PRINCIPAL DATUM (1985) UNLESS OTHERWISE NOTED.
  - DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
  - 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.
  - SITE BOUNDARY SETTING OUT POINTS SHALL REFER TO DRAWING NO. 60041297/C4/100/1201.

- LEGEND:**
- SITE BOUNDARY
  - PORTION 1
  - PORTION 2 (DELAY POSSESSION)

TENDER ADDENDUM NO.1	SWH JYL OCT 10
TENDER DRAWING	SWH JYL SEP 10


**土木工務發展局**  
 Civil Engineering and  
 Development Department  
**WAN CHAI DEVELOPMENT PHASE II**  
 WAN CHAI DEVELOPMENT PHASE II -  
 CENTRAL-WAN CHAI STAFFS OVER MTR TSUEN WAN LINE  
**PORTIONS OF THE SITE**  
 (Contract HK/2010/06)

**AECOM**

DRAWING NO. 60041297/C4/100/1301A			
DESIGNED BY	SWH	CHECKED BY	TRH
DRAWN BY	ADC	DATE	10/2010/06
SCALE	AS LISTED	COPYRIGHT RESERVED	



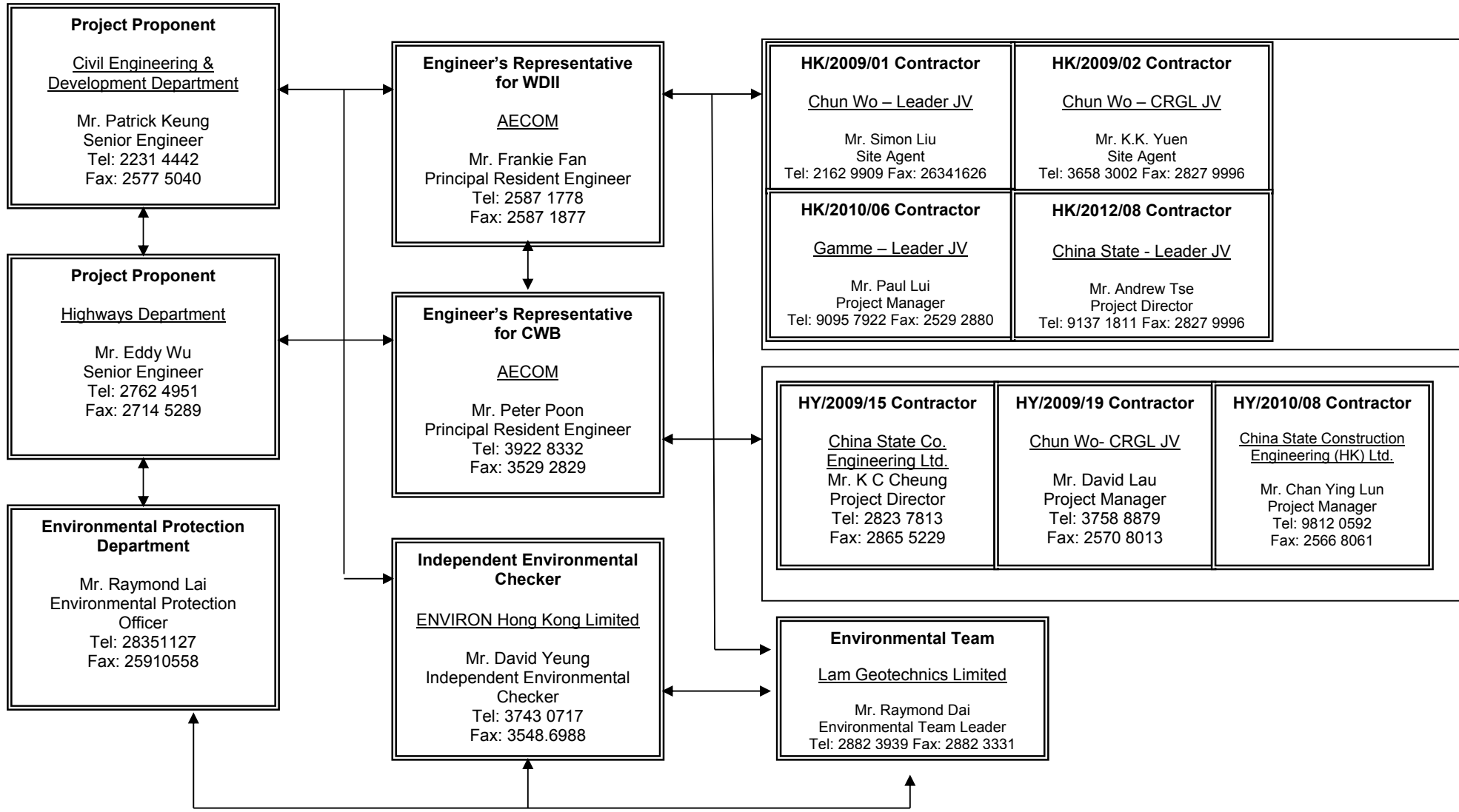


***Figure 2.2***

***Project Organization Chart***



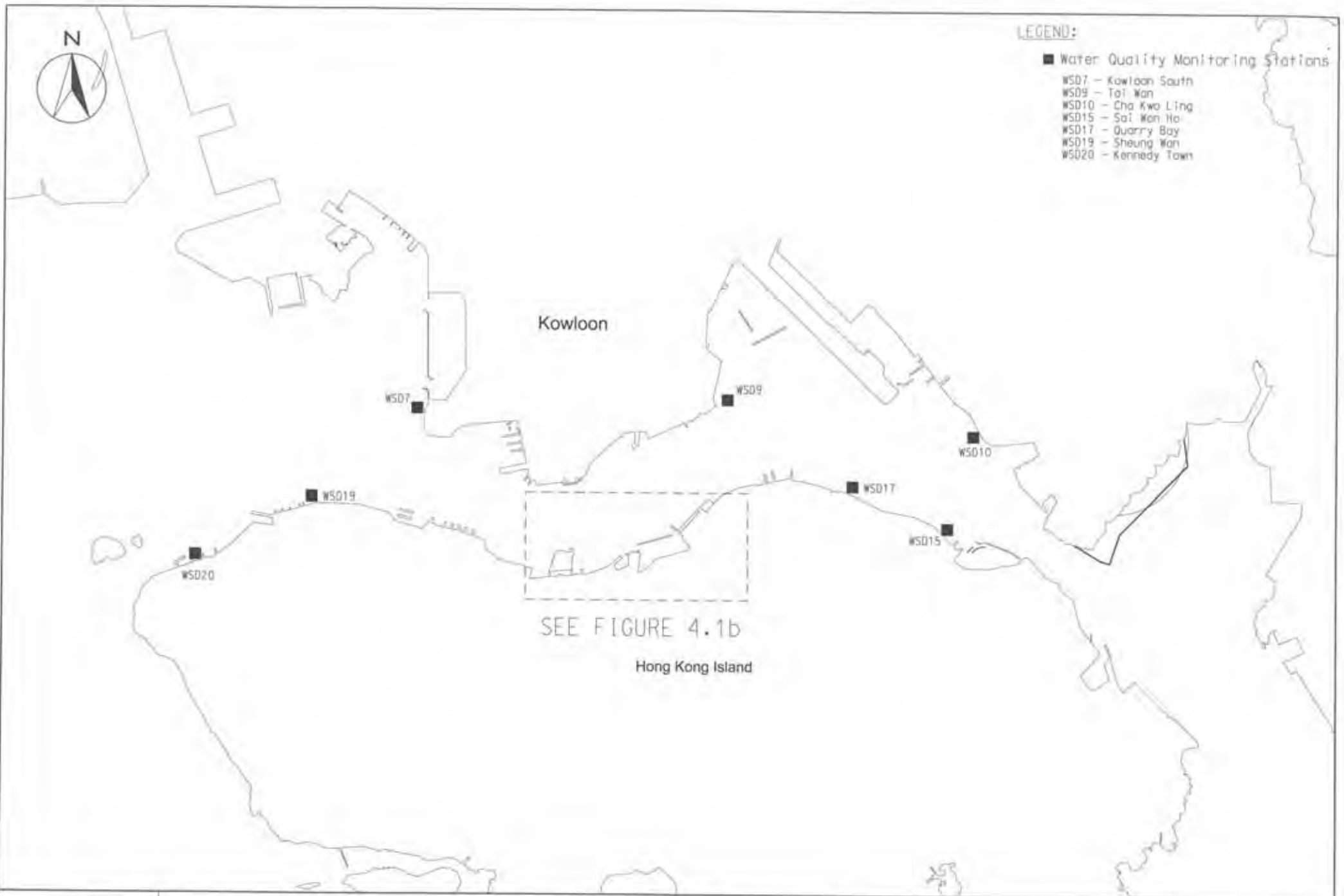
**Project Organization Chart**





***Figure 4.1***

***Locations of Monitoring Stations***



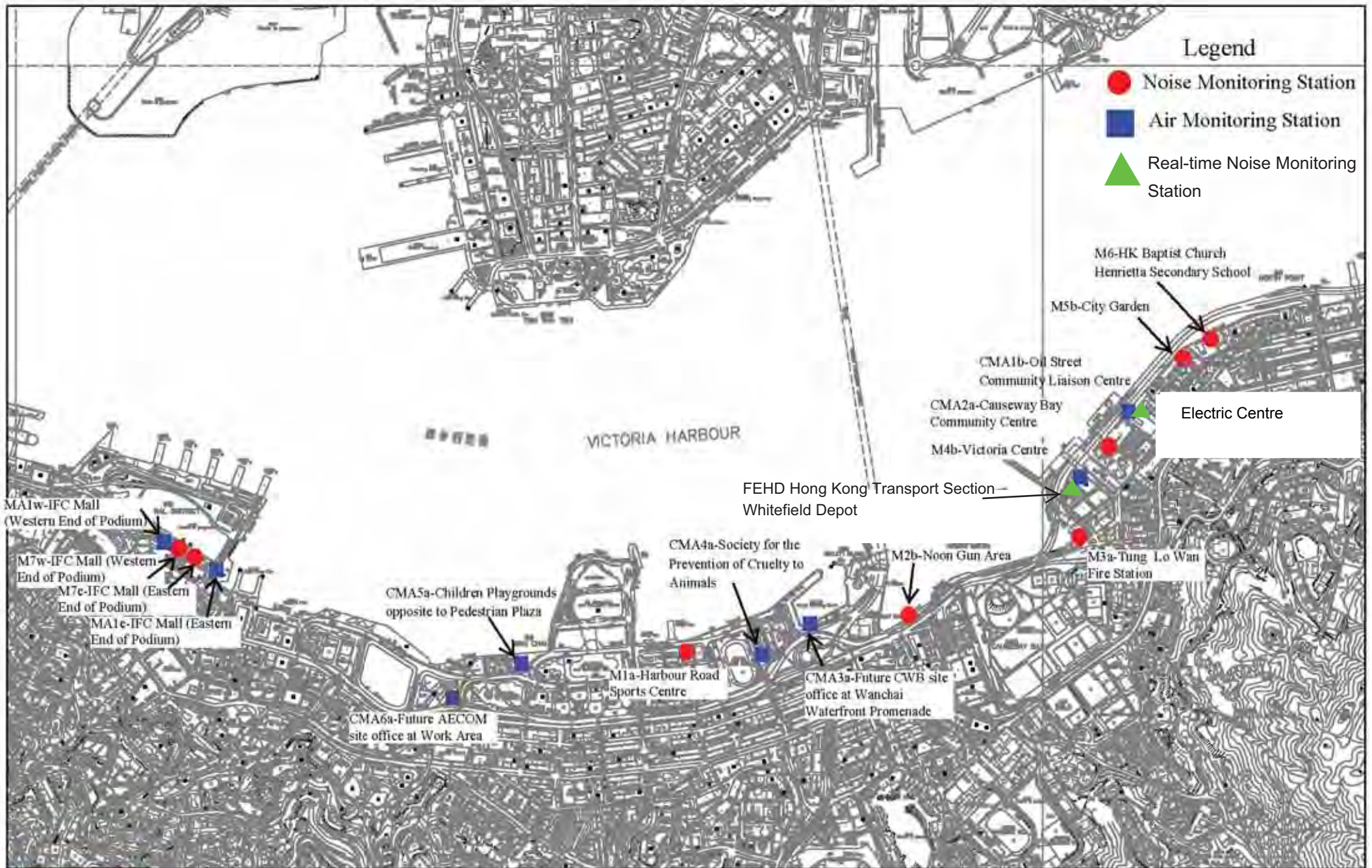
**LEGEND:**

**WATER QUALITY MONITORING STATIONS**

- C1 HONG KONG CONVENTION AND EXHIBITION CENTRE EXTENSION
- C2 TELECOM HOUSE/HK ACADEMY FOR PERFORMING/ 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 HKAPA EXTENSION
- RC5 SUN HUNG KAI CENTRE (REPROVISION)
- RC7 WINDSOR HOUSE (TEMPORARY REPROVISION)
- WSD21 WAN CHAI
- RW1 WAN CHAI (REPROVISION)





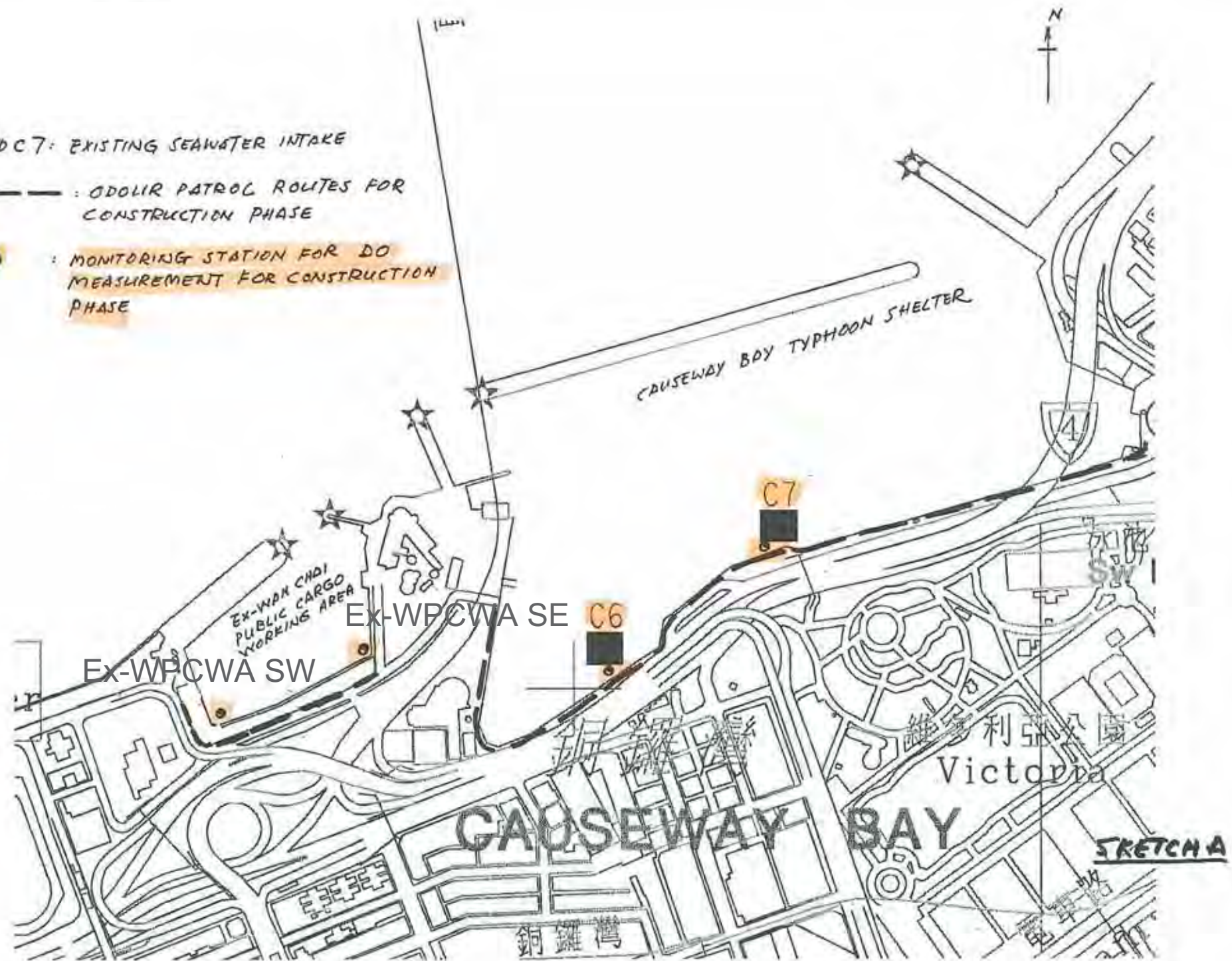




C6 AND C7: EXISTING SEAWATER INTAKE


— : ODOLIR PATROL ROUTES FOR CONSTRUCTION PHASE

● : MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE




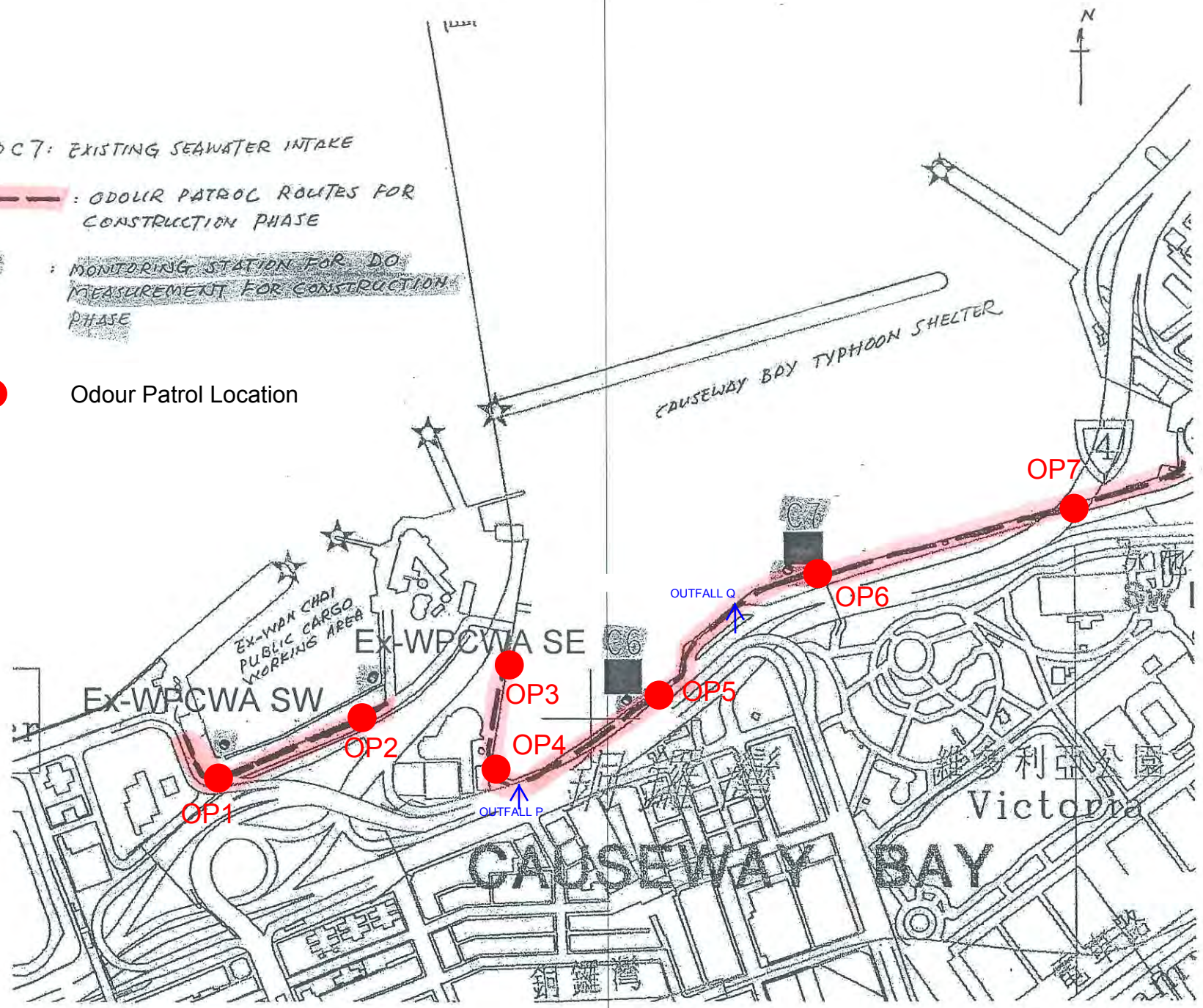


C6 AND C7: EXISTING SEAWATER INTAKE

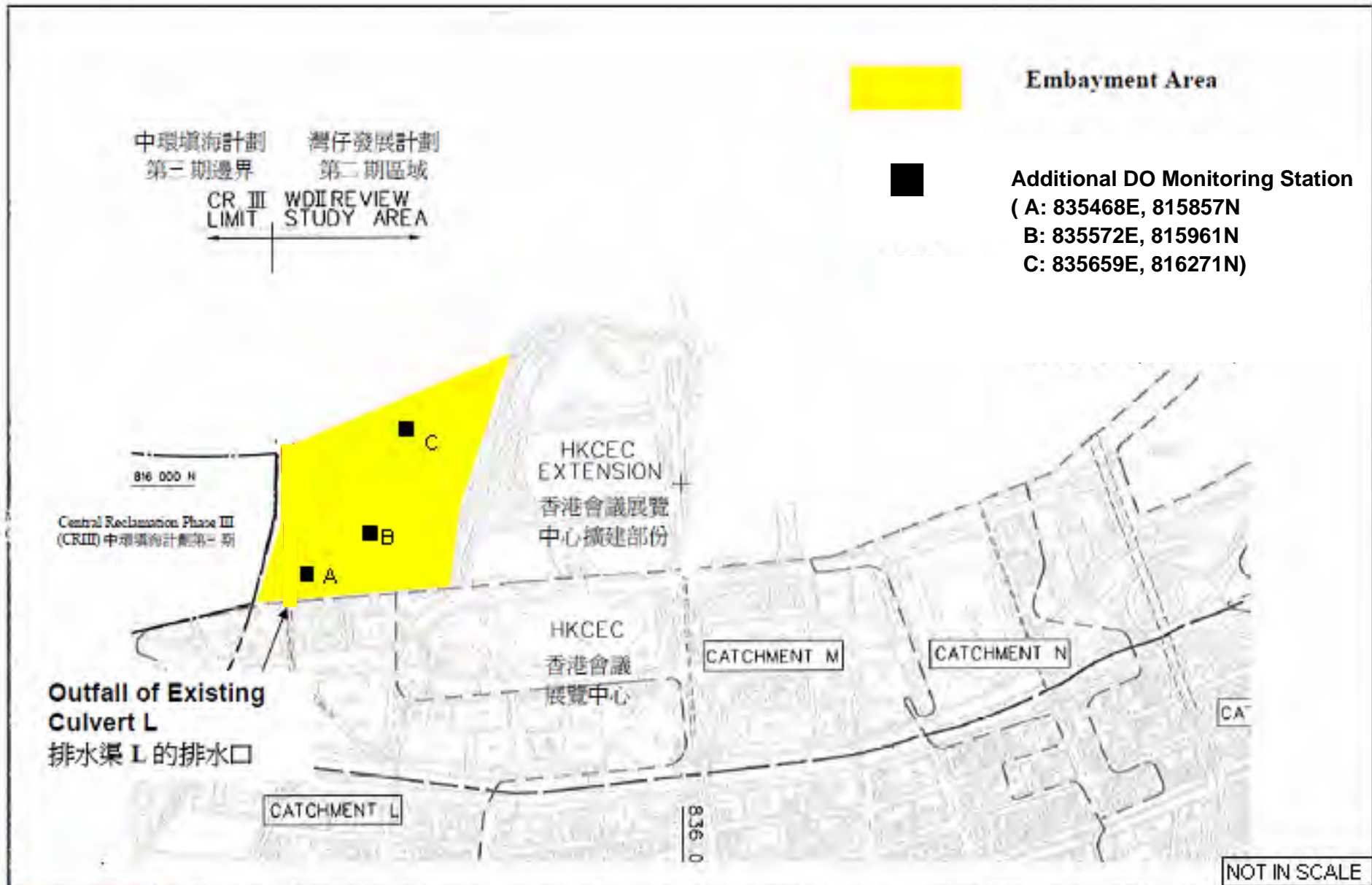
 : ODOR PATROL ROUTES FOR CONSTRUCTION PHASE

 : MONITORING STATION FOR DO MEASUREMENT FOR CONSTRUCTION PHASE

 Odour Patrol Location



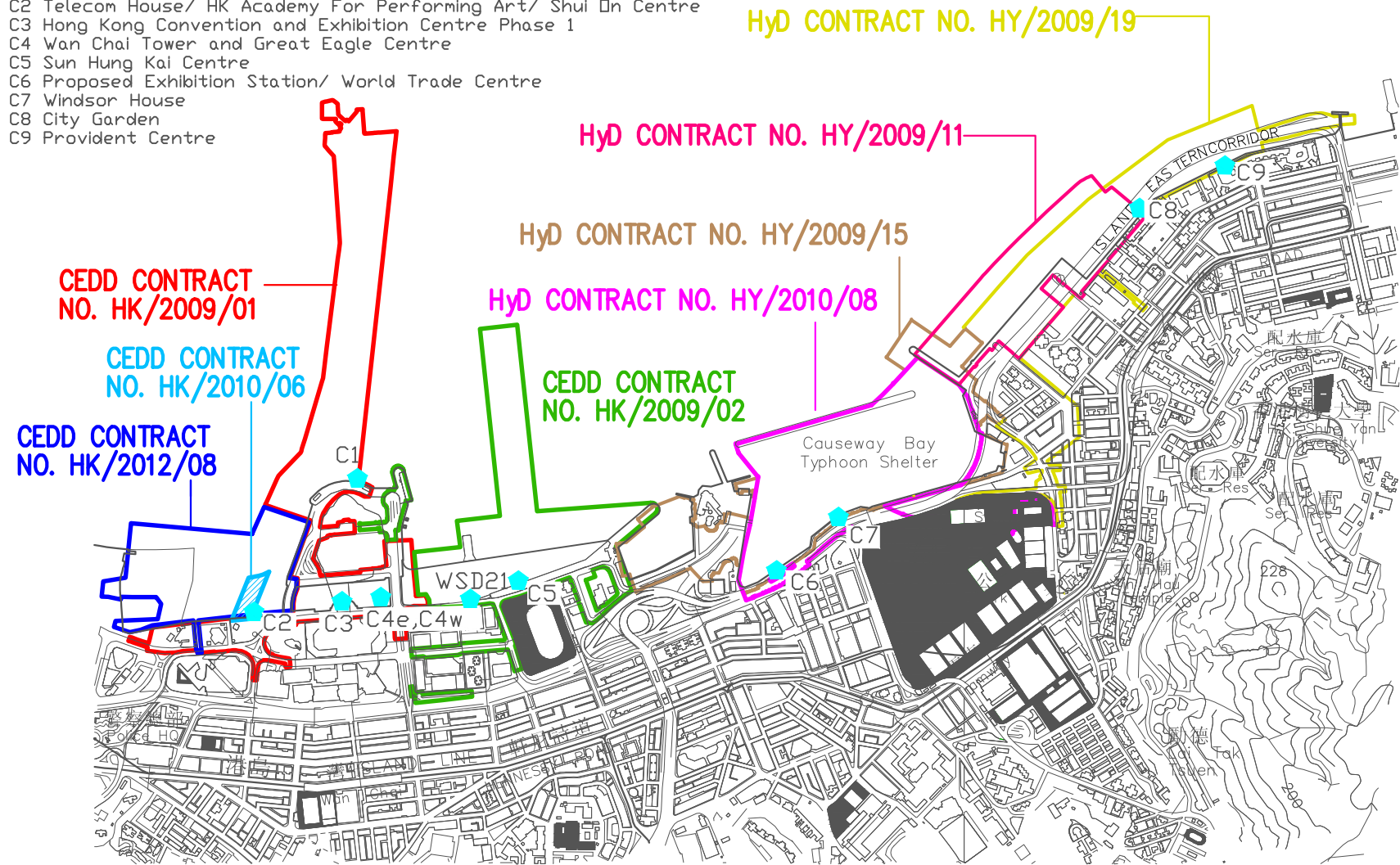




Location Plan of Additional Dissolved Oxygen Monitoring Stations for Culvert L Water Discharge Flow

**Legend**

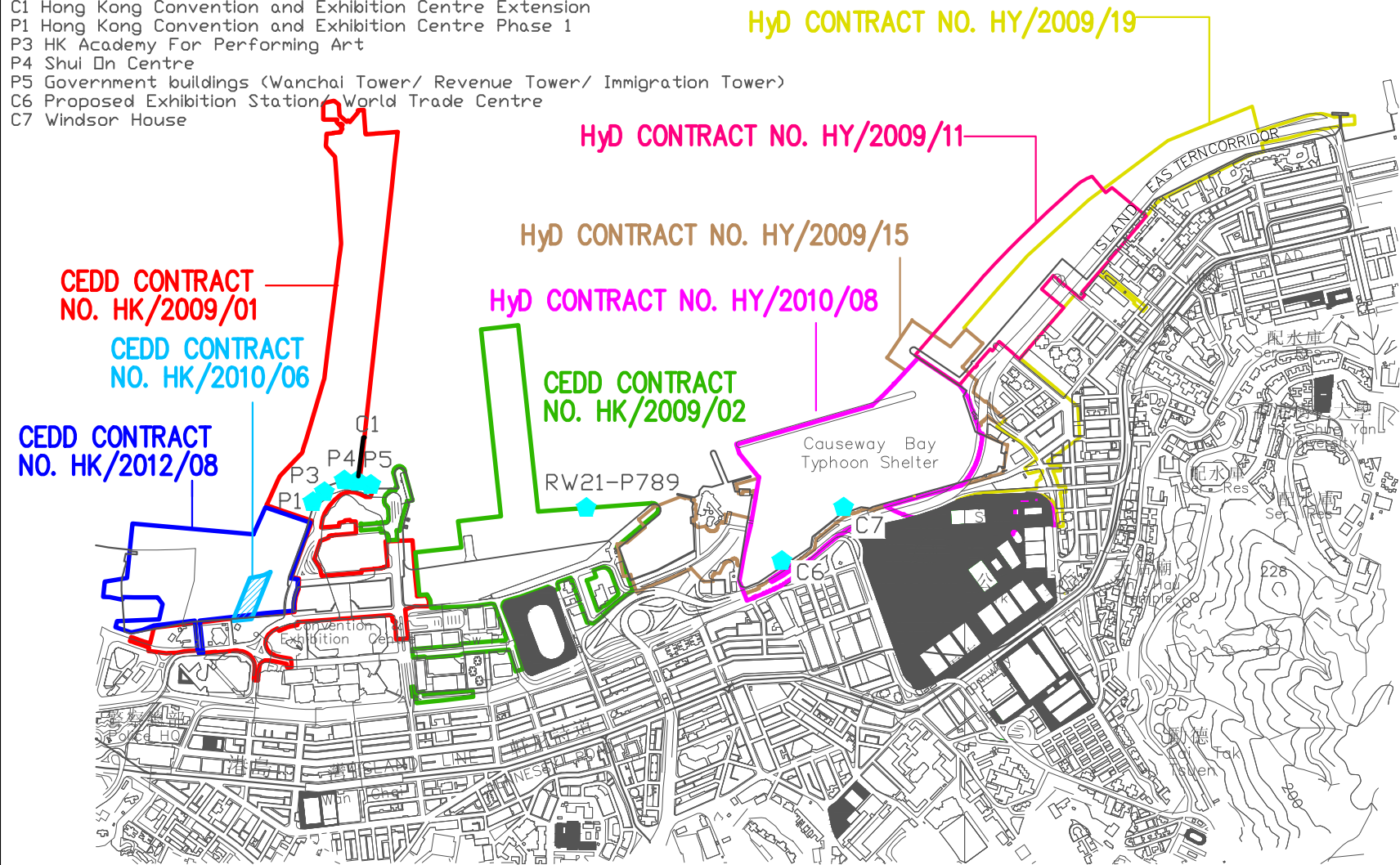
- ◆ Water Quality Monitoring Stations
- C1 Hong Kong Convention and Exhibition Centre Extension
- C2 Telecom House/ HK Academy For Performing Art/ Shui On Centre
- C3 Hong Kong Convention and Exhibition Centre Phase 1
- C4 Wan Chai Tower and Great Eagle Centre
- C5 Sun Hung Kai Centre
- C6 Proposed Exhibition Station/ World Trade Centre
- C7 Windsor House
- C8 City Garden
- C9 Provident Centre



# LOCATIONS OF WATER QUALITY MONITORING STATIONS

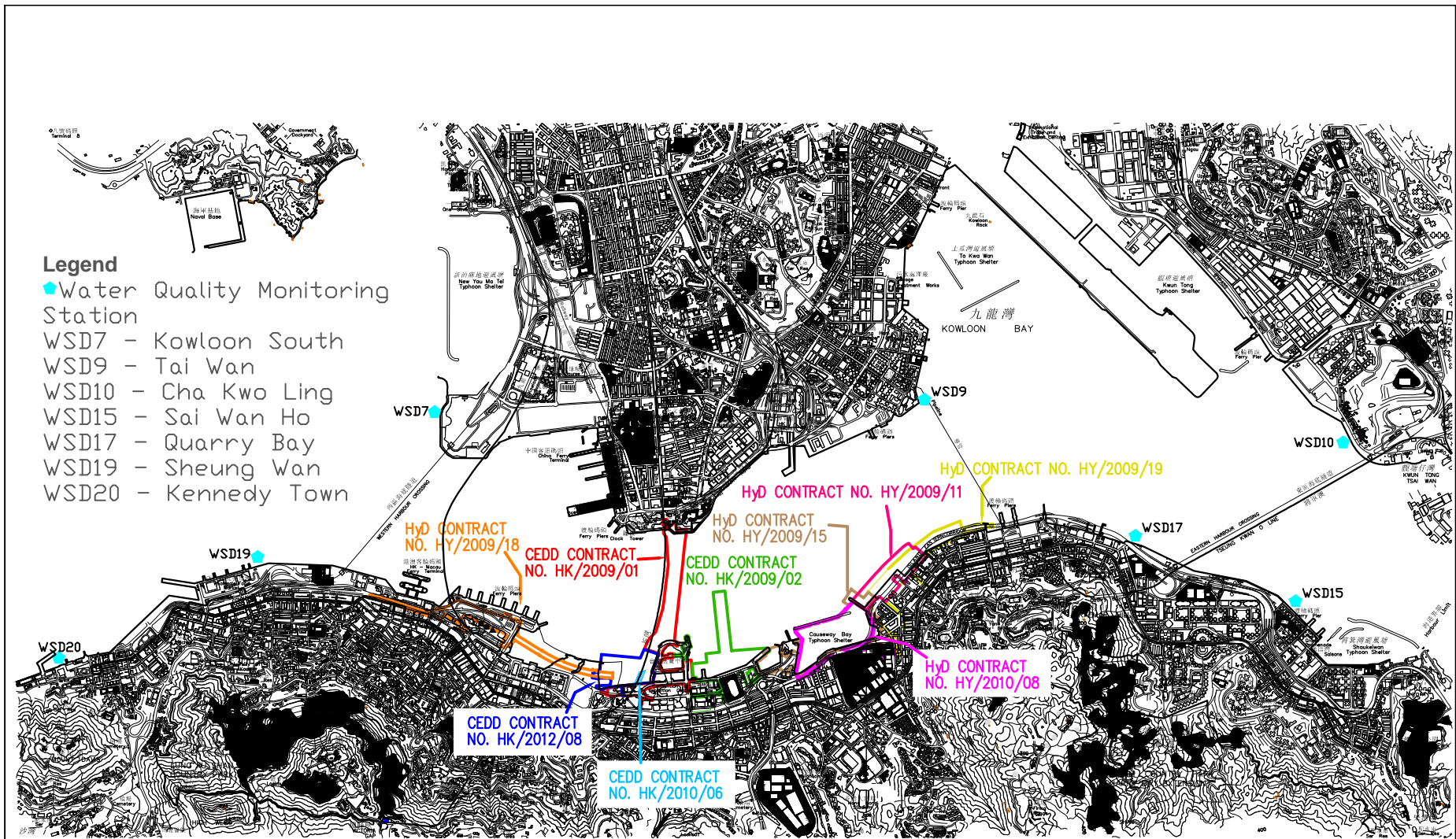
**Legend**

- ◆ Water Quality Monitoring Stations
- RW21-P789 (Wanchai WSD intake/ Great Eagle Centre/ China Resources Centre/ Sun Hung Kai Centre)
- C1 Hong Kong Convention and Exhibition Centre Extension
- P1 Hong Kong Convention and Exhibition Centre Phase 1
- P3 HK Academy For Performing Art
- P4 Shui On Centre
- P5 Government buildings (Wanchai Tower/ Revenue Tower/ Immigration Tower)
- C6 Proposed Exhibition Station/ World Trade Centre
- C7 Windsor House



# LOCATIONS OF WATER QUALITY MONITORING STATIONS





**LOCATIONS OF WATER QUALITY MONITORING STATIONS**

**Legend**

- Additional □ Monitoring Station

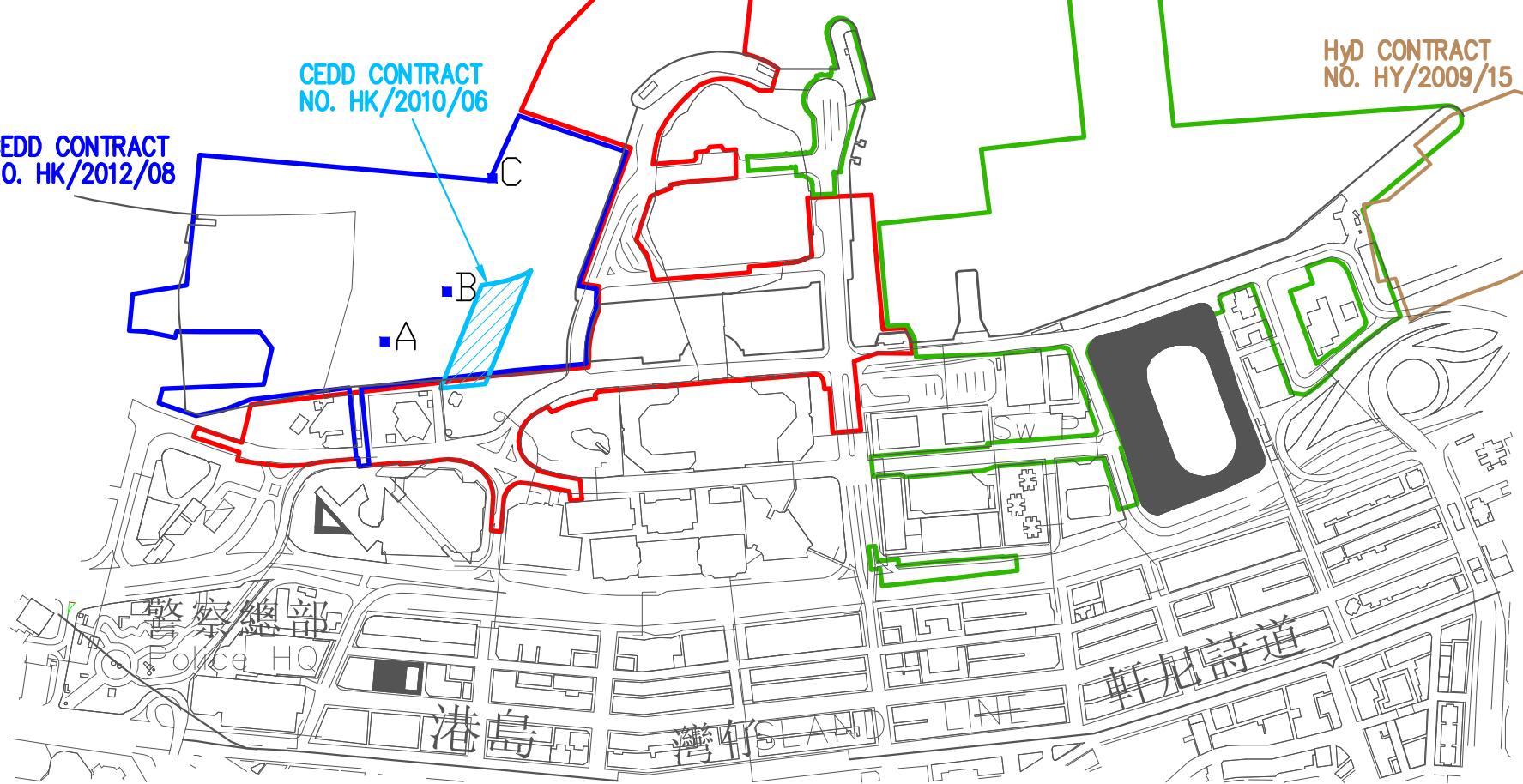
CEDD CONTRACT  
NO. HK/2012/08

CEDD CONTRACT  
NO. HK/2010/06

CEDD CONTRACT  
NO. HK/2009/01

CEDD CONTRACT  
NO. HK/2009/02

HyD CONTRACT  
NO. HY/2009/15



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



***Appendix 3.1***

***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	
<b>Construction Phase</b>								
<i>For the Whole Project</i>								
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. <ul style="list-style-type: none"> <li>Strictly limit the truck speed on site to below 10 km per hour and water spraying to keep the haul roads in wet condition;</li> <li>Watering during excavation and material handling;</li> <li>Provision of vehicle wheel and body washing facilities at the exit points of the site, combined with cleaning of public roads where necessary; and</li> <li>Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations.</li> </ul>	Work site / during construction	Contractor		√			

Appendix 3.1

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 <sup>1</sup>		√			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 <sup>2</sup>		√			EIAO-TM
<b>Operation Phase</b>								
<i>For the Whole Project</i>								

<sup>1</sup> CEDD will identify an implementation agent.<sup>2</sup> CEDD will identify an implementation agent.

Appendix 3.1

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 <sup>1</sup>			√		EIAO-TM
<b>For DPI – CWB (Within the Project Boundary)</b>								
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

**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	
<b>Construction Phase</b>								
<b>For the Whole Project</b>								



EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S4.9.4	<p>Good Site Practice:</p> <ul style="list-style-type: none"> <li>Only well-maintained plant shall be operated on-site and plant shall be serviced regularly during the construction program.</li> <li>Silencers or mufflers on construction equipment shall be utilized and shall be properly maintained during the construction program.</li> <li>Mobile plant, if any, shall be sited as far away from NSRs as possible.</li> <li>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.</li> <li>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.</li> <li>Material stockpiles and other structures shall be effectively utilized, wherever practicable, in screening noise from on-site construction activities.</li> </ul>	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
<i>For DP1 – CWB (Within the Project Boundary)</i>								

Appendix 3.1

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	<p>Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks:</p> <ul style="list-style-type: none"> <li>Slip road 8 tunnel</li> <li>Construction of diaphragm wall and substructures of the tunnel approach ramp</li> <li>Excavation</li> <li>Construction of slabs</li> <li>Backfill</li> <li>Demolition and construction of substructures for the IEC</li> <li>Demolition works of existing piers and crossheads of the marine section of the existing IEC</li> </ul> <p>Use of PME grouping for the following tasks:</p> <ul style="list-style-type: none"> <li>At-grade road construction</li> <li>Substructure for IECL connection</li> </ul>	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
<i>For DP2 – WDII Major Roads (Road P2)</i>								
S4.8.3 – S4.8.4	<p>Use of quiet powered mechanical equipment, movable noise barrier and temporary noise barrier for the following tasks:</p> <ul style="list-style-type: none"> <li>Temporary road diversion</li> <li>Resurfacing</li> <li>At-grade roadwork</li> </ul>	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
<i>For DP3 – Reclamation Works</i>								
S4.8.3 – S4.8.4	<p>Use of quiet powered mechanical equipment for the following task:</p> <ul style="list-style-type: none"> <li>Filling behind seawall</li> <li>Seawall construction</li> </ul>	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
<b>For DP5 – Wan Chai East Sewage Outfall</b>								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: <ul style="list-style-type: none"> <li>Submarine pipelines (marine section)</li> </ul> Use of quiet powered mechanical equipment and movable noise barrier for the following tasks: <ul style="list-style-type: none"> <li>Installation of a new pipeline (land section)</li> </ul>	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO
<b>For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui</b>								
S4.8.3 – S4.8.4	Use of quiet powered mechanical equipment for the following tasks: <ul style="list-style-type: none"> <li>Submarine pipelines (marine section)</li> </ul>	Work Sites / During Construction	Contractor		√			EIAO-TM, NCO

Appendix 3.1

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

Appendix 3.1

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	<ul style="list-style-type: none"> <li>For Existing NSRs</li> <li>about 235m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC</li> <li>about 230m length of noise semi-enclosure with transparent panel covering the main carriageways (eastbound and westbound) of the CWB and IEC</li> <li>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</li> <li>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</li> <li>about 350m length of 3.5m high vertical noise barrier with transparent panel on the eastbound slip road to the IEC</li> <li>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</li> </ul> For Future/Planned NSRs <ul style="list-style-type: none"> <li>about 265m length of noise semi-enclosure with transparent panel covering the westbound slip road from the IEC</li> </ul>	Near North Point / Before commencement of operation of road project  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	√	√	√		EIAO-TM
				√	√ <sup>#</sup>			

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> <li>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.</li> </ul>	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

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

Appendix 3.1

**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	
<b>Construction Phase</b>								
<i>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)</i>								
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: <ul style="list-style-type: none"> <li>• Seawall construction in all the reclamation areas;</li> <li>• Construction of the CWB Tunnel</li> <li>• Construction of the proposed WSD water mains; and</li> <li>• Construction of the proposed Wan Chai East sewage outfall pipelines.</li> </ul>	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: <ul style="list-style-type: none"> <li>• Dredging along the proposed cross-harbour water mains;</li> <li>• Dredging along the seawall in the Wan Chai Reclamation (WCR) zone (area between HKCEC Extension and PCWA).</li> </ul>	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines																								
				Des	C	O	Dec																									
S5.8	The water body behind the temporary reclamations within the Causeway Bay typhoon shelter shall not be fully enclosed.	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																								
S5.8	As a mitigation measure, to avoid the accumulation of water borne pollutants within the temporary embayment between CR111 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																								
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">Reclamation Area</th> <th colspan="2">Maximum Dredging Rate</th> <th rowspan="2">Maximum Dredging Rate (m<sup>3</sup> per week)</th> </tr> <tr> <th>m<sup>3</sup> per day</th> <th>m<sup>3</sup> per hour (for 16 hrs per day)</th> </tr> </thead> <tbody> <tr> <td colspan="4"><b>Dredging along seawall or breakwater</b></td> </tr> <tr> <td>North Point Shoreline Zone (NPR)</td> <td>6,000</td> <td>375</td> <td>42,000</td> </tr> <tr> <td>Causeway Bay</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>Shoreline Zone</td> <td>6,000</td> <td>375</td> <td>42,000</td> </tr> <tr> <td>PCWA Zone</td> <td>5,000</td> <td>313</td> <td>35,000</td> </tr> </tbody> </table>		Reclamation Area	Maximum Dredging Rate		Maximum Dredging Rate (m <sup>3</sup> per week)	m <sup>3</sup> per day	m <sup>3</sup> per hour (for 16 hrs per day)	<b>Dredging along seawall or breakwater</b>				North Point Shoreline Zone (NPR)	6,000	375	42,000	Causeway Bay	1,500	94	10,500	Shoreline Zone	6,000	375	42,000	PCWA Zone	5,000	313	35,000					
Reclamation Area	Maximum Dredging Rate		Maximum Dredging Rate (m <sup>3</sup> per week)																													
	m <sup>3</sup> per day	m <sup>3</sup> per hour (for 16 hrs per day)																														
<b>Dredging along seawall or breakwater</b>																																
North Point Shoreline Zone (NPR)	6,000	375	42,000																													
Causeway Bay	1,500	94	10,500																													
Shoreline Zone	6,000	375	42,000																													
PCWA Zone	5,000	313	35,000																													

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures				Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines																						
							Des	C	O	Dec																							
	<table border="1"> <tr> <td>Wan Chai Shoreline Zone (WCR)</td> <td>6,000</td> <td>375</td> <td>42,000</td> </tr> <tr> <td>HKCEC Shoreline Zone (HKCEC)</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>HKCEC Stage 1 &amp; 3</td> <td>6,000</td> <td>375</td> <td>42,000</td> </tr> <tr> <td>HKCEC Stage 2</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>Cross Harbour Water Mains</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> <tr> <td>Wan Chai East Submarine Sewage Pipeline</td> <td>1,500</td> <td>94</td> <td>10,500</td> </tr> </table> <p>Note: 1,500 m<sup>3</sup> per day shall be applied for construction of the western seawall of WCR1.</p>	Wan Chai Shoreline Zone (WCR)	6,000	375	42,000	HKCEC Shoreline Zone (HKCEC)	1,500	94	10,500	HKCEC Stage 1 & 3	6,000	375	42,000	HKCEC Stage 2	1,500	94	10,500	Cross Harbour Water Mains	1,500	94	10,500	Wan Chai East Submarine Sewage Pipeline	1,500	94	10,500								
Wan Chai Shoreline Zone (WCR)	6,000	375	42,000																														
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Cross Harbour Water Mains	1,500	94	10,500																														
Wan Chai East Submarine Sewage Pipeline	1,500	94	10,500																														
S5.8, Figure 5.3	Dredging along the seawall at WCR1 shall be undertaken initially at 1,500m <sup>3</sup> 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	<p>Silt screens shall be applied to seawater intakes at interim construction stages as stated below:</p> <table border="1"> <thead> <tr> <th>Interim Construction Stage</th> <th>Location of Applications</th> </tr> </thead> <tbody> <tr> <td>Scenario 2A in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA,</td> <td>WSD saltwater intakes at Sai Wan Ho, Quarry Bay, Sheung Wan, Wan Chai, Kowloon South</td> </tr> <tr> <td></td> <td>Cooling water intakes for Hong Kong Convention and Exhibition Centre Extension, Hong Kong</td> </tr> </tbody> </table>				Interim Construction Stage	Location of Applications	Scenario 2A in early 2009 with concurrent dredging activities at HKCEC, WCR, TPCWA,	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	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO																
Interim Construction Stage	Location of Applications																																
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	Cooling water intakes for Hong Kong Convention and Exhibition Centre Extension, Hong Kong																																

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures		Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
					Des	C	O	Dec	
	TBW, NP and Water Mains Zone	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							
	Scenario 2B in late 2009/2010 with concurrent dredging activities at Sewage Pipelines Zone and TCBR.	WSD saltwater intakes at Sheung Wan, Wan Chai Cooling water intakes for Queensway Government Offices, Excelsior Hotel, World Trade Centre and Windsor House.							
	Scenario 2C in 2011 with concurrent dredging activities at HKCEC and TCBR.	WSD saltwater intakes at Sheung Wan and Re-provisioned WSD Wan Chai saltwater intake. Cooling water intakes for MTR South, Excelsior Hotel & World Trade Centre and re-provisioned Windsor House.							
S5.8	<p>Other mitigation measures include:</p> <ul style="list-style-type: none"> <li>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;</li> <li>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;</li> <li>all hopper barges and dredgers shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material;</li> <li>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;</li> <li>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</li> </ul>		Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> <li>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.</li> </ul>							
S5.8	<p>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.</p>	Work site / During the construction period	Contractor		√			EIAO-TM, WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S5.8	<p>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.</p>	Causeway Bay typhoon shelter/Implementation of harbour-front enhancement.	CEDD <sup>3</sup>		√			WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines	
				Des	C	O	Dec		
<b>For the Whole Project</b>									
S5.8	<ul style="list-style-type: none"> <li>Construction Runoff and Drainage</li> <li>use of sediment traps, wheel washing facilities for vehicles leaving the site, and adequate maintenance of drainage systems to prevent flooding and overflow;</li> <li>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;</li> <li>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;</li> <li>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;</li> <li>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;</li> <li>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;</li> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Work site / During the construction period</li> </ul>	Contractor		√				ProPECC PN 1/94; WPCO (TM-DSS)

<sup>3</sup> 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	
	<p>required.</p> <ul style="list-style-type: none"> <li>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.</li> </ul>							
	<ul style="list-style-type: none"> <li>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.</li> </ul>							
S5.8	<p><i>Sewage from Construction Work Force</i></p> <p>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.</p>	Work site / During the construction period	Contractor		√			ProPECC PN 1/94; WPCO (TM-DSS)
S5.8	<p><i>Floating Debris and Refuse</i></p> <p>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.</p>	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	<p><i>Storm Water Discharges</i></p> <p>Minimum distances of 100 m shall be maintained between the existing or planned stormwater discharges and the existing or planned WSD flushing water intakes.</p>	Work site and adjacent water / During the design and construction period.	Contractor	√	√			WPCO
<b>Operation Phase</b>								
<i>DPI – CWB (within the Project Boundary)</i>								
S5.8	<p>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:</p> <ul style="list-style-type: none"> <li>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.</li> <li>Petrol interceptors shall be regularly cleaned and maintained in good working condition.</li> <li>Oily contents of the petrol interceptors shall be properly handled and disposed of, in compliance with the requirements of the Waste Disposal Ordinance.</li> <li>Sewage arising from ancillary facilities of CWB (for examples, car park,</li> </ul>	CWB/During design and operational period	HyD/TD <sup>3</sup>	√		√		WPCO

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p>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.</p> <ul style="list-style-type: none"> <li>Road drainage shall also be provided with adequately designed silt trap to minimize discharge of silty runoff.</li> <li>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.</li> </ul>							

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

<sup>3</sup> if employ Management, Operation and Maintenance (MOM) Contract

Appendix 3.1



**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	
<b>Construction Phase</b>								
<i>For DP3 – Reclamation Works</i>								
	<b>Marine Sediments</b>							
S6.7.2	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 <sup>3</sup> . 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.							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.5	It will be the responsibility of the Contractor to satisfy the appropriate authorities that the contamination levels of the marine sediment to be dredged have been analysed and recorded. According to the ETWB TCW No. 34/2002, this will involve the submission of a formal Sediment Quality Report to the DEP, at least 3 months prior to the dredging contract being tendered							
S6.7.6	During transportation and disposal of the dredged marine sediments requiring Type 1 and Type 2 disposal, the following measures shall be taken to minimise potential impacts on water quality: <ul style="list-style-type: none"> <li>• 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.</li> </ul>							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>							
S6.6.12	<p><b>Floating Refuse</b></p> <p>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.</p>	Work site / During the construction period	Contractor		√			
<b>For the Whole Project</b>								

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.7	<p><b>Good Site Practices</b></p> <p>Recommendations for good site practices during the construction activities include:</p> <ul style="list-style-type: none"> <li>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;</li> <li>training of site personnel in proper waste management and chemical waste handling procedures;</li> <li>provision of sufficient waste disposal points and regular collection for disposal;</li> <li>appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;</li> <li>regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and</li> <li>a recording system for the amount of wastes generated, recycled and disposed of (including the disposal sites).</li> </ul>	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	<p><i>Waste Reduction Measures</i></p> <p>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:</p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• 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;</li> <li>• any unused chemicals or those with remaining functional capacity shall be recycled;</li> <li>• use of reusable non-timber formwork, such as in casting the tunnel box sections, to reduce the amount of C&amp;D material.</li> <li>• prior to disposal of C&amp;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;</li> <li>• proper storage and site practices to minimise the potential for damage or contamination of construction materials; and</li> <li>• plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.</li> </ul>	Work site / During planning and design stage, and construction stage	Contractor	√	√			

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.10	<p><i>General Refuse</i></p> <p>General refuse shall be stored in enclosed bins or compaction units separate from C&amp;D material. A licensed waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&amp;D material.</p> <p>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.</p>	Work site / During the construction period	Contractor		√			Public Health and Municipal Services Ordinance (Cap. 132)
S6.7.11	<p><i>Chemical Wastes</i></p> <p>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.</p>	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	<p><i>Construction and Demolition Material</i></p> <p>C&amp;D material shall be sorted on-site into inert C&amp;D material (that is, public fill) and C&amp;D waste. All the suitable inert C&amp;D material shall be broken down to 250 mm in size for reuse as public fill in the WDII reclamation. C&amp;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.</p>	Work site / During the construction period	Contractor		√			ETWB TCW No. 33/2002, 31/2004, 19/2005

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
S6.7.13	In order to monitor the disposal of public fill and C&D waste at public filling facilities and landfills, respectively, and to control fly tipping, a trip-ticket system shall be included as one of the contractual requirements and implemented by the Environmental Team undertaking the environmental monitoring and audit work. An Independent Environment Checker shall be responsible for auditing the results of the system.	Work site / During the construction period	Contractor and Independent Environmental Checker		√			ETWB TCW No. 31/2004
S6.7.14	<p><i>Bentonite Slurry</i></p> <p>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:</p> <ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> </ul>	Work site / During the construction period	Contractor		√			ProPECC PN 1/94

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

Appendix 3.1

**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	
<b>Construction Phase</b>								
<i>For the Whole Project</i>								
S.12.6	<ul style="list-style-type: none"> <li>The contaminated site shall be cleaned up before commencement of site clearance and construction work at the concerned area which may disturb the ground.</li> </ul>	A King Marine / Before commencement of construction activities at A King Marine.	Project proponent for the re-provisioned Tin Hau Temple	√				<p>"Guidance Notes for Investigation and Remediation of Contaminated Sites of Petrol Filling Stations, Boatyards, and Car Repair/Dismantling Workshops" published by EPD, HKSAR</p> <p>EPD ProPECC Note No. 3/94</p>
S7.10	<p>During soil remediation works, the Contractor for the excavation works shall take note of the following points for excavation:</p> <ul style="list-style-type: none"> <li>Excavation profiles must be properly designed and executed;</li> <li>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;</li> <li>Quantities of soil to be excavated must be estimated;</li> <li>It maybe necessary to split quantities of soil according to soil type, degree and nature of contamination.</li> <li>Temporary storage of soil at intermediate depot or on-site</li> </ul>	A King Marine / During soil remediation works	Contractor	√				<p>Air Pollution Control Ordinance</p> <p>Noise Control Ordinance</p> <p>Waste Disposal Ordinance</p> <p>Waste Disposal (Chemical Waste) (General) Regulation</p>

Appendix 3.1

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.							
	<ul style="list-style-type: none"> <li>Supply of suitable clean backfill materials is needed after excavation.</li> <li>Care must be taken of existing buildings and utilities.</li> <li>Precautions must be taken to control of ground settlement</li> <li>Speed controls for vehicles shall be imposed on dusty site areas.</li> <li>Vehicle wheel and body washing facilities at the site's exit points shall be established and used.</li> </ul> <p>The following environmental mitigation measures shall be strictly followed during the operation and/or maintenance of the CS/S facilities:</p>							Water Pollution Control Ordinance

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p><u>Air Quality Mitigation Measures</u></p> <ul style="list-style-type: none"> <li>The loading, unloading, handling, transfer or storage of cement shall be carried out in an enclosed system.</li> <li>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.</li> <li>All practicable measures, including speed controls for vehicles, shall be taken to prevent or minimize the dust emission caused by vehicle movement.</li> <li>Tarpaulin or low permeable sheet shall be put on dusty vehicle loads transported between site locations.</li> </ul>							
	<p><u>Noise Mitigation Measures</u></p> <ul style="list-style-type: none"> <li>The mixing facilities shall be sited as far as practicable to the nearby noise sensitive receivers.</li> <li>Simultaneous operation of mixing facilities and other equipment shall be avoided.</li> <li>Mixing process and other associated material handling activities shall be properly scheduled to minimise potential cumulative noise impact on the nearby noise sensitive receivers.</li> <li>Construction Noise Permit shall be applied for the operation of powered mechanical equipment during restricted hours (if any).</li> </ul>							

Appendix 3.1

EIA Ref	Environmental Protection Measures / Mitigation Measures	Location / Timing	Implementation Agent	Implementation Stages*				Relevant Legislation and Guidelines
				Des	C	O	Dec	
	<p><u>Water Quality Mitigation Measures</u></p> <ul style="list-style-type: none"> <li>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.</li> </ul> <p><u>Waste Mitigation Measures</u></p> <ul style="list-style-type: none"> <li>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.</li> <li>Stabilized soils shall be broken into suitable size for backfilling or reuse on site.</li> <li>A high standard of housekeeping shall be maintained within the mixing plant area.</li> <li>If necessary, there shall be clear and separated areas for stockpiling of untreated and treated materials.</li> </ul>							

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

Appendix 3.1

**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	
<b>Construction Phase</b>								
<i>For the Whole Project - Schedule 3 DP</i>								
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.
<i>For DP3 - Reclamation Works</i>								
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.

Appendix 3.1

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	<p>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:</p> <ul style="list-style-type: none"> <li>• Installation of silt curtains during dredging activities</li> <li>• Use of tightly-closed grab dredger</li> <li>• Reduction of dredging rate</li> <li>• Control of grab descending speed</li> <li>• Construction of leading edges of seawall in the early stages of the reclamation works</li> </ul>	Work site / during construction phase	Contractor		√			EIAO TM Annex 16 (Section 8.4) & EIAO Guidance Note No. 3/2002.
	<ul style="list-style-type: none"> <li>• Adoption of multiple-phase construction schedule</li> </ul>							

Appendix 3.1

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	<p>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:</p> <ul style="list-style-type: none"> <li>• Use of Quiet Mechanical Plant during the construction phase shall be adopted wherever possible.</li> <li>• Adoption of multiple-phase construction schedule.</li> <li>• General measures to reduce noise generated during the construction phase (see noise impact assessment) shall be effectively implemented.</li> </ul>	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

Appendix 3.1



**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	
<b>Construction Phase</b>								
<b>For the Whole Project</b>								
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
<b>For DP1 – CWB (Within the Project Boundary)</b>								
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

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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	
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		√			EIAO TM
<b>For DP2 – WDII Major Roads (Road P2)</b>								
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
<b>For DP3 – Reclamation Works</b>								
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
<b>For DP5 – Wan Chai East Sewage Outfall</b>								
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

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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	
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
<b>For DP6 – Cross-Harbour Water Mains from Wan Chai to Tsim Sha Tsui</b>								
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
<b>Operation Phase</b>								
<b>For the Whole Project - Schedule 3 DP</b>								
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

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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	
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 <sup>4</sup>	√	√	√		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
<b>For DP1 – CWB (Within the Project Boundary)</b>								
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
<b>For DP2 – WDII Major Roads (Road P2)</b>								

<sup>4</sup> CEDD will identify an implementation agent

Appendix 3.1

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
<b>For DP3 – Reclamation Works</b>								
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 <sup>5</sup>	√	√	√		ETWB TCW 2/2004

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

<sup>5</sup> CEDD will identify an implementation agent



***Appendix 4.1***

***Action and Limit Level***

**Action and Limit Level***Action and Limit Level for Noise Monitoring*

Time Period	Action Level	Limit Level
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received.	75 dB(A) <sup>Note 1</sup>

Note 1:

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

*Action and Limit Level for Air Monitoring*

Monitoring Location	1-hour TSP Level in $\mu\text{g}/\text{m}^3$		24-hour TSP Level in $\mu\text{g}/\text{m}^3$	
	Action Level	Limit Level	Action Level	Limit Level
CMA1b <sup>Note 2</sup>	320.1	500	176.7	260
CMA2a	323.4	500	169.5	260
CMA3a <sup>Note 2</sup>	311.3	500	171.0	260
CMA4a	312.5	500	171.2	260
CMA5a <sup>Note 2</sup>	332.0	500	181.0	260
CMA6a <sup>Note 2</sup>	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
<b>WSD Salt Water Intake</b>				
SS in $\text{mg L}^{-1}$	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
<b>Cooling Water Intake</b>				
SS in $\text{mg L}^{-1}$	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)	<ul style="list-style-type: none"> <li>• When two documented complaint are received; or</li> <li>• Odour Intensity of 2 is measured from odour intensity analysis.</li> </ul>	<ul style="list-style-type: none"> <li>• Five or more consecutive genuine documented complaints within a week; or</li> <li>• Odour Intensity of 3 or above is measured from odour intensity analysis.</li> </ul>



***Appendix 4.2***

***Copies of Calibration Certificates***

**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION****Information supplied by customer:**

**CONTACT:** DEREK LO **WORK ORDER:** HK1410260  
**CLIENT:** LAM GEOTECHNICS LIMITED  
**DATE RECEIVED:** 2014-08-28  
**DATE OF ISSUE:** 2014-09-04  
**ADDRESS:** 11/F, CENTRE POINT, 181-185, GLOUCESTER  
ROAD, WANCHAI, HONG KONG  
**PROJECT:** ---

**METHOD OF PERFORMANCE CHECK/ CALIBRATION:**

Ref: APHA22nd ed 2130B

**COMMENTS**

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

<b>Scope of Test:</b>	Turbidity
<b>Equipment Type:</b>	Turbidimeter
<b>Brand Name:</b>	Xin Rui
<b>Model No.:</b>	WGZ-3B
<b>Serial No.:</b>	1203010
<b>Equipment No.:</b>	---
<b>Date of Calibration:</b>	28-Aug-14

**Remarks:**

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee  
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

**WORK ORDER:** HK1410260  
**DATE OF ISSUE:** 2014-09-04  
**CLIENT:** LAM GEOTECHNICS LIMITED

<b>Equipment Type:</b>	Turbidimeter
<b>Brand Name:</b>	Xin Rui
<b>Model No.:</b>	WGZ-3B
<b>Serial No.:</b>	1203010
<b>Equipment No.:</b>	---
<b>Date of Calibration:</b>	28-Aug-14
<b>Date of next Calibration:</b>	28-Nov-14

**Parameters:****Turbidity**Method Ref: APHA 22<sup>nd</sup> ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	4.21	5.3
10	9.62	-3.8
40	42.0	5.0
100	100	0.0
400	410	2.5
1000	997	-0.3
	Tolerance Limit ( $\pm\%$ )	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION****Information supplied by customer:**

**CONTACT:** DEREK LO **WORK ORDER:** HK1410310  
**CLIENT:** LAM GEOTECHNICS LIMITED  
**DATE RECEIVED:** 9/10/2014  
**DATE OF ISSUE:** 16/10/2014  
**ADDRESS:** 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,  
WANCHAI, HONG KONG  
**PROJECT:** ---

**METHOD OF PERFORMANCE CHECK/ CALIBRATION:**

Ref: APHA22nd ed 2130B

**COMMENTS**

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

<b>Scope of Test:</b>	Turbidity
<b>Equipment Type:</b>	Turbidimeter
<b>Brand Name:</b>	Xin Rui
<b>Model No.:</b>	WGZ-3B
<b>Serial No.:</b>	1203008
<b>Equipment No.:</b>	---
<b>Date of Calibration:</b>	09-Oct-14

**Remarks:**

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee  
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

**WORK ORDER:** HK1410310  
**DATE OF ISSUE:** 16/10/2014  
**CLIENT:** LAM GEOTECHNICS LIMITED

<b>Equipment Type:</b>	Turbidimeter
<b>Brand Name:</b>	Xin Rui
<b>Model No.:</b>	WGZ-3B
<b>Serial No.:</b>	1203008
<b>Equipment No.:</b>	---
<b>Date of Calibration:</b>	09-Oct-14
<b>Date of next Calibration:</b>	09-Jan-15

**Parameters:****Turbidity**Method Ref: APHA 22<sup>nd</sup> ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	4.13	3.3
10	10.3	3.0
40	39.8	-0.5
100	101	1.0
400	380	-5.0
1000	980	-2.0
	Tolerance Limit ( $\pm\%$ )	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

**Information supplied by customer:**

**CONTACT:** DEREK LO **WORK ORDER:** HK1410311  
**CLIENT:** LAM GEOTECHNICS LIMITED  
**DATE RECEIVED:** 9/10/2014  
**DATE OF ISSUE:** 16/10/2014  
**ADDRESS:** 11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,  
WANCHAI, HONG KONG  
**PROJECT:** ---

**METHOD OF PERFORMANCE CHECK/ CALIBRATION:**

Ref: APHA22nd ed 2130B

**COMMENTS**

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

<b>Scope of Test:</b>	Turbidity
<b>Equipment Type:</b>	Turbidimeter
<b>Brand Name:</b>	Xin Rui
<b>Model No.:</b>	WGZ-3B
<b>Serial No.:</b>	1203015
<b>Equipment No.:</b>	---
<b>Date of Calibration:</b>	09-Oct-14

**Remarks:**

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Peter Lee  
Director

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**REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION**

**WORK ORDER:** HK1410311  
**DATE OF ISSUE:** 16/10/2014  
**CLIENT:** LAM GEOTECHNICS LIMITED

<b>Equipment Type:</b>	Turbidimeter
<b>Brand Name:</b>	Xin Rui
<b>Model No.:</b>	WGZ-3B
<b>Serial No.:</b>	1203015
<b>Equipment No.:</b>	---
<b>Date of Calibration:</b>	09-Oct-14
<b>Date of next Calibration:</b>	09-Jan-15

**Parameters:**  
**Turbidity**

Method Ref: APHA 22<sup>nd</sup> ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	---
4	3.90	-2.5
10	10.2	2.0
40	39.3	-1.8
100	103	3.0
400	388	-3.0
1000	986	-1.4
	<b>Tolerance Limit (<math>\pm\%</math>)</b>	<b>10.0</b>

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

This report may not be reproduced except with prior written approval from Pilot Testing Limited.

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## REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**CONTACT:** MR ALAN LI  
**CLIENT:** LAM GEOTECHNICS LIMITED  
**ADDRESS:** 11/F., CENTRE POINT,  
181-185 GLOUCESTER ROAD,  
WAN CHAI, HONG KONG  
**PROJECT:** --

**WORK ORDER:** HK1423982  
**LABORATORY:** HONG KONG  
**DATE RECEIVED:** 28/07/2014  
**DATE OF ISSUE:** 04/08/2014

### COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.  
The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.  
The "Next Calibration Date" is recommended according to best practice principals as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

**Scope of Test:** pH, Dissolved Oxygen, Salinity and Temperature  
**Description:** Multimeter  
**Brand Name:** YSI  
**Model No.:** Professional Plus  
**Serial No.:** 11F100597  
**Equipment No.:** --  
**Date of Calibration:** 4 August 2014

### NOTES

This is the Final Report and supersedes any preliminary report with this batch number.  
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

  
Mr. Fung Lim Chee Richard  
General Manager  
Greater China & Hong Kong



# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1423982  
 Date of Issue: 04/08/2014  
 Client: LAM GEOTECHNICS LIMITED



Description: Multimeter  
 Brand Name: YSI  
 Model No.: Professional Plus  
 Serial No.: 11F100597  
 Equipment No.: --  
 Date of Calibration: 4 August 2014

Date of next Calibration: 4 November 2014

## Parameters:

### Dissolved Oxygen Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.71	3.79	+0.08
5.55	5.65	+0.10
7.40	7.52	+0.12
Tolerance Limit (mg/L)		±0.20

### pH Value

#### Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.04	+0.04
7.0	6.90	-0.10
10.0	9.97	-0.03
Tolerance Limit (pH Unit)		±0.20

### Salinity

#### Method Ref: APHA (21st edition), 2520B

Expected Reading (g/L)	Displayed Reading (g/L)	Tolerance (%)
0	0.0	--
10	10.07	+0.7
20	20.72	+3.6
30	30.87	+2.9
Tolerance Limit (%)		±10.0

### Temperature

#### Method Ref: Section 6 of International Accreditation New Zealand Technical

#### Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Reading of Ref. thermometer (°C)	Displayed Reading (°C)	Tolerance (°C)
12.0	11.9	-0.1
22.5	22.5	0.0
33.5	33.0	-0.5
Tolerance Limit (°C)		±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

Mr. Fung Lim Chee, Richard  
 General Manager -  
 Greater China & Hong Kong





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## REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

**CONTACT:** MR ALAN LI  
**CLIENT:** LAM GEOTECHNICS LIMITED  
**ADDRESS:** 11/F., CENTRE POINT,  
181-185 GLOUCESTER ROAD,  
WAN CHAI, HONG KONG

**WORK ORDER:** HK1436509  
**LABORATORY:** HONG KONG  
**DATE RECEIVED:** 10/11/2014  
**DATE OF ISSUE:** 17/11/2014


### COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.  
The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.  
The "Next Calibration Date" is recommended according to best practice principals as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Dissolved Oxygen, pH, Salinity and Temperature  
Equipment Type: Multifunctional Meter  
Brand Name: YSI  
Model No.: Professional Plus  
Serial No.: 11F100597  
Equipment No.: --  
Date of Calibration: 17 November, 2014

### NOTES

This is the Final Report and supersedes any preliminary report with this batch number.  
Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

  
Mr. Fung Lim Chee, Richard  
General Manager -  
Greater China & Hong Kong

# REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

**Work Order:** HK1436509  
**Date of Issue:** 17/11/2014  
**Client:** LAM GEOTECHNICS LIMITED



**Equipment Type:** Multifunctional Meter  
**Brand Name:** YSI  
**Model No.:** Professional Plus  
**Serial No.:** 11F100597  
**Equipment No.:** --  
**Date of Calibration:** 17 November, 2014

**Date of next Calibration:** 17 February, 2015

**Parameters:**

**Dissolved Oxygen**

**Method Ref: APHA (21st edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.60	3.57	-0.03
6.24	6.20	-0.04
8.06	8.03	-0.03
Tolerance Limit (mg/L)		±0.20

**pH Value**

**Method Ref: APHA (21st edition), 4500H:B**

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.09	+0.09
7.0	7.19	+0.19
10.0	10.02	+0.02
Tolerance Limit (pH unit)		±0.20

**Salinity**

**Method Ref: APHA (21st edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.57	-4.3
20	19.70	-1.5
30	29.86	-0.5
Tolerance Limit (%)		±10.0

**Temperature**

**Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.**

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
11.0	11.4	+0.4
21.5	21.9	+0.4
38.0	38.3	+0.3
Tolerance Limit (°C)		±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

  
 Mr. Fung Lim Chee, Richard  
 General Manager  
 Greater China & Hong Kong





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## REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**CONTACT:** MR ALAN LI  
**CLIENT:** LAM GEOTECHNICS LIMITED  
**ADDRESS:** 11/F., CENTRE POINT,  
181-185 GLOUCESTER ROAD,  
WAN CHAI, HONG KONG  
**PROJECT:** --

**WORK ORDER:** HK1423939  
**LABORATORY:** HONG KONG  
**DATE RECEIVED:** 25/07/2014  
**DATE OF ISSUE:** 31/07/2014

### COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principals as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Dissolved Oxygen, pH, Salinity and Temperature  
Equipment Type: YSI SONDE  
Brand Name: YSI  
Model No.: YSI Professional plus  
Serial No.: 14E 100105  
Equipment No.: --  
Date of Calibration: 29 July, 2014

### NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

  
Mr. Fung Lim Chee, Richard  
General Manager -  
Greater China & Hong Kong

# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

Work Order: HK1423939  
 Date of Issue: 31/07/2014  
 Client: LAM GEOTECHNICS LIMITED



Equipment Type: YSI SONDE  
 Brand Name: YSI  
 Model No.: YSI Professional plus  
 Serial No.: 14E 100105  
 Equipment No.: --  
 Date of Calibration: 29 July, 2014

Date of next Calibration: 29 October, 2014

## Parameters:

### Dissolved Oxygen

Method Ref: APHA (21st edition), 4500O: G

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
3.60	3.45	-0.15
5.55	5.64	+0.09
7.31	7.26	-0.05
Tolerance Limit ( $\pm$ mg/L)		0.20

### pH Value

Method Ref: APHA (21st edition), 4500H:B

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	4.00	0.00
7.0	7.03	+0.03
10.0	9.99	-0.01
Tolerance Limit ( $\pm$ pH unit)		0.20

### Salinity

Method Ref: APHA (21st edition), 2520B

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.25	-7.5
20	18.83	-5.9
30	28.03	-6.6
Tolerance Limit ( $\pm$ %)		10.0

### Temperature

Method Ref: Section 6 of International Accreditation New Zealand Technical

Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.

Expected Reading ( $^{\circ}$ C )	Displayed Reading ( $^{\circ}$ C )	Tolerance ( $^{\circ}$ C )
10.5	11.0	+0.5
22.5	22.6	+0.1
33.5	33.6	+0.1
Tolerance Limit ( $\pm$ $^{\circ}$ C)		2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

  
 Mr. Fung Lim Chee, Richard  
 General Manager -  
 Greater China & Hong Kong





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## REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**CONTACT:** MR ALAN LI  
**CLIENT:** LAM ENVIRONMENTAL SERVICES LTD  
**ADDRESS:** 11/F., CENTRE POINT,  
181-185 GLOUCESTER ROAD,  
WAN CHAI, HONG KONG

**WORK ORDER:** HK1435131  
**LABORATORY:** HONG KONG  
**DATE RECEIVED:** 29/10/2014  
**DATE OF ISSUE:** 05/11/2014

### COMMENTS

The performance of the equipment stated in this report is checked with independent reference material and results compared against a calibrated secondary source.

The "Tolerance Limit" quoted is the acceptance criteria applicable for similar equipment used by the ALS Hong Kong laboratory or quoted from relevant international standards.

The "Next Calibration Date" is recommended according to best practice principals as practised by the ALS Hong Kong laboratory or quoted from relevant international standards.

Scope of Test: Dissolved Oxygen, pH, Salinity and Temperature  
Equipment Type: Multifunctional Meter  
Brand Name: YSI  
Model No.: Professional Plus  
Serial No.: 14E100105  
Equipment No.: --  
Date of Calibration: 31 October, 2014

### NOTES

This is the Final Report and supersedes any preliminary report with this batch number.

Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

Mr. Fung Lim Chee, Richard  
General Manager -  
Greater China & Hong Kong



# REPORT OF EQUIPMENT PERFORMANCE CHECK/CALIBRATION

**Work Order:** HK1435131  
**Date of Issue:** 05/11/2014  
**Client:** LAM ENVIRONMENTAL SERVICES LTD



**Equipment Type:** Multifunctional Meter  
**Brand Name:** YSI  
**Model No.:** Professional Plus  
**Serial No.:** 14E100105  
**Equipment No.:** --

**Date of Calibration:** 31 October, 2014      **Date of next Calibration:** 31 January, 2015

**Parameters:**

**Dissolved Oxygen**

**Method Ref: APHA (21st edition), 4500O: G**

Expected Reading (mg/L)	Displayed Reading (mg/L)	Tolerance (mg/L)
2.46	2.58	+0.12
5.04	4.91	-0.13
8.02	7.92	-0.10
Tolerance Limit (mg/L)		±0.20

**pH Value**

**Method Ref: APHA (21st edition), 4500H:B**

Expected Reading (pH Unit)	Displayed Reading (pH Unit)	Tolerance (pH unit)
4.0	3.98	-0.02
7.0	6.98	-0.02
10.0	10.05	+0.05
Tolerance Limit (pH unit)		±0.20

**Salinity**

**Method Ref: APHA (21st edition), 2520B**

Expected Reading (ppt)	Displayed Reading (ppt)	Tolerance (%)
0	0.00	--
10	9.58	-4.2
20	19.48	-2.6
30	30.32	+1.1
Tolerance Limit (%)		±10.0

**Temperature**

**Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure.**

Expected Reading (°C)	Displayed Reading (°C)	Tolerance (°C)
13.4	13.7	+0.3
23.8	24.0	+0.2
33.8	33.6	-0.2
Tolerance Limit (°C)		±2.0

Remark: "Displayed Reading" presents the figures shown on item under calibration / checking regardless of equipment precision or significant figures.

  
 \_\_\_\_\_  
 Mr. Fung Lim Chee, Richard  
 General Manager  
 Greater China & Hong Kong



## EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

**Report No.** : HK1410306  
**Project Name** : EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT  
**Date of Issue** : 16/10/2014  
  
**Customer** : LAM GEOTECHNICS LIMITED  
**Address** : 11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

---

**Calibration Job No.** : HK1410306  
**Test Item No.** : HK1410306-01  
**Test Item Details**  
**Test Item Description** : Multifunctional Meter  
**Manufacturer** : YSI  
**Model No.** : YSI 600XL  
**Serial No.** : 05C1607  
**Test Item Receipt Date** : 13-Oct-14  
**Test Period** : 14/10/2014 - 15/10/2014

---

- Notes :
1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
  2. Results relate to item(s) as received.
  3.  $\pm$  indicates the tolerance limit
  4. N/A = Not applicable
  5. APHA - American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
  6. DO, salinity, pH and temperature performance check was subcontracted to FT Laboratories Ltd.

Approved Signatory

\_\_\_\_\_  
 Peter Lee  
 (Director)

Issue Date:

16/10/2014


**REPORT OF EQUIPMENT PERFORMANCE CHECK**

**WORK ORDER:** HK1410306  
**DATE OF ISSUE:** 16/10/2014  
**CLIENT:** LAM GEOTECHNICS LIMITED

<b>Equipment Type</b>	Multifunctional Meter
<b>Manufacturer</b>	YSI
<b>Model No.</b>	YSI 600XL
<b>Serial No.</b>	05C1607
<b>Date of Calibration</b>	14-Oct-14
<b>Date of next Calibration</b>	14-Jan-15

**Parameters:**
**Temperature (Method Ref: APHA 19e 2550B)**

Reference Reading (°C)	Temperature corrected of Thermometer (°C)	Display Reading (°C)	Deviation (°C)
10.21	10.37	10.33	-0.04
19.97	20.13	20.12	-0.01
30.02	30.18	30.16	-0.02
Tolerance Limit			±0.50

**pH Value (Method Ref: APHA 19e 4500-H, B)**

Expected Reading (pH unit)	pH unit of buffer at 20 °C (pH unit)	Display Reading at 20 °C (pH unit)	Deviation (pH unit)
6.0	6.01	5.89	-0.12
9.0	9.02	8.85	-0.17
Tolerance Limit			±0.20

**Conductivity (Method Ref: APHA 19e 2520B)**

KCl concentration (mol/L)	Standard conductivity (ms/cm) at 25°C	Reading of SpCond (ms/cm)	Deviation (%)
0.0000	0.00	0.00	-
0.1000	12.89	12.82	-0.54
0.2000	24.8	24.78	-0.08
0.5000	58.67	58.43	-0.41
Tolerance Limit			±2.0

**Dissolved Oxygen (DO) (Method Ref: (APHA 19e 4500-O, C)**

DO of water sample (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
4.15	3.98	-0.17
6.24	6.14	-0.10
8.16	8.15	-0.01
Tolerance Limit		±0.20

- Remarks:
- (1) Maxium tolerance ans calibration frequency stated in the reprot, unless otherwisestated, the internal acceptance criteria of Pilot Testing Limited will be followed.
  - (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
  - (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

- End of Report -





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 513.467.9009 FAX

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

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

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

DATA TABULATION

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

CALCULATIONS

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

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

For subsequent flow rate calculations:

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



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**Calibration Data for High Volume Sampler (TSP Sampler)**

Location : CMA1b Calibration Date : 21-Oct-14  
 Equipment no. : EL452 Calibration Due Date : 21-Dec-14

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

Ambient Condition						
Temperature, T <sub>a</sub>	303	Kelvin	Pressure, P <sub>a</sub>	1015	mmHg	
Orifice Transfer Standard Information						
Equipment No.	EL086	Slope, m <sub>c</sub>	1.99175	Intercept, b <sub>c</sub>	-0.00041	
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$				
Next Calibration Date	14-Jul-15					
Calibration of TSP						
Calibration Point	Manometer Reading			Q <sub>std</sub> (m <sup>3</sup> / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P <sub>a</sub> /1013.3x298/T <sub>a</sub> ) <sup>1/2</sup> /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.0	6.0	12.0	1.7265	64	63.5230
2	4.8	4.8	9.6	1.5442	58	57.5677
3	3.8	3.8	7.6	1.3740	52	51.6124
4	2.4	2.4	4.8	1.0920	40	39.7019
5	1.4	1.4	2.8	0.8341	32	31.7615
By Linear Regression of Y on X						
Slope, m		=	36.4512	Intercept, b		= 0.9310
Correlation Coefficient*		=	0.9986			
Calibration Accepted		=	Yes/No**			

\* if Correlation Coefficient &lt; 0.990, check and recalibration again.

\*\* Delete as appropriate.

Remarks : \_\_\_\_\_

Calibrated by : Henry Lau Checked by : Derek Lo  
 Date : 21-Oct-14 Date : 21-Oct-14





Lam Geotechnics Limited

**Calibration Data for High Volume Sampler (TSP Sampler)**

Location : CMA2a  
 Equipment no. : EL449

Calibration Date : 21-Oct-14  
 Calibration Due Date : 21-Dec-14

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

Ambient Condition			
Temperature, T <sub>a</sub>	303	Kelvin	Pressure, P <sub>a</sub>
			1015 mmHg

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

Calibration of TSP						
Calibration Point	Manometer Reading			Q <sub>std</sub> (m <sup>3</sup> / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P <sub>a</sub> /1013.3x298/T <sub>a</sub> ) <sup>1/2</sup> /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.5	6.5	13.0	1.7970	63	62.5304
2	5.0	5.0	10.0	1.5761	57	56.5751
3	4.0	4.0	8.0	1.4097	50	49.6273
4	2.4	2.4	4.8	1.0920	41	40.6944
5	1.5	1.5	3.0	0.8633	34	33.7466

By Linear Regression of Y on X

Slope, m = 31.1199      Intercept, b = 6.6974  
 Correlation Coefficient\* = 0.9985  
 Calibration Accepted = Yes/No\*\*

\* if Correlation Coefficient &lt; 0.990, check and recalibration again.

\*\* Delete as appropriate.

Remarks : \_\_\_\_\_

Calibrated by : Henry Lau  
 Date : 21-Oct-14

Checked by : Derek Lo  
 Date : 21-Oct-14



Lam Geotechnics Limited

**Calibration Data for High Volume Sampler (TSP Sampler)**

Location : CMA3a  
 Equipment no. : EL333

Calibration Date : 21-Oct-14  
 Calibration Due Date : 21-Dec-14

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

Ambient Condition			
Temperature, T <sub>a</sub>	303	Kelvin	Pressure, P <sub>a</sub>
			1015 mmHg

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

Calibration of TSP						
Calibration Point	Manometer Reading			Q <sub>std</sub> (m <sup>3</sup> / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P <sub>a</sub> /1013.3x298/T <sub>a</sub> ) <sup>1/2</sup> /35.31) Y-axis
	(up)	(down)	(difference)			
1	5.4	5.4	10.8	1.6379	54	53.5975
2	4.1	4.1	8.2	1.4272	49	48.6348
3	3.1	3.1	6.2	1.2410	42	41.6869
4	2.0	2.0	4.0	0.9969	37	36.7242
5	1.2	1.2	2.4	0.7722	31	30.7689

By Linear Regression of Y on X

Slope, m = 26.5451      Intercept, b = 10.0291  
 Correlation Coefficient\* = 0.9965  
 Calibration Accepted = Yes/No\*\*

\* if Correlation Coefficient &lt; 0.990, check and recalibration again.

\*\* Delete as appropriate.

Remarks : \_\_\_\_\_  
 \_\_\_\_\_

Calibrated by : Henry Lau  
 Date : 21-Oct-14

Checked by : Derek Lo  
 Date : 21-Oct-14



Lam Geotechnics Limited

**Calibration Data for High Volume Sampler (TSP Sampler)**

Location : CMA4a Calibration Date : 21-Oct-14  
 Equipment no. : EL390 Calibration Due Date : 21-Dec-14

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

Ambient Condition			
Temperature, T <sub>a</sub>	303	Kelvin	Pressure, P <sub>a</sub>
			1015 mmHg

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

Calibration of TSP						
Calibration Point	Manometer Reading			Q <sub>std</sub> (m <sup>3</sup> / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P <sub>a</sub> /1013.3x298/T <sub>a</sub> ) <sup>1/2</sup> /35.31) Y-axis
	(up)	(down)	(difference)			
1	5.9	5.9	11.8	1.7120	58	57.5677
2	4.8	4.8	9.6	1.5442	51	50.6199
3	3.7	3.7	7.4	1.3558	43	42.6795
4	2.4	2.4	4.8	1.0920	34	33.7466
5	1.5	1.5	3.0	0.8633	25	24.8137

By Linear Regression of Y on X

Slope, m = 38.2048 Intercept, b = -8.2956  
 Correlation Coefficient\* = 0.9993  
 Calibration Accepted = Yes/No\*\*

\* if Correlation Coefficient &lt; 0.990, check and recalibration again.

\*\* Delete as appropriate.

Remarks : \_\_\_\_\_

Calibrated by : Henry Lau Checked by : Derek Lo  
 Date : 21-Oct-14 Date : 21-Oct-14



Lam Geotechnics Limited

**Calibration Data for High Volume Sampler (TSP Sampler)**

Location : CMA5a  
 Equipment no. : EL380

Calibration Date : 21-Oct-14  
 Calibration Due Date : 21-Dec-14

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

Ambient Condition			
Temperature, T <sub>a</sub>	303	Kelvin	Pressure, P <sub>a</sub>
			1015 mmHg

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

Calibration of TSP						
Calibration Point	Manometer Reading			Q <sub>std</sub> (m <sup>3</sup> / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P <sub>a</sub> /1013.3x298/T <sub>a</sub> ) <sup>1/2</sup> /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.6	6.6	13.2	1.8107	58	57.5677
2	5.3	5.3	10.6	1.6226	54	53.5975
3	4.1	4.1	8.2	1.4272	48	47.6422
4	2.6	2.6	5.2	1.1366	39	38.7093
5	1.6	1.6	3.2	0.8916	32	31.7615

By Linear Regression of Y on X

Slope, m = 28.7132      Intercept, b = 6.2958  
 Correlation Coefficient\* = 0.9986  
 Calibration Accepted = Yes/No\*\*

\* if Correlation Coefficient &lt; 0.990, check and recalibration again.

\*\* Delete as appropriate.

Remarks : \_\_\_\_\_

Calibrated by : Henry Lau  
 Date : 21-Oct-14

Checked by : Derek Lo  
 Date : 21-Oct-14



Lam Geotechnics Limited

### Calibration Data for High Volume Sampler (TSP Sampler)

Location : CMA6a Calibration Date : 21-Oct-14  
 Equipment no. : EL448 Calibration Due Date : 21-Dec-14

**CALIBRATION OF CONTINUOUS FLOW RECORDER**

Ambient Condition						
Temperature, T <sub>a</sub>	303	Kelvin	Pressure, P <sub>a</sub>	1015	mmHg	
Orifice Transfer Standard Information						
Equipment No.	EL086	Slope, m <sub>c</sub>	1.99175	Intercept, b <sub>c</sub>	-0.00041	
Last Calibration Date	14-Jul-14	$(H \times P_a / 1013.3 \times 298 / T_a)^{1/2}$ $= m_c \times Q_{std} + b_c$				
Next Calibration Date	14-Jul-15					
Calibration of TSP						
Calibration Point	Manometer Reading			Q <sub>std</sub> (m <sup>3</sup> / min.) X-axis	Continuous Flow Recorder, W (CFM)	IC (W(P <sub>a</sub> /1013.3x298/T <sub>a</sub> ) <sup>1/2</sup> /35.31) Y-axis
	(up)	(down)	(difference)			
1	6.3	6.3	12.6	1.7691	56	55.5826
2	5.0	5.0	10.0	1.5761	50	49.6273
3	3.9	3.9	7.8	1.3920	44	43.6720
4	2.5	2.5	5.0	1.1145	36	35.7317
5	1.5	1.5	3.0	0.8633	27	26.7988
By Linear Regression of Y on X						
Slope, m		=	31.4483	Intercept, b		= 0.0476
Correlation Coefficient*		=	0.9994			
Calibration Accepted		=	Yes/No**			

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

\*\* Delete as appropriate.

Remarks : \_\_\_\_\_

Calibrated by : Henry Lau Checked by : Derek Lo  
 Date : 21-Oct-14 Date : 21-Oct-14





***Appendix 5.1***

***Monitoring Schedules for Reporting Month and Coming Reporting Month***

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

**Environmental Monitoring Schedule  
November 2014**

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		28-Oct	29-Oct	30-Oct	31-Oct	1-Nov
		24hr TSP	1hr TSP  Impact WQM Mid-ebb 3:18 Mid-flood 10:42		Impact WQM Mid-ebb 5:22 Mid-flood 13:08	
<b>2-Nov</b>	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	8-Nov
	24hr TSP  Noise (Daytime) (M1a, M2b) Impact WQM Mid-ebb 9:06 Mid-flood 15:48	24hr TSP (CMA6a) 1hr TSP Noise (Daytime) (M3a, M4b, M5b, M6)	Impact WQM Mid-ebb 10:53 Mid-flood 17:02		Impact WQM Mid-ebb 12:25 Mid-flood 18:12	24hr TSP
<b>9-Nov</b>	10-Nov	11-Nov	12-Nov	13-Nov	14-Nov	15-Nov
	1hr TSP Noise (Daytime) (M1a, M2b) Impact WQM Mid-ebb 2:03 Mid-flood 8:58	Noise (Daytime) (M3a, M4b, M5b, M6)	Impact WQM Mid-ebb 3:24 Mid-flood 10:46		24hr TSP  Impact WQM Mid-ebb 4:14 Mid-flood 16:43	1hr TSP
<b>16-Nov</b>	17-Nov	18-Nov	19-Nov	20-Nov	21-Nov	22-Nov
	Noise (Daytime) (M1a) Impact WQM Mid-ebb 8:09 Mid-flood 15:12	Noise (Daytime) (M2b, M3a, M4b, M5b, M6)	Impact WQM Mid-ebb 10:07 Mid-flood 16:03	24hr TSP	24hr TSP (CMA3a, CMA4a, CMA5a, CMA6a) 1 hr TSP Impact WQM Mid-ebb 11:31 Mid-flood 17:03	
<b>23-Nov</b>	24-Nov	25-Nov	26-Nov	27-Nov		
	Noise (Daytime) (M1a, M2b, M3a) Impact WQM Mid-ebb 0:55 Mid-flood 7:55	Noise (Daytime) (M4b, M5b, M6)	24hr TSP  Impact WQM Mid-ebb 2:21 Mid-flood 9:36	1hr TSP		

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

Tentative Environmental Monitoring Schedule  
December 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					28-Nov	29-Nov
					Impact WQM Mid-ebb 4:00 Mid-flood 11:29	
30-Nov	1-Dec	2-Dec	3-Dec	4-Dec	5-Dec	6-Dec
	Noise (Daytime) Impact WQM Mid-flood 14:21 Mid-ebb 20:49	24hr TSP Noise (Daytime)	1hr TSP Impact WQM Mid-ebb 9:40 Mid-flood 15:50		Impact WQM Mid-ebb 11:26 Mid-flood 17:06	
7-Dec	8-Dec	9-Dec	10-Dec	11-Dec	12-Dec	13-Dec
	24hr TSP Noise (Daytime) Impact WQM Mid-ebb 1:08 Mid-flood 8:07	1hr TSP	Impact WQM Mid-ebb 2:20 Mid-flood 9:30	Noise (Daytime)	Impact WQM Mid-ebb 2:54 Mid-flood 10:58	24hr TSP
14-Dec	15-Dec	16-Dec	17-Dec	18-Dec	19-Dec	20-Dec
	1hr TSP Noise (Daytime) Impact WQM Mid-ebb 4:57 Mid-flood 13:22	Noise (Daytime)	Impact WQM Mid-flood 14:32 Mid-ebb 21:43		24hr TSP Impact WQM Mid-flood 15:46 Mid-ebb 22:44	1hr TSP
21-Dec	22-Dec	23-Dec	24-Dec	25-Dec	26-Dec	27-Dec
	Noise (Daytime) Impact WQM Mid-ebb Mid-flood 7:06	24hr TSP Noise (Daytime)	1hr TSP Impact WQM Mid-ebb 1:28 Mid-flood 8:34		Impact WQM Mid-ebb 2:59 Mid-flood 10:08	



***Appendix 5.2***

***Noise Monitoring Results and Graphical Presentations***



### Noise Monitoring Result

#### Day Time (0700 - 1900hrs on normal weekdays)

Location: M1a - Harbour Road Sports Centre

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30-min)								
03/11/14	13:34	Fine	73.9	76.5	68.5	72	69	75
10/11/14	14:53	Fine	72.2	74.5	68.0	72	72	75
17/11/14	15:09	Fine	73.3	75.5	69.0	72	67	75
24/11/14	9:45	Fine	74.6	76.0	69.5	72	71	75

Location: M2b - Noon-day gun area

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30-min)								
03/11/14	14:18	Fine	69.7	71.0	67.0	68	66	75
10/11/14	15:45	Fine	68.3	69.5	66.0	68	60	75
18/11/14	10:18	Fine	71.8	74.0	68.0	68	70	75
24/11/14	10:25	Fine	68.3	70.0	66.0	68	60	75

Location: M3a - Tung Lo Wan Fire Station

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30-min)								
04/11/14	14:10	Cloudy	65.5	67.0	63.5	69	66	75
11/11/14	13:50	Fine	64.7	66.0	62.0	69	65	75
18/11/14	11:02	Fine	66.9	68.0	65.0	69	67	75
24/11/14	11:05	Fine	65.7	67.0	64.0	69	66	75

Location: M4b - Victoria Centre

Date	Time	Weather	Measurement Noise Level			Baseline Noise Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30min)								
04/11/14	14:50	Cloudy	69.5	70.5	67.5	67	65	75
11/11/14	14:30	Fine	68.9	70.5	66.0	67	64	75
18/11/14	13:05	Fine	68.4	69.5	66.0	67	62	75
25/11/14	14:15	Fine	73.3	73.5	69.0	67	72	75

Location: M5b - City Garden

Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30min)								
04/11/14	15:35	Cloudy	69.6	70.0	68.5	68	64	75
11/11/14	15:10	Fine	69.9	70.5	68.5	68	65	75
18/11/14	13:53	Fine	69.0	70.5	66.0	68	62	75
25/11/14	15:01	Fine	74.8	76.0	67.0	68	74	75

Location: M6 - HK Baptist Church Henrietta Secondary School

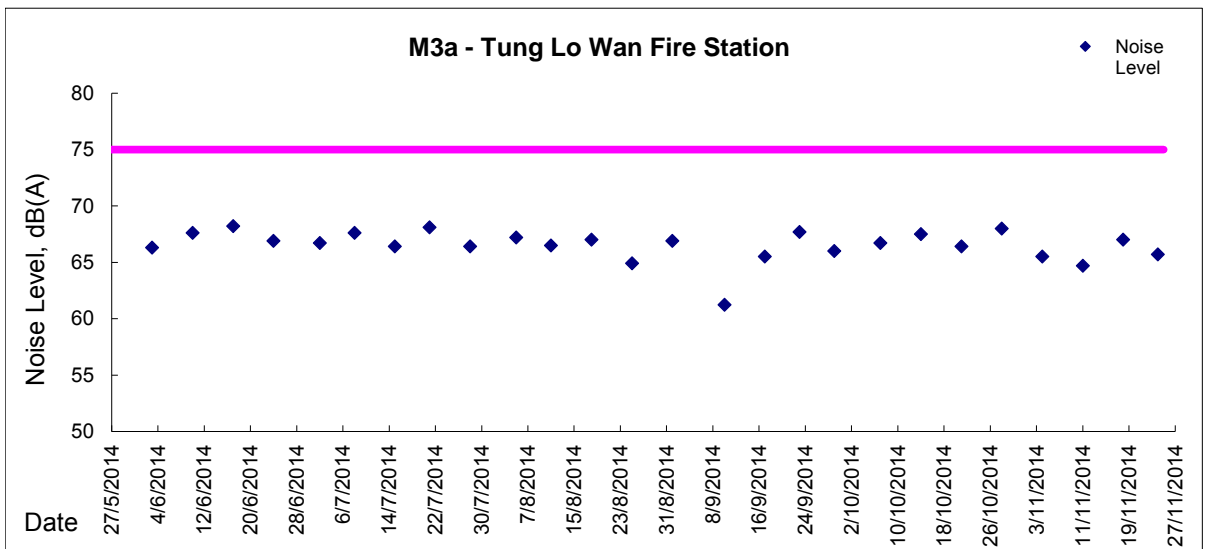
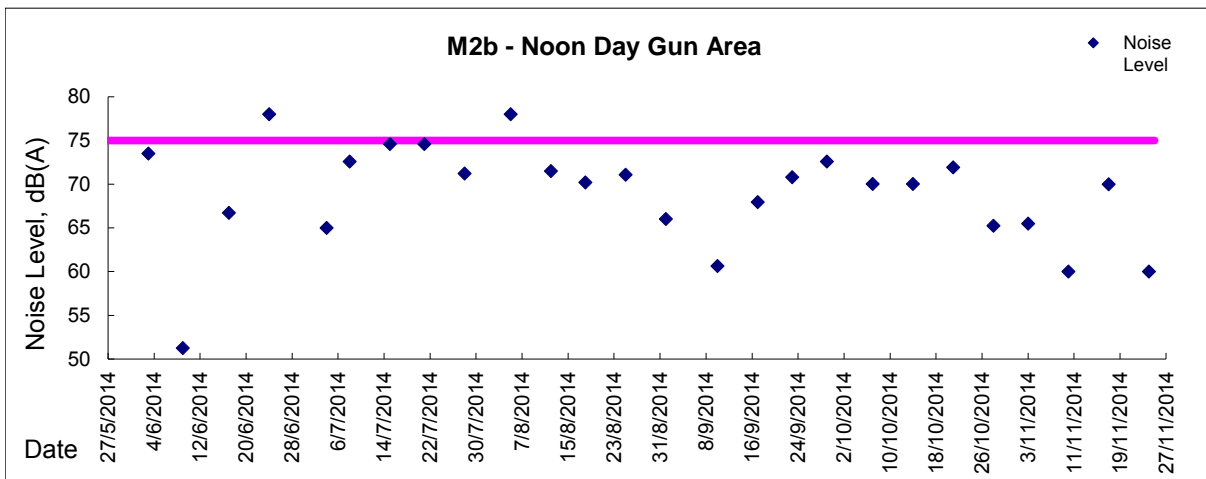
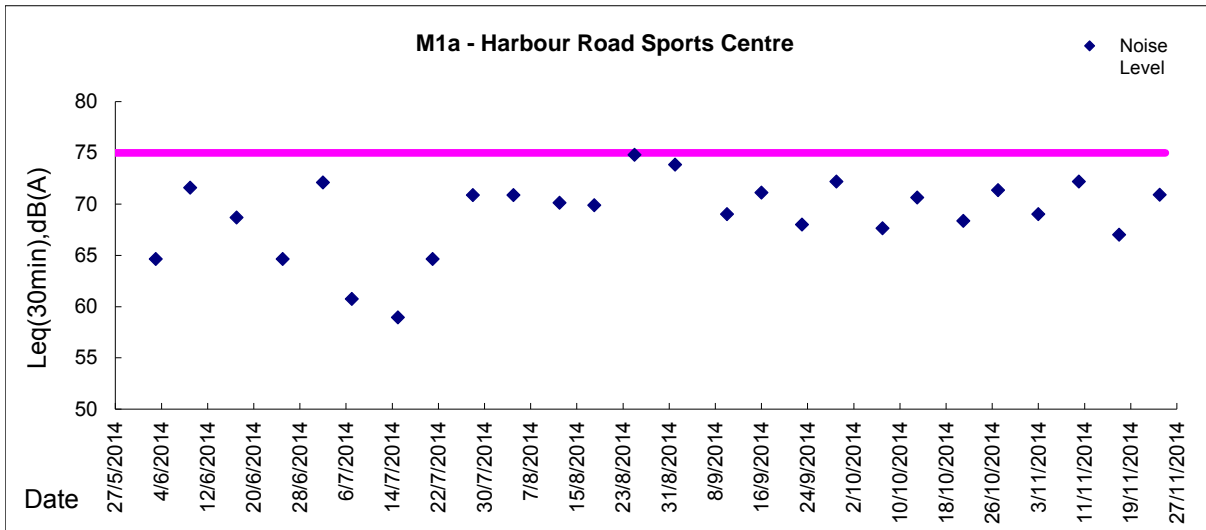
Date	Time	Weather	Measurement Noise Level			Baseline Level	Construction Noise Level	Limit Level
			Leq	L10	L90	Leq	Leq	Leq
Unit: dB(A), (30-min)								
04/11/14	16:17	Cloudy	69.2	70.5	67.0	71	69	70
11/11/14	15:50	Fine	69.7	71.0	67.0	71	70	70
18/11/14	14:33	Fine	72.2	73.5	69.5	71	67	70
25/11/14	15:48	Fine	73.0	74.0	69.5	71	69	70





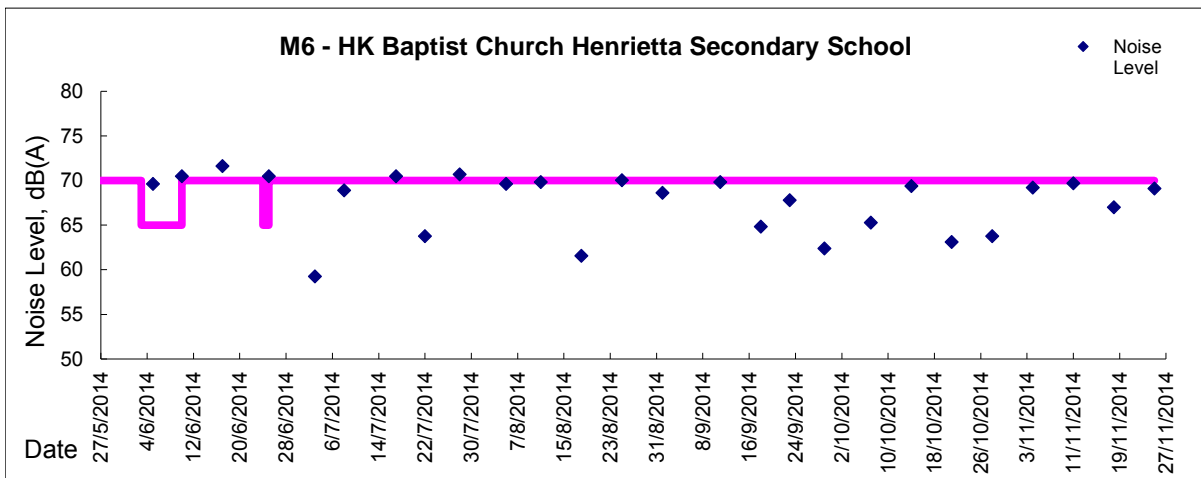
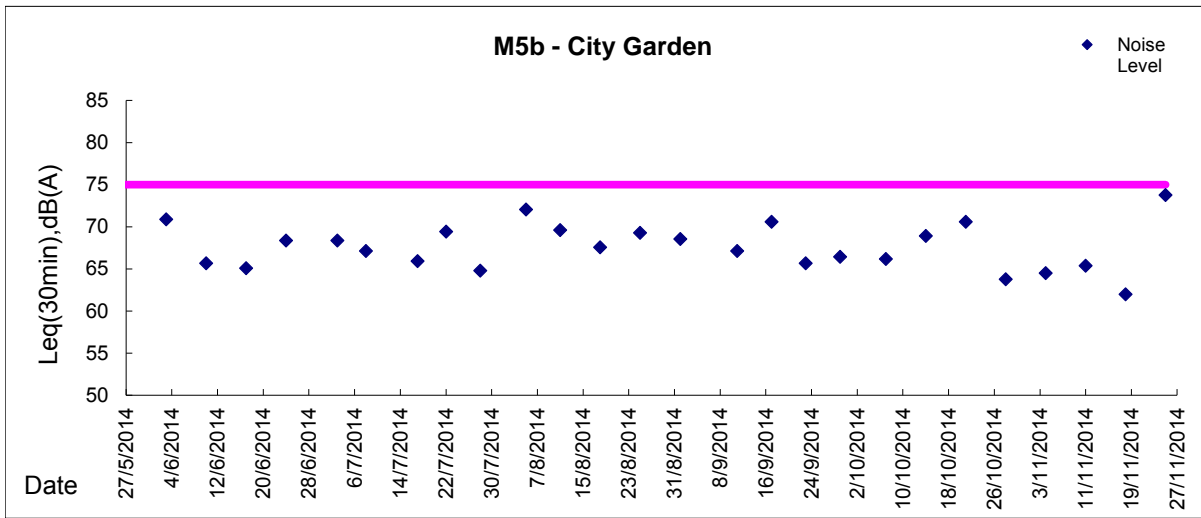
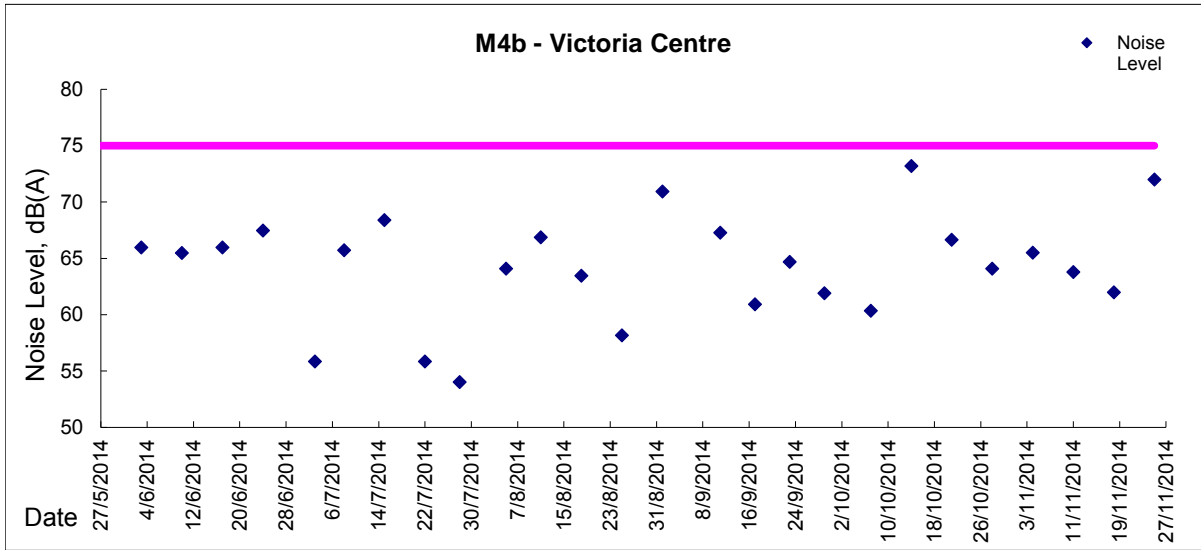
**Graphic Presentation of Noise Monitoring Result**

**Day Time (0700 - 1900hrs on normal weekdays)**





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





***Appendix 5.3***

***Air Quality Monitoring Results and Graphical Presentations, and odour Patrol Results***



Location: CMA1b - Oil Street Site Office

Report on 24-hour TSP monitoring

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

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

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
28-Oct-14	8:00	Cloudy	009520	2.8103	2.9089	5352.90	5376.90	24.00	0.98	0.98	0.98	1408	70
3-Nov-14	8:00	Cloudy	010178	2.7653	2.9407	5379.90	5403.90	24.00	1.04	1.03	1.03	1490	118
8-Nov-14	8:00	Cloudy	010171	2.7434	2.8184	5407.47	5431.47	24.00	0.98	0.98	0.98	1416	53
14-Nov-14	8:00	Cloudy	010481	2.7350	2.9012	5434.47	5458.47	24.00	0.99	0.98	0.98	1418	117
20-Nov-14	8:00	Fine	010487	2.7344	2.9087	5461.47	5485.47	24.00	0.98	0.98	0.98	1415	123
26-Nov-14	8:00	Cloudy	010463	2.7507	2.9226	5488.47	5512.47	24.00	0.98	0.98	0.98	1412	122

Report on 1-hour TSP monitoring

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

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

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
29-Oct-14	8:07	Cloudy	009522	2.8144	2.8190	5376.90	5377.90	1.00	0.98	0.98	0.98	59	78
29-Oct-14	9:15	Cloudy	009807	2.8099	2.8169	5377.90	5378.90	1.00	0.98	0.98	0.98	59	119
29-Oct-14	13:00	Cloudy	010180	2.7551	2.7618	5378.90	5379.90	1.00	0.98	0.98	0.98	59	114
4-Nov-14	8:30	Cloudy	010162	2.7509	2.7604	5404.47	5405.47	1.00	0.98	0.98	0.98	59	161
4-Nov-14	9:35	Cloudy	010165	2.7661	2.7743	5405.47	5406.47	1.00	0.98	0.98	0.98	59	139
4-Nov-14	10:42	Cloudy	010168	2.7559	2.7641	5406.47	5407.47	1.00	0.98	0.98	0.98	59	140
10-Nov-14	8:10	Cloudy	010476	2.7329	2.7433	5431.47	5432.47	1.00	0.98	0.98	0.98	59	177
10-Nov-14	10:45	Cloudy	010477	2.7477	2.7546	5432.47	5433.47	1.00	0.93	0.93	0.93	56	124
10-Nov-14	13:00	Cloudy	010479	2.7434	2.7500	5433.47	5434.47	1.00	0.93	0.93	0.93	56	119
15-Nov-14	8:10	Cloudy	010483	2.7321	2.7389	5458.47	5459.47	1.00	0.98	0.98	0.98	59	115
15-Nov-14	10:45	Cloudy	010485	2.7297	2.7354	5459.47	5460.47	1.00	0.93	0.93	0.93	56	102
15-Nov-14	13:00	Cloudy	010486	2.7374	2.7475	5460.47	5461.47	1.00	0.93	0.93	0.93	56	181
21-Nov-14	8:20	Fine	010491	2.7314	2.7376	5485.47	5486.47	1.00	1.04	1.04	1.04	62	100
21-Nov-14	9:34	Fine	010493	2.7262	2.7355	5486.47	5487.47	1.00	1.04	1.04	1.04	62	150
21-Nov-14	10:46	Fine	010461	2.7311	2.7430	5487.47	5488.47	1.00	1.04	1.04	1.04	62	192
27-Nov-14	8:10	Cloudy	010550	2.7265	2.7337	5512.47	5513.47	1.00	0.98	0.98	0.98	59	122
27-Nov-14	9:25	Cloudy	010154	2.7653	2.7753	5513.47	5514.47	1.00	0.98	0.98	0.98	59	170
27-Nov-14	10:40	Cloudy	010156	2.7512	2.7612	5514.47	5515.47	1.00	0.98	0.98	0.98	59	170



Location: CMA2a - Causeway Bay Community Centre

Report on 24-hour TSP monitoring  
 Action Level ( $\mu\text{g}/\text{m}^3$ ) - 169.5  
 Limit Level ( $\mu\text{g}/\text{m}^3$ ) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
28-Oct-14	8:00	Cloudy	009521	2.8191	3.0006	15063.40	15087.40	24.00	1.11	1.11	1.11	1605	113
3-Nov-14	8:00	Cloudy	010176	2.7558	2.9864	15090.40	15114.40	24.00	1.03	1.03	1.03	1479	156
8-Nov-14	8:00	Cloudy	010172	2.7562	2.8105	15117.40	15141.40	24.00	0.97	1.03	1.00	1437	38
14-Nov-14	8:00	Cloudy	010482	2.7327	2.9476	15144.41	15168.41	24.00	1.03	1.03	1.03	1484	145
20-Nov-14	8:00	Fine	010488	2.7247	2.8155	15171.41	15195.41	24.00	1.03	1.03	1.03	1480	61
26-Nov-14	8:00	Cloudy	010464	2.7442	2.9726	15198.41	15222.41	24.00	1.02	1.03	1.02	1476	155

Report on 1-hour TSP monitoring  
 Action Level ( $\mu\text{g}/\text{m}^3$ ) - 323.4  
 Limit Level ( $\mu\text{g}/\text{m}^3$ ) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
29-Oct-14	8:05	Cloudy	009806	2.8230	2.8308	15087.40	15088.40	1.00	1.11	1.11	1.11	67	117
29-Oct-14	9:15	Cloudy	009808	2.8163	2.8236	15088.40	15089.40	1.00	1.11	1.11	1.11	67	109
29-Oct-14	13:00	Cloudy	010179	2.7490	2.7582	15089.40	15090.40	1.00	1.11	1.11	1.11	67	138
4-Nov-14	8:35	Cloudy	010163	2.7510	2.7612	15114.40	15115.40	1.00	1.03	1.03	1.03	62	166
4-Nov-14	9:43	Cloudy	010166	2.7664	2.7768	15115.40	15116.40	1.00	1.03	1.03	1.03	62	169
4-Nov-14	10:50	Cloudy	010169	2.7513	2.7608	15116.40	15117.40	1.00	1.03	1.03	1.03	62	154
10-Nov-14	8:10	Cloudy	010174	2.7478	2.7528	15141.40	15142.40	1.00	0.96	0.96	0.96	58	86
10-Nov-14	11:00	Cloudy	010478	2.7406	2.7456	15142.40	15143.40	1.00	0.96	0.96	0.96	58	86
10-Nov-14	13:00	Cloudy	010480	2.7431	2.7476	15143.40	15144.40	1.00	0.96	0.96	0.96	58	78
15-Nov-14	8:03	Cloudy	008435	2.8551	2.8631	15168.41	15169.41	1.00	1.09	1.09	1.09	65	122
15-Nov-14	9:06	Cloudy	010484	2.7248	2.7346	15169.41	15170.41	1.00	1.09	1.09	1.09	65	150
15-Nov-14	10:09	Cloudy	009000	2.8236	2.8352	15170.41	15171.41	1.00	1.09	1.09	1.09	65	177
21-Nov-14	8:10	Fine	010492	2.7304	2.7359	15195.41	15196.41	1.00	0.97	0.97	0.97	58	95
21-Nov-14	9:16	Fine	010463	2.7468	2.7533	15196.41	15197.41	1.00	1.03	1.03	1.03	62	105
21-Nov-14	10:30	Fine	010462	2.7351	2.7395	15197.41	15198.41	1.00	0.97	0.97	0.97	58	76
27-Nov-14	8:08	Cloudy	010565	2.7499	2.7595	15222.41	15223.41	1.00	0.96	0.96	0.96	58	166
27-Nov-14	9:12	Cloudy	010155	2.7556	2.7635	15223.41	15224.41	1.00	0.90	0.90	0.90	54	146
27-Nov-14	10:20	Cloudy	010157	2.7348	2.7468	15224.41	15225.41	1.00	1.03	1.03	1.03	62	195





Location: CMA3a - CWB PRE Site Office Area

Report on 24-hour TSP monitoring  
Action Level ( $\mu\text{g}/\text{m}^3$ ) - 171  
Limit Level ( $\mu\text{g}/\text{m}^3$ ) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
28-Oct-14	8:00	Cloudy	010138	2.7674	2.9659	2482.34	2506.34	24.00	1.30	1.30	1.30	1872	106
3-Nov-14	8:00	Cloudy	010363	2.7628	2.9428	2509.59	2533.59	24.00	1.23	1.23	1.23	1769	102
8-Nov-14	8:00	Cloudy	010229	2.7700	2.8319	2536.56	2560.56	24.00	1.23	1.23	1.23	1772	35
14-Nov-14	8:00	Cloudy	010380	2.7798	2.9550	2563.56	2587.56	24.00	1.23	1.23	1.23	1774	99
21-Nov-14	16:35	Fine	010128	2.7561	2.9131	2593.55	2617.55	24.00	1.28	1.28	1.28	1843	85
26-Nov-14	8:00	Cloudy	010465	2.7440	2.9571	2617.55	2641.55	24.00	1.28	1.28	1.28	1840	116

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 20 November 2014 to 21 November 2014.

Report on 1-hour TSP monitoring  
Action Level ( $\mu\text{g}/\text{m}^3$ ) - 311.3  
Limit Level ( $\mu\text{g}/\text{m}^3$ ) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
29-Oct-14	8:51	Cloudy	010376	2.7689	2.7796	2506.34	2507.34	1.00	1.18	1.18	1.18	71	151
29-Oct-14	9:58	Cloudy	010394	2.7578	2.7680	2507.34	2508.34	1.00	1.18	1.18	1.18	71	144
29-Oct-14	13:00	Cloudy	010369	2.7622	2.7724	2508.34	2509.34	1.00	1.18	1.18	1.18	71	144
4-Nov-14	9:00	Cloudy	010225	2.7815	2.7875	2533.59	2534.59	1.00	1.15	1.15	1.15	69	87
4-Nov-14	10:06	Cloudy	010227	2.7670	2.7708	2534.59	2535.59	1.00	1.00	1.00	1.00	60	63
4-Nov-14	13:00	Cloudy	010229	2.7656	2.7718	2535.59	2536.59	1.00	1.08	1.00	1.04	62	99
10-Nov-14	8:40	Cloudy	010373	2.7688	2.7734	2560.56	2561.56	1.00	1.08	1.08	1.08	65	71
10-Nov-14	9:42	Cloudy	010375	2.7669	2.7723	2561.56	2562.56	1.00	1.08	1.08	1.08	65	84
10-Nov-14	10:57	Cloudy	010378	2.7607	2.7662	2562.56	2563.56	1.00	1.08	1.08	1.08	65	85
15-Nov-14	9:05	Cloudy	010503	2.7339	2.7422	2587.56	2588.56	1.00	1.08	1.08	1.08	65	128
15-Nov-14	10:32	Cloudy	010501	2.7257	2.7322	2588.56	2589.56	1.00	1.08	1.08	1.08	65	100
15-Nov-14	13:00	Cloudy	010498	2.7295	2.7428	2589.56	2590.56	1.00	1.08	1.08	1.08	65	205
21-Nov-14	8:07	Fine	010490	2.7130	2.7211	2590.55	2591.55	1.00	1.15	1.15	1.15	69	117
21-Nov-14	9:35	Fine	101470	2.7520	2.7591	2591.55	2592.55	1.00	1.15	1.15	1.15	69	103
21-Nov-14	15:20	Fine	010132	2.7613	2.7704	2592.55	2593.55	1.00	1.15	1.15	1.15	69	132
27-Nov-14	9:40	Cloudy	010212	2.7426	2.7494	2641.55	2642.55	1.00	1.08	1.08	1.08	65	105
27-Nov-14	10:43	Cloudy	010210	2.7582	2.7654	2642.55	2643.55	1.00	1.15	1.15	1.15	69	104
27-Nov-14	13:00	Cloudy	010208	2.7491	2.7543	2643.55	2644.55	1.00	1.08	1.08	1.08	65	80



Location: CMA4a - SPCA

Report on 24-hour TSP monitoring  
Action Level ( $\mu\text{g}/\text{m}^3$ ) - 171.2  
Limit Level ( $\mu\text{g}/\text{m}^3$ ) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
28-Oct-14	8:00	Cloudy	010139	2.7715	2.9583	19314.02	19338.02	24.00	1.22	1.22	1.22	1763	106
3-Nov-14	8:00	Cloudy	010367	2.7694	2.9492	19341.03	19365.03	24.00	1.23	1.23	1.23	1769	102
8-Nov-14	8:00	Cloudy	010230	2.7686	2.8239	19368.01	19392.01	24.00	1.23	1.23	1.23	1772	31
14-Nov-14	8:00	Cloudy	010379	2.7854	2.9603	19395.01	19419.01	24.00	1.23	1.23	1.23	1774	99
21-Nov-14	16:20	Fine	010133	2.7710	2.9220	19425.00	19449.00	24.00	1.18	1.18	1.18	1697	89
26-Nov-14	8:00	Cloudy	010576	2.7148	2.8904	19454.24	19478.24	24.00	1.23	1.23	1.23	1767	99

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 20 November 2014 to 21 November 2014.

Report on 1-hour TSP monitoring  
Action Level ( $\mu\text{g}/\text{m}^3$ ) - 312.5  
Limit Level ( $\mu\text{g}/\text{m}^3$ ) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
29-Oct-14	8:38	Cloudy	010364	2.7398	2.7451	19338.02	19339.02	1.00	1.17	1.17	1.17	70	75
29-Oct-14	9:45	Cloudy	010360	2.7752	2.7827	19339.02	19340.02	1.00	1.17	1.17	1.17	70	106
29-Oct-14	13:00	Cloudy	010372	2.7681	2.7748	19340.02	19341.02	1.00	1.17	1.20	1.19	71	94
4-Nov-14	8:50	Cloudy	010224	2.7730	2.7820	19365.03	19366.03	1.00	1.23	1.23	1.23	74	122
4-Nov-14	9:53	Cloudy	010226	2.7534	2.7584	19366.03	19367.03	1.00	1.18	1.18	1.18	71	71
4-Nov-14	10:58	Cloudy	001028	2.7556	2.7638	19367.03	19368.03	1.00	1.28	1.28	1.28	77	107
10-Nov-14	8:30	Cloudy	010371	2.7674	2.7729	19392.01	19393.01	1.00	1.23	1.23	1.23	74	75
10-Nov-14	9:41	Cloudy	010374	2.7783	2.7851	19393.01	19394.01	1.00	1.18	1.18	1.18	71	96
10-Nov-14	10:50	Cloudy	010377	2.7784	2.7831	19394.01	19395.01	1.00	1.18	1.18	1.18	71	67
15-Nov-14	8:53	Cloudy	010502	2.7296	2.7334	19419.01	19420.01	1.00	1.23	1.23	1.23	74	51
15-Nov-14	9:55	Cloudy	010500	2.7230	2.7265	19420.01	19421.01	1.00	1.23	1.23	1.23	74	47
15-Nov-14	10:58	Cloudy	010499	2.7207	2.7262	19421.01	19422.01	1.00	1.23	1.23	1.23	74	74
21-Nov-14	8:05	Fine	010489	2.7223	2.7299	19422.00	19423.00	1.00	1.18	1.18	1.18	71	107
21-Nov-14	10:28	Fine	010471	2.7501	2.7570	19423.00	19424.00	1.00	1.18	1.18	1.18	71	98
21-Nov-14	15:00	Fine	010131	2.7648	2.7740	19424.00	19425.00	1.00	1.18	1.18	1.18	71	130
27-Nov-14	9:28	Cloudy	010544	2.7447	2.7533	19478.24	19479.24	1.00	1.23	1.23	1.23	74	117
27-Nov-14	10:45	Cloudy	010211	2.7589	2.7597	19479.24	19480.24	1.00	1.18	1.18	1.18	71	11
27-Nov-14	13:00	Cloudy	010209	2.7507	2.7581	19480.24	19481.24	1.00	1.23	1.23	1.23	74	100



Location: CMA5a - Children Garden opposite to Pedestrian Plaza

Report on 24-hour TSP monitoring

Action Level ( $\mu\text{g}/\text{m}^3$ ) - 181  
Limit Level ( $\mu\text{g}/\text{m}^3$ ) - 260

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
28-Oct-14	8:00	Cloudy	010265	2.7678	3.0080	20285.07	20309.07	24.00	1.22	1.22	1.22	1759	137
3-Nov-14	8:00	Cloudy	010261	2.7770	2.8596	20312.07	20336.07	24.00	1.06	1.06	1.06	1526	54
8-Nov-14	8:00	Cloudy	010219	2.7791	2.8634	20339.06	20363.06	24.00	1.06	1.06	1.06	1529	55
14-Nov-14	8:00	Cloudy	010387	2.7686	3.0017	20366.06	20390.06	24.00	1.06	1.06	1.06	1531	152
21-Nov-14	15:00	Fine	010573	2.7209	2.8954	20398.90	20422.90	24.00	1.13	1.13	1.13	1624	107
26-Nov-14	8:00	Cloudy	010466	2.7458	2.8181	20422.90	20446.90	24.00	1.12	1.13	1.12	1620	45

Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 20 November 2014 to 21 November 2014.

Report on 1-hour TSP monitoring

Action Level ( $\mu\text{g}/\text{m}^3$ ) - 332  
Limit Level ( $\mu\text{g}/\text{m}^3$ ) - 500

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
29-Oct-14	9:43	Cloudy	010252	2.7682	2.7793	20309.07	20310.07	1.00	1.22	1.22	1.22	73	151
29-Oct-14	13:00	Cloudy	010255	2.7835	2.7960	20310.07	20311.07	1.00	1.22	1.22	1.22	73	171
29-Oct-14	14:33	Cloudy	010258	2.7953	2.8076	20311.07	20312.07	1.00	1.22	1.22	1.22	73	168
4-Nov-14	13:00	Cloudy	010244	2.7704	2.7851	20336.07	20337.07	1.00	1.06	1.06	1.06	64	231
4-Nov-14	14:15	Cloudy	010247	2.7596	2.7760	20337.07	20338.07	1.00	1.06	1.06	1.06	64	258
4-Nov-14	15:20	Cloudy	010236	2.7642	2.7831	20338.07	20339.07	1.00	1.06	1.06	1.06	64	297
10-Nov-14	9:48	Cloudy	010222	2.7698	2.7797	20363.06	20364.06	1.00	1.06	1.06	1.06	63	156
10-Nov-14	10:58	Cloudy	010383	2.7533	2.7616	20364.06	20365.06	1.00	1.06	1.06	1.06	63	131
10-Nov-14	13:10	Cloudy	010384	2.7728	2.7806	20365.06	20366.06	1.00	1.06	1.06	1.06	63	123
15-Nov-14	13:00	Cloudy	010521	2.7376	2.7488	20390.06	20391.06	1.00	1.06	1.06	1.06	64	176
15-Nov-14	14:06	Cloudy	010518	2.7529	2.7638	20391.06	20392.06	1.00	1.06	1.06	1.06	64	171
15-Nov-14	15:15	Cloudy	010515	2.7469	2.7582	20392.06	20393.06	1.00	1.06	1.06	1.06	64	177
21-Nov-14	8:03	Fine	010205	2.7486	2.7609	20393.05	20394.05	1.00	1.13	1.13	1.13	68	182
21-Nov-14	9:48	Fine	010571	2.7322	2.7444	20395.05	20396.05	1.00	1.06	1.06	1.06	64	192
21-Nov-14	10:53	Fine	010147	2.7694	2.7831	20396.05	20397.05	1.00	1.13	1.13	1.13	68	203
27-Nov-14	8:20	Cloudy	010677	2.7894	2.8069	20446.90	20447.90	1.00	1.06	1.06	1.06	64	275
27-Nov-14	10:30	Cloudy	010681	2.7681	2.7749	20448.60	20449.60	1.00	1.06	1.06	1.06	64	107
27-Nov-14	13:00	Cloudy	010685	2.7820	2.7897	20449.60	20450.60	1.00	1.06	1.06	1.06	64	121



Location: CMA6a - WD2 PRE Office

Report on 24-hour TSP monitoring

Action Level - 187.3  $\mu\text{g}/\text{m}^3$   
Limit Level - 260  $\mu\text{g}/\text{m}^3$

Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
28-Oct-14	8:00	Cloudy	010264	2.7726	2.9427	18622.62	18646.62	24.00	1.16	1.16	1.16	1672	102
4-Nov-14	16:13	Cloudy	010237	2.7645	2.9117	18652.73	18676.73	24.00	1.10	1.10	1.10	1588	93
8-Nov-14	8:00	Cloudy	010402	2.7726	2.8023	18683.71	18707.71	24.00	1.17	1.17	1.17	1682	18
14-Nov-14	8:00	Cloudy	010388	2.7573	2.8273	18710.71	18734.71	24.00	1.17	1.17	1.17	1684	42
21-Nov-14	14:21	Fine	010472	2.7455	3.0088	18741.70	18765.70	24.00	1.23	1.23	1.23	1769	149
26-Nov-14	8:00	Cloudy	010474	2.7282	2.9692	18765.70	18789.70	24.00	1.29	1.29	1.29	1853	130

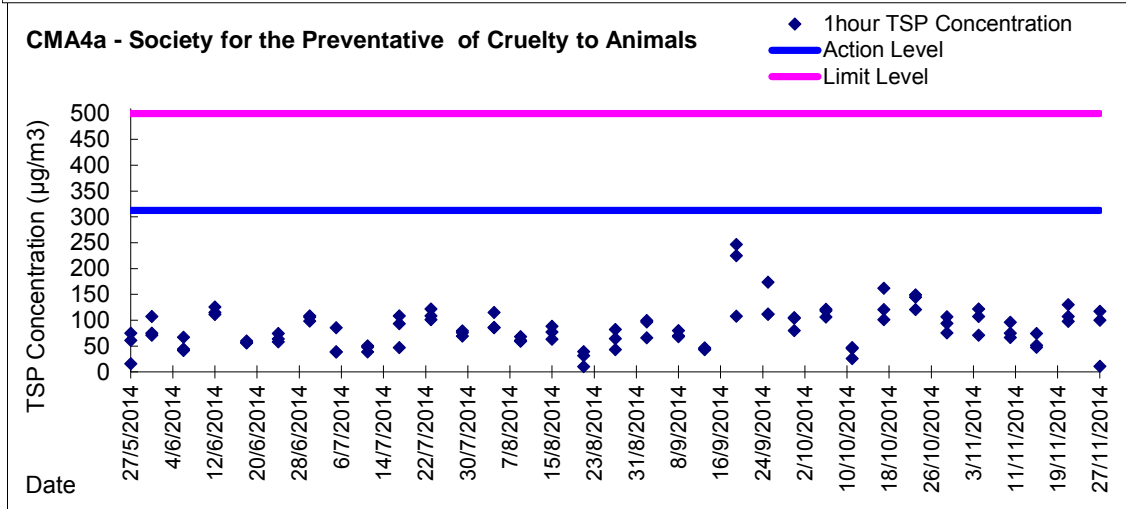
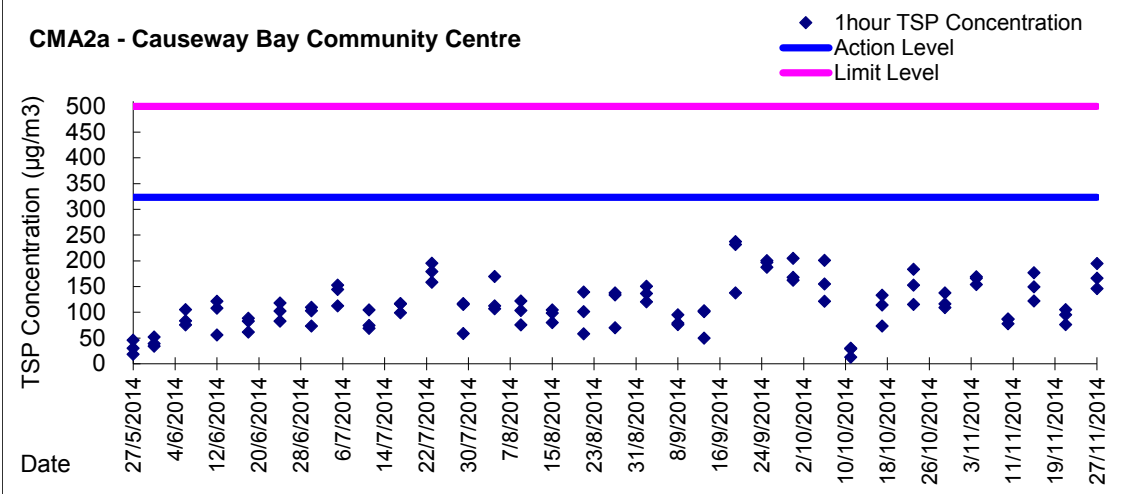
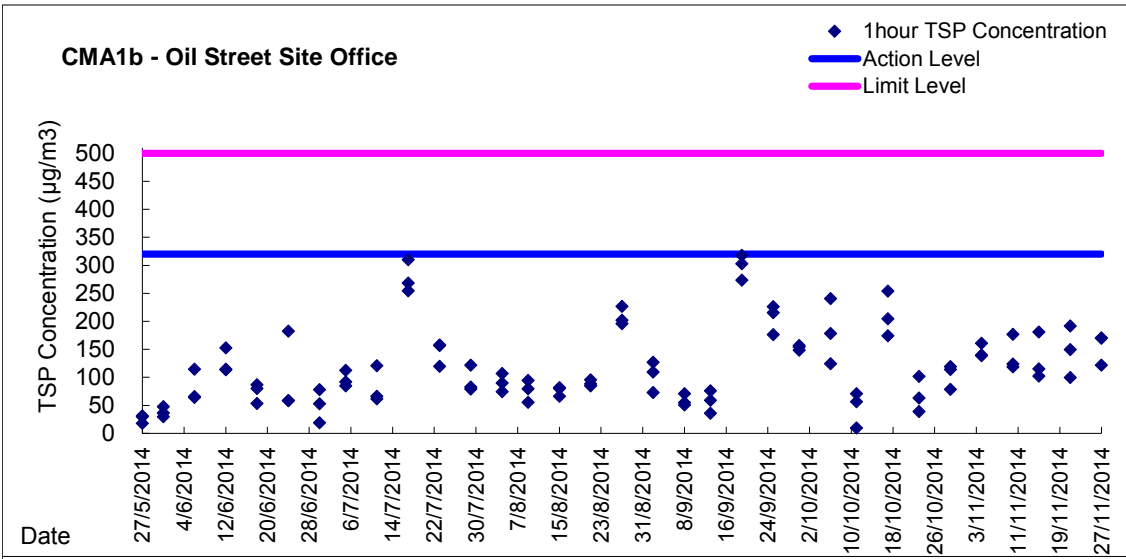
Remarks: Due to interruption of electricity, the 24hr TSP was rescheduled from 3 and 20 November 2014 to 4 and 21 November 2014 respectively.

Report on 1-hour TSP monitoring

Action Level - 300.1  $\mu\text{g}/\text{m}^3$   
Limit Level - 500  $\mu\text{g}/\text{m}^3$

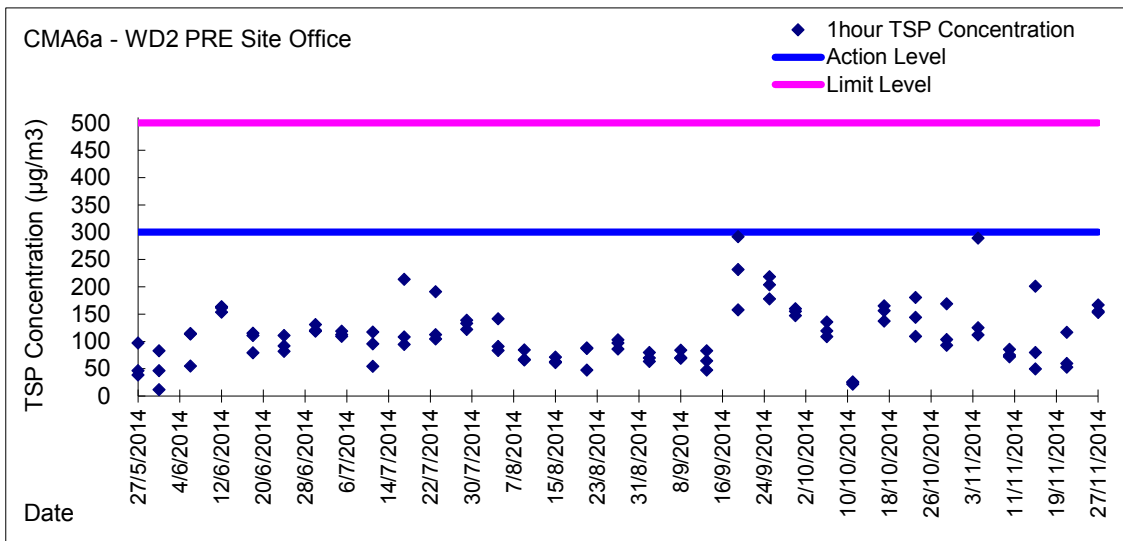
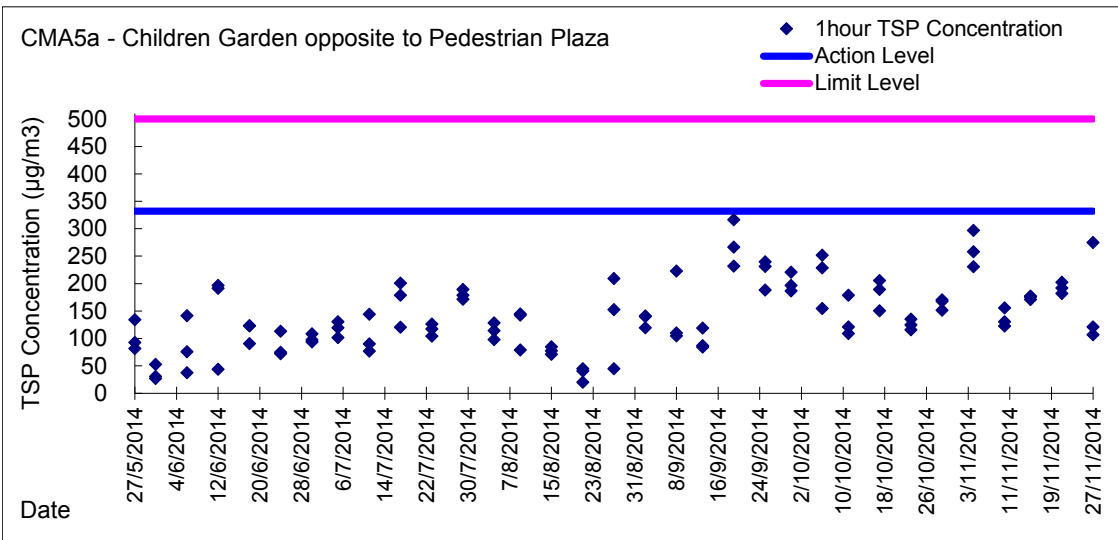
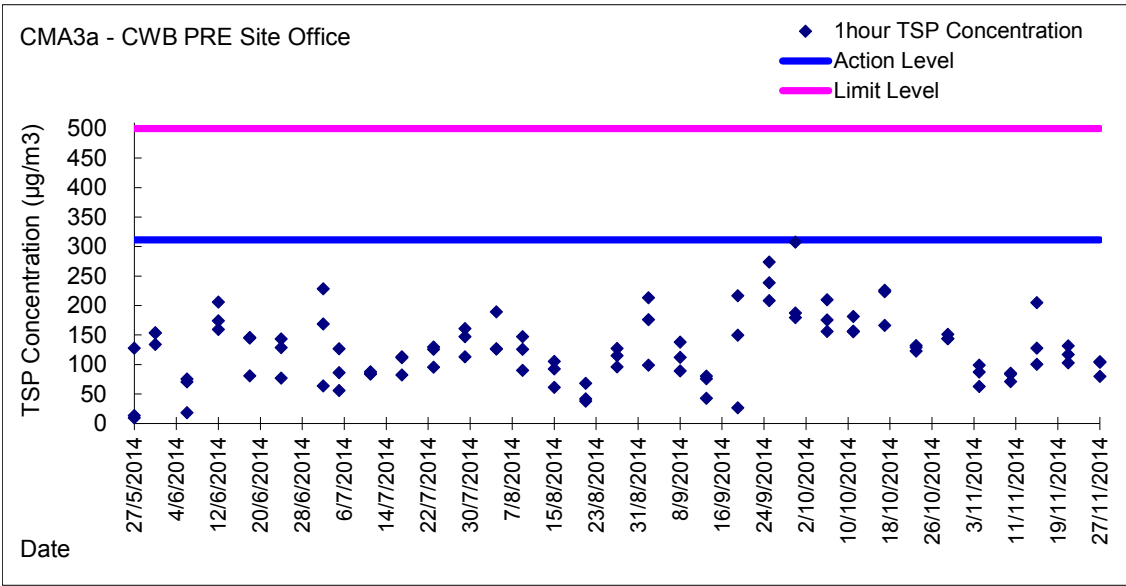
Date	Sampling Time	Weather Condition	Filter paper no.	Filter Weight, g		Elapse Time, hr		Sampling Time, hr	Flow Rate, $\text{m}^3/\text{min}$			Total Volume, $\text{m}^3$	TSP Level, $\mu\text{g}/\text{m}^3$
				Initial	Final	Initial	Final		Initial, $Q_{si}$	Final, $Q_{sf}$	Average		
29-Oct-14	9:28	Cloudy	010250	2.7756	2.7880	18646.62	18647.62	1.00	1.22	1.22	1.22	73	169
29-Oct-14	13:00	Cloudy	010253	2.7634	2.7710	18647.62	18648.62	1.00	1.22	1.22	1.22	73	104
29-Oct-14	14:16	Cloudy	010256	2.7850	2.7918	18648.62	18649.62	1.00	1.22	1.22	1.22	73	93
4-Nov-14	13:00	Cloudy	010259	2.8026	2.8228	18649.73	18650.73	1.00	1.17	1.17	1.17	70	289
4-Nov-14	14:02	Cloudy	010245	2.7757	2.7840	18650.73	18651.73	1.00	1.10	1.10	1.10	66	125
4-Nov-14	15:10	Cloudy	010248	2.7670	2.7748	18651.73	18652.73	1.00	1.17	1.17	1.17	70	112
10-Nov-14	9:30	Cloudy	010220	2.7847	2.7900	18707.71	18708.71	1.00	1.23	1.23	1.23	74	72
10-Nov-14	10:40	Cloudy	010381	2.7770	2.7833	18708.71	18709.71	1.00	1.23	1.23	1.23	74	86
10-Nov-14	13:00	Cloudy	010386	2.7640	2.7695	18709.71	18710.71	1.00	1.23	1.23	1.23	74	75
15-Nov-14	13:00	Cloudy	010497	2.7259	2.7315	18734.71	18735.71	1.00	1.17	1.17	1.17	70	80
15-Nov-14	14:05	Cloudy	010520	2.7348	2.7383	18735.71	18736.71	1.00	1.17	1.17	1.17	70	50
15-Nov-14	15:09	Cloudy	010517	2.7560	2.7701	18736.71	18737.71	1.00	1.17	1.17	1.17	70	201
21-Nov-14	9:30	Fine	010569	2.7460	2.7546	18737.70	18738.70	1.00	1.23	1.23	1.23	74	117
21-Nov-14	10:45	Fine	010568	2.7476	2.7515	18738.70	18739.70	1.00	1.23	1.23	1.23	74	53
21-Nov-14	13:00	Fine	010567	2.7335	2.7379	18739.70	18740.70	1.00	1.23	1.23	1.23	74	60
27-Nov-14	8:06	Cloudy	010590	2.7228	2.7348	18789.70	18790.70	1.00	1.29	1.29	1.29	77	155
27-Nov-14	9:10	Cloudy	010678	2.7855	2.7984	18790.70	18791.70	1.00	1.29	1.29	1.29	77	167
27-Nov-14	10:15	Cloudy	010679	2.7786	2.7904	18791.70	18792.70	1.00	1.29	1.29	1.29	77	153

Graphic Presentation of 1 hour TSP Result

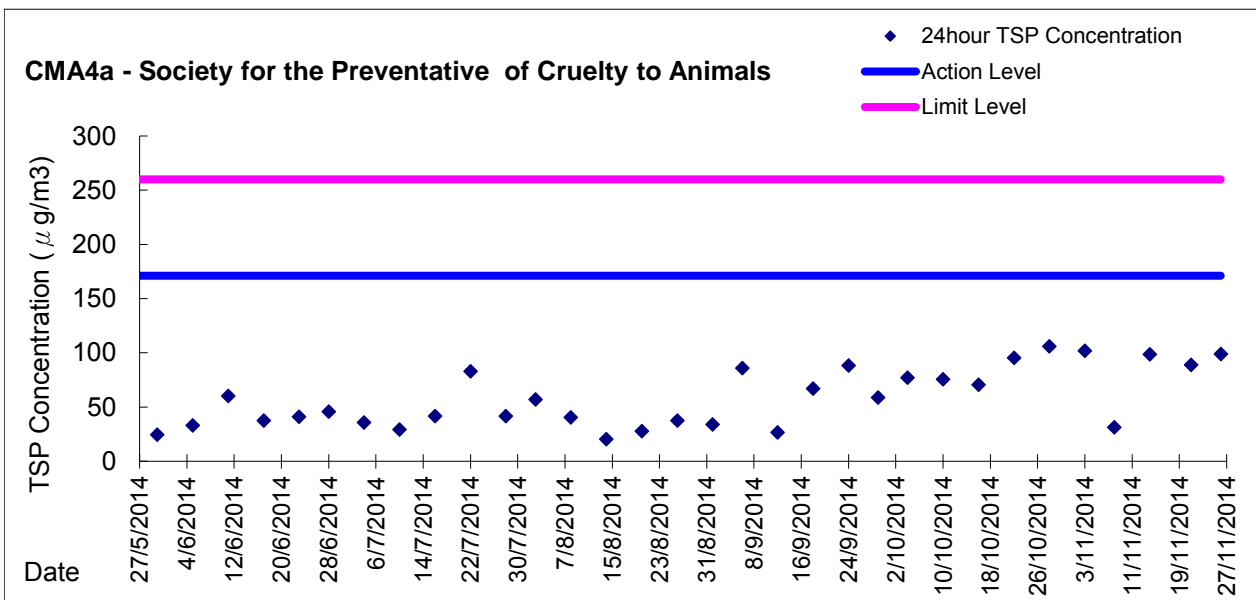
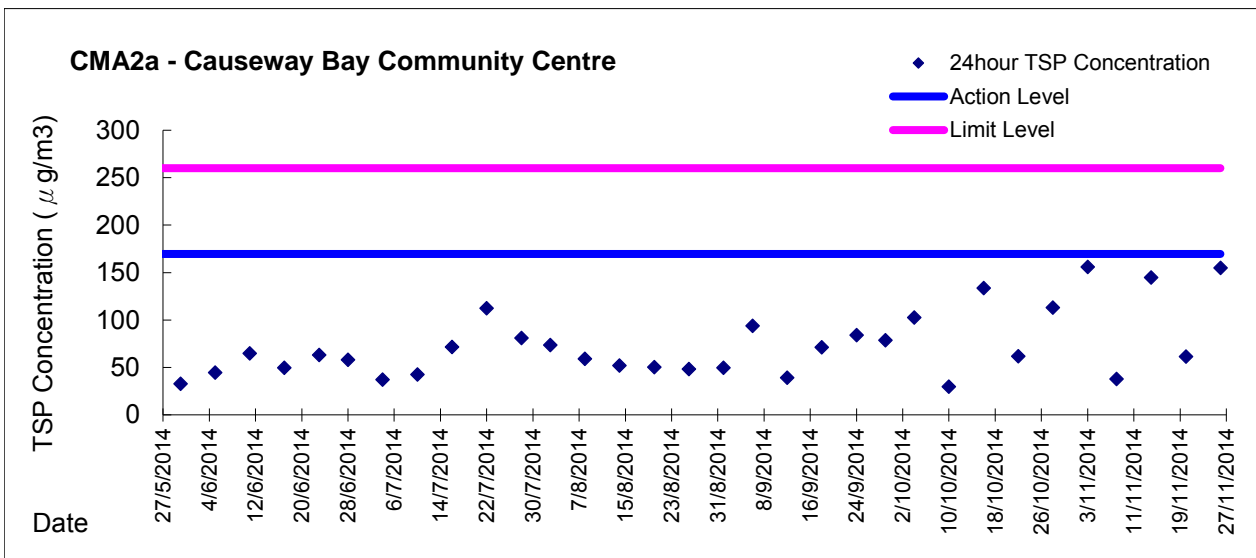
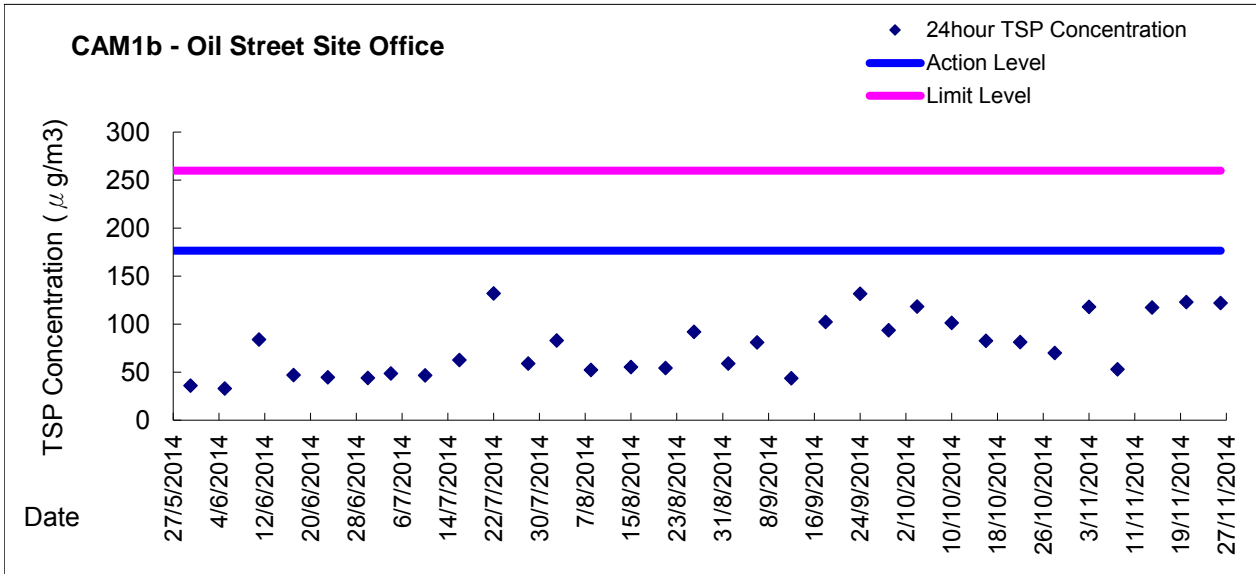




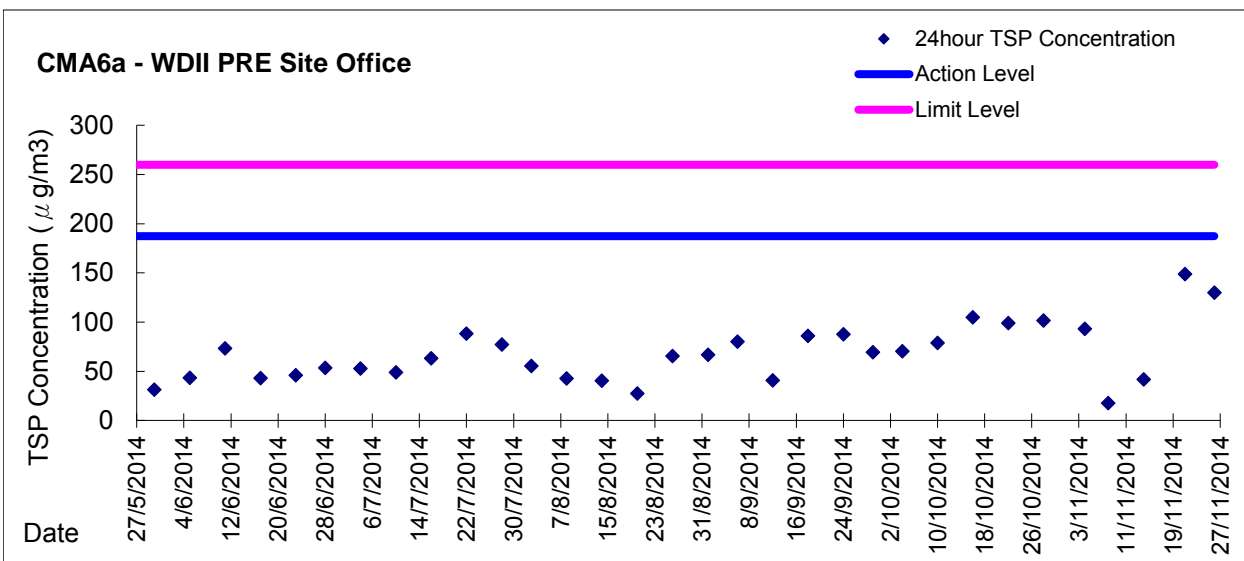
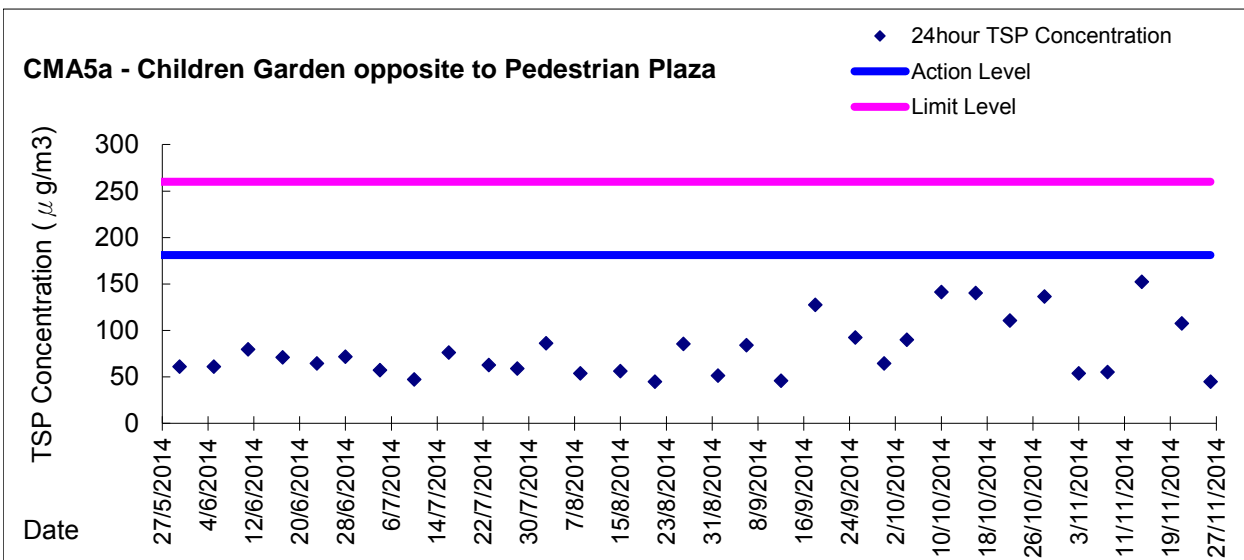
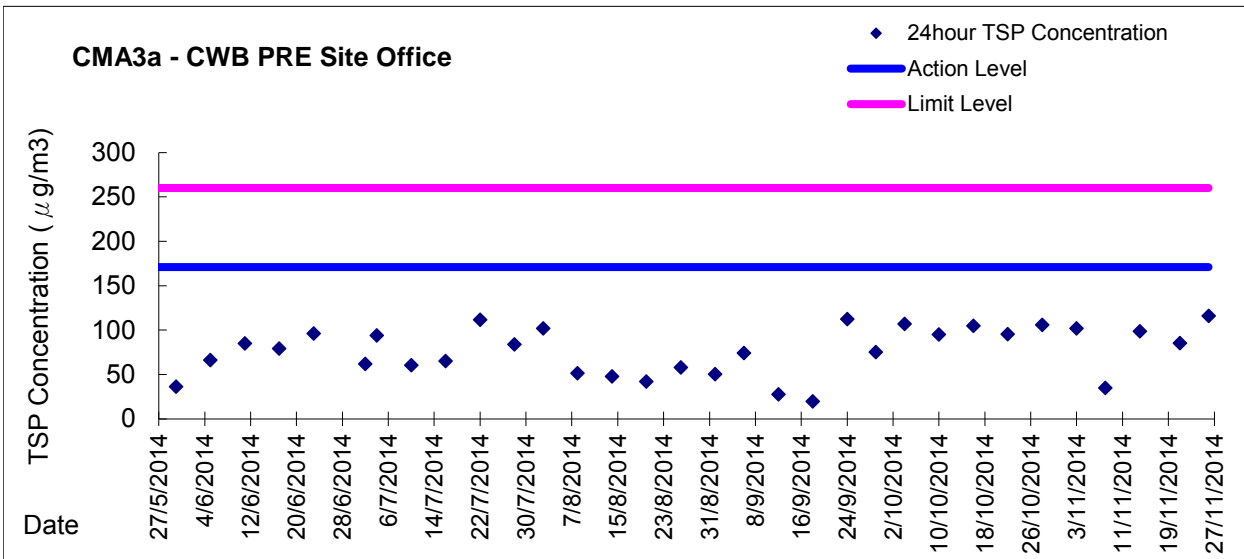
Graphic Presentation of 1 hour TSP Result



**Graphic Presentation of 24 hour TSP Result**



**Graphic Presentation of 24 hour TSP Result**





***Appendix 5.4***

***Water Quality and Additional Dissolved Oxygen Monitoring Results and Graphical Presentations***



**Water Monitoring Result at C1 - HKCEC Extension  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/10/2014	10:48	Fine	Middle	2.5	26.40	26.40	26.35	7.78	7.78	7.80	32.71	32.71	32.72	64.2	64.2	63.8	4.30	4.31	4.28	8.52	8.35	8.46	11	11.00
	10:50		Middle	2.5	26.30	26.30		7.82	7.82		32.73	32.73		63.6	63.3		4.26	4.24		8.44	8.53		11	
31/10/2014	10:50	Fine	Middle	2.0	27.20	27.20	27.20	7.84	7.84	7.84	33.31	33.31	33.31	84.4	84.0	83.8	5.56	5.53	5.52	7.58	7.57	7.55	6	6.00
	10:52		Middle	2.0	27.20	27.20		7.84	7.84		33.30	33.30		83.5	83.4		5.50	5.50		7.53	7.50		6	
3/11/2014	16:01	Cloudy	Middle	2.5	26.00	26.00	25.75	7.93	7.93	7.94	32.73	32.73	32.79	58.4	58.7	58.1	3.96	3.98	3.94	4.72	4.71	4.71	7	6.50
	16:03		Middle	2.5	25.50	25.50		7.95	7.95		32.85	32.85		58.1	57.0		3.94	3.86		4.71	4.71		6	
5/11/2014	16:44	Fine	Middle	3.0	25.40	25.40	25.30	6.46	6.46	6.44	32.82	32.82	32.84	67.3	68.9	68.3	4.59	4.70	4.66	3.71	3.71	3.70	4	4.00
	16:46		Middle	3.0	25.20	25.20		6.41	6.41		32.85	32.85		68.8	68.3		4.69	4.67		3.70	3.69		4	
7/11/2014	17:18	Cloudy	Middle	3.0	25.30	25.30	25.15	8.00	8.00	8.01	32.60	32.61	32.69	65.2	63.9	63.1	4.46	4.38	4.32	2.87	2.89	2.90	3	3.00
	17:20		Middle	3.0	25.00	25.00		8.01	8.01		32.77	32.77		62.1	61.1		4.26	4.19		2.90	2.92		3	
10/11/2014	11:04	Fine	Middle	3.0	24.80	24.80	24.75	8.16	8.16	8.13	31.91	31.92	31.95	61.6	60.8	60.8	4.27	4.21	4.21	2.11	2.24	2.32	3	3.00
	11:06		Middle	3.0	24.70	24.70		8.09	8.09		31.99	31.99		60.3	60.3		4.18	4.18		2.45	2.47		3	
12/11/2014	10:46	Fine	Middle	2.5	24.90	24.90	24.80	8.18	8.18	8.14	32.60	32.60	32.65	75.1	75.0	73.9	5.17	5.17	5.09	1.90	1.88	1.80	3	2.50
	10:48		Middle	2.5	24.70	24.70		8.09	8.09		32.69	32.69		73.1	72.2		5.04	4.97		1.71	1.72		2	
14/11/2014	16:36	Fine	Middle	3.0	24.40	24.40	24.30	8.25	8.25	8.20	32.49	32.49	32.57	73.1	72.0	72.5	5.08	5.01	5.04	1.19	1.15	1.14	<2	<2
	16:38		Middle	3.0	24.20	24.20		8.14	8.14		32.65	32.65		72.8	72.2		5.06	5.02		1.12	1.10		<2	
17/11/2014	13:45	Fine	Middle	2.5	24.20	24.20	24.10	8.13	8.13	8.14	32.42	32.42	32.43	79.0	78.6	78.5	5.52	5.56	5.50	1.07	1.04	1.04	3	3.00
	13:47		Middle	2.5	24.00	24.00		8.14	8.14		32.44	32.44		78.6	77.9		5.49	5.44		1.02	1.01		3	
19/11/2014	15:34	Fine	Middle	3.0	24.30	24.30	18.23	8.15	8.15	8.15	32.98	32.98	32.99	92.0	91.1	90.7	6.37	6.34	6.30	3.16	3.08	3.09	4	4.50
	15:36		Middle	3.0	0.00	24.30		8.15	8.15		32.99	32.99		90.2	89.6		6.25	6.22		3.07	3.04		5	
21/11/2014	16:50	Fine	Middle	3.0	23.90	23.90	23.85	8.07	8.07	8.08	33.36	33.36	33.22	90.7	91.4	90.7	6.32	6.36	6.32	2.65	2.66	2.72	<2	2.00
	16:52		Middle	3.0	23.80	23.80		8.08	8.08		33.08	33.08		90.9	89.8		6.34	6.27		2.79	2.77		2	
24/11/2014	10:20	Fine	Middle	3.0	23.60	23.60	23.55	8.28	8.28	8.25	32.67	32.67	32.67	87.6	86.5	86.4	6.16	6.09	6.05	2.08	2.08	2.05	5	4.50
	10:22		Middle	3.0	23.50	23.50		8.22	8.22		32.67	32.67		86.3	85.0		6.07	5.88		2.01	2.01		4	
26/11/2014	10:34	Fine	Middle	2.5	23.90	23.90	24.00	8.46	8.46	8.43	32.42	32.42	32.44	77.7	79.0	79.0	5.42	5.51	5.51	1.97	1.96	1.97	3	4.00
	10:36		Middle	2.5	24.10	24.10		8.40	8.40		32.45	32.45		80.2	79.1		5.60	5.52		1.97	1.96		5	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P1 - HKCEC Phase I  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/10/2014	11:16	Fine	Middle	2.5	26.60	26.60	26.55	7.88	7.88	7.90	32.64	32.64	32.65	63.8	62.9	62.3	4.26	4.20	4.16	4.45	4.43	4.41	7	7.00
	11:18		Middle	2.5	26.50	26.50		7.92	7.92		32.65	32.65		61.5	61.0		4.11	4.07		4.40	4.37		7	
31/10/2014	11:15	Fine	Middle	2.0	27.20	27.20	27.25	7.61	7.61	7.65	33.38	33.38	33.39	96.7	96.2	95.4	6.36	6.33	6.28	7.46	7.46	7.47	6	6.00
	11:17		Middle	2.0	27.30	27.30		7.69	7.69		33.39	33.39		95.5	93.3		6.28	6.14		7.47	7.47		6	
3/11/2014	16:28	Cloudy	Middle	3.0	26.10	26.10	26.05	7.90	7.90	7.92	32.83	32.83	32.85	63.3	62.9	62.7	4.27	4.24	4.23	3.31	3.30	3.31	3	3.50
	16:30		Middle	3.0	26.00	26.00		7.93	7.93		32.86	32.86		62.2	62.3		4.19	4.20		3.33	3.30		4	
5/11/2014	17:18	Fine	Middle	3.0	25.60	25.60	25.55	7.07	7.07	7.11	32.95	32.95	32.98	65.4	65.5	64.5	4.44	4.45	4.38	1.90	1.90	1.90	<2	3.00
	17:20		Middle	3.0	25.50	25.50		7.14	7.14		33.00	33.00		64.1	62.8		4.35	4.27		1.90	1.90		3	
7/11/2014	17:46	Cloudy	Middle	3.0	25.40	25.40	25.35	8.05	8.05	8.05	32.04	32.04	32.39	63.0	65.1	64.5	4.30	4.45	4.41	1.54	1.55	1.82	3	3.00
	17:48		Middle	3.0	25.30	25.30		8.04	8.04		32.73	32.73		65.4	64.6		4.46	4.41		2.59	1.60		3	
10/11/2014	11:34	Fine	Middle	3.0	24.90	24.90	24.90	8.06	8.06	8.06	32.71	32.71	32.72	59.4	61.3	59.4	4.08	4.12	4.06	0.97	0.96	0.96	3	3.50
	11:36		Middle	3.0	24.90	24.90		8.05	8.05		32.72	32.72		58.5	58.3		4.02	4.01		0.96	0.96		4	
12/11/2014	11:14	Fine	Middle	2.5	25.00	25.00	25.00	8.08	8.08	8.08	32.52	32.52	32.54	67.3	67.3	67.1	4.62	4.62	4.61	0.99	0.99	0.99	2	2.00
	11:16		Middle	2.5	25.00	25.00		8.08	8.08		32.56	32.56		67.1	66.8		4.61	4.59		0.99	0.98		2	
14/11/2014	17:00	Fine	Middle	3.0	24.80	24.80	24.75	8.10	8.10	8.09	32.46	32.46	32.54	68.6	67.4	67.3	4.73	4.65	4.64	1.44	1.44	1.44	3	2.50
	17:02		Middle	3.0	24.70	24.70		8.08	8.08		32.61	32.61		66.9	66.2		4.61	4.57		1.44	1.43		2	
17/11/2014	14:11	Fine	Middle	3.0	24.80	24.80	24.75	8.13	8.13	8.13	32.64	32.64	32.65	88.7	88.2	87.5	6.12	6.08	6.03	1.08	0.97	0.94	4	4.00
	14:13		Middle	3.0	24.70	24.70		8.13	8.13		32.65	32.65		87.0	85.9		5.99	5.92		0.86	0.84		4	
19/11/2014	15:53	Fine	Middle	3.0	24.20	24.20	24.15	8.12	8.12	8.14	33.16	33.16	33.17	99.2	97.7	97.1	6.89	6.78	6.74	3.48	3.31	3.28	2	2.00
	15:55		Middle	3.0	24.10	24.10		8.16	8.16		33.18	33.18		96.2	95.2		6.67	6.62		3.17	3.17		<2	
21/11/2014	17:03	Fine	Middle	3.0	24.10	24.10	24.10	8.12	8.12	8.14	32.87	32.87	32.88	87.2	87.6	87.8	6.07	6.09	6.11	2.52	2.45	2.42	<2	<2
	17:05		Middle	3.0	24.10	24.10		8.16	8.16		32.89	32.89		88.1	88.3		6.12	6.14		2.36	2.35		<2	
24/11/2014	10:50	Fine	Middle	3.0	24.00	24.00	23.95	8.22	8.22	8.22	32.59	32.59	32.60	90.7	89.9	88.6	6.34	6.29	6.20	1.25	1.24	1.24	4	4.00
	10:52		Middle	3.0	23.90	23.90		8.21	8.21		32.60	32.60		87.8	85.9		6.14	6.01		1.23	1.23		4	
26/11/2014	11:02	Fine	Middle	2.5	24.10	24.10	24.10	8.27	8.27	8.27	32.37	32.37	32.39	79.4	78.5	78.4	5.54	5.48	5.47	1.61	1.48	1.62	2	2.50
	11:04		Middle	2.5	24.10	24.10		8.27	8.27		32.41	32.41		78.0	77.6		5.43	5.41		1.71	1.68		3	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.





**Water Monitoring Result at P3 - APA  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/10/2014	11:09	Fine	Middle	2.5	26.40	26.40	26.35	7.87	7.87	7.89	32.90	32.90	32.93	62.6	63.0	62.5	4.19	4.21	4.18	6.85	6.84	6.79	15	15.00
	11:11		Middle	2.5	26.30	26.30		7.90	7.90		32.95	32.95		62.5	61.7		62.5	4.19		4.14	6.75		6.70	
31/10/2014	11:10	Fine	Middle	2.0	26.90	26.90	26.95	7.72	7.72	7.74	33.41	33.41	33.41	92.9	92.8	92.8	6.14	6.14	6.14	7.72	7.59	7.59	6	6.00
	11:12		Middle	2.0	27.00	27.00		7.75	7.75		33.41	33.41		93.2	92.2		92.8	6.17		6.10	7.53		7.50	
3/11/2014	16:20	Cloudy	Middle	3.0	25.80	25.80	25.70	7.94	7.94	7.95	32.82	32.82	32.83	60.1	61.2	61.1	4.07	4.15	4.14	3.45	3.41	3.38	5	5.00
	16:22		Middle	3.0	25.60	25.60		7.95	7.95		32.84	32.84		61.6	61.4		61.1	4.18		4.16	3.37		3.30	
5/11/2014	17:08	Fine	Middle	3.0	25.50	25.50	25.50	6.91	6.91	6.93	32.84	32.84	32.90	60.5	61.3	61.6	4.12	4.17	4.20	1.80	1.81	1.83	3	3.00
	17:10		Middle	3.0	25.50	25.50		6.96	6.92		32.96	32.96		62.2	62.5		61.6	4.23		4.26	1.84		1.85	
7/11/2014	17:41	Cloudy	Middle	3.0	25.40	25.40	25.35	8.04	8.04	8.03	32.52	32.52	32.54	60.8	60.4	59.5	4.15	4.13	4.07	1.80	1.82	1.84	2	2.50
	17:43		Middle	3.0	25.30	25.30		8.02	8.02		32.56	32.56		59.4	57.5		59.5	4.06		3.93	1.87		1.88	
10/11/2014	11:26	Fine	Middle	3.0	24.90	24.90	24.85	8.07	8.07	8.06	30.70	30.70	30.75	64.1	64.9	64.9	4.46	4.51	4.52	1.72	1.72	1.71	3	3.00
	11:28		Middle	3.0	24.80	24.80		8.05	8.05		30.80	30.80		65.4	65.2		64.9	4.55		4.54	1.70		1.70	
12/11/2014	11:07	Fine	Middle	2.5	25.00	25.00	25.00	8.09	8.09	8.07	32.51	32.51	32.55	63.3	63.2	62.9	4.35	4.34	4.32	1.44	1.34	1.33	2	2.00
	11:09		Middle	2.5	25.00	25.00		8.05	8.05		32.59	32.59		62.3	62.6		62.9	4.28		4.29	1.29		1.26	
14/11/2014	16:54	Fine	Middle	3.0	24.60	24.60	24.55	8.10	8.10	8.09	32.52	32.52	32.57	69.2	68.9	70.0	4.79	4.77	4.85	1.03	1.01	1.01	2	2.50
	16:56		Middle	3.0	24.50	24.50		8.08	8.08		32.61	32.61		70.4	71.5		70.0	4.88		4.96	1.00		1.00	
17/11/2014	14:05	Fine	Middle	2.5	24.50	24.50	24.45	8.12	8.12	8.12	32.54	32.54	32.56	84.5	81.5	81.2	5.85	5.64	5.63	0.82	0.85	0.84	2	2.50
	14:07		Middle	2.5	24.40	24.40		8.11	8.11		32.57	32.57		79.5	79.4		81.2	5.51		5.50	0.81		0.89	
19/11/2014	15:48	Fine	Middle	3.0	24.10	24.10	23.95	8.12	8.12	8.14	33.55	33.55	33.41	99.7	96.5	96.5	6.96	6.73	6.74	3.00	2.81	2.81	3	4.00
	15:50		Middle	3.0	23.80	23.80		8.16	8.16		33.26	33.26		95.7	94.0		96.5	6.68		6.58	2.81		2.61	
21/11/2014	17:00	Fine	Middle	3.0	23.50	23.50	23.60	8.11	8.11	8.26	33.09	33.09	33.10	84.5	84.3	84.4	5.91	5.90	5.91	2.82	2.83	2.83	<2	<2
	17:02		Middle	3.0	23.70	23.70		8.40	8.40		33.10	33.10		84.5	84.4		84.4	5.91		5.90	2.83		2.83	
24/11/2014	10:41	Fine	Middle	3.0	23.90	23.90	23.85	8.21	8.21	8.21	32.57	32.57	32.59	87.7	86.6	86.6	6.14	6.07	6.02	0.95	0.94	0.94	4	5.00
	10:43		Middle	3.0	23.80	23.80		8.21	8.21		32.60	32.60		85.2	85.5		86.6	5.87		6.00	0.94		0.93	
26/11/2014	10:54	Fine	Middle	2.5	24.00	24.00	23.95	8.26	8.26	8.26	32.36	32.36	32.40	76.8	78.4	78.1	5.38	5.49	5.47	0.74	0.74	0.74	2	2.50
	10:56		Middle	2.5	23.90	23.90		8.25	8.25		32.44	32.44		78.9	78.3		78.1	5.52		5.48	0.74		0.74	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P4 - SOC  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/10/2014	11:01	Fine	Middle	2.5	26.40	26.40	26.35	7.86	7.86	7.88	32.91	32.91	32.93	69.1	67.9	68.2	4.63	4.55	4.57	7.07	7.10	7.10	8	7.50
	11:03		Middle	2.5	26.30	26.30		7.90	7.90		32.95	32.95		67.7	68.2		4.53	4.57		7.11	7.12		7	
31/10/2014	11:05	Fine	Middle	2.0	26.70	26.70	26.75	7.77	7.77	7.78	33.38	33.38	33.38	90.7	90.0	90.7	6.02	5.97	6.03	9.32	9.31	<u>9.32</u>	7	7.00
	11:07		Middle	2.0	26.80	26.80		7.79	7.79		33.38	33.38		91.3	90.6		6.13	6.01		9.32	9.33		7	
3/11/2014	16:14	Cloudy	Middle	3.0	26.00	26.00	25.95	7.95	7.95	7.95	32.74	32.74	32.77	60.0	59.1	59.5	4.05	3.99	4.02	4.07	4.03	4.05	6	6.50
	16:16		Middle	3.0	25.90	25.90		7.95	7.95		32.80	32.80		59.2	59.5		4.00	4.02		4.03	4.06		7	
5/11/2014	17:00	Fine	Middle	3.0	24.90	24.90	25.15	6.69	6.70	6.73	32.93	32.93	32.95	65.5	66.2	65.8	4.45	4.50	4.47	3.19	3.12	3.12	3	3.50
	17:02		Middle	3.0	25.40	25.40		6.77	6.77		32.97	32.97		66.3	65.1		4.51	4.43		3.09	3.07		4	
7/11/2014	17:32	Cloudy	Middle	3.0	25.10	25.10	25.25	8.05	8.05	8.04	32.71	32.71	32.66	62.5	64.8	63.8	4.26	4.41	4.35	2.46	2.49	2.46	4	3.50
	17:34		Middle	3.0	25.40	25.40		8.03	8.03		32.61	32.61		64.6	63.3		4.40	4.32		2.45	2.44		3	
10/11/2014	11:17	Fine	Middle	3.0	24.80	24.80	24.70	8.10	8.10	8.09	32.47	32.47	32.56	62.9	63.3	62.9	4.34	4.37	4.34	1.80	1.80	1.80	5	5.00
	11:19		Middle	3.0	24.60	24.60		8.08	8.08		32.64	32.64		62.7	62.8		4.31	4.34		1.80	1.80		5	
12/11/2014	10:58	Fine	Middle	2.5	24.80	24.80	24.85	8.10	8.10	8.09	32.59	32.59	32.63	69.0	68.9	68.1	4.74	4.73	4.68	2.25	2.17	2.18	3	3.00
	11:00		Middle	2.5	24.90	24.90		8.07	8.07		32.66	32.66		68.5	66.0		4.70	4.53		2.15	2.13		3	
14/11/2014	16:48	Fine	Middle	3.0	24.20	24.20	24.15	8.09	8.09	8.08	32.49	32.49	32.56	61.5	61.4	62.1	4.28	4.27	4.32	0.48	0.49	0.49	2	2.00
	16:50		Middle	3.0	24.10	24.10		8.07	8.07		32.62	32.62		62.4	63.1		4.34	4.38		0.50	0.50		<2	
17/11/2014	13:58	Fine	Middle	2.5	24.10	24.10	23.95	8.17	8.17	8.17	32.49	32.49	32.51	80.3	80.9	80.6	5.62	5.67	5.64	1.40	1.37	1.37	4	3.50
	14:00		Middle	2.5	23.80	23.80		8.16	8.16		32.52	32.52		80.9	80.1		5.67	5.61		1.35	1.35		3	
19/11/2014	15:43	Fine	Middle	3.0	23.80	23.80	23.80	8.15	8.15	8.15	32.45	32.45	32.45	92.2	90.6	90.8	6.71	6.34	6.42	3.60	3.57	3.55	4	4.00
	15:45		Middle	3.0	23.80	23.80		8.15	8.15		32.45	32.45		90.6	89.9		6.32	6.30		3.52	3.51		4	
21/11/2014	16:56	Fine	Middle	3.0	23.60	23.60	23.60	8.12	8.12	8.12	33.09	33.09	33.10	84.6	84.2	84.5	5.94	5.91	5.93	2.87	2.89	2.90	3	3.00
	16:58		Middle	3.0	23.60	23.60		8.11	8.11		33.11	33.11		84.4	84.7		5.92	5.95		2.91	2.93		<2	
24/11/2014	10:33	Fine	Middle	3.0	23.70	23.70	23.65	8.22	8.22	8.22	32.62	32.62	32.63	79.9	79.9	79.5	5.62	5.61	5.58	0.83	0.85	0.87	2	2.00
	10:35		Middle	3.0	23.60	23.60		8.21	8.21		32.63	32.63		79.2	78.8		5.57	5.53		0.88	0.90		2	
26/11/2014	10:46	Fine	Middle	2.5	23.90	23.90	23.90	8.26	8.26	8.26	32.37	32.37	32.41	74.5	76.5	75.4	5.22	5.36	5.28	1.48	1.46	1.46	3	3.00
	10:48		Middle	2.5	23.90	23.90		8.25	8.25		32.44	32.44		76.0	74.7		5.32	5.23		1.45	1.44		3	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P5 - WCT / RT / IT  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH		Salinity		DO Saturation		DO		Turbidity		Suspended Solids							
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/10/2014	10:55	Fine	Middle	2.5	26.50	26.50	26.45	7.82	7.82	7.84	32.94	32.94	32.96	58.5	57.9	57.4	3.91	3.88	3.84	7.55	7.40	7.76	10	10.50
	10:57		Middle	2.5	26.40	26.40		7.86	7.86		32.98	32.98		56.8	56.4		3.80	3.77		7.87	7.86		11	
31/10/2014	11:02	Fine	Middle	2.0	26.90	26.90	26.90	7.81	7.81	7.82	33.32	33.32	33.34	88.5	86.1	86.6	5.86	5.60	5.71	8.72	8.59	8.62	8	8.00
	11:04		Middle	2.0	26.90	26.90		7.83	7.83		33.35	33.35		85.1	86.6		5.63	5.73		8.58	8.58		8	
3/11/2014	16:09	Cloudy	Middle	3.0	25.90	25.90	25.80	7.95	7.95	7.95	32.79	32.79	32.81	62.7	62.0	61.1	4.24	4.20	4.13	7.82	7.82	7.82	8	9.00
	16:11		Middle	3.0	25.70	25.70		7.95	7.95		32.82	32.82		60.0	59.7		4.04	4.03		7.82	7.81		10	
5/11/2014	16:54	Fine	Middle	3.0	25.50	25.50	25.40	6.43	6.43	6.48	32.92	32.93	32.94	65.5	66.8	66.7	4.46	4.55	4.55	4.01	3.99	3.99	4	4.50
	16:56		Middle	3.0	25.30	25.30		6.53	6.53		32.95	32.95		67.3	67.3		4.58	4.59		3.98	3.98		5	
7/11/2014	17:26	Cloudy	Middle	3.0	25.40	25.40	25.40	8.04	8.04	8.04	32.44	32.44	32.48	63.3	62.9	61.8	4.33	4.24	4.21	3.00	2.97	2.96	5	4.50
	17:28		Middle	3.0	25.40	25.40		8.04	8.04		32.52	32.52		60.0	61.0		4.10	4.17		2.94	2.92		4	
10/11/2014	11:11	Fine	Middle	3.0	24.70	24.70	24.70	8.11	8.11	8.11	32.14	32.14	32.20	66.1	64.9	65.0	4.57	4.49	4.50	2.67	2.64	2.64	3	3.00
	11:13		Middle	3.0	24.70	24.70		8.10	8.10		32.25	32.25		65.0	63.9		4.50	4.42		2.62	2.62		3	
12/11/2014	10:53	Fine	Middle	2.5	25.00	25.00	24.95	8.09	8.09	8.09	32.63	32.63	32.65	66.4	66.6	66.4	4.56	4.58	4.56	1.40	1.40	1.36	4	4.00
	10:55		Middle	2.5	24.90	24.90		8.08	8.08		32.67	32.67		66.4	66.0		4.56	4.53		1.35	1.27		4	
14/11/2014	16:44	Fine	Middle	3.0	24.40	24.40	24.25	8.12	8.12	8.11	32.44	32.46	32.58	67.5	68.9	68.4	4.69	4.79	4.76	0.87	0.88	0.89	4	3.50
	16:46		Middle	3.0	24.10	24.10		8.10	8.10		32.70	32.70		68.9	68.3		4.79	4.75		0.90	0.91		3	
17/11/2014	13:53	Fine	Middle	2.5	23.90	23.90	23.90	8.17	8.17	8.17	32.43	32.43	32.45	83.1	82.8	82.6	5.84	5.78	5.78	0.99	0.95	0.97	3	3.00
	13:55		Middle	2.5	23.90	23.90		8.17	8.17		32.47	32.47		82.2	82.3		5.75	5.76		0.97	0.98		3	
19/11/2014	15:39	Fine	Middle	3.0	24.10	24.10	24.10	8.09	8.09	8.12	32.48	32.48	32.48	97.8	96.2	95.9	6.83	6.72	6.70	2.40	2.44	2.45	3	3.50
	15:41		Middle	3.0	24.10	24.10		8.14	8.14		32.48	32.48		95.5	94.0		6.67	6.57		2.45	2.50		4	
21/11/2014	16:54	Fine	Middle	3.0	23.70	23.70	23.70	8.08	8.08	8.08	33.32	33.32	33.32	86.7	85.8	86.2	6.04	6.01	6.03	2.72	2.71	2.72	3	3.00
	16:56		Middle	3.0	23.70	23.70		8.08	8.08		33.32	33.32		85.9	86.2		6.02	6.04		2.71	2.73		3	
24/11/2014	10:27	Fine	Middle	3.0	23.70	23.70	23.70	8.23	8.23	8.23	32.59	32.59	32.60	84.5	84.0	82.8	5.93	5.90	5.81	0.90	0.91	0.92	4	4.00
	10:29		Middle	3.0	23.70	23.70		8.22	8.22		32.61	32.61		80.7	81.9		5.66	5.75		0.93	0.95		4	
26/11/2014	10:42	Fine	Middle	2.5	23.90	23.90	23.90	8.27	8.27	8.27	32.36	32.36	32.39	72.4	71.9	71.3	5.07	5.04	4.99	1.67	1.67	1.68	3	3.00
	10:44		Middle	2.5	23.90	23.90		8.26	8.26		32.42	32.42		70.6	70.1		4.94	4.91		1.68	1.71		3	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids						
			m		°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
29/10/2014	10:40	Fine	Middle	3.5	26.50	26.50	26.50	8.10	8.10	8.11	33.91	33.91	33.91	79.9	79.2	79.6	5.33	5.29	5.31	8.48	8.43	8.40	6	6.50
	10:42		Middle	3.5	26.50	26.50		8.11	8.11		33.90	33.90		79.5	79.6		5.31	5.32		8.38	8.31		7	
31/10/2014	11:30	Fine	Middle	3.0	26.80	26.80	26.75	7.84	7.84	7.84	33.41	33.41	33.41	104.2	101.4	100.0	6.92	6.73	6.64	8.00	7.98	7.98	6	6.00
	11:32		Middle	3.0	26.70	26.70		7.83	7.83		33.40	33.40		97.7	96.5		6.48	6.41		7.98	7.94		6	
3/11/2014	15:35	Cloudy	Middle	3.0	25.50	25.50	25.45	7.99	7.99	8.00	33.29	33.29	33.30	84.7	84.2	84.0	5.74	5.71	5.70	5.00	5.01	5.01	5	5.00
	15:37		Middle	3.0	25.40	25.40		8.00	8.00		33.31	33.31		83.5	83.7		5.67	5.68		5.02	5.02		5	
5/11/2014	17:05	Fine	Middle	3.0	25.60	25.60	25.50	7.94	7.94	7.97	33.52	33.52	33.52	96.0	93.4	92.4	6.50	6.33	6.26	5.25	5.06	5.09	4	4.00
	17:07		Middle	3.0	25.40	25.40		7.99	7.99		33.52	33.52		90.5	89.5		6.14	6.07		5.04	5.00		4	
7/11/2014	17:20	Cloudy	Middle	3.5	25.10	25.10	25.05	8.00	8.00	8.02	33.29	33.29	32.84	82.3	81.0	81.3	5.63	5.54	5.56	5.38	5.45	5.47	3	3.50
	17:22		Middle	3.5	25.00	25.00		8.03	8.03		32.39	32.39		80.8	81.2		5.53	5.55		5.50	5.56		4	
10/11/2014	8:30	Fine	Middle	3.0	24.50	24.50	24.50	8.00	8.00	8.02	33.18	33.18	33.25	81.7	81.3	80.6	5.64	5.60	5.57	4.49	4.62	4.64	4	4.50
	8:32		Middle	3.0	24.50	24.50		8.03	8.03		33.32	33.32		79.9	79.5		5.53	5.49		4.70	4.73		5	
12/11/2014	10:56	Fine	Middle	3.0	25.30	25.30	25.35	8.02	8.02	8.05	33.14	33.14	33.14	74.1	75.6	74.6	5.04	5.14	5.08	3.04	3.03	3.03	3	3.50
	10:57		Middle	3.0	25.40	25.40		8.07	8.07		33.14	33.14		74.7	74.0		5.08	5.04		3.02	3.01		4	
14/11/2014	9:40	Fine	Middle	3.0	23.60	23.60	23.45	7.89	7.89	7.90	32.95	32.95	33.03	76.5	76.9	76.1	5.38	5.41	5.36	4.26	4.22	4.24	3	3.00
	9:42		Middle	3.0	23.30	23.30		7.90	7.90		33.11	33.11		75.8	75.2		5.34	5.29		4.23	4.24		3	
17/11/2014	14:00	Fine	Middle	3.5	24.90	24.90	24.95	8.07	8.07	8.09	32.75	32.75	32.75	86.3	84.8	84.4	5.92	5.82	5.78	2.93	2.94	2.91	3	3.00
	14:02		Middle	3.5	25.00	25.00		8.10	8.10		32.75	32.75		83.9	82.5		5.76	5.62		2.84	2.93		3	
19/11/2014	16:05	Fine	Middle	3.5	23.90	23.90	23.90	8.16	8.16	8.18	33.04	33.04	33.09	99.2	97.8	97.2	6.92	6.71	6.75	2.67	2.62	2.62	4	4.50
	16:07		Middle	3.5	23.90	23.90		8.19	8.19		33.13	33.13		96.4	95.3		6.73	6.65		2.59	2.58		5	
21/11/2014	17:13	Fine	Middle	3.5	23.60	23.60	23.55	8.09	8.09	8.13	33.19	33.19	33.19	98.7	96.4	97.4	6.78	6.78	6.81	3.51	3.35	3.38	2	2.50
	17:15		Middle	3.5	23.60	23.40		8.16	8.17		33.18	33.18		97.5	96.9		6.86	6.81		3.31	3.33		3	
24/11/2014	7:15	Fine	Middle	3.0	23.30	23.30	23.30	8.07	8.07	8.09	33.14	33.14	33.15	87.5	87.2	86.3	6.17	6.15	6.09	4.12	4.02	4.08	6	5.50
	7:17		Middle	3.0	23.30	23.30		8.11	8.11		33.16	33.16		85.6	84.9		6.04	5.99		4.10	4.06		5	
26/11/2014	8:25	Fine	Middle	3.0	24.00	24.00	24.00	8.16	8.16	8.16	34.38	34.38	34.38	89.0	89.9	90.0	6.18	6.26	6.26	3.28	3.30	3.32	4	4.00
	8:27		Middle	3.0	24.00	24.00		8.16	8.16		34.37	34.37		90.4	90.5		6.29	6.30		3.33	3.37		4	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at WSD19 - Sheung Wan  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature		pH			Salinity			DO Saturation		DO		Turbidity		Suspended Solids					
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/10/2014	9:50	Fine	Middle	3.5	26.40	26.40	26.35	8.11	8.11	8.11	33.15	33.15	33.16	71.2	71.6	70.9	4.76	4.79	4.74	11.79	11.86	<u>11.84</u>	8	8.50
	9:52		Middle	3.5	26.30	26.30		8.10	8.10		33.17	33.17		70.2	70.7		4.69	4.73		11.86	11.83		9	
31/10/2014	9:50	Fine	Middle	3.0	26.60	26.60	26.55	7.11	7.11	7.12	33.07	33.07	33.08	80.4	79.7	79.4	5.37	5.32	5.30	11.40	11.36	<u>11.37</u>	8	8.00
	9:52		Middle	3.0	26.50	26.50		7.12	7.12		33.08	33.08		78.7	78.6		5.26	5.25		11.36	11.37		8	
3/11/2014	14:50	Cloudy	Middle	3.0	25.60	25.60	25.55	8.00	8.00	8.00	33.47	33.47	33.48	83.4	83.9	83.0	5.64	5.68	5.62	7.47	7.46	7.47	5	5.50
	14:52		Middle	3.0	25.50	25.50		8.00	8.00		33.48	33.48		82.6	82.2		5.59	5.56		7.47	7.47		6	
5/11/2014	16:05	Fine	Middle	3.0	26.00	26.00	26.00	8.04	8.04	8.05	33.61	33.61	33.62	78.6	79.2	77.3	5.27	5.32	5.19	4.64	4.60	4.60	3	3.50
	16:07		Middle	3.0	26.00	26.00		8.05	8.05		33.62	33.62		76.7	74.5		5.15	5.00		4.58	4.59		4	
7/11/2014	16:25	Cloudy	Middle	3.5	25.40	25.40	25.40	8.08	8.08	8.08	32.83	32.83	32.83	79.2	80.8	79.3	5.80	5.87	5.82	6.96	7.18	7.09	4	3.50
	16:27		Middle	3.5	25.40	25.40		8.08	8.08		32.83	32.83		79.3	78.0		5.87	5.72		7.21	7.01		3	
10/11/2014	9:30	Fine	Middle	3.0	24.80	24.80	24.75	8.05	8.05	8.06	33.15	33.15	33.16	85.7	83.3	83.3	5.88	5.73	5.72	4.17	4.16	4.16	2	2.50
	9:32		Middle	3.0	24.70	24.70		8.07	8.07		33.16	33.16		82.6	81.5		5.68	5.60		4.15	4.14		3	
12/11/2014	10:05	Fine	Middle	3.0	25.30	25.30	25.30	7.91	7.91	7.93	33.24	33.24	33.25	77.1	79.2	77.7	5.25	5.39	5.29	6.25	6.37	6.34	3	3.00
	10:07		Middle	3.0	25.30	25.30		7.95	7.95		33.25	33.25		77.8	76.5		5.29	5.21		6.36	6.37		3	
14/11/2014	16:35	Fine	Middle	3.5	24.20	24.20	24.15	8.10	8.10	8.10	33.11	33.11	33.12	74.8	75.1	74.5	5.20	5.22	5.18	3.56	3.75	3.72	2	2.50
	16:37		Middle	3.5	24.10	24.10		8.10	8.10		33.13	33.13		73.9	74.0		5.14	5.15		3.77	3.78		3	
17/11/2014	13:15	Fine	Middle	3.0	25.00	25.00	25.10	8.08	8.08	8.09	33.20	33.20	33.19	85.3	84.0	83.5	5.82	5.73	5.70	3.52	3.56	3.56	3	3.00
	13:17		Middle	3.0	25.20	25.20		8.09	8.09		33.18	33.18		81.4	83.4		5.54	5.70		3.58	3.59		3	
19/11/2014	14:50	Fine	Middle	3.5	24.50	24.50	24.60	8.12	8.12	8.13	31.94	31.94	31.98	87.3	87.2	86.4	6.05	6.04	5.98	2.76	2.75	2.80	3	3.50
	14:52		Middle	3.5	24.70	24.70		8.14	8.14		32.01	32.01		86.1	85.1		5.96	5.88		2.77	2.93		4	
21/11/2014	15:50	Fine	Middle	3.0	24.30	24.30	24.35	7.98	7.98	8.01	33.27	33.27	33.29	91.1	90.3	90.2	6.29	6.24	6.23	4.51	4.57	4.55	<2	2.00
	15:52		Middle	3.0	24.40	24.40		8.03	8.03		33.30	33.30		89.0	90.2		6.15	6.23		4.57	4.55		2	
24/11/2014	8:05	Fine	Middle	3.0	23.50	23.50	23.50	8.19	8.19	8.20	33.02	33.02	33.02	87.6	87.4	87.8	6.15	6.14	6.17	5.08	5.04	4.98	9	8.50
	8:07		Middle	3.0	23.50	23.50		8.20	8.20		33.02	33.02		88.1	88.2		6.20	6.20		4.90	4.90		8	
26/11/2014	9:25	Fine	Middle	3.0	24.00	24.00	24.00	8.16	8.16	8.18	33.02	33.02	33.01	89.7	91.3	90.8	6.29	6.36	6.34	3.98	3.97	3.78	2	2.50
	9:27		Middle	3.0	24.00	24.00		8.19	8.19		33.00	33.00		92.3	90.0		6.43	6.29		3.65	3.52		3	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at C1 - HKCEC  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/10/2014	4:56	Cloudy	Middle	2.0	25.53	25.53	25.53	8.01	8.01	8.02	32.83	32.83	32.84	99.4	99.1	99.6	6.81	6.78	6.82	6.01	5.99	5.97	7	6.50
	4:57		Middle	2.0	25.52	25.52		8.02	8.02		32.84	32.84		99.9	99.8		6.84	6.83		5.97	5.91		6	
31/10/2014	4:15	Cloudy	Middle	2.5	25.60	25.60	25.61	8.13	8.13	8.14	33.02	33.06	33.05	99.5	99.4	99.4	6.70	6.70	6.69	4.58	4.63	4.59	7	7.00
	4:16		Middle	2.5	25.62	25.62		8.14	8.14		33.05	33.05		99.1	99.5		6.67	6.70		4.60	4.53		7	
3/11/2014	10:14	Fine	Middle	2.5	25.90	25.90	25.90	7.86	7.86	7.87	32.84	32.84	32.87	62.2	61.2	61.8	4.20	4.14	4.18	4.95	4.95	4.99	4	5.00
	10:16		Middle	2.5	25.90	25.90		7.88	7.88		32.89	32.89		62.0	61.6		4.19	4.17		4.99	5.07		6	
5/11/2014	10:40	Fine	Middle	3.0	26.00	26.00	25.65	8.13	8.13	8.11	33.04	33.05	33.05	71.9	71.4	71.5	4.92	4.89	4.88	3.29	3.29	3.29	4	4.50
	10:42		Middle	3.0	25.30	25.30		8.08	8.08		33.04	33.05		71.3	71.3		4.85	4.86		3.29	3.29		5	
7/11/2014	11:05	Cloudy	Middle	3.0	24.70	24.70	24.80	7.40	7.40	7.43	32.86	32.86	32.91	68.4	67.3	69.0	4.69	4.61	4.73	2.71	2.71	2.66	4	4.00
	11:07		Middle	3.0	24.90	24.90		7.46	7.46		32.95	32.95		70.3	70.0		4.81	4.80		2.62	2.60		4	
10/11/2014	3:47	Cloudy	Middle	2.0	23.75	23.75	23.75	8.00	8.01	8.01	32.30	32.30	32.30	99.6	99.2	99.0	7.29	7.26	7.25	2.49	2.52	2.52	3	3.50
	3:48		Middle	2.0	23.75	23.75		8.01	8.01		32.30	32.30		98.8	98.4		7.23	7.21		2.51	2.54		4	
12/11/2014	4:15	Cloudy	Middle	2.0	24.46	24.45	24.45	8.13	8.13	8.14	32.21	32.21	32.21	97.9	94.8	94.4	7.18	6.95	6.92	3.11	3.69	3.21	2	3.00
	4:16		Middle	2.0	24.44	24.44		8.14	8.14		32.21	32.21		92.5	92.4		6.78	6.77		2.98	3.05		4	
14/11/2014	4:20	Cloudy	Middle	2.0	23.07	23.07	23.05	8.26	8.26	8.26	32.36	32.36	32.37	95.9	95.3	95.1	7.07	7.02	7.00	1.81	1.77	1.82	3	2.50
	4:21		Middle	2.0	23.03	23.03		8.26	8.25		32.37	32.37		94.8	94.3		6.98	6.94		1.93	1.76		2	
17/11/2014	7:50	Fine	Middle	2.5	23.90	23.90	23.85	8.05	8.05	8.07	32.57	32.57	32.58	72.8	73.2	72.4	5.10	5.13	5.07	1.80	2.26	1.95	3	4.00
	7:52		Middle	2.5	23.80	23.80		8.08	8.08		32.58	32.58		72.1	71.6		5.05	5.01		2.30	1.44		5	
19/11/2014	10:00	Fine	Middle	3.0	23.90	23.90	23.85	8.21	8.21	8.21	32.72	32.72	32.73	83.2	82.5	82.6	5.82	5.77	5.78	0.99	1.02	1.01	2	2.50
	10:02		Middle	3.0	23.80	23.80		8.20	8.20		32.73	32.73		82.5	82.3		5.77	5.76		1.03	1.01		3	
21/11/2014	11:07	Fine	Middle	3.0	23.70	23.70	23.70	8.25	8.25	8.24	32.76	32.76	32.77	89.5	89.4	88.3	6.27	6.27	6.19	1.12	1.11	1.10	3	2.50
	11:09		Middle	3.0	23.70	23.70		8.23	8.23		32.77	32.77		87.4	86.8		6.13	6.09		1.08	1.07		2	
24/11/2014	3:15	Fine	Middle	2.0	23.04	23.04	23.04	8.19	8.19	8.19	32.15	32.16	32.16	92.0	91.5	91.5	6.68	6.64	6.64	2.06	2.08	2.04	2	2.00
	3:16		Middle	2.0	23.04	23.04		8.20	8.19		32.16	32.16		91.3	91.1		6.62	6.61		1.98	2.02		2	
26/11/2014	4:26	Cloudy	Middle	2.0	22.47	22.47	22.47	7.96	7.96	7.97	32.04	32.04	32.04	87.5	86.3	85.9	6.33	6.24	6.21	1.77	1.89	1.62	4	4.00
	4:27		Middle	2.0	22.46	22.46		7.97	7.97		32.04	32.04		85.3	84.5		6.17	6.11		1.21	1.61		4	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.





**Water Monitoring Result at P1 - HKCEC Phase I  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C		-		ppt		%		mg/L		NTU		mg/L							
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average					
29/10/2014	4:16	Cloudy	Middle	2.0	25.11	25.11	25.11	8.02	8.02	8.02	32.48	32.48	32.49	99.8	99.9	99.7	6.84	6.85	6.83	5.87	5.74	5.82	6	7.00
	4:17		Middle	2.0	25.10	25.10		8.02	8.02		32.49	32.49		99.6	99.4		6.82	6.80		5.82	5.85		8	
31/10/2014	3:35	Cloudy	Middle	2.5	25.53	25.53	25.51	8.14	8.14	8.15	33.10	33.10	33.10	99.6	99.4	99.3	6.71	6.69	6.69	4.37	4.41	4.43	5	5.00
	3:36		Middle	2.5	25.49	25.49		8.15	8.15		33.10	33.10		99.2	99.1		6.68	6.66		4.49	4.46		5	
3/11/2014	10:35	Fine	Middle	2.5	25.90	25.90	25.80	7.84	7.84	7.88	32.87	32.87	32.87	65.0	64.7	65.2	4.40	4.38	4.42	3.29	3.25	3.23	4	4.00
	10:57		Middle	2.5	25.70	25.70		7.91	7.91		32.87	32.87		65.3	65.9		4.42	4.46		3.20	3.18		4	
5/11/2014	11:04	Fine	Middle	3.0	25.40	25.40	25.40	8.04	8.04	8.05	33.00	33.07	33.06	74.8	74.4	74.6	5.07	5.05	5.05	3.52	3.49	3.46	4	3.50
	11:06		Middle	3.0	25.40	25.40		8.05	8.05		33.09	33.09		74.4	74.8		5.05	5.04		3.39	3.44		3	
7/11/2014	11:30	Cloudy	Middle	3.0	25.30	25.30	25.25	7.65	7.65	7.66	32.88	32.89	32.91	64.0	63.8	63.9	4.36	4.35	4.36	1.88	1.89	1.91	4	4.50
	11:32		Middle	3.0	25.20	25.20		7.67	7.67		32.93	32.93		64.1	63.7		4.37	4.35		1.92	1.94		5	
10/11/2014	3:06	Cloudy	Middle	2.0	23.71	23.71	23.71	8.11	8.12	8.11	32.67	32.67	32.67	99.4	99.5	99.4	7.22	7.23	7.22	2.26	2.33	2.22	4	4.00
	3:07		Middle	2.0	23.71	23.71		8.11	8.11		32.66	32.66		99.3	99.2		7.22	7.22		2.18	2.12		4	
12/11/2014	3:30	Cloudy	Middle	2.0	24.10	24.11	24.11	8.08	8.08	8.09	32.44	32.44	32.44	94.3	91.6	92.8	6.88	6.68	6.70	2.48	2.56	2.49	2	2.50
	3:31		Middle	2.0	24.12	24.12		8.10	8.10		32.44	32.44		91.5	93.8		6.67	6.57		2.51	2.41		3	
14/11/2014	3:35	Cloudy	Middle	2.0	22.40	22.40	22.41	8.27	8.27	8.28	32.26	32.26	32.27	95.3	95.6	95.7	6.85	6.88	6.88	1.52	1.58	1.56	2	2.00
	3:36		Middle	2.0	22.42	22.42		8.28	8.28		32.27	32.27		95.8	95.9		6.89	6.90		1.62	1.50		<2	
17/11/2014	8:35	Fine	Middle	2.5	24.10	24.10	24.00	8.12	8.12	8.12	32.66	32.66	32.67	78.4	78.1	78.0	5.47	5.45	5.45	1.06	1.09	1.12	4	3.00
	8:37		Middle	2.5	23.90	23.90		8.11	8.11		32.68	32.68		77.4	78.1		5.41	5.46		1.16	1.18		2	
19/11/2014	10:40	Fine	Middle	3.0	23.70	23.70	23.65	8.24	8.24	8.24	32.75	32.75	32.76	86.0	86.3	86.3	6.03	6.06	6.06	1.09	1.09	1.14	3	3.00
	10:42		Middle	3.0	23.60	23.60		8.24	8.24		32.76	32.76		86.4	86.6		6.07	6.08		1.18	1.20		3	
21/11/2014	11:41	Fine	Middle	3.0	23.80	23.80	23.75	8.23	8.23	8.24	32.76	32.76	32.77	89.0	89.4	88.5	6.19	6.26	6.19	0.68	0.82	0.79	3	2.50
	11:43		Middle	3.0	23.70	23.70		8.24	8.24		32.77	32.77		87.3	88.3		6.12	6.18		0.83	0.83		2	
24/11/2014	2:32	Fine	Middle	2.0	23.01	23.01	23.01	8.19	8.19	8.20	32.46	32.46	32.48	92.2	92.1	91.8	6.69	6.68	6.67	2.30	2.11	2.33	2	2.50
	2:33		Middle	2.0	23.01	23.01		8.21	8.21		32.49	32.49		91.6	91.4		6.64	6.63		2.48	2.42		3	
26/11/2014	3:45	Cloudy	Middle	2.0	22.48	22.48	22.45	7.99	7.99	8.01	31.98	31.98	32.01	84.5	88.8	86.3	5.89	6.41	6.18	1.88	1.29	1.52	4	4.00
	3:46		Middle	2.0	22.41	22.41		8.03	8.03		32.04	32.04		86.8	85.2		6.27	6.16		1.40	1.51		4	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P3 - APA  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/10/2014	4:25	Cloudy	Middle	2.0	25.06	25.06	25.06	8.03	8.03	6.03	32.96	32.96	32.96	98.7	98.9	99.1	6.74	6.77	6.78	6.46	6.34	6.29	8	7.50
	4:26		Middle	2.0	25.06	25.06		8.03	0.03		32.96	32.96		99.4	99.5		6.80	6.81		6.25	6.10		7	
31/10/2014	3:42	Cloudy	Middle	2.5	25.58	25.58	25.59	8.15	8.15	8.16	33.06	33.06	33.06	99.4	99.2	99.3	6.69	6.67	6.68	4.84	4.87	4.75	4	4.00
	3:43		Middle	2.5	25.59	25.59		8.16	8.16		33.06	33.06		99.0	99.5		6.67	6.70		4.49	4.80		4	
3/11/2014	10:30	Fine	Middle	2.5	26.00	26.00	25.90	7.86	7.86	7.89	32.82	32.82	32.87	67.2	68.9	67.4	4.53	4.65	4.55	3.77	3.78	3.77	4	5.50
	10:32		Middle	2.5	25.80	25.80		7.91	7.91		32.91	32.91		67.6	65.7		4.57	4.44		3.77	3.76		7	
5/11/2014	10:56	Fine	Middle	2.5	25.50	25.50	25.50	8.00	8.00	8.02	33.04	33.05	33.00	75.0	74.3	74.7	4.98	5.10	5.09	3.29	3.29	3.29	2	2.50
	10:58		Middle	2.5	25.50	25.50		8.04	8.04		33.03	32.89		75.1	74.3		5.18	5.11		3.29	3.29		3	
7/11/2014	11:22	Cloudy	Middle	3.0	25.30	25.30	25.25	7.59	7.59	7.62	32.88	32.88	32.92	70.6	71.5	70.3	4.81	4.86	4.79	2.68	2.68	2.67	5	5.00
	11:24		Middle	3.0	25.20	25.20		7.64	7.64		32.95	32.95		69.8	69.4		4.76	4.73		2.66	2.65		5	
10/11/2014	3:13	Cloudy	Middle	2.0	23.79	23.79	23.79	8.03	8.03	8.04	32.42	32.42	32.42	98.4	98.7	97.1	7.21	7.23	7.09	2.88	2.92	2.92	4	3.00
	3:14		Middle	2.0	23.79	23.79		8.05	8.05		32.42	32.42		96.8	94.5		7.04	6.88		2.90	2.99		2	
12/11/2014	3:39	Cloudy	Middle	2.0	24.13	24.13	24.13	8.14	8.15	8.15	32.38	32.38	32.38	94.0	92.9	92.5	6.85	6.77	6.74	2.50	2.61	2.68	3	3.00
	3:40		Middle	2.0	24.13	24.13		8.16	8.16		32.37	32.37		92.0	91.2		6.70	6.65		2.72	2.88		3	
14/11/2014	3:43	Cloudy	Middle	2.0	22.61	22.61	22.61	8.31	8.31	8.31	32.53	32.53	32.53	99.2	99.0	98.9	7.11	7.09	7.09	1.65	1.60	1.57	<2	<2
	3:44		Middle	2.0	22.61	22.61		8.31	8.31		32.53	32.53		98.8	98.6		7.08	7.07		1.54	1.50		<2	
17/11/2014	8:25	Fine	Middle	2.5	24.20	24.20	24.05	8.10	8.10	8.10	32.58	32.58	32.60	37.1	36.1	35.6	6.07	6.01	5.96	3.48	3.62	3.48	3	3.00
	8:27		Middle	2.5	23.90	23.90		8.10	8.10		32.62	32.62		34.6	34.6		5.91	5.84		3.41	3.40		3	
19/11/2014	10:32	Fine	Middle	3.0	23.50	23.50	23.40	8.24	8.24	8.24	32.76	32.76	32.77	86.9	86.0	87.0	6.12	6.07	6.14	2.01	2.00	1.99	4	4.50
	10:34		Middle	3.0	23.30	23.30		8.24	8.24		32.77	32.77		86.9	88.1		6.13	6.22		1.98	1.96		5	
21/11/2014	11:34	Fine	Middle	3.0	23.80	23.80	23.75	8.22	8.22	8.23	32.77	32.77	32.77	84.1	84.2	84.0	5.90	5.91	5.90	0.67	0.67	0.67	4	3.50
	11:36		Middle	3.0	23.70	23.70		8.23	8.23		32.76	32.76		83.9	83.8		5.89	5.88		0.67	0.67		3	
24/11/2014	2:41	Fine	Middle	2.0	22.96	22.94	22.93	8.20	8.20	8.21	32.37	32.37	32.39	92.0	91.6	91.4	6.67	6.64	6.63	1.67	1.54	1.49	2	2.50
	2:42		Middle	2.0	22.90	22.90		8.21	8.21		32.39	32.42		91.3	90.8		6.62	6.59		1.40	1.36		3	
26/11/2014	3:57	Cloudy	Middle	2.0	22.45	22.45	22.43	7.81	7.81	7.84	31.81	31.81	31.80	89.5	84.8	84.9	6.48	6.14	6.15	1.81	1.63	1.62	5	4.50
	3:58		Middle	2.0	22.40	22.40		7.87	7.88		31.78	31.78		83.3	82.0		6.03	5.94		1.58	1.47		4	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P4 - SOC  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/10/2014	4:35	Cloudy	Middle	2.0	25.22	25.22	25.22	7.92	7.92	7.93	32.76	32.76	32.76	99.8	99.7	99.5	6.84	6.83	6.82	7.43	7.37	7.32	6	6.00
	4:36		Middle	2.0	25.22	25.22		7.93	7.93		32.76	32.76		99.4	99.2		6.81	6.79		6.82	7.25		7.21	
31/10/2014	3:54	Cloudy	Middle	2.5	25.48	25.48	25.49	8.13	8.13	8.13	32.83	32.83	32.83	99.7	99.6	99.7	6.75	6.72	6.75	5.05	5.17	5.21	4	5.00
	3:55		Middle	2.5	25.50	25.50		8.13	8.13		32.82	32.82		99.8	99.7		6.76	6.75		6.75	5.22		5.40	
3/11/2014	10:23	Fine	Middle	2.5	25.90	25.90	25.90	7.91	7.91	7.92	32.86	32.86	32.89	62.7	64.6	63.6	4.23	4.36	4.29	3.29	3.29	3.29	6	5.50
	10:25		Middle	2.5	25.90	25.90		7.92	7.92		32.91	32.91		63.9	63.0		4.32	4.26		4.29	3.29		3.28	
5/11/2014	10:49	Fine	Middle	3.0	25.60	25.60	25.55	8.05	8.05	8.05	33.04	33.04	33.06	72.3	71.6	71.7	4.91	4.86	4.87	3.76	3.74	3.74	3	3.00
	10:51		Middle	3.0	25.50	25.50		8.05	8.05		33.07	33.07		71.6	71.3		4.86	4.84		4.87	3.73		3.71	
7/11/2014	11:13	Cloudy	Middle	3.0	25.20	25.20	25.15	7.59	7.59	7.60	31.55	31.55	31.60	71.6	71.5	71.0	4.93	4.92	4.89	2.71	2.72	2.73	4	4.00
	11:15		Middle	3.0	25.10	25.10		7.61	7.61		31.65	31.65		70.7	70.0		4.87	4.82		4.89	2.75		2.75	
10/11/2014	3:22	Cloudy	Middle	2.0	23.74	23.74	23.74	8.09	8.10	8.10	32.74	32.74	32.74	99.5	99.3	99.3	7.28	7.25	7.25	4.75	4.73	4.84	3	3.00
	3:23		Middle	2.0	23.74	23.74		8.10	8.10		32.73	32.73		99.2	99.1		7.24	7.24		7.25	4.93		4.95	
12/11/2014	3:51	Cloudy	Middle	2.0	24.22	24.22	24.22	8.14	8.14	8.14	32.62	32.62	32.62	96.3	93.6	93.3	7.04	6.85	6.82	2.50	2.48	2.45	2	2.00
	3:52		Middle	2.0	24.22	24.22		8.15	8.14		32.62	32.62		91.6	91.6		6.70	6.70		6.82	2.42		2.40	
14/11/2014	3:56	Cloudy	Middle	2.0	22.59	22.59	22.59	8.30	8.30	8.30	32.48	32.48	32.48	96.0	95.6	95.4	7.09	7.06	7.05	2.03	2.22	2.27	<2	<2
	3:57		Middle	2.0	22.59	22.59		8.30	8.30		32.48	32.48		95.3	94.8		7.04	7.00		7.05	2.39		2.45	
17/11/2014	8:15	Fine	Middle	2.5	23.40	23.40	23.40	8.09	8.09	8.10	32.71	32.71	32.71	77.1	76.5	75.5	5.54	5.37	5.34	2.47	2.43	2.46	2	2.50
	8:17		Middle	2.5	23.40	23.40		8.10	8.10		32.71	32.71		74.7	73.5		5.27	5.18		5.34	2.40		2.53	
19/11/2014	10:23	Fine	Middle	3.0	23.70	23.70	23.65	8.21	8.21	8.21	32.69	32.69	32.71	81.6	82.8	81.9	5.72	5.81	5.75	1.90	1.89	1.89	4	4.00
	10:25		Middle	3.0	23.60	23.60		8.20	8.20		32.73	32.73		81.5	81.8		5.72	5.76		5.75	1.89		1.89	
21/11/2014	11:19	Fine	Middle	3.0	23.70	23.70	23.75	8.23	8.23	8.23	32.76	32.76	32.77	84.3	84.4	83.6	5.91	5.91	5.86	1.04	1.04	1.05	3	3.00
	11:21		Middle	3.0	23.80	23.80		8.22	8.22		32.77	32.77		83.0	82.7		5.81	5.79		5.86	1.04		1.06	
24/11/2014	2:56	Fine	Middle	2.0	22.96	22.96	22.92	8.20	8.20	8.20	32.38	32.38	32.42	90.4	90.2	91.0	6.55	6.54	6.60	1.88	1.49	1.59	2	2.00
	2:57		Middle	2.0	22.88	22.89		8.20	8.20		32.45	32.45		91.9	91.6		6.67	6.65		6.60	1.52		1.46	
26/11/2014	4:06	Cloudy	Middle	2.0	22.44	22.44	22.44	7.98	7.98	7.99	32.23	32.23	32.23	89.9	88.2	87.1	6.51	6.39	6.31	2.15	2.06	2.04	3	3.00
	4:07		Middle	2.0	22.44	22.44		7.99	7.99		32.23	32.23		85.6	84.6		6.20	6.13		6.31	2.01		1.93	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at P5 - WCT / RT / IT  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/10/2014	4:48	Cloudy	Middle	2.0	25.42	25.42	25.42	8.04	8.04	8.04	32.72	32.72	32.72	99.0	99.0	98.8	6.77	6.77	6.75	6.37	6.35	6.33	6	6.00
	4:49		Middle	2.0	25.42	25.42		8.04	8.04		32.72	32.72		98.6	98.7		6.73	6.74		6.28	6.31		6	
31/10/2014	4:08	Cloudy	Middle	2.5	25.50	25.50	25.50	8.16	8.16	8.16	33.00	33.00	33.00	99.0	99.9	99.5	6.67	6.74	6.70	5.60	5.46	5.50	4	4.00
	4:09		Middle	2.5	25.50	25.50		8.16	8.16		33.00	33.00		99.6	99.4		6.71	6.68		5.51	5.44		4	
3/11/2014	10:20	Fine	Middle	2.5	26.00	26.00	25.85	7.89	7.89	7.90	32.74	32.74	32.76	65.1	65.0	63.8	4.40	4.39	4.32	4.45	4.45	4.52	5	5.50
	10:22		Middle	2.5	25.70	25.70		7.90	7.90		32.78	32.78		63.0	62.0		4.28	4.20		4.58	4.58		6	
5/11/2014	10:45	Fine	Middle	3.0	25.40	25.40	25.40	8.05	8.05	8.06	33.04	33.04	33.06	70.2	69.0	68.8	4.78	4.70	4.68	4.61	4.59	4.60	3	3.50
	10:47		Middle	3.0	25.40	25.40		8.06	8.06		33.07	33.07		68.0	67.8		4.62	4.61		4.60	4.60		4	
7/11/2014	11:10	Cloudy	Middle	3.0	25.20	25.20	25.15	7.55	7.55	7.56	31.34	31.34	31.36	68.9	68.8	68.6	4.75	4.75	4.73	2.58	2.59	2.61	4	4.00
	11:12		Middle	3.0	25.10	25.10		7.56	7.56		31.38	31.38		68.5	68.3		4.72	4.71		2.60	2.65		4	
10/11/2014	3:36	Cloudy	Middle	2.0	23.85	23.85	23.85	8.11	8.11	8.11	32.02	32.00	32.32	99.6	99.2	99.2	7.27	7.23	7.25	2.99	3.12	2.95	3	3.50
	3:37		Middle	2.0	23.85	23.85		8.11	8.11		32.63	32.63		99.7	98.4		7.28	7.21		2.96	2.72		4	
12/11/2014	4:05	Cloudy	Middle	2.0	24.34	24.35	24.35	8.09	8.09	8.10	32.18	32.18	32.23	99.9	96.7	96.4	6.96	6.74	6.72	2.06	2.18	2.08	2	2.00
	4:06		Middle	2.0	24.36	24.36		8.11	8.11		32.27	32.27		93.4	95.4		6.51	6.65		2.04	2.02		2	
14/11/2014	4:11	Cloudy	Middle	2.0	23.09	23.09	23.09	8.25	8.25	8.26	32.18	32.18	32.19	99.3	99.4	99.5	7.07	7.08	7.09	1.47	1.50	1.47	<2	2.00
	4:12		Middle	2.0	23.08	23.08		8.26	8.26		32.19	32.19		99.6	99.7		7.09	7.10		1.52	1.40		2	
17/11/2014	8:00	Fine	Middle	2.5	24.10	24.10	24.05	8.11	8.11	8.11	32.66	32.66	32.67	77.8	77.8	77.3	5.42	5.42	5.39	1.37	1.41	1.43	3	3.00
	8:02		Middle	2.5	24.00	24.00		8.10	8.10		32.67	32.67		76.9	76.7		5.36	5.35		1.44	1.50		3	
19/11/2014	10:15	Fine	Middle	3.0	23.80	23.80	23.70	8.22	8.22	8.22	37.70	37.70	35.21	82.6	82.6	82.7	5.80	5.80	5.80	1.35	1.34	1.34	3	3.00
	10:17		Middle	3.0	23.60	23.60		8.21	8.21		32.72	32.72		82.4	83.0		5.78	5.83		1.34	1.34		3	
21/11/2014	11:14	Fine	Middle	3.0	23.90	23.90	23.90	8.23	8.23	8.24	32.77	32.77	32.78	89.8	89.4	89.2	6.28	6.26	6.23	1.45	1.49	1.50	4	4.50
	11:16		Middle	3.0	23.90	23.90		8.24	8.24		32.78	32.78		89.0	88.5		6.20	6.19		1.53	1.54		5	
24/11/2014	3:06	Fine	Middle	2.0	22.98	22.98	22.98	8.22	8.22	8.22	32.44	32.44	32.45	94.1	94.1	94.9	6.47	6.47	6.64	1.70	1.59	1.82	3	3.00
	3:07		Middle	2.0	22.98	22.98		8.23	8.22		32.45	32.45		95.6	95.7		6.80	6.81		1.96	2.01		3	
26/11/2014	4:14	Cloudy	Middle	2.0	22.48	22.48	22.48	8.01	8.01	8.02	32.08	32.08	32.09	89.3	87.4	86.9	6.45	6.32	6.28	1.68	1.32	1.47	3	4.00
	4:15		Middle	2.0	22.48	22.48		8.03	8.03		32.09	32.09		85.9	84.8		6.21	6.13		1.46	1.42		5	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at RW21-P789 - Sun Hung Kai Centre  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C		-		ppt		%		mg/L		NTU		mg/L							
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/10/2014	3:25	Cloudy	Middle	3.0	25.08	25.08	25.09	7.82	7.82	7.86	32.87	32.87	32.87	99.2	99.7	99.6	6.79	6.83	6.82	6.50	6.73	6.63	8	7.50
	3:26		Middle	3.0	25.09	25.09		7.89	7.89		32.87	32.87		99.9	99.6		6.84	6.82		6.70	6.59		7	
31/10/2014	2:40	Cloudy	Middle	3.5	25.72	25.72	25.71	8.10	8.10	8.10	32.85	32.86	32.94	99.9	99.8	99.7	6.74	6.73	6.73	5.10	5.58	5.20	5	5.00
	2:41		Middle	3.5	25.69	25.69		8.10	8.10		33.02	33.02		99.6	99.5		6.72	6.71		5.08	5.05		5	
3/11/2014	8:00	Fine	Middle	3.5	25.50	25.50	25.45	7.80	7.80	7.82	33.55	33.55	33.56	80.3	81.8	81.1	5.44	5.55	5.50	8.72	8.59	<u>8.63</u>	5	5.00
	8:02		Middle	3.5	25.40	25.40		7.84	7.84		33.56	33.56		81.0	81.2		5.49	5.51		8.58	8.62		5	
5/11/2014	11:05	Fine	Middle	3.0	25.70	25.70	25.70	8.04	8.04	8.04	33.63	33.63	33.63	77.0	77.1	76.3	5.20	5.21	5.15	4.08	4.08	4.08	<2	<u>≤2</u>
	11:07		Middle	3.0	25.70	25.70		8.04	8.04		33.63	33.63		75.9	75.0		5.12	5.06		4.08	4.09		<2	
7/11/2014	11:30	Cloudy	Middle	3.5	26.20	26.20	26.20	8.12	8.12	8.12	33.46	33.46	33.48	86.6	86.1	84.8	6.14	6.11	5.90	6.38	6.29	6.29	6	5.50
	11:32		Middle	3.5	26.20	26.20		8.12	8.12		33.49	33.49		83.1	83.4		5.66	5.68		6.26	6.23		5	
10/11/2014	2:05	Cloudy	Middle	3.5	23.79	23.79	23.79	8.00	8.00	8.00	32.45	32.45	32.46	98.7	97.1	96.6	7.22	7.11	7.07	2.26	2.20	2.21	2	2.00
	2:06		Middle	3.5	23.79	23.79		8.00	8.00		32.47	32.47		95.9	94.8		7.02	6.94		2.24	2.14		2	
12/11/2014	2:41	Cloudy	Middle	3.0	24.16	24.16	24.16	8.06	8.06	8.06	32.37	32.37	32.37	98.6	98.7	98.8	6.88	6.89	6.89	1.29	1.40	1.35	2	2.00
	2:42		Middle	3.0	24.16	24.16		8.06	8.06		32.37	32.37		98.8	98.9		6.89	6.90		1.42	1.27		<2	
14/11/2014	2:52	Cloudy	Middle	3.0	22.43	22.43	22.42	8.22	8.22	8.23	32.29	32.29	32.30	93.8	93.1	93.1	6.93	6.88	6.88	1.34	1.31	1.34	<2	<u>≤2</u>
	2:53		Middle	3.0	22.41	22.41		8.24	8.24		32.31	32.31		92.8	92.6		6.86	6.84		1.43	1.27		<2	
17/11/2014	10:40	Fine	Middle	3.5	24.50	24.50	24.55	8.05	8.05	8.06	32.19	32.19	32.25	78.4	78.7	77.0	5.42	5.44	5.32	2.65	2.61	2.64	3	3.00
	10:42		Middle	3.5	24.60	24.60		8.06	8.06		32.31	32.31		75.1	75.7		5.19	5.23		2.68	2.62		3	
19/11/2014	10:50	Fine	Middle	3.5	23.70	23.70	23.70	8.15	8.15	8.16	33.24	33.24	33.24	88.2	89.9	88.9	6.18	6.29	6.23	3.81	3.83	3.85	3	3.00
	10:52		Middle	3.5	23.70	23.70		8.17	8.17		33.24	33.24		88.0	89.5		6.17	6.26		3.87	3.89		3	
21/11/2014	10:25	Fine	Middle	3.5	23.60	23.60	23.70	8.05	8.05	8.07	33.30	33.30	33.31	87.5	89.9	88.5	6.13	6.30	6.20	3.15	3.16	3.16	2	2.50
	10:27		Middle	3.5	23.80	23.80		8.09	8.09		33.31	33.31		88.7	88.0		6.21	6.16		3.16	3.16		3	
24/11/2014	1:42	Fine	Middle	3.0	23.08	23.08	23.08	8.17	8.17	8.18	32.42	32.42	32.42	97.6	97.9	98.0	6.94	6.96	6.96	1.52	1.16	1.25	3	2.50
	1:43		Middle	3.0	23.08	23.08		8.19	8.19		32.42	32.42		98.1	98.2		6.97	6.97		1.06	1.24		2	
26/11/2014	2:45	Cloudy	Middle	3.0	22.45	22.45	22.45	7.88	7.88	7.89	32.05	32.05	32.05	78.8	77.8	77.2	5.71	5.64	5.60	1.75	1.68	1.67	3	3.00
	2:46		Middle	3.0	22.45	22.45		7.90	7.89		32.05	32.05		76.4	75.9		5.54	5.50		1.64	1.60		3	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at WSD19 - Sheung Wan  
Mid-Ebb Tide**

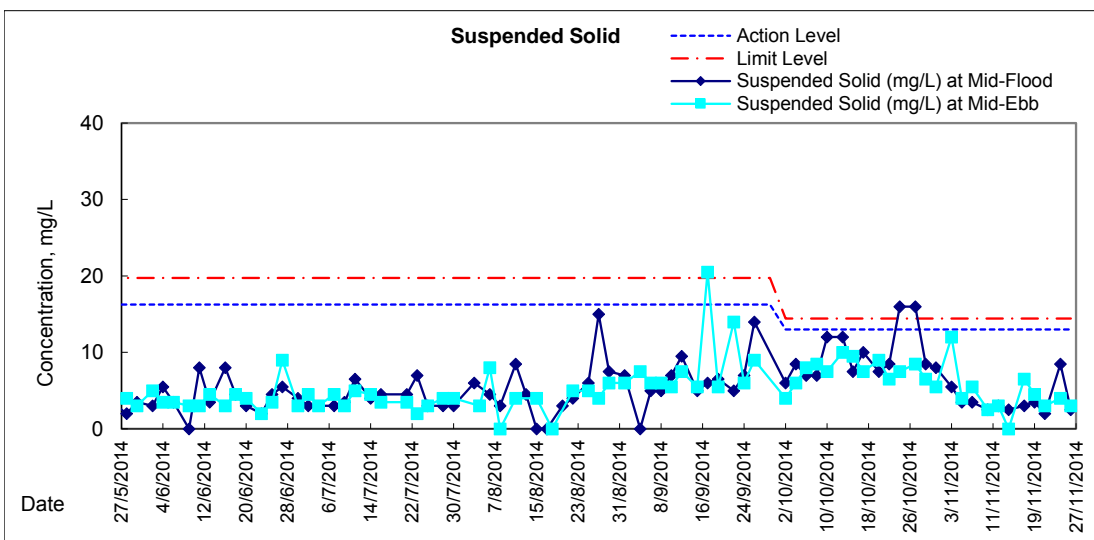
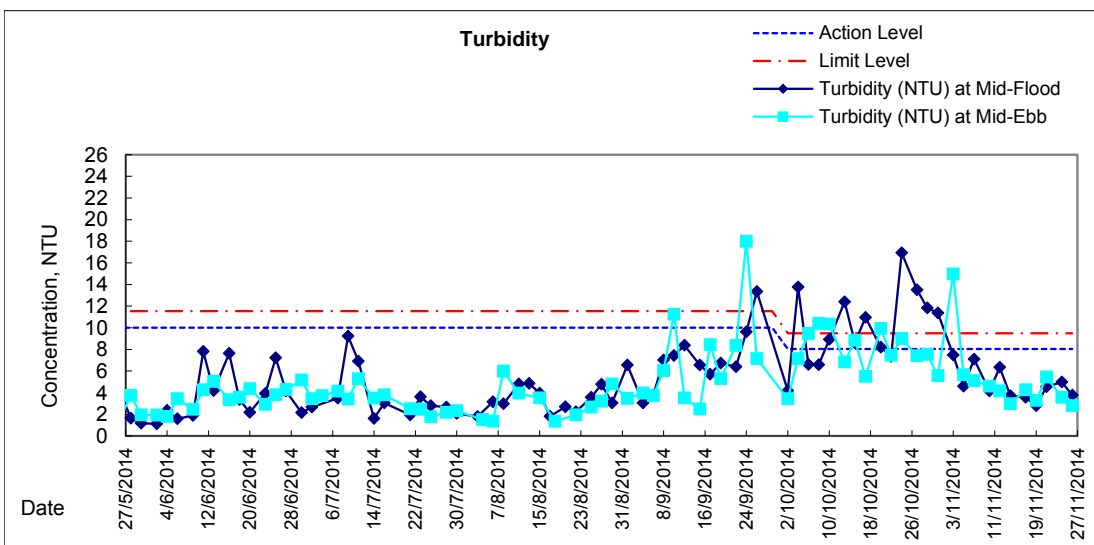
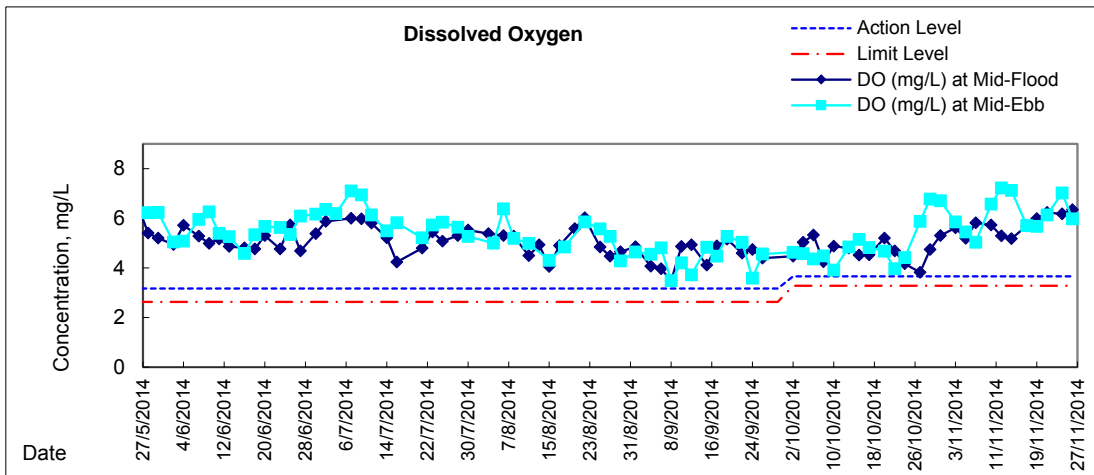
Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO		Turbidity		Suspended Solids					
					°C			-			ppt		%		mg/L		NTU		mg/L					
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average	Value	Average	Value	Average				
29/10/2014	5:18	Cloudy	Middle	2.0	25.30	25.30	25.30	8.01	8.01	8.01	32.51	32.51	32.51	99.5	99.3	99.1	6.83	6.80	6.78	7.60	7.57	7.54	7	6.50
	5:19		Middle	2.0	25.30	25.30		8.01	8.01		32.51	32.51		98.8	98.6		6.75	6.73		7.51	7.48		6	
31/10/2014	4:40	Cloudy	Middle	2.5	25.79	25.79	25.79	8.01	8.01	8.02	32.41	32.41	32.42	98.1	97.7	98.8	6.65	6.62	6.70	5.60	5.73	5.58	5	5.50
	4:41		Middle	2.5	25.78	25.78		8.02	8.02		32.42	32.42		99.8	99.7		6.76	6.75		5.55	5.45		6	
3/11/2014	9:10	Fine	Middle	3.5	25.10	25.10	25.05	7.91	7.91	7.92	33.36	33.36	33.37	85.1	86.4	78.0	5.83	5.90	5.85	14.95	14.98	<u>14.97</u>	12	12.00
	9:12		Middle	3.5	25.00	25.00		7.93	7.93		33.38	33.38		85.6	84.9		5.85	5.81		14.97	14.99		12	
5/11/2014	10:15	Fine	Middle	3.5	25.70	25.70	25.70	7.89	7.89	7.91	33.70	33.70	33.70	81.7	81.4	80.9	5.50	5.48	5.45	5.77	5.63	5.66	4	4.00
	10:17		Middle	3.5	25.70	25.70		7.92	7.92		33.70	33.70		80.7	79.9		5.44	5.39		5.62	5.62		4	
7/11/2014	10:30	Cloudy	Middle	3.5	26.30	26.30	26.25	8.29	8.29	8.28	33.44	33.44	33.45	74.0	74.5	73.9	5.04	5.07	5.03	5.12	5.12	5.12	6	5.50
	10:32		Middle	3.5	26.20	26.20		8.27	8.27		33.46	33.46		73.9	73.3		5.03	4.99		5.13	5.12		5	
10/11/2014	4:22	Cloudy	Middle	2.0	23.90	23.90	23.90	7.95	7.95	7.97	32.29	32.29	32.27	90.0	90.3	91.8	6.44	6.47	6.58	4.69	4.76	4.58	3	2.50
	4:23		Middle	2.0	23.90	23.90		8.00	7.99		32.24	32.25		94.5	92.2		6.78	6.61		4.61	4.27		2	
12/11/2014	4:50	Cloudy	Middle	2.5	24.08	24.08	24.08	8.34	8.34	8.33	32.08	32.08	32.08	99.8	99.9	99.8	6.98	7.31	7.23	4.18	4.21	4.17	3	3.00
	4:51		Middle	2.5	24.07	24.07		8.33	8.32		32.08	32.08		99.9	99.7		7.32	7.29		4.06	4.23		3	
14/11/2014	4:47	Cloudy	Middle	2.5	22.55	22.55	22.52	8.43	8.43	8.42	32.37	32.37	32.39	99.4	99.6	99.3	7.13	7.15	7.12	3.02	3.06	2.99	<2	<2
	4:48		Middle	2.5	22.48	22.48		8.41	8.41		32.40	32.40		99.2	99.1		7.11	7.10		3.00	2.86		<2	
17/11/2014	9:45	Fine	Middle	3.5	24.40	24.40	24.45	8.02	8.02	8.04	31.32	31.32	31.79	82.3	83.9	82.4	5.69	5.82	5.70	4.27	4.26	4.26	6	6.50
	9:47		Middle	3.5	24.50	24.50		8.06	8.06		32.26	32.26		82.5	80.9		5.70	5.59		4.26	4.26		7	
19/11/2014	9:50	Fine	Middle	3.5	23.30	23.30	23.25	8.02	8.02	8.04	33.23	33.23	33.23	80.8	80.0	80.3	5.70	5.66	5.67	3.29	3.29	3.29	4	4.50
	9:52		Middle	3.5	23.20	23.20		8.06	8.06		33.22	33.22		80.4	79.9		5.69	5.64		3.28	3.28		5	
21/11/2014	11:15	Fine	Middle	3.5	23.80	23.80	23.75	8.15	8.15	8.16	33.15	33.15	33.15	87.9	87.7	87.6	6.15	6.14	6.13	5.47	5.46	5.44	3	3.00
	11:17		Middle	3.5	23.70	23.70		8.16	8.16		33.15	33.15		87.6	87.0		6.12	6.09		5.44	5.40		3	
24/11/2014	3:40	Fine	Middle	2.5	23.10	23.10	23.10	8.16	8.16	8.16	32.15	32.15	32.16	97.1	96.9	96.8	7.05	7.03	7.02	3.61	3.57	3.58	4	4.00
	3:41		Middle	2.5	23.10	23.10		8.16	8.16		32.16	32.16		96.6	96.4		7.01	7.00		3.64	3.49		4	
26/11/2014	5:02	Cloudy	Middle	2.5	22.42	22.42	22.42	7.90	7.90	7.92	31.92	31.92	31.95	82.1	80.1	82.6	5.95	5.75	5.97	2.96	2.99	2.79	3	3.00
	5:03		Middle	2.5	22.42	22.42		7.93	7.93		31.98	31.98		84.8	83.3		6.14	6.03		2.70	2.50		3	

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



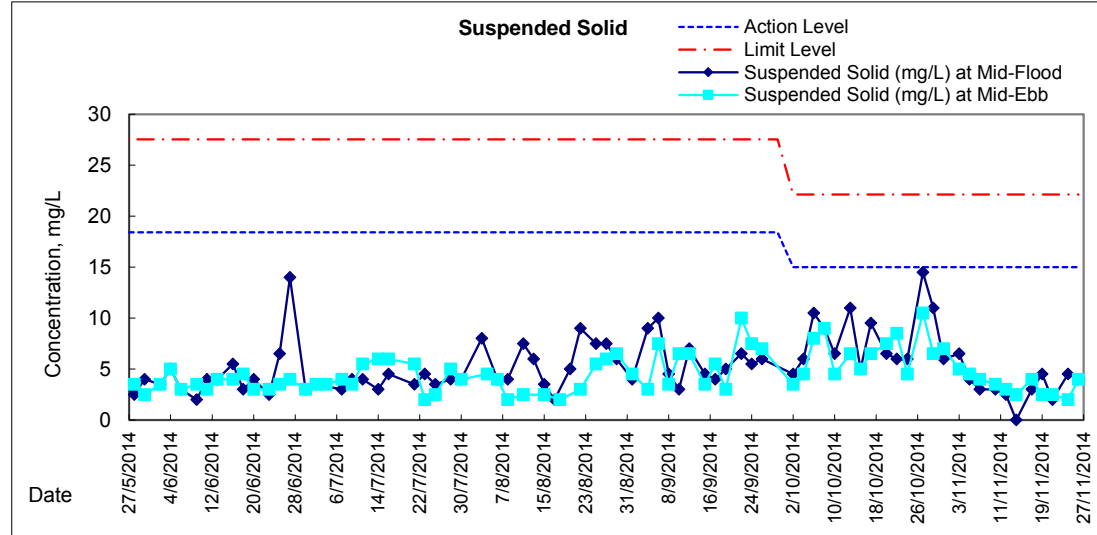
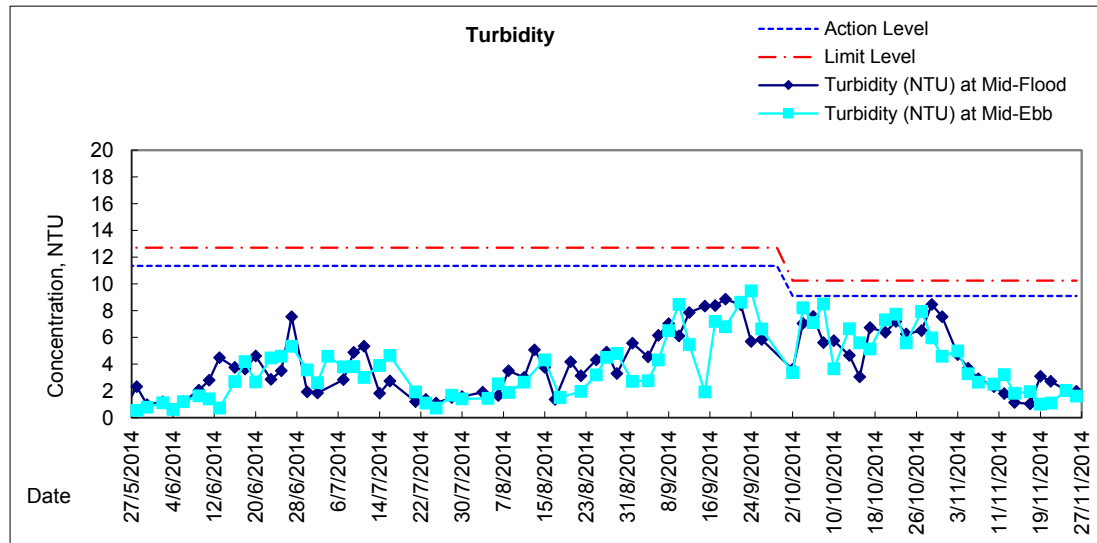
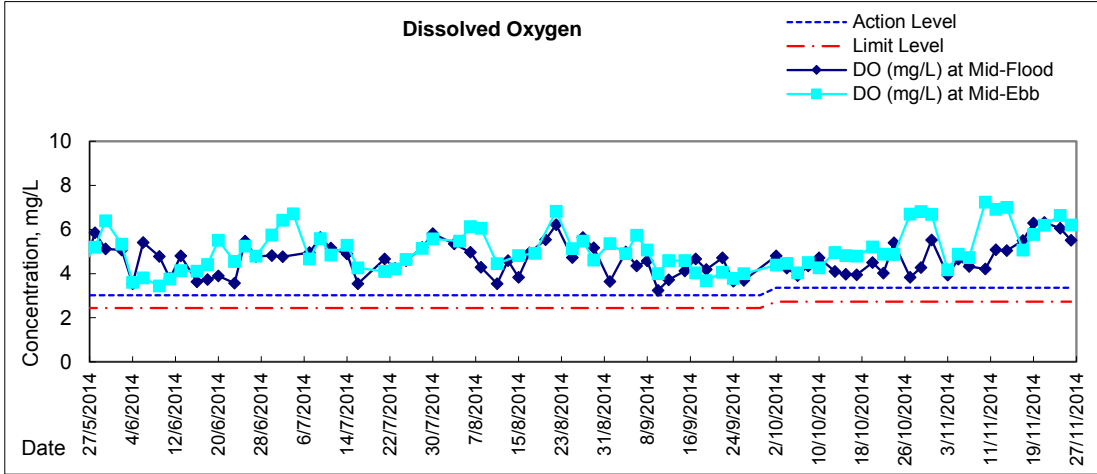


## Graphic Presentation of Water Quality Result of WSD19 - Sheung Wan



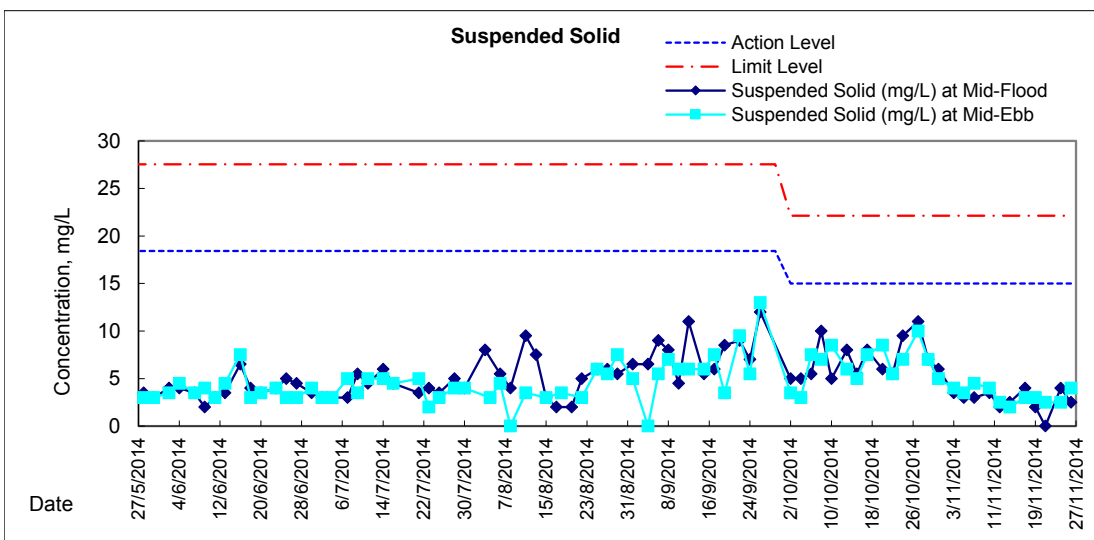
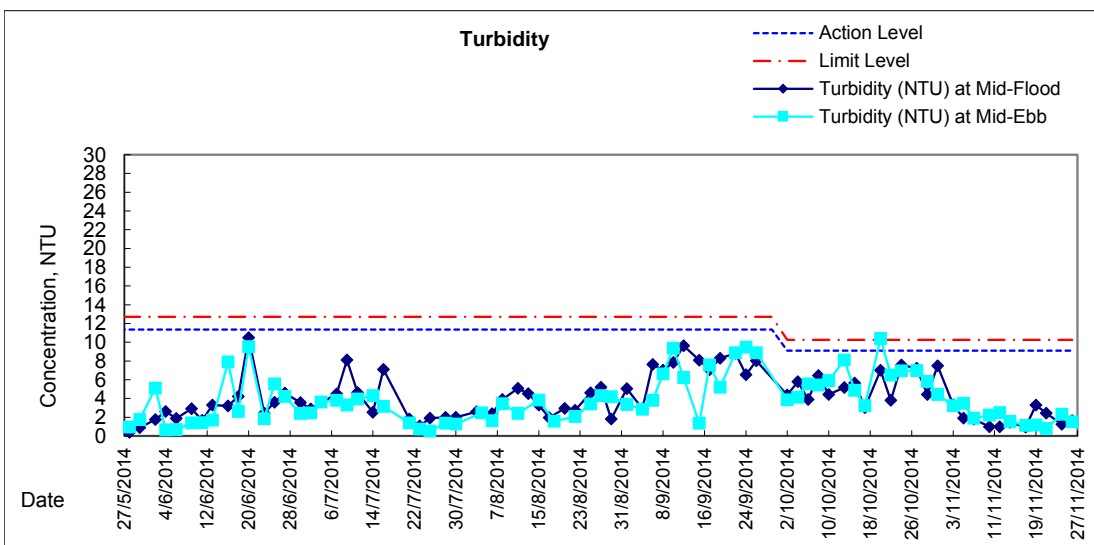
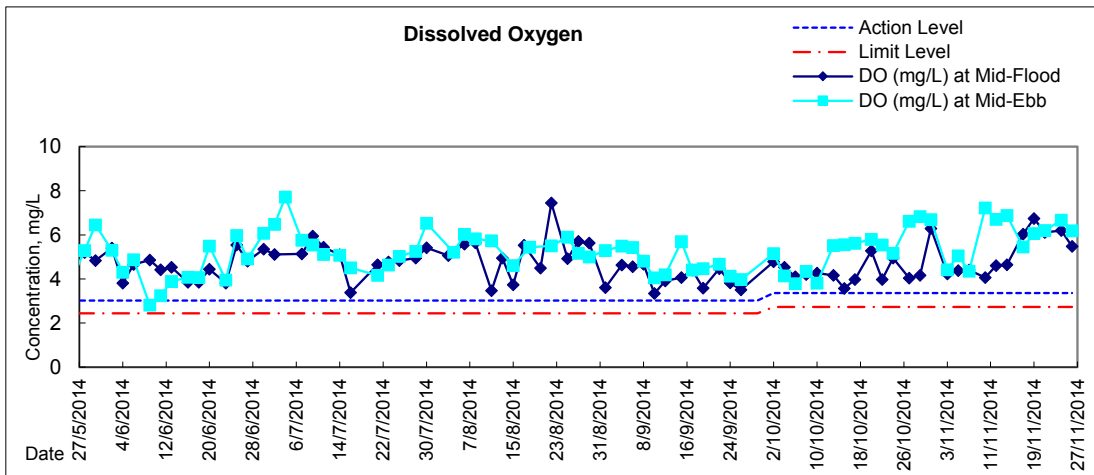


### Graphic Presentation of Water Quality Result of C1 - HKCEC



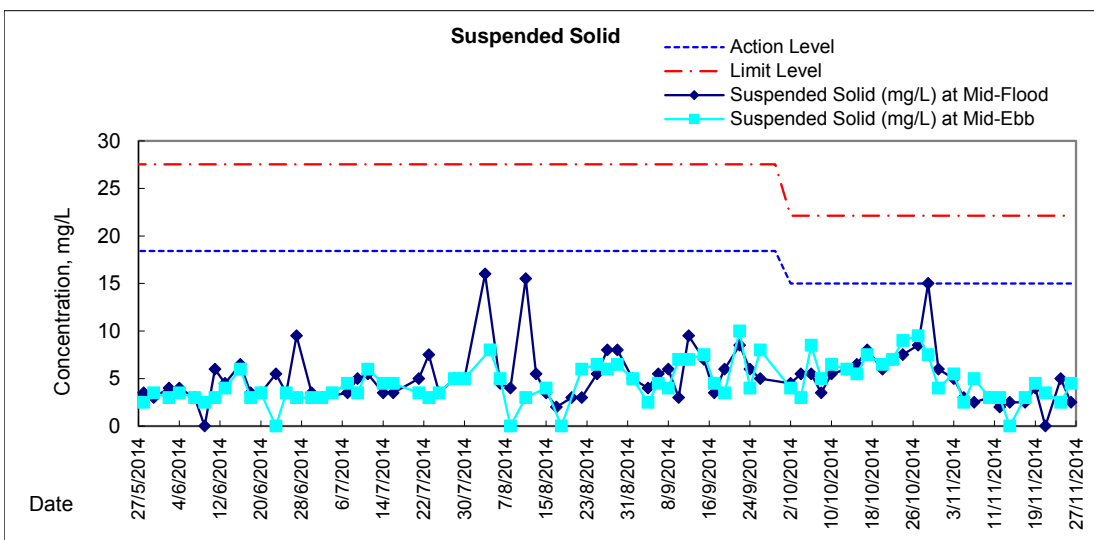
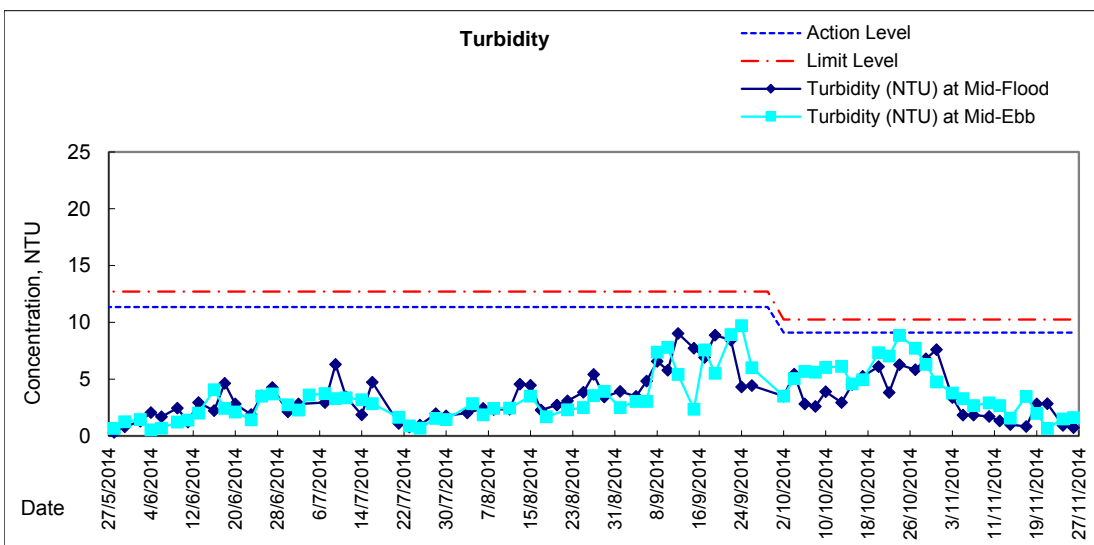
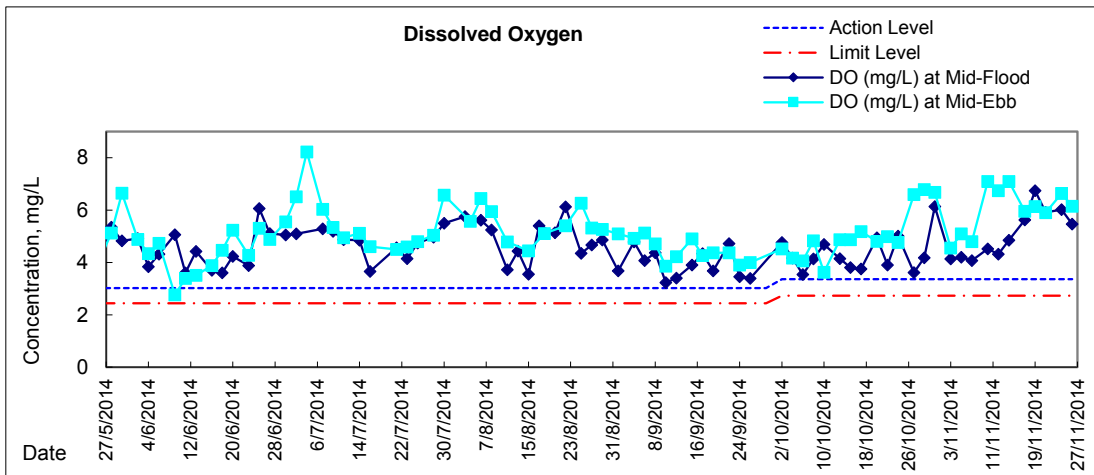


# Graphic Presentation of Water Quality Result of P1 - HKCEC Phase I



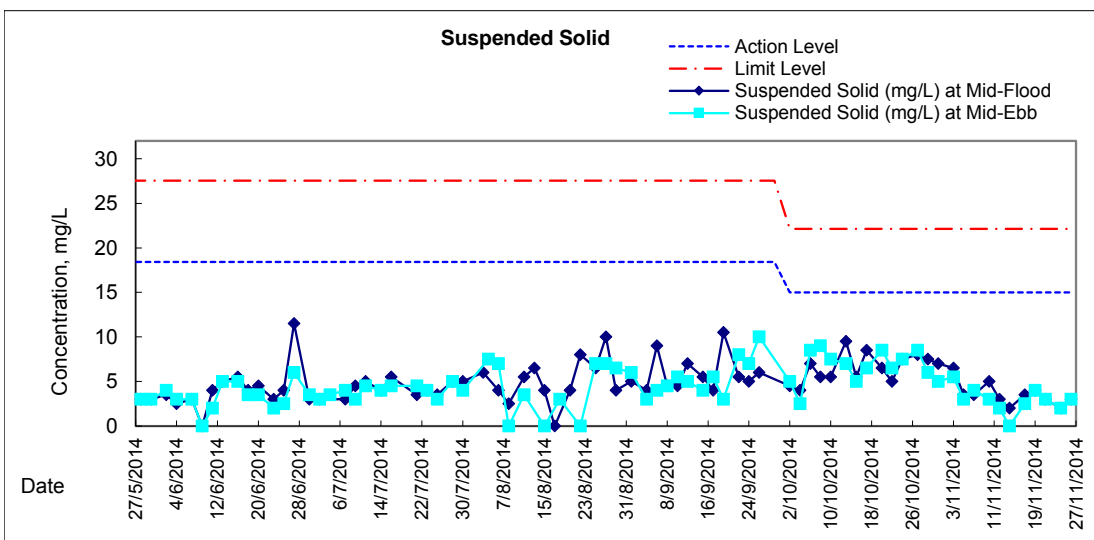
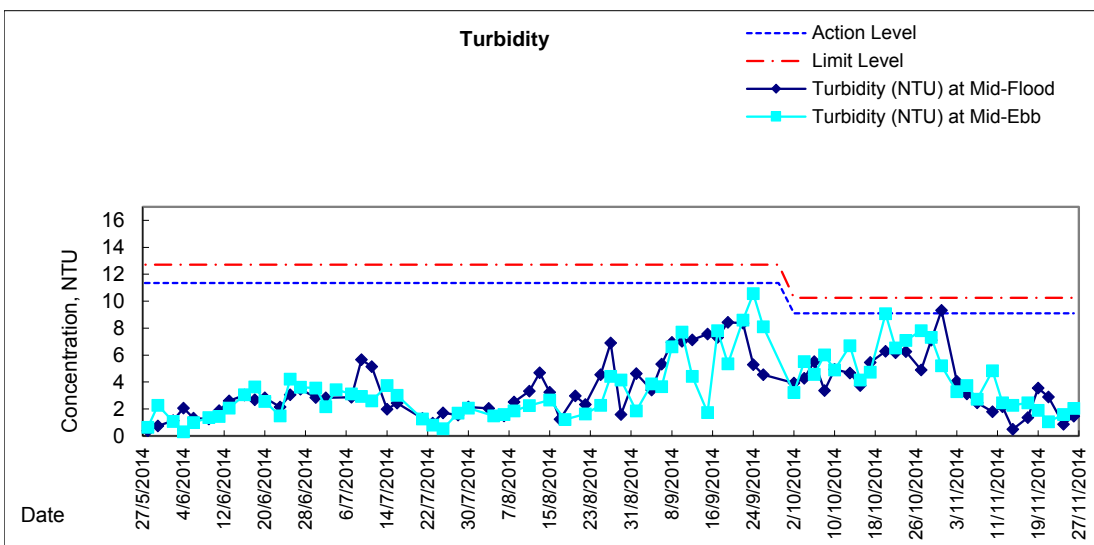
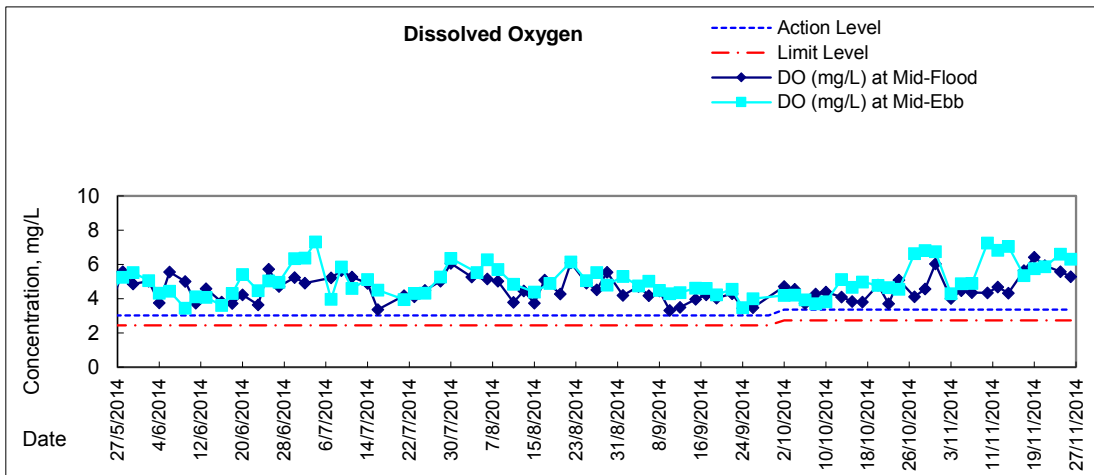


# Graphic Presentation of Water Quality Result of P3 - APA



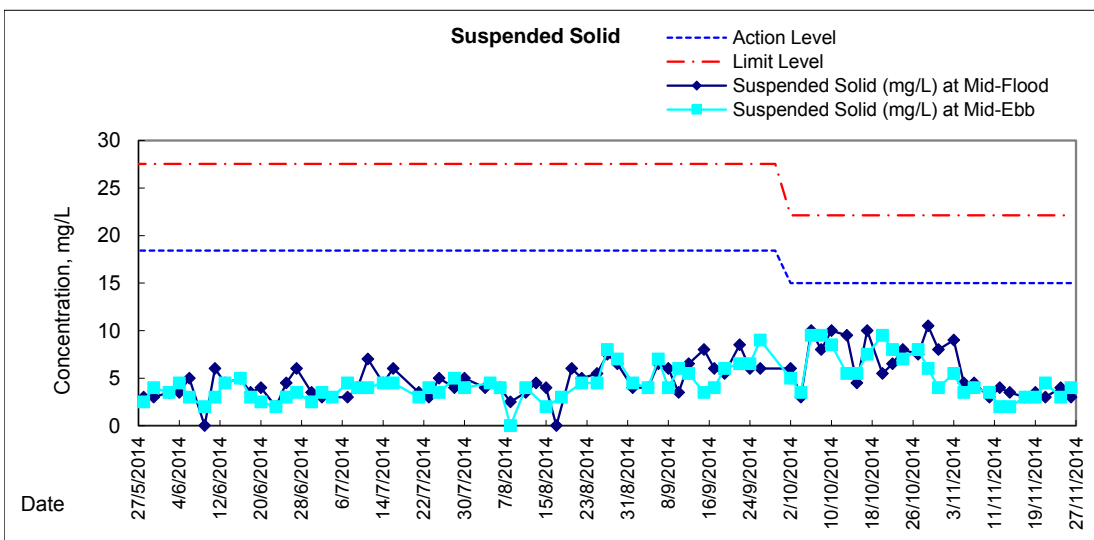
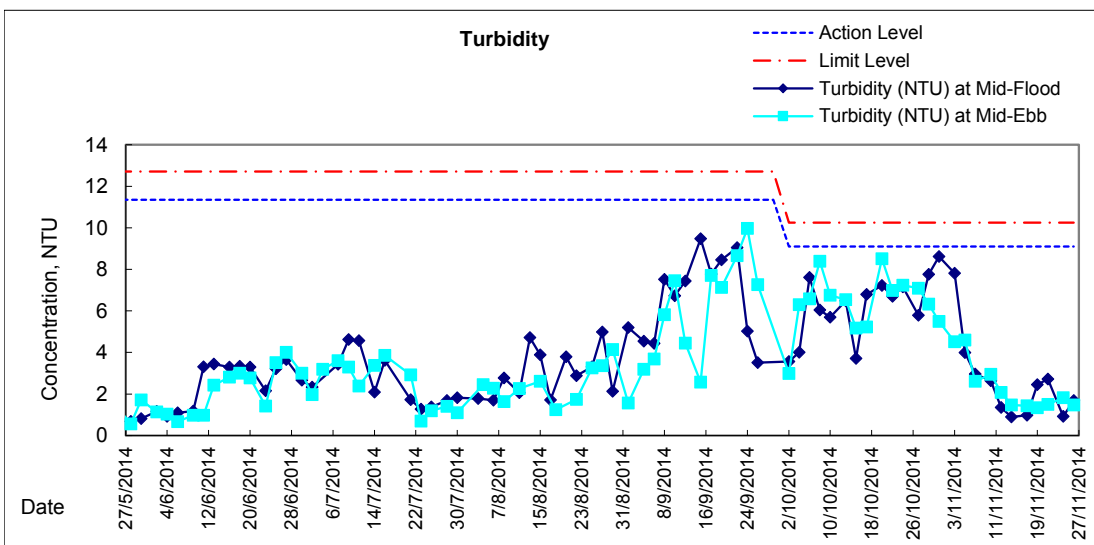
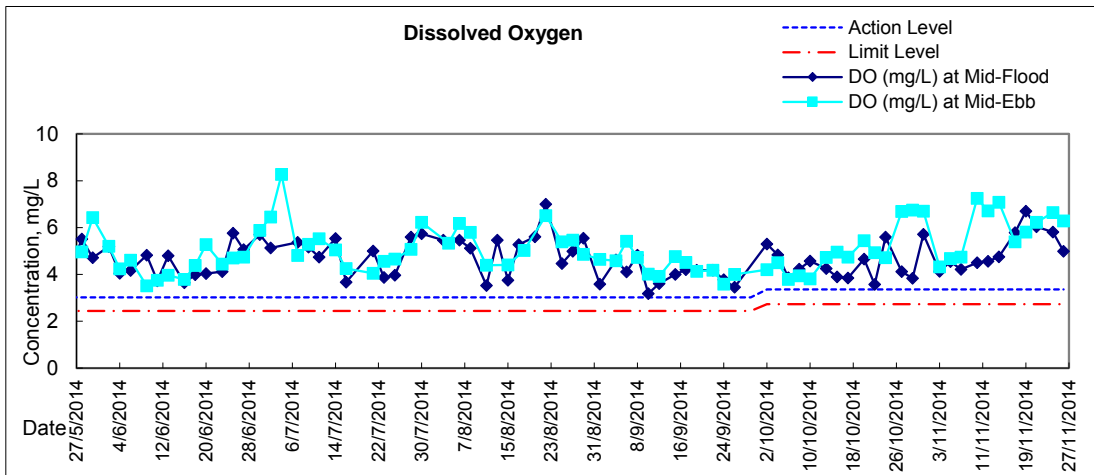


### Graphic Presentation of Water Quality Result of P5 - WCT / RT / IT





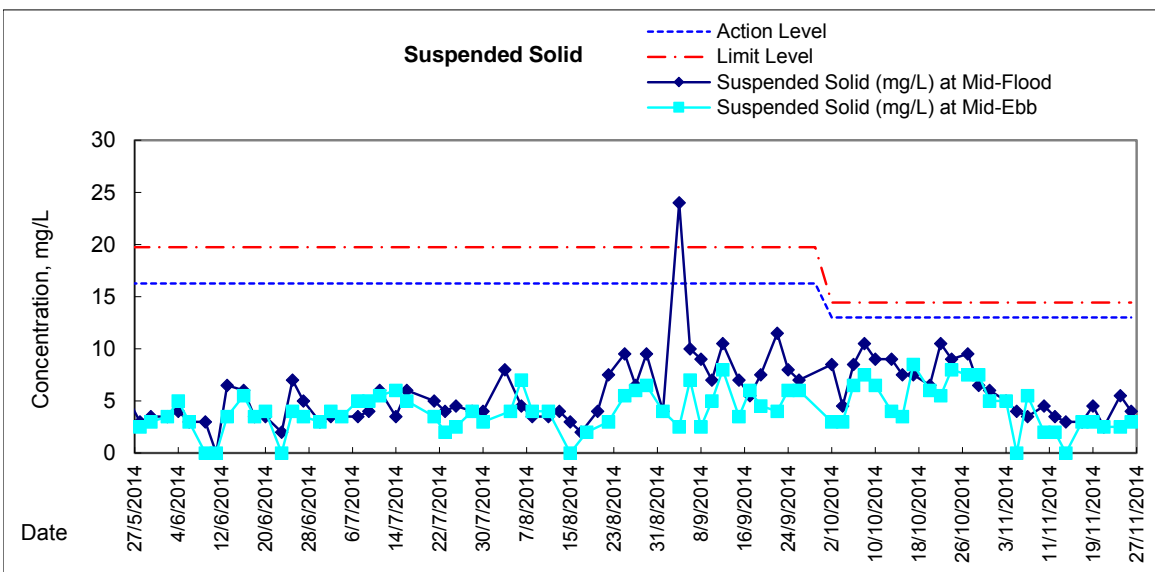
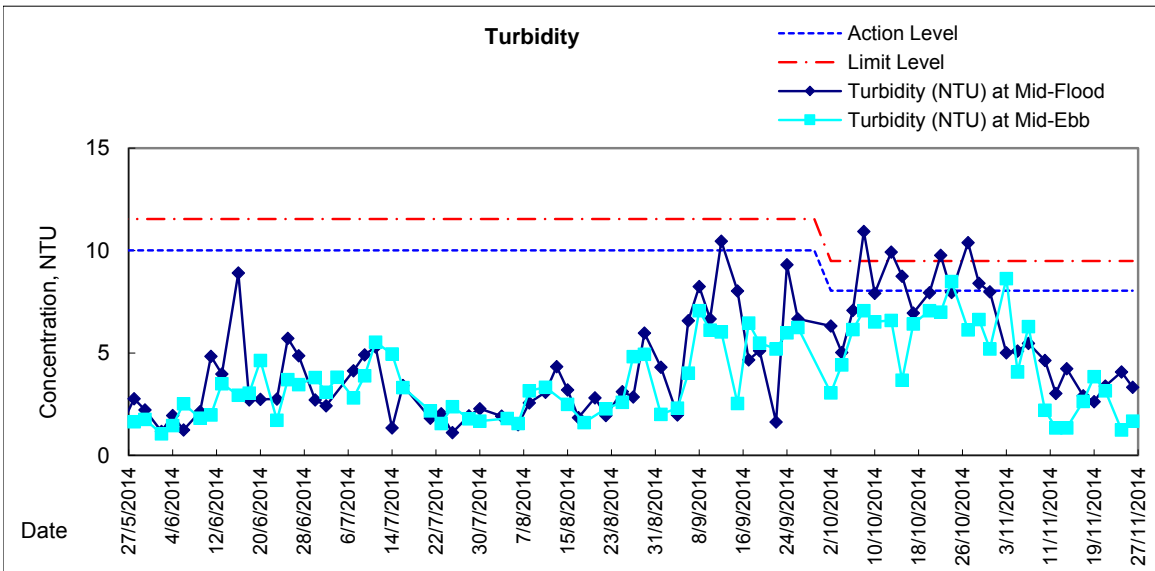
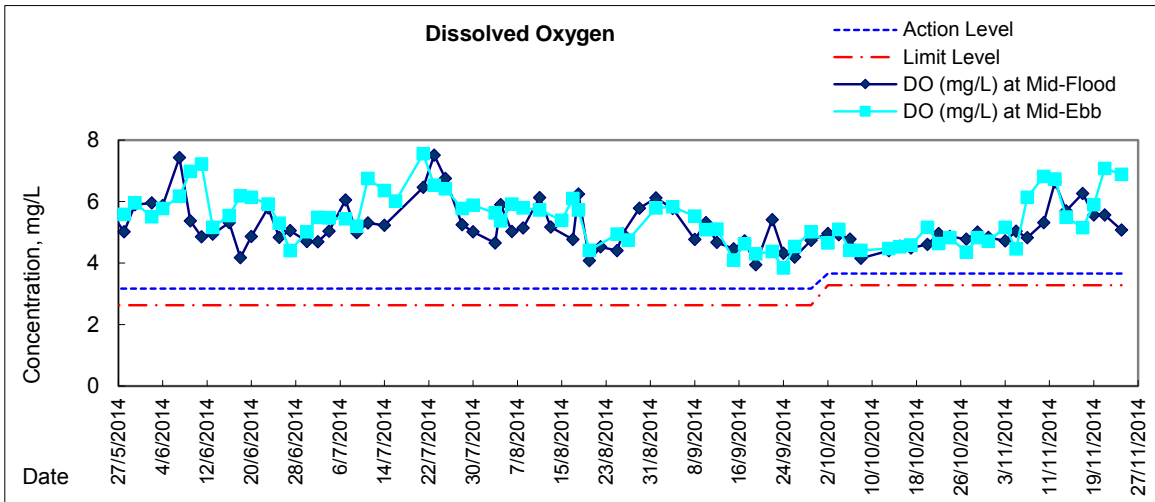
## Graphic Presentation of Water Quality Result of P4 - SOC





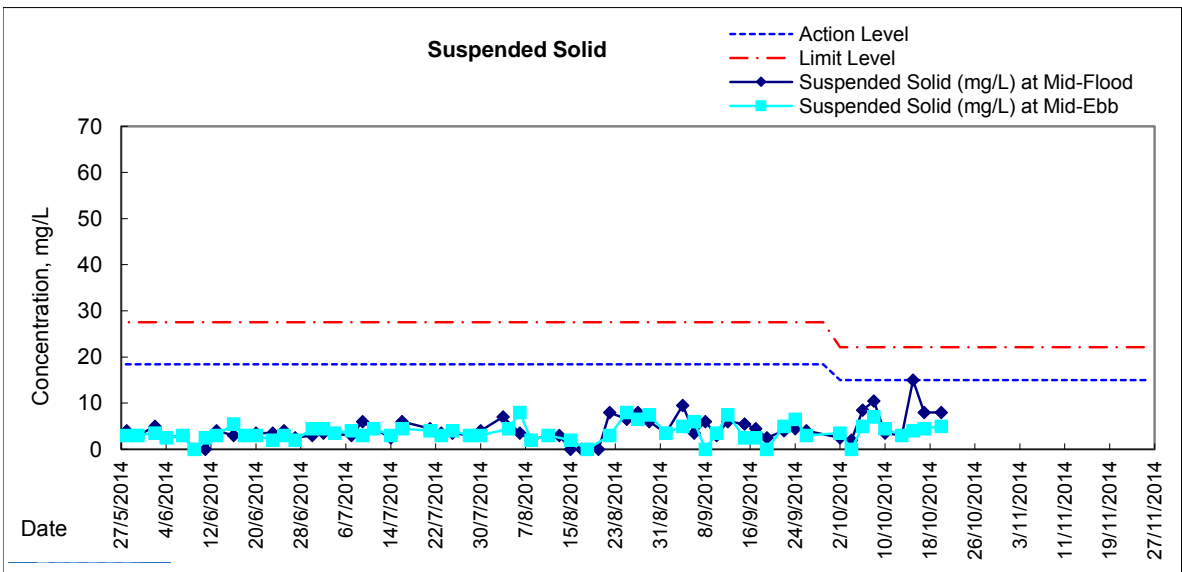
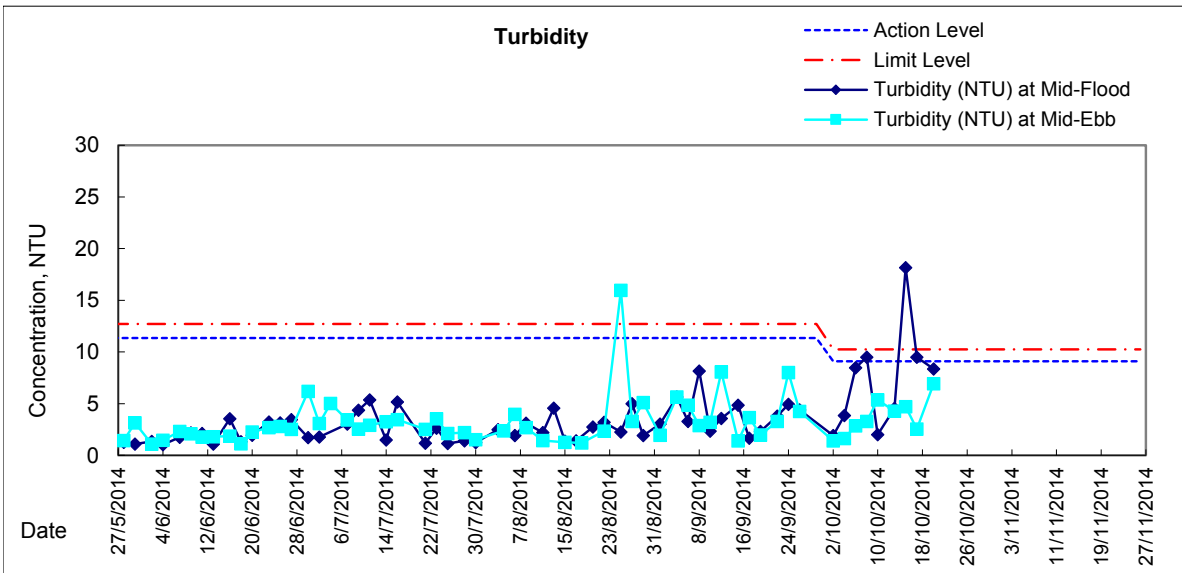
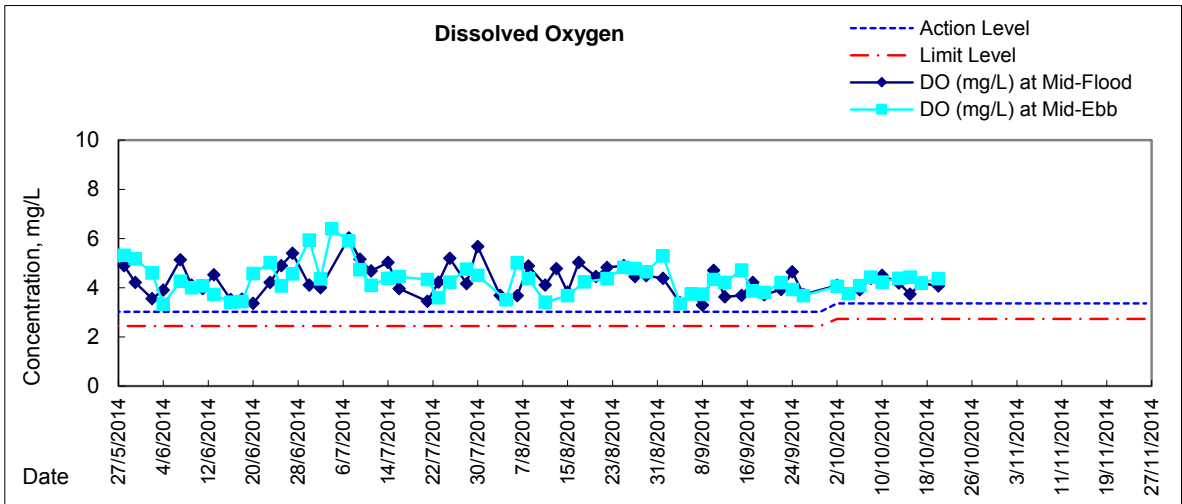


# Graphic Presentation of Water Quality Result of RW21-P789 - GEC/CRC/SHK





### Graphic Presentation of Water Quality Result of C7 - Windsor House



Remark: Due to the commencement of filling works at TS3 and temporary suspension of pump operation, the water quality monitoring was temporarily suspended starting from 22 October 2014 and would be resumed after the completion of the intake diversion.



**Water Monitoring Result at C6 - Excelsior Hotel  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO				
					°C			-			ppt		%		mg/L				
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
29/10/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11:10		Middle	1.5	26.50	26.50	26.5	8.13	8.13	8.1	32.76	32.76	32.8	74.4	74.5	74.5	4.97	4.98	4.98
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/10/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:05		Middle	1.5	26.90	26.90	26.9	7.81	7.81	7.8	32.51	32.51	32.5	74.1	73.6	73.9	4.91	4.88	4.90
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:05		Middle	1.5	25.70	25.70	25.7	8.00	8.00	8.0	32.89	32.89	32.9	75.9	76.1	76.0	5.15	5.16	5.16
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:32		Middle	1.5	25.30	25.30	25.3	8.04	8.04	8.0	33.09	33.09	33.1	75.2	76.3	75.8	5.12	5.20	5.16
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	18:30		Middle	1.5	25.10	25.10	25.1	8.04	8.04	8.0	32.94	32.94	32.9	74.0	74.1	74.1	5.06	5.08	5.07
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:05		Middle	1.5	24.80	24.80	24.8	8.08	8.08	8.1	32.55	32.55	32.6	70.0	70.3	70.2	4.83	4.85	4.84
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:25		Middle	1.5	25.10	25.10	25.1	8.06	8.06	8.1	32.05	32.05	32.1	111.1	108.5	109.8	7.60	7.45	7.53
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:10		Middle	1.5	24.10	24.10	24.1	8.05	8.05	8.1	32.08	32.08	32.1	64.1	62.7	63.4	4.48	4.38	4.43
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:00		Middle	1.5	24.80	24.80	24.8	8.13	8.13	8.1	32.36	32.36	32.4	67.5	68.4	68.0	4.63	4.71	4.67
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:35		Middle	1.5	23.90	23.90	23.9	8.21	8.21	8.2	32.55	32.55	32.6	81.0	80.8	80.9	5.58	5.56	5.57
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:30		Middle	1.5	24.90	24.90	24.9	8.07	8.07	8.1	32.79	32.79	32.8	86.4	86.0	86.2	5.89	5.86	5.88
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7:50		Middle	1.5	23.70	23.70	23.7	8.11	8.11	8.1	33.11	33.11	33.1	88.8	87.9	88.4	6.24	6.23	6.24
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:40		Middle	1.5	23.90	23.90	23.9	8.18	8.18	8.2	31.59	31.59	31.6	91.1	89.3	90.2	6.41	6.28	6.35
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:  
 Single underline denotes exceedance over Action Level.  
 Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth m	Water Temperature °C			pH			Salinity ppt			DO Saturation %		DO mg/L				
				Value	Average		Value	Average		Value	Average		Value	Average					
29/10/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11:02		Middle	1.5	26.30	26.30	26.3	8.08	8.08	8.1	32.04	32.04	32.0	79.3	79.2	79.3	5.34	5.34	5.34
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/10/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	11:47		Middle	1.5	26.10	26.10	26.1	7.80	7.80	7.8	30.85	30.85	30.9	76.5	76.2	76.4	5.24	5.22	5.23
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	15:52		Middle	1.5	25.40	25.40	25.4	8.01	8.01	8.0	32.69	32.69	32.7	75.8	76.3	76.1	5.15	5.21	5.18
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	17:26		Middle	1.5	25.20	25.20	25.2	8.02	8.02	8.0	32.66	32.66	32.7	74.4	73.8	74.1	5.08	5.05	5.07
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/11/2014	17:50	Cloudy	Surface	1.0	25.00	25.00	25.0	8.02	8.02	8.0	31.61	31.62	31.6	65.1	63.3	64.2	4.49	4.37	4.43
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:52		Bottom	5.0	25.00	25.00	25.0	8.03	8.03	8.0	33.12	33.12	33.1	73.0	72.8	72.9	5.00	4.99	5.00
10/11/2014	8:55	Fine	Surface	1.0	24.80	24.80	24.8	8.08	8.08	8.1	32.42	32.42	32.4	75.2	74.7	75.0	5.18	5.15	5.17
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:57		Bottom	4.0	24.80	24.80	24.8	8.08	8.08	8.1	32.42	32.42	32.4	71.2	73.1	72.2	4.90	4.95	4.93
12/11/2014	11:09	Fine	Surface	1.0	25.10	25.10	25.1	8.03	8.03	8.0	32.40	32.40	32.4	83.0	83.4	83.2	5.69	5.72	5.71
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:11		Bottom	4.0	25.20	25.20	25.2	8.03	8.03	8.0	32.52	32.52	32.5	78.9	78.8	78.9	5.40	5.39	5.40
14/11/2014	9:50	Fine	Surface	1.0	23.90	23.90	23.9	8.02	8.02	8.0	31.93	31.93	31.9	81.3	79.5	80.4	5.72	5.55	5.64
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	9:52		Bottom	4.0	23.80	23.80	23.8	8.02	8.02	8.0	32.73	32.73	32.7	76.6	77.0	76.8	5.34	5.37	5.36
17/11/2014	14:10	Fine	Surface	1.0	24.70	24.70	24.7	8.09	8.09	8.1	30.19	30.19	30.2	76.2	76.4	76.3	5.62	5.63	5.63
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:12		Bottom	4.0	24.60	24.60	24.6	8.10	8.10	8.1	32.67	32.67	32.7	78.3	78.7	78.5	5.73	5.76	5.75
19/11/2014	16:15	Fine	Surface	1.0	24.00	24.00	24.0	8.18	8.18	8.2	32.63	32.63	32.6	95.7	94.4	95.1	6.68	6.59	6.64
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:17		Bottom	4.0	24.00	24.00	24.0	8.19	8.19	8.2	33.03	33.03	33.0	89.5	90.2	89.9	6.24	6.29	6.27
21/11/2014	17:27	Fine	Surface	1.0	23.60	23.60	23.6	8.15	8.15	8.2	32.88	32.88	32.9	96.7	94.7	95.7	6.79	6.65	6.72
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:29		Bottom	4.0	23.60	23.60	23.6	8.18	8.18	8.2	32.88	32.88	32.9	89.6	88.5	89.1	6.29	6.21	6.25
24/11/2014	7:30	Fine	Surface	1.0	23.80	23.80	23.8	8.15	8.15	8.2	33.16	33.16	33.2	86.6	87.4	87.0	6.06	6.10	6.08
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7:32		Bottom	3.0	23.60	23.60	23.6	8.17	8.17	8.2	33.12	33.12	33.1	76.1	72.1	74.1	5.39	5.10	5.25
26/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	8:10		Middle	1.5	23.80	23.80	23.8	8.01	8.01	8.0	31.64	31.64	31.6	78.1	79.6	78.9	5.48	5.58	5.53
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at Ex-WPCWA SE - South-eastern corners of ex-Public Cargo Works Area  
Mid-Flood Tide**

Date	Time	Weather Condition	Sampling Depth m		Water Temperature °C			pH			Salinity ppt			DO Saturation %			DO mg/L		
					Value	Average	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average			
29/10/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:00		Middle	1.5	26.20	26.20	26.2	8.08	8.08	8.1	31.72	31.72	31.7	73.1	72.6	72.9	4.93	4.90	4.92
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/10/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:45		Middle	1.5	26.50	26.50	26.5	7.73	7.73	7.7	32.83	32.83	32.8	97.8	93.2	95.5	6.56	6.39	6.48
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	15:50		Middle	1.5	25.10	25.10	25.1	8.02	8.02	8.0	32.62	32.62	32.6	74.5	74.0	74.3	5.11	5.09	5.10
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:24		Middle	1.5	25.20	25.20	25.2	8.02	8.02	8.0	31.98	31.98	32.0	71.0	70.7	70.9	4.87	4.85	4.86
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/11/2014	17:54	Cloudy	Surface	1.0	24.90	24.90	24.9	8.09	8.09	8.1	28.11	28.11	28.1	48.4	55.5	52.0	3.42	3.92	<u>3.67</u>
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:56		Bottom	4.0	25.10	25.10	25.1	8.05	8.05	8.1	32.94	32.94	32.9	77.6	74.3	76.0	5.33	5.09	<u>5.21</u>
10/11/2014	8:45	Fine	Surface	1.0	24.60	24.60	24.6	8.09	8.09	8.1	32.69	32.69	32.7	75.0	75.0	75.0	5.18	5.18	5.18
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:47		Bottom	4.0	24.50	24.50	24.5	8.09	8.09	8.1	32.79	32.79	32.8	80.0	80.0	80.0	5.52	5.53	5.53
12/11/2014	11:13	Fine	Surface	1.0	25.10	25.10	25.1	8.04	8.04	8.0	32.78	32.78	32.8	66.6	66.0	66.3	4.56	4.41	4.49
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:15		Bottom	4.0	25.10	25.10	25.1	8.05	8.05	8.1	32.44	32.44	32.4	65.4	65.2	65.3	4.49	4.47	<u>4.48</u>
14/11/2014	9:58	Fine	Surface	1.0	24.20	24.20	24.2	8.06	8.06	8.1	30.47	30.47	30.5	69.2	70.3	69.8	4.87	4.95	4.91
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:00		Bottom	4.0	24.20	24.20	24.2	8.05	8.05	8.1	32.06	32.06	32.1	79.3	79.0	79.2	5.54	5.53	5.54
17/11/2014	14:20	Fine	Surface	1.0	23.80	23.80	23.8	8.14	8.14	8.1	29.56	29.56	29.6	69.4	68.0	68.7	4.88	4.77	4.83
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	14:22		Bottom	4.0	24.30	24.30	24.3	8.13	8.13	8.1	29.24	29.24	29.2	68.1	69.0	68.6	4.91	5.02	<u>4.97</u>
19/11/2014	16:23	Fine	Surface	1.0	24.10	24.10	24.1	8.21	8.21	8.2	32.31	32.31	32.3	87.8	87.3	87.6	6.13	6.09	6.11
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16:25		Bottom	4.0	24.00	24.00	24.0	8.21	8.21	8.2	33.13	33.13	33.1	84.5	84.2	84.4	5.89	5.85	5.87
21/11/2014	17:31	Fine	Surface	1.0	23.90	23.90	23.9	8.19	8.19	8.2	32.44	32.44	32.4	82.0	81.7	81.9	5.75	5.73	5.74
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	17:33		Bottom	4.0	23.80	23.80	23.8	8.20	8.20	8.2	32.71	32.71	32.7	84.0	83.4	83.7	5.89	5.85	5.87
24/11/2014	7:40	Fine	Surface	1.0	23.60	23.60	23.6	8.19	8.19	8.2	32.52	32.52	32.5	83.2	84.0	83.6	5.86	5.90	5.88
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	7:42		Bottom	3.0	23.40	23.40	23.4	8.20	8.20	8.2	32.50	32.50	32.5	84.4	85.3	84.9	5.94	6.00	5.97
26/11/2014	8:12	Fine	Surface	1.0	24.00	24.00	24.0	8.10	8.10	8.1	31.99	31.99	32.0	74.2	75.4	74.8	5.20	5.28	5.24
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:14		Bottom	3.0	23.80	23.80	23.8	8.12	8.12	8.1	32.12	32.12	32.1	77.7	77.6	77.7	5.44	5.43	5.44

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



**Water Monitoring Result at C6 - Excelsior Hotel  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH		Salinity		DO Saturation		DO					
					°C			-		ppt		%		mg/L					
			m	Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
29/10/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	1:30		Middle	1.5	25.32	25.32	25.3	7.87	7.87	7.9	30.60	30.60	30.6	94.3	94.7	94.5	6.51	6.54	6.53
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/10/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:10		Middle	1.5	25.76	25.76	25.8	8.04	8.04	8.0	33.43	33.43	33.4	98.9	98.6	98.8	6.67	6.65	6.66
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:30		Middle	1.5	25.50	25.50	25.5	7.90	7.90	7.9	32.42	32.42	32.4	74.6	73.0	73.8	5.08	4.98	5.03
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:45		Middle	1.5	25.30	25.30	25.3	8.00	8.00	8.0	32.46	32.46	32.5	75.8	75.9	75.9	5.13	5.14	5.14
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12:45		Middle	1.5	25.20	25.20	25.2	8.08	8.08	8.1	33.11	33.11	33.1	74.7	74.2	74.5	5.13	5.08	5.11
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	0:10		Middle	1.5	23.91	23.91	23.9	7.97	7.98	8.0	31.55	31.55	31.6	96.9	94.5	95.7	7.09	6.91	7.00
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:03		Middle	1.5	24.03	24.03	24.0	8.09	8.09	8.1	31.69	31.69	31.7	99.8	99.6	99.7	7.00	6.99	7.00
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:30		Middle	1.5	22.12	22.12	22.1	8.30	8.30	8.3	28.18	28.18	28.2	89.7	88.2	89.0	6.64	6.54	6.59
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:25		Middle	1.5	24.60	24.60	24.6	8.01	8.01	8.0	31.93	31.93	31.9	70.7	70.2	70.5	4.92	4.89	4.91
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:25		Middle	1.5	24.90	24.90	24.9	8.15	8.15	8.2	33.91	33.91	33.9	99.8	96.4	98.1	7.00	6.76	6.88
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	12:15		Middle	1.5	23.80	23.80	23.8	8.19	8.19	8.2	32.14	32.14	32.1	87.6	87.7	87.7	5.83	5.84	5.84
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	23:30		Middle	1.5	23.10	23.10	23.1	8.22	8.22	8.2	30.10	30.09	30.1	95.5	94.7	95.1	6.93	6.87	6.90
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26/11/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:25		Middle	1.5	22.43	22.43	22.4	7.80	7.80	7.8	28.22	28.22	28.2	95.8	95.7	95.8	6.81	6.80	6.81
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.





**Water Monitoring Result at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH		Salinity		DO Saturation		DO					
			m	°C			-		ppt		%		mg/L						
				Value	Average	Value	Average	Value	Average	Value	Average	Value	Average						
29/10/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3:50		Middle	1.0	25.25	25.25	25.3	8.11	8.11	8.1	22.69	22.69	22.7	63.5	61.8	62.7	4.59	4.33	4.46
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/10/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:06		Middle	1.5	25.66	25.66	25.7	7.96	7.97	8.0	26.95	26.95	27.0	78.1	77.3	77.7	5.47	5.42	5.45
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:22		Middle	1.5	25.70	25.70	25.7	7.89	7.89	7.9	31.10	31.10	31.1	83.4	82.4	82.9	5.67	5.61	5.64
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:32		Middle	1.5	25.20	25.20	25.2	8.07	8.07	8.1	24.58	24.58	24.6	96.4	97.1	96.8	6.90	6.96	6.93
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/11/2014	11:47	Cloudy	Surface	1.0	25.30	25.30	25.3	8.08	8.08	8.1	32.45	32.45	32.5	73.9	74.5	74.2	5.06	5.10	5.08
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:45		Bottom	5.0	25.10	25.10	25.1	8.08	8.08	8.1	32.94	32.94	32.9	72.8	72.7	72.8	4.98	4.97	4.98
10/11/2014	2:32	Cloudy	Surface	1.0	23.92	23.92	23.9	8.14	8.16	8.2	23.02	23.04	23.0	72.0	72.4	72.2	4.86	4.86	4.86
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:34		Bottom	4.0	23.90	23.90	23.9	8.13	8.15	8.1	22.04	22.04	22.0	71.8	72.0	71.9	4.82	4.84	4.83
12/11/2014	3:07	Cloudy	Surface	1.0	24.02	24.02	24.0	8.08	8.08	8.1	23.45	23.45	23.5	80.9	80.0	80.5	5.93	5.84	5.89
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:09		Bottom	4.0	24.00	24.00	24.0	8.07	8.07	8.1	23.43	23.43	23.4	79.8	78.9	79.4	5.86	5.79	5.83
14/11/2014	3:11	Cloudy	Surface	1.0	22.14	22.14	22.1	8.18	8.18	8.2	28.77	28.77	28.8	92.8	92.3	92.6	6.85	6.82	6.84
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:13		Bottom	4.0	22.02	22.02	22.0	8.19	8.19	8.2	28.82	28.82	28.8	91.9	91.4	91.7	6.79	6.76	6.78
17/11/2014	10:50	Fine	Surface	1.0	24.50	24.50	24.5	8.10	8.10	8.1	30.36	30.36	30.4	58.5	59.3	58.9	4.07	4.16	4.12
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:52		Bottom	4.0	24.40	24.40	24.4	8.10	8.10	8.1	30.76	30.76	30.8	63.2	64.0	63.6	4.43	4.50	<u>4.47</u>
19/11/2014	11:05	Fine	Surface	1.0	23.90	23.90	23.9	8.20	8.20	8.2	31.40	31.40	31.4	80.7	80.1	80.4	5.66	5.59	5.63
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:07		Bottom	3.0	23.80	23.80	23.8	8.18	8.18	8.2	32.77	32.77	32.8	87.1	87.3	87.2	6.09	6.10	6.10
21/11/2014	10:30	Fine	Surface	1.0	23.70	23.70	23.7	8.14	8.14	8.1	31.03	31.03	31.0	85.2	84.7	85.0	6.04	6.00	6.02
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:32		Bottom	3.0	23.70	23.70	23.7	8.14	8.14	8.1	32.19	32.19	32.2	92.9	93.0	93.0	6.54	6.55	6.55
24/11/2014	1:55	Fine	Surface	1.0	23.17	23.17	23.2	8.12	8.12	8.1	28.45	28.45	28.5	95.9	95.7	95.8	6.96	6.95	6.96
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1:57		Bottom	4.0	23.18	23.18	23.2	8.11	8.11	8.1	28.48	28.48	28.5	95.3	95.2	95.3	6.92	6.91	6.92
26/11/2014	3:03	Cloudy	Surface	1.0	22.57	22.57	22.6	8.01	8.01	8.0	25.74	25.74	25.7	83.0	82.8	82.9	5.98	5.96	5.97
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:04		Bottom	4.0	22.56	22.56	22.6	8.01	8.01	8.0	25.73	25.73	25.7	82.6	82.4	82.5	5.95	5.93	5.94

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.



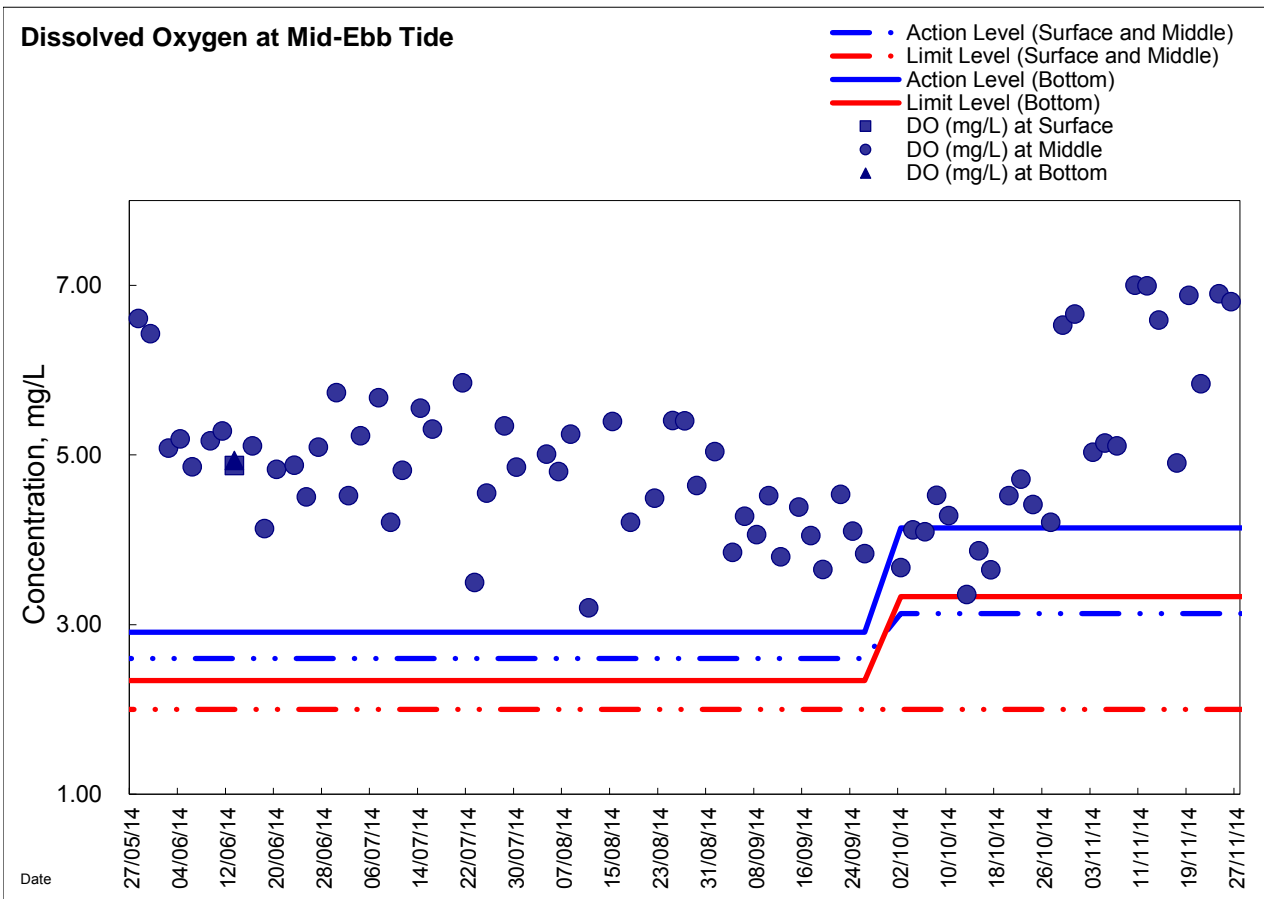
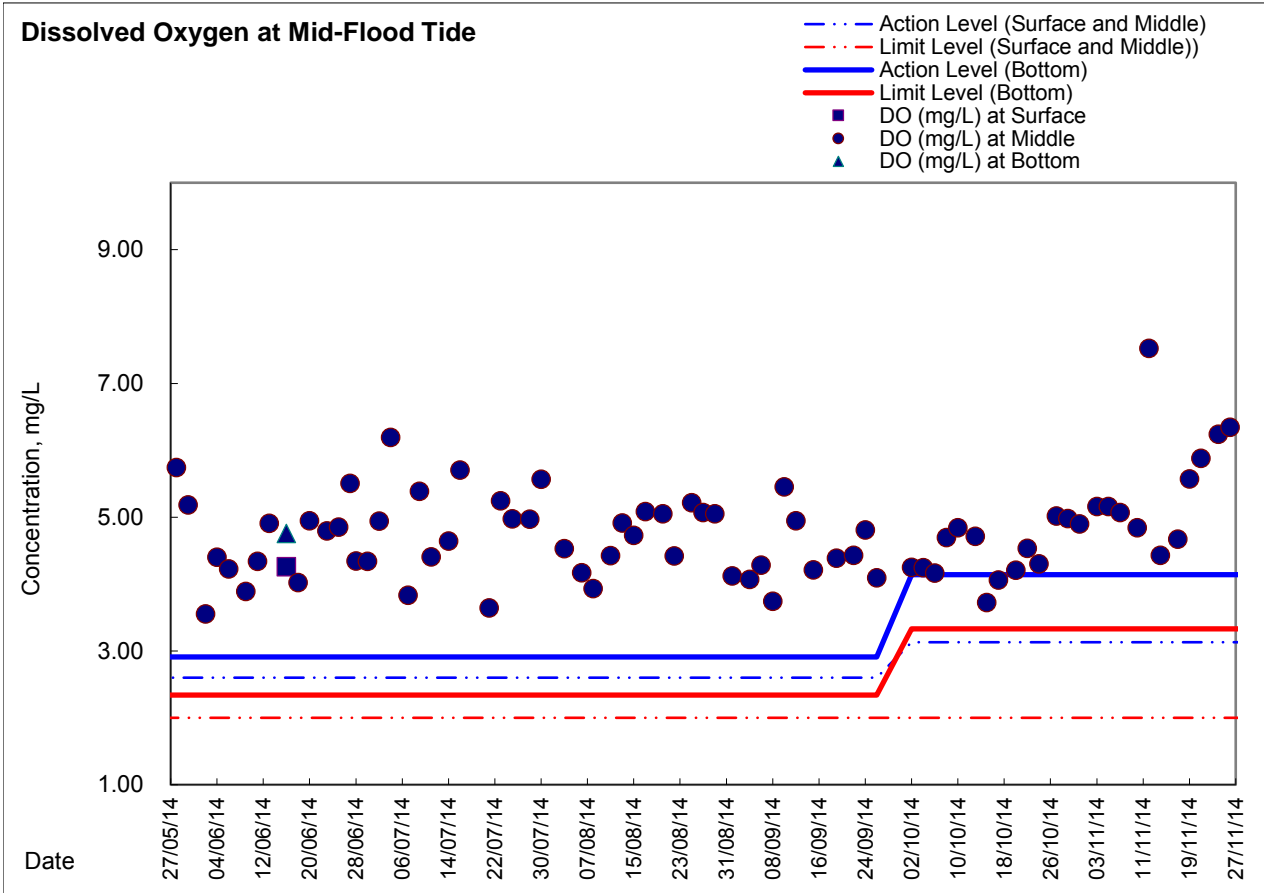
**Water Monitoring Result at Ex-WPCWA SE - South-eastern corners of ex-Public Cargo Works Area  
Mid-Ebb Tide**

Date	Time	Weather Condition	Sampling Depth		Water Temperature			pH			Salinity		DO Saturation		DO				
			m		°C			-			ppt		%		mg/L				
					Value	Average		Value	Average		Value	Average	Value	Average	Value	Average			
29/10/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:58		Middle	1.0	25.31	25.31	25.3	7.89	7.89	7.9	22.33	22.33	22.3	67.5	66.5	67.0	4.89	4.80	4.85
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31/10/2014	-	Cloudy	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:12		Middle	1.5	25.57	25.62	25.6	7.95	7.95	8.0	26.97	26.96	27.0	85.3	81.3	83.3	5.92	5.70	5.81
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8:20		Middle	1.5	25.40	25.40	25.4	7.87	7.87	7.9	32.51	32.51	32.5	77.3	76.5	76.9	5.28	5.23	5.26
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/11/2014	-	Fine	Surface	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:30		Middle	1.5	25.30	25.30	25.3	8.07	8.07	8.1	26.61	26.61	26.6	105.4	104.3	104.9	7.47	7.40	7.44
	-		Bottom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7/11/2014	11:40	Cloudy	Surface	1.0	25.10	25.10	25.1	8.16	8.16	8.2	26.99	26.99	27.0	76.9	75.5	76.2	5.45	5.35	5.40
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:42		Bottom	4.0	25.00	25.00	25.0	8.15	8.15	8.2	26.89	26.89	26.9	73.2	72.9	73.1	5.19	5.14	<u>5.17</u>
10/11/2014	2:41	Cloudy	Surface	1.0	23.85	23.87	23.9	8.05	8.05	8.1	24.81	24.81	24.8	89.6	90.0	89.8	6.40	6.80	6.60
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:43		Bottom	4.0	23.86	23.88	23.9	8.02	8.04	8.0	24.84	24.84	24.8	87.4	87.6	87.5	6.38	6.40	6.39
12/11/2014	3:14	Cloudy	Surface	1.0	24.10	24.10	24.1	8.08	8.07	8.1	23.38	23.38	23.4	88.5	88.0	88.3	6.47	6.42	6.45
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:16		Bottom	4.0	24.08	24.08	24.1	8.10	8.10	8.1	23.36	23.36	23.4	88.2	89.0	88.6	6.45	6.54	6.50
14/11/2014	3:18	Cloudy	Surface	1.0	22.29	22.29	22.3	8.22	8.22	8.2	28.78	28.78	28.8	94.5	94.0	94.3	6.95	6.92	6.94
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:20		Bottom	4.0	22.27	22.27	22.3	8.23	8.23	8.2	28.78	28.78	28.8	93.3	93.0	93.2	6.87	6.85	6.86
17/11/2014	11:00	Fine	Surface	1.0	24.30	24.30	24.3	8.11	8.11	8.1	24.69	24.69	24.7	49.2	48.8	49.0	3.58	3.33	<u>3.46</u>
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:02		Bottom	4.0	24.40	24.40	24.4	8.06	8.06	8.1	29.28	29.28	29.3	59.6	60.2	59.9	4.29	4.30	<u>4.30</u>
19/11/2014	11:00	Fine	Surface	1.0	23.60	23.60	23.6	8.17	8.17	8.2	32.10	32.10	32.1	91.4	90.7	91.1	6.44	6.40	6.42
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11:02		Bottom	3.0	23.60	23.60	23.6	8.17	8.17	8.2	32.56	32.56	32.6	91.1	91.6	91.4	6.40	6.44	6.42
21/11/2014	10:35	Fine	Surface	1.0	23.70	23.70	23.7	8.18	8.18	8.2	31.92	31.92	31.9	84.7	84.6	84.7	5.98	5.97	5.98
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10:37		Bottom	4.0	23.80	23.80	23.8	8.16	8.16	8.2	32.53	32.53	32.5	82.8	83.5	83.2	5.79	5.86	5.83
24/11/2014	2:05	Fine	Surface	1.0	23.13	23.13	23.1	8.14	8.14	8.1	28.52	28.52	28.5	97.9	97.8	97.9	7.11	7.10	7.11
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2:07		Bottom	4.0	23.13	23.13	23.1	8.15	8.15	8.2	28.52	28.52	28.5	97.6	97.5	97.6	7.09	7.08	7.09
26/11/2014	3:10	Cloudy	Surface	1.0	22.50	22.50	22.5	8.01	8.01	8.0	26.05	26.05	26.1	84.4	84.3	84.4	6.07	6.06	6.07
	-		Middle	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3:11		Bottom	4.0	22.50	22.50	22.5	8.01	8.01	8.0	26.05	26.05	26.1	84.2	84.1	84.2	6.05	6.04	6.05

Remarks:  
Single underline denotes exceedance over Action Level.  
Double underline denotes exceedance over Limit Level.

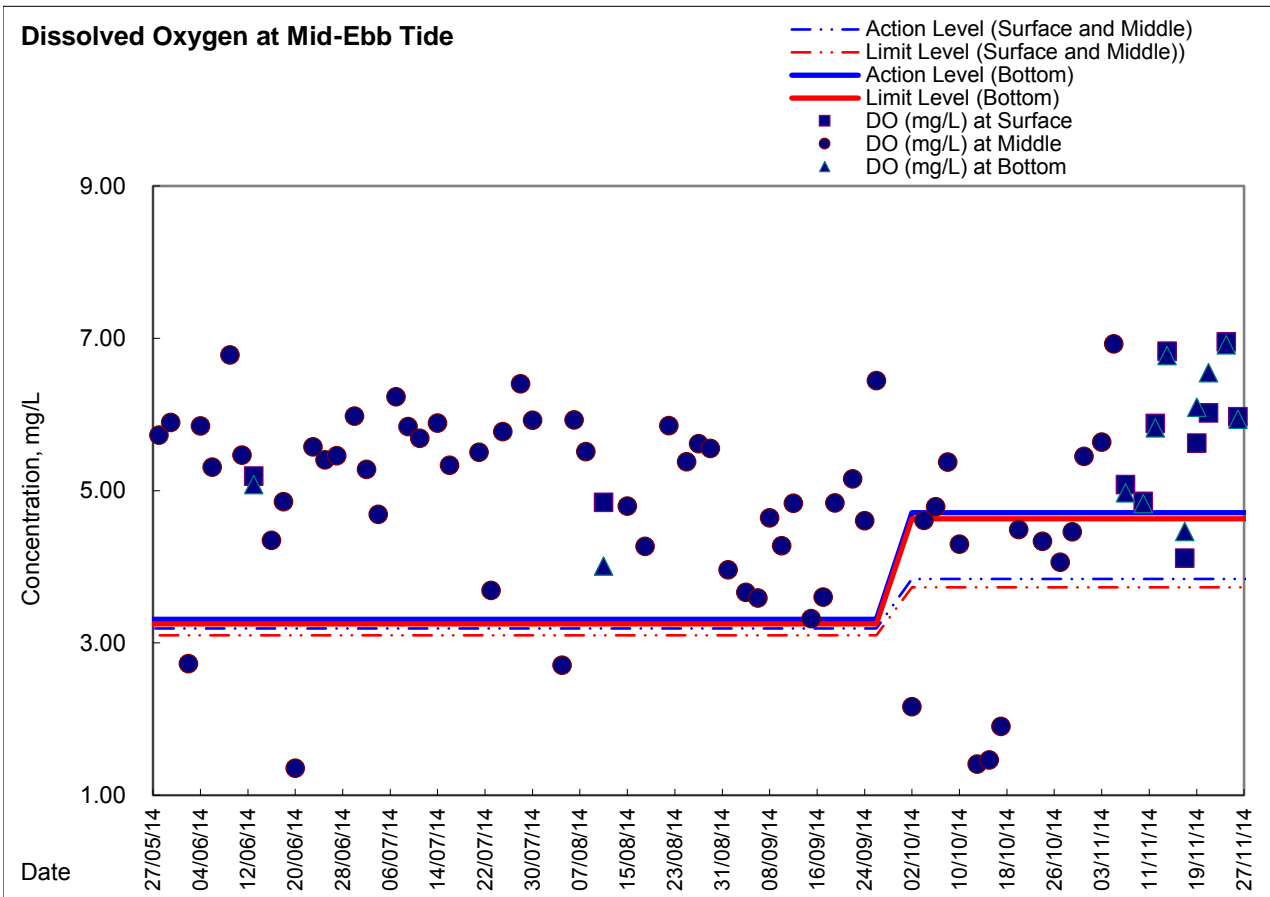
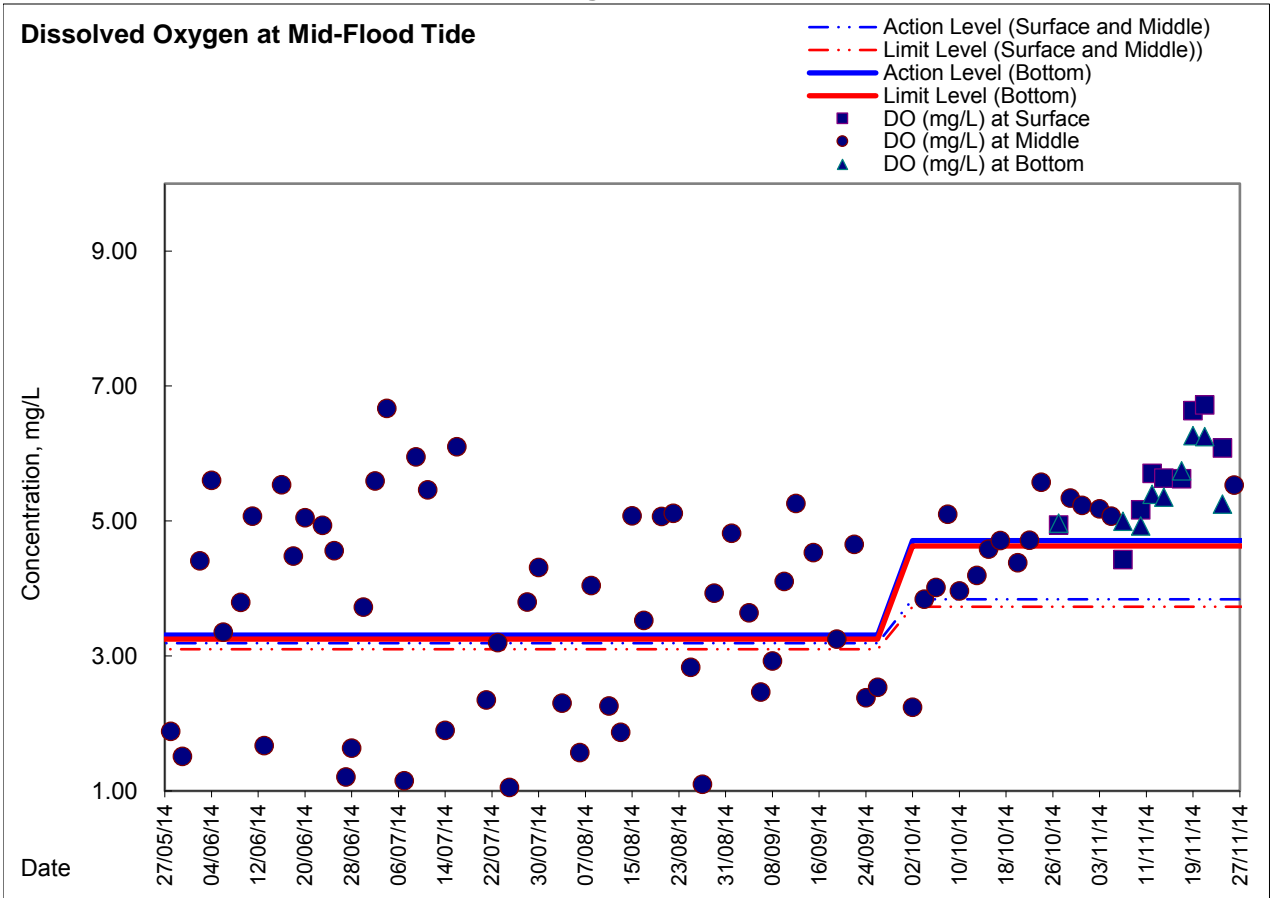


### Graphic Presentation of Enhanced Water Monitoring Results (DO) at C6 - Excelsior Hotel



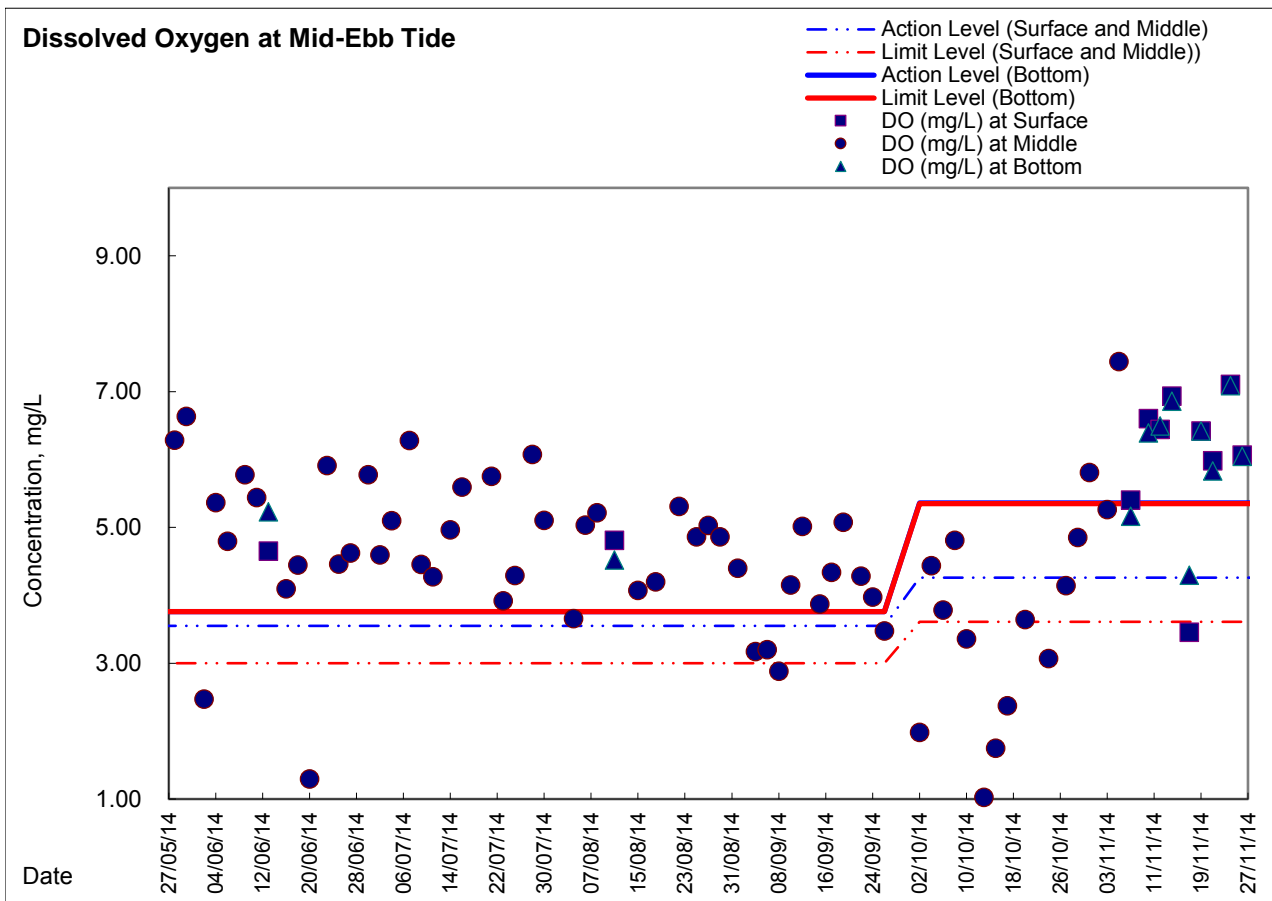
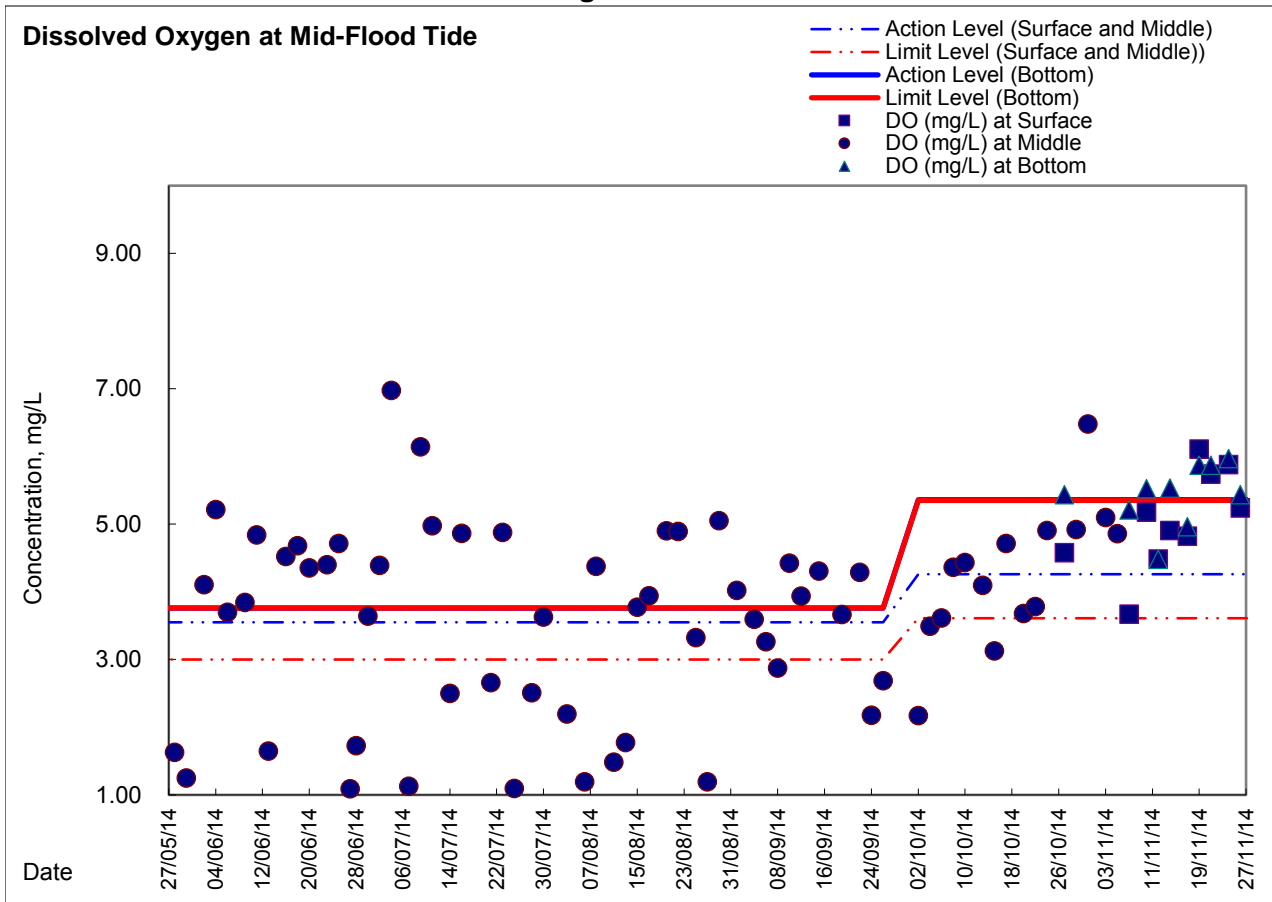


### Graphic Presentation of Enhanced Water Monitoring Results (DO) at Ex-WPCWA SW - South-western corners of ex-Public Cargo Works Area





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





***Appendix 5.5***

***Real-time Noise Monitoring Results and Graphical Presentations***













Real-time Noise Data RTN2a (Hong Kong Electric Centre)

Table with 15 columns and 950 rows, containing noise level data (e.g., 59.2, 58.2, 58.9, 59.3, etc.) for various dates and times (e.g., 2/11/2014 5:11, 3/11/2014 6:16, etc.).

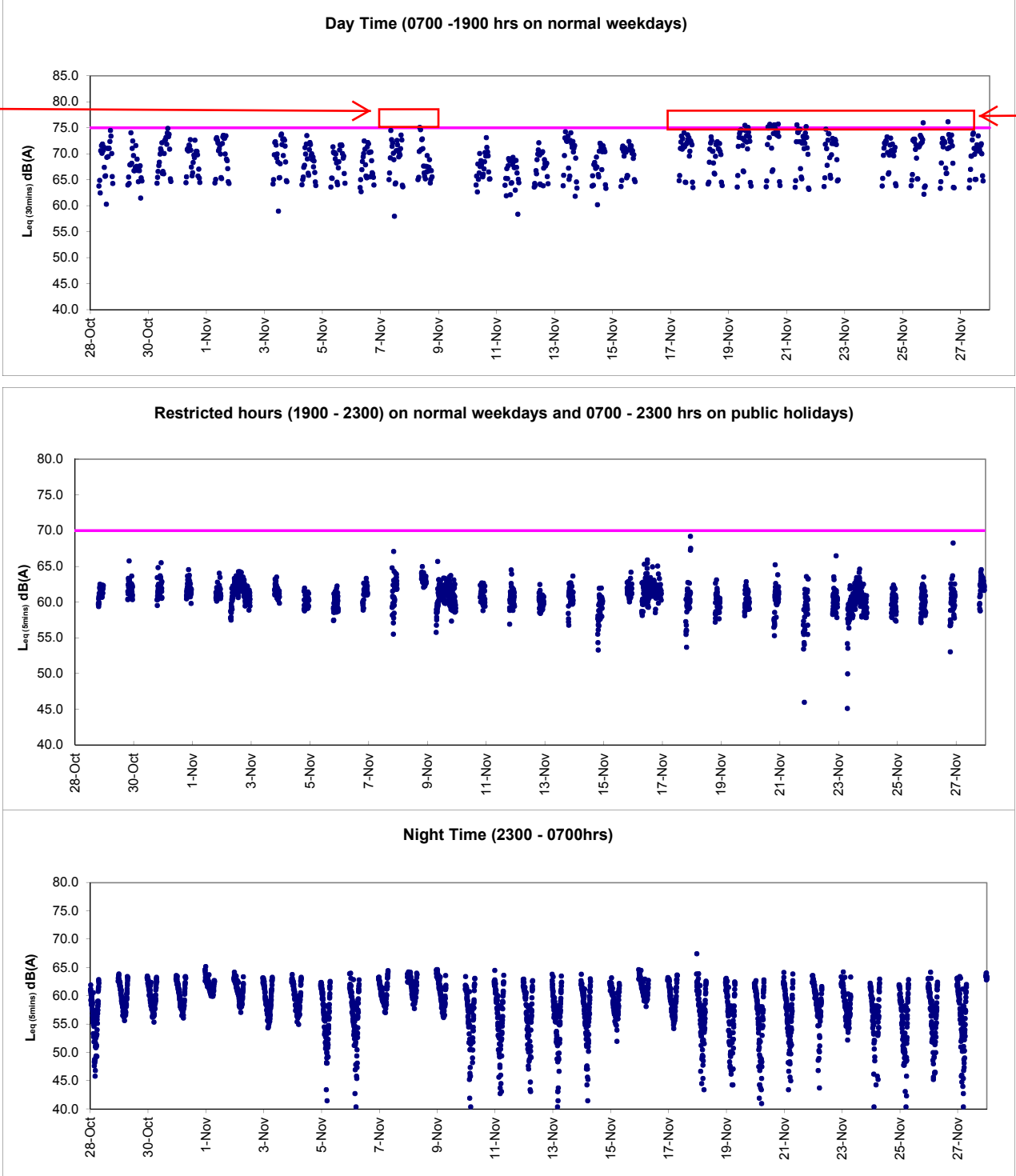








Graphic Presentation of Real Time Noise Monitoring Result (RTN2a- Hong Kong Electric Centre)



After checking with contractor HY/2009/19, sheet piling and socket H-piling were conducted during the recorded period, contractor mitigation measures including provision of temporary noise barrier was implemented. In view of the exceedance was non-continuous, the exceedances are considered to be non-Project related and contributed by nearby the IEC

After checking with contractor HY/2009/19, sheet piling, socket H-piling and breaking of U-Beam were conducted during the recorded period, contractor mitigation measures including provision of temporary noise barrier were implemented while chilling system pipe work installation works (hammering and welding works) was observed conducting at the roof top of Hong Kong Electric Centre from 17 Nov 2014 to 28 Nov 2014. As such, the exceedances were considered to be non-Project related and contributed by the pipe work installation works at Hong Kong Electric Centre.



***Appendix 6.1***

***Event Action Plans***



Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action Level being exceeded	<ol style="list-style-type: none"><li>1. Notify ER, IEC and Contractor;</li><li>2. Carry out investigation;</li><li>3. Report the results of investigation to the IEC, ER and Contractor;</li><li>4. Discuss with the IEC and Contractor on remedial measures required;</li><li>5. Increase monitoring frequency to check mitigation effectiveness.</li></ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none"><li>1. Review the investigation results submitted by the ET;</li><li>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly;</li><li>3. Advise the ER on the effectiveness of the proposed remedial measures.</li></ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none"><li>1. Confirm receipt of notification of failure in writing;</li><li>2. Notify Contractor;</li><li>3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li><li>4. Supervise the implementation of remedial measures.</li></ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>	<ol style="list-style-type: none"><li>1. Submit noise mitigation proposals to IEC and ER;</li><li>2. Implement noise mitigation proposals.</li></ol> <p>(The above actions should be taken within 2 working days after the exceedance is identified)</p>



EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Limit Level being exceeded	1. Inform IEC, ER, Contractor and EPD; 2. Repeat measurements to confirm findings; 3. Increase monitoring frequency; 4. Identify source and investigate the cause of exceedance; 5. Carry out analysis of Contractor's working procedures; 6. Discuss with the IEC, Contractor and ER on remedial measures required; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Supervise the implementation of remedial measures; 5. If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC and ER within 3 working days of notification; 3. Implement the agreed proposals; 4. Submit further proposal if problem still not under control; 5. Stop the relevant portion of works as instructed by the ER until the exceedance is abated. (The above actions should be taken within 2 working days after the exceedance is identified)





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

EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
<b>ACTION LEVEL</b>				
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC and ER;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Notify Contractor.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Rectify any unacceptable practice;</li> <li>Amend working methods if appropriate.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>Identify source;</li> <li>Inform IEC and ER;</li> <li>Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>Repeat measurements to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Discuss with IEC and Contractor on remedial actions required;</li> <li>If exceedance continues, arrange meeting with IEC and ER;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ET on the effectiveness of the proposed remedial measures;</li> <li>Supervise Implementation of remedial measures.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Ensure remedial measures properly implemented.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Submit proposals for remedial to ER within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Amend proposal if appropriate.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)
<b>LIMIT LEVEL</b>				
1. Exceedance for one sample	<ol style="list-style-type: none"> <li>Identify source, investigate the causes of exceedance and propose remedial measures; Inform ER, Contractor and EPD;</li> <li>Repeat measurement to confirm finding;</li> <li>Increase monitoring frequency to daily;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET;</li> <li>Check Contractor's working method;</li> <li>Discuss with ET and Contractor on possible remedial measures;</li> <li>Advise the ER on the effectiveness of the proposed remedial measures;</li> <li>Supervise implementation of remedial measures.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>Ensure remedial measures properly implemented.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Amend proposal if appropriate.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> <li>Notify IEC, ER, Contractor and EPD;</li> <li>Identify source;</li> <li>Repeat measurement to confirm findings;</li> <li>Increase monitoring frequency to daily;</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented;</li> <li>Arrange meeting with IEC and ER to discuss the remedial actions to be taken;</li> <li>Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results;</li> <li>If exceedance stops, cease additional monitoring.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Discuss amongst ER, ET, and Contractor on the potential remedial actions;</li> <li>Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly;</li> <li>Supervise the implementation of remedial measures.</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of failure in writing;</li> <li>Notify Contractor;</li> <li>In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented;</li> <li>Ensure remedial measures properly implemented;</li> <li>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.</li> </ol> (The above actions should be taken within 2 working days after the exceedance is identified)	<ol style="list-style-type: none"> <li>Take immediate action to avoid further exceedance;</li> <li>Submit proposals for remedial actions to IEC within 3 working days of notification;</li> <li>Implement the agreed proposals;</li> <li>Resubmit proposals if problem still not under control;</li> <li>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)</li> </ol>



**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	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>
Limit level being exceeded by more than one consecutive sampling days	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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 3 working 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)</p>



Event and Action Plan for Odour Patrol

Event	ACTION	
	Person-in-charge of Odour Monitoring	Implementation Agent Identified by CEDD
<b>Action Level</b>		
Exceedance of Action Level	<ol style="list-style-type: none"><li>1. Identify source/reason of exceedance;</li><li>2. Repeat odour patrol to confirm finding.</li></ol>	<ol style="list-style-type: none"><li>1. Carry out investigation to identify the source/reason of exceedance;</li><li>2. Rectify any unacceptable practice</li><li>3. Implement more mitigation measures if necessary;</li><li>4. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.</li></ol>
<b>Limit Level</b>		
Exceedance of Limit Level	<ol style="list-style-type: none"><li>1. Identify source / reason of exceedance;</li><li>2. Repeat odour patrol to confirm findings;</li><li>3. Increase odour patrol frequency;</li><li>4. If exceedance stops, cease additional odour patrol.</li></ol>	<ol style="list-style-type: none"><li>1. Carry out investigation to identify the source/reason of exceedance. Investigation shall be completed within 2 weeks;</li><li>2. Rectify any unacceptable practice;</li><li>3. Formulate remedial actions;</li><li>4. Ensure remedial actions properly implemented;</li><li>5. If exceedance continues, consider what more/enhanced mitigation measures shall be implemented;</li><li>6. Inform EPD or MD if exceedance is considered to be caused by expedient connections or floating debris.</li></ol>



***Appendix 6.2***

***Summary for Notification of Exceedance***



Lam Geotechnics Limited

Contract No. HK/2011/07  
Wanchai Development Phase II and Central Wanchai Bypass  
Sampling, Field Measurement and Testing Work (Stage2)  
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Depth	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action
X_10D495	7-Nov-14	Mid-ebb	Ex-WPCWA SE	Bottom	DO(mg/l)	5.17	5.36	5.35	<p><b>Possible reason:</b> Possible in relation to the upstream organic discharge.</p> <p><b>Action taken/ to be taken:</b> Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.</p> <p><b>Remarks/ Other Obs:</b> Despite installation of seawall block was conducted at Ex-WPCWA on the monitoring date. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. As such, it was considered the exceedance was not related to Project.</p>
X_10D496	7-Nov-14	Mid-flood	Ex-WPCWA SE	Surface	DO(mg/l)	3.67	4.26	3.61	<p><b>Possible reason:</b> Possible in relation to the upstream organic discharge.</p> <p><b>Action taken/ to be taken:</b> Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.</p> <p><b>Remarks/ Other Obs:</b> Despite installation of seawall block was conducted at Ex-WPCWA on the monitoring date. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. In view of the exceedance was not continuous, it was considered the exceedance was not related to Project.</p>
X_10D497	7-Nov-14	Mid-flood	Ex-WPCWA SE	Bottom	DO(mg/l)	5.21	5.36	5.35	<p><b>Possible reason:</b> Possible in relation to the upstream organic discharge.</p> <p><b>Action taken/ to be taken:</b> Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.</p> <p><b>Remarks/ Other Obs:</b> Despite installation of seawall block was conducted at Ex-WPCWA on the monitoring date. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. In view of the exceedance was not continuous, it was considered the exceedance was not related to Project.</p>
X_10D498	12-Nov-14	Mid-flood	Ex-WPCWA SE	Bottom	DO(mg/l)	4.48	5.36	5.35	<p><b>Possible reason:</b> Possible in relation to the upstream organic discharge.</p> <p><b>Action taken/ to be taken:</b> Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.</p> <p><b>Remarks/ Other Obs:</b> Despite installation of seawall block was conducted at Ex-WPCWA on the monitoring date. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. In view of the exceedance was not continuous, it was considered the exceedance was not related to Project.</p>
X_10D499	17-Nov-14	Mid-ebb	Ex-WPCWA SW	Bottom	DO(mg/l)	4.47	4.71	4.63	<p><b>Possible reason:</b> Possible in relation to the upstream organic discharge.</p> <p><b>Action taken/ to be taken:</b> Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.</p> <p><b>Remarks/ Other Obs:</b> Despite installation of seawall block was conducted at Ex-WPCWA on the monitoring date. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. In view of the exceedance was not continuous, it was considered the exceedance was not related to Project.</p>
X_10D500	17-Nov-14	Mid-ebb	Ex-WPCWA SE	Surface	DO(mg/l)	3.46	4.26	3.61	<p><b>Possible reason:</b> Possible in relation to the upstream organic discharge.</p> <p><b>Action taken/ to be taken:</b> Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.</p> <p><b>Remarks/ Other Obs:</b> Despite installation of seawall block was conducted at Ex-WPCWA on the monitoring date. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. In view of the exceedance was not continuous, it was considered the exceedance was not related to Project.</p>



Lam Geotechnics Limited

Contract No. HK/2011/07  
Wanchai Development Phase II and Central Wanchai Bypass  
Sampling, Field Measurement and Testing Work (Stage2)  
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Depth	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action	
X_10D501	17-Nov-14	Mid-ebb	Ex-WPCWA SE	Bottom	DO(mg/l)	4.30	5.36	5.35	<b>Possible reason:</b>	Possible in relation to the upstream organic discharge.
									<b>Action taken/ to be taken:</b>	Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.
									<b>Remarks/ Other Obs:</b>	Despite installation of seawall block was conducted at Ex-WPCWA on the monitoring date. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. As such, it was considered the exceedance was not related to Project.
X_10D502	17-Nov-14	Mid-flood	Ex-WPCWA SE	Bottom	DO(mg/l)	4.97	5.36	5.35	<b>Possible reason:</b>	Possible in relation to the upstream organic discharge.
									<b>Action taken/ to be taken:</b>	Repeated the measurement to confirm the result. No odour nuisance was noted during the DO monitoring. Checking with Contractor works and review previous monitoring data.
									<b>Remarks/ Other Obs:</b>	Despite installation of seawall block was conducted at Ex-WPCWA on the monitoring date. Upstream discharge at the concerned location were consistently observed. No dredging works for marine sediment was conducted. In view of the exceedance was not continuous, it was considered the exceedance was not related to Project.





Lam Geotechnics Limited

Contract No. HK/2011/07  
Wanchai Development Phase II and Central Wanchai Bypass  
Sampling, Field Measurement and Testing Work (Stage2)  
Summary for Notification of Exceedance

Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action
X_10C624	29-Oct-14	Mid-flood	RW21-P789	DO(mg/l)	5.31	3.66	3.28	<b>Possible reason:</b> Natural variation or changes of water quality in the vicinity of water quality monitoring station. Transition of action and limit level from wet season.
				Turbidity	8.40	8.04	9.49	<b>Action taken/ to be taken:</b> Immediate repeated in-situ measurement had conducted to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	6.50	13.00	14.43	<b>Remarks/ Other Obs:</b> Despite dredging works was conducted at WCR3 under contract HK/2009/02 on the monitoring date, Contractor's mitigation measures including the use of frame type silt curtain was generally in order and the silt screen installed around intake location was generally in place. In view of the transition period from wet season to dry season and the exceedance was not continuous, it was considered the exceedance was not related to Project.
X_10C625	31-Oct-14	Mid-flood	P4	DO(mg/l)	6.03	3.36	2.73	<b>Possible reason:</b> Natural variation or changes of water quality in the vicinity of water quality monitoring station. Transition of action and limit level from wet season.
				Turbidity	9.32	9.10	10.25	<b>Action taken/ to be taken:</b> Immediate repeated in-situ measurement had conducted to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	7.00	15.00	22.13	<b>Remarks/ Other Obs:</b> Despite placing of levelling stone was conducted under contract HK/2012/08 on the monitoring date, Contractor's mitigation measures including the use of silt curtain was generally in order and the silt screen installed around intake location was generally in place. In view of the transition period from wet season to dry season and the exceedance was not continuous, it was considered the exceedance was not related to Project.
X_10C626	3-Nov-14	Mid-ebb	RW21-P789	DO(mg/l)	5.50	3.66	3.28	<b>Possible reason:</b> Natural variation or changes of water quality in the vicinity of water quality monitoring station. Transition of action and limit level from wet season.
				Turbidity	8.63	8.04	9.49	<b>Action taken/ to be taken:</b> Immediate repeated in-situ measurement had conducted to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	5.00	13.00	14.43	<b>Remarks/ Other Obs:</b> Despite dredging works was conducted at WCR3 under contract HK/2009/02 on the monitoring date, Contractor's mitigation measures including the use of frame type silt curtain was generally in order and the silt screen installed around intake location was generally in place. In view of the transition period from wet season to dry season and the exceedance was not continuous, it was considered the exceedance was not related to Project.



Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Level	Limit Level	Follow-up action
X_W5185	29-Oct-14	Mid-flood	WSD19	DO(mg/l)	4.74	3.66	2.73	<b>Possible reason:</b> Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	11.84	8.04	9.49	<b>Action taken/ to be taken:</b> Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	8.50	13.00	14.43	<b>Remarks/ Other Obs:</b> Despite placing of levelling stones was conducted under contract HK/2012/08 on the monitoring date, Contractor mitigation measures including the use of silt curtain was generally in place. Silt screen at monitoring station was generally in order. In view of the exceedance was not continuous, it was considered that the exceedance was not project related.
X_W5186	31-Oct-14	Mid-flood	WSD19	DO(mg/l)	5.3	3.66	2.73	<b>Possible reason:</b> Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	11.37	8.04	9.49	<b>Action taken/ to be taken:</b> Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	8.00	13.00	14.43	<b>Remarks/ Other Obs:</b> Despite placing of levelling stones was conducted under contract HK/2012/08 on the monitoring date, Contractor mitigation measures including the use of silt curtain was generally in place. Silt screen at monitoring station was generally in order. As such, it was considered that the exceedance was not project related.
X_W5187	3-Nov-14	Mid-ebb	WSD19	DO(mg/l)	5.85	3.66	2.73	<b>Possible reason:</b> Natural variation or changes of water quality in the vicinity of water quality monitoring station.
				Turbidity	14.97	8.04	9.49	<b>Action taken/ to be taken:</b> Immediate repeated in-situ measurement to confirm the exceedances. Checking with Contractor works and review previous monitoring data.
				SS	12.00	13.00	14.43	<b>Remarks/ Other Obs:</b> Despite placing of levelling stones was conducted under contract HK/2012/08 on the monitoring date, Contractor mitigation measures including the use of silt curtain was generally in place. Silt screen at monitoring station was generally in order. In view that construction area was located at the downstream of WSD19 monitoring station and no exceedance was recorded in subsequent monitoring, it was considered that the exceedance was not project related.



***Appendix 9.1***

***Complaint Log***

**Environmental Complaints Log**

Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
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).	<ol style="list-style-type: none"><li>1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18<sup>th</sup> Feb. 2010 for the dredging works which carry out at area for North Point Reclamation.</li><li>2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation.</li><li>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.</li><li>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.</li><li>5) No further complaints were received from Mr. Tsang in the reporting month. The complaint is considered closed.</li></ol>	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).	<ol style="list-style-type: none"><li>1) A valid Construction Noise Permit no. GW-RS0119-10 was granted from EPD since 18<sup>th</sup> 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.</li><li>2) Officer from Marine Department, Police and EPD's officer attended the scene for inspection and investigation.</li><li>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.</li><li>4) No further complaints were received in the reporting month. The complaint is considered closed.</li></ol>	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.	<ol style="list-style-type: none"><li>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.</li><li>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.</li><li>3) No further complaints were received in the reporting month. The complaint is considered closed.</li></ol>	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.	<ol style="list-style-type: none"><li>1) Contractor for HY/2009/11 was granted valid Construction Noise Permit no. GW-RS0371-10 for their dredging works.</li><li>2) There was only 1 grab dredger operated by Contractor within NPR project site area for dredging works.</li><li>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.</li><li>4) It is considered as invalid from the EP and CNP point of view.</li></ol>	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.	<ol style="list-style-type: none"><li>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.</li><li>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.</li><li>3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.</li></ol>	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)	<ol style="list-style-type: none"><li>1) Contractor for HY/2009/11 has 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.</li><li>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.</li><li>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.</li></ol>	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	<ol style="list-style-type: none"><li>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.</li><li>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.</li><li>3) It is considered as invalid complaint. No further complaints were received in the reporting month. The complaint is considered closed.</li></ol>	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	<ol style="list-style-type: none"><li>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.</li><li>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.</li><li>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.</li></ol>	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	<ol style="list-style-type: none"><li>1) ET confirmed the following information with resident site staff on the complaint:<ul style="list-style-type: none"><li>• It was referred to the filling operation at North Point</li></ul></li></ol>	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)		<p>filling operation was louder than the traffic noise &amp; 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;</p> <p>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.</p>	<p>Reclamation of Central Wan Chai Bypass site area instead of part of Wanchai Development Phase II;</p> <ul style="list-style-type: none"> <li>• 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;</li> <li>• Flood light on the control mast of derrick barge have no lighting shields for the prevention of glare of flood lights;</li> <li>• No starting work on 7 Dec 2010 at 0630hours.</li> </ul> <ol style="list-style-type: none"> <li>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;</li> <li>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;</li> <li>4) The absence of the lighting shields at flood light results in visual glare to the complainant at night-time.</li> <li>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;</li> <li>6) No further complaint was received after implementation of proposed measures</li> </ol>	
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.	<ol style="list-style-type: none"> <li>1) The concerned stockpile was a working stockpile under Contract HY/209/15 and was covered at night time after work.</li> <li>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.</li> <li>3) It is considered invalid but preventive actions can be taken because the stockpile is relatively large and easily visible by complainant.</li> <li>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</li> <li>5) The concern of mosquitoes breeding is out the scope of EM&amp;A, the follow-up action is not reported in this monthly EM&amp;A report.</li> </ol>	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.	<ol style="list-style-type: none"><li>1) According to the RSS's record, there was no construction works undertaken under the EP-356/2009 during the concern time period.</li><li>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.</li><li>3) It is considered as invalid complaint under this Project.</li></ol>	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	<ol style="list-style-type: none"><li>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.</li><li>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.</li><li>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.</li><li>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.</li><li>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.</li></ol>	Closed



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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.	<ol style="list-style-type: none"><li>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</li><li>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.</li><li>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.</li><li>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.</li></ol>	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.	<ol style="list-style-type: none"><li>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.</li><li>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.</li><li>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</li></ol>	Closed



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					so as to prevent recurrent by barge defect	
110723a	23/07/2011	Ms. Law at Victoria Centre by ICC no. 1-303887687	North Point	She concerned that Highways Department published a notice in their Management Office about construction works will be conducted from 0700 hours to 2300 hours during July to December 2011 including Saturday, Sunday and public holiday.	<ol style="list-style-type: none"> <li>1) It was referred by AECOM to ET on 28 July 2011</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ol>	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	<ol style="list-style-type: none"> <li>1) It was referred by AECOM to ET on 8 August 2011</li> <li>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</li> <li>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.</li> <li>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.</li> </ol>	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	<ol style="list-style-type: none"> <li>1) It was referred by AECOM to ET on 28 July 2011</li> <li>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.</li> <li>3) No noise exceedance was recorded at construction noise</li> </ol>	Closed



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				Central-Wanchai Bypass at noon rather than in morning at 7am.	<p>monitoring station at Victoria Centre on 25 July and 4 August 2011 during daytime while breaking and excavation works were undertaken during monitoring.</p> <p>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.</p>	
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	<p>1) It was referred by AECOM to ET on 28 July 2011</p> <p>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.</p> <p>3) As a mitigation measure to minimize the noise nuisance in the vicinity of the residents, rock breaking activities will be started at 8am.</p>	Closed
	08/08/2011				<p>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.</p> <p>5) Highways contacted the complainant on 15 August 2011 that the noisy rock breaking operation had been completed.</p> <p><i>Remarks: There will be counted as two complaints in this complaint log.</i></p>	
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.	<p>1) It was referred by AECOM to ET on 17 August 2011.</p> <p>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.</p> <p>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.</p> <p>4) Contractors were advised to relocate the loose materials</p>	Closed



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					away from the coastline as far as practicable. Any loose material placed which needed to be placed near the coastline shall be properly compacted or covered as appropriate. To avoid any further environmental deficiency, Contractors shall ensure all necessary environmental mitigation measures will not be missing during site area handover.	
110826	26/08/2011	Grand Hyatt and a complainant by ICC	Wan Chai	Construction noise and vibration nuisance generated from the works at Convention Avenue and inside the HKCEC1 reclamation area.	<ol style="list-style-type: none"> <li>1) Confirmed with the Resident Site Staff that the construction works were referred to the Contractor HK/2009/01.</li> <li>2) The Excavator mounted breaker at Convention Avenue and Drilling rig at HKCEC1 reclamation area were the dominant construction noise source during this period.</li> <li>3) The drilling rig at HKCEC1 reclamation area and excavator mounted breaker at Convention Avenue were then temporary suspended after received the complaint.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ol>	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.	<ol style="list-style-type: none"> <li>1) It was referred by AECOM to ET on 29 August 2011. Confirmed with the Resident Site Staff that the <ul style="list-style-type: none"> <li>• construction works were referred to the Contractors HY/2009/11 and HY/2009/19.</li> <li>• The pump is located on the site area of HY/2009/19</li> <li>• A temporary garbage defender was installed on 23 July 2011 by HY/2009/11 and the shape of the defender was adjusted on 8 August 2011 in order to exclude the outfall.</li> <li>• An ad hoc inspection of the effectiveness of garbage defender was conducted with RSS (CWB project</li> </ul> </li> </ol>	Closed



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					<p>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.</p> <ul style="list-style-type: none"><li>• Daily cleaning near the water intake was conducted twice a day by contractor HY/2009/19.</li><li>• 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</li></ul> <p>2) According to the complaint letter from Cayley Property, the outcomes of the preventive measures were not complying with their expectation.</p> <p>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.</p> <p>4) All daily cleaning actions had been taken by contractor to minimize floating refuse inside the construction site.</p> <p>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.</p> <p>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.</p> <p>7) Contractors have fulfilled the requirement of site cleanliness and no exceedance was recorded during Water Quality Monitoring. It is considered 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</p>	
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)	<p>1) RSS notified ET to carry out investigation on 17 October 2011.</p> <p>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 re-provision works along the Harbour Road. The plants including the excavator have been checked before using</p>	Closed



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					<p>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.</p> <p>3) After receiving the complaint, the excavator was then removal off-site for checking and maintenance works on 17 October 2011.</p> <p>4) Contractor was reminded to enhance regular checking and maintenance to all plants at site.</p> <p>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.</p>	
111104	04/11/2011	Mr. Liu from LCS D 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.	<p>1) ET confirmed with the Resident Site Staff that</p> <ul style="list-style-type: none"><li>• 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.</li><li>• 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.</li></ul> <p>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.</p>	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	<p>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</p>	Keep in view for three months from the date of complaint received





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					<p>CNP was checked by the police officer.</p> <p>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.</p> <p>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.</p> <p>4) Contractor was advised to enhance the communication between Contractor and sub-contractor and provide sufficient environmental training to all foreman and operators on restricted hour operation. Furthermore, Construction Noise Permit should be checked and in place for the construction works during restricted hour</p> <p>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.</p>	
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.	<p>1) RSS notified ET on 5 April 2012.</p> <p>2) ET confirmed with the Resident Site Staff that no piling works were performed during the concerned period.</p> <p>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.</p> <p>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</p>	Closed



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					from the above works, the Contractor had erected temporary noise barriers and provided noise blankets on plants. RSS would continue to work with the Contractor on the effectiveness of the environmental mitigation measures implemented on site. No further complaint was received after the response.	
130308	06/03/2013	ICC Case#1-407181502	Tin Hau	A complaint regarding the dropping of fine rock material into surrounding waterbody was observed during rock breaking operation with two excavators in active operation at the Eastern Breakwater of Causeway Bay Typhoon Shelter near the North Point lighthouse.	<p>1) RSS notified ET on 8 March 2013</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The contractor was advised and committed to implement preventive measures to minimize the potential impact of work including conducting regular diver check to ensure the integrity and the extend of silt curtain deployment and to provide adequate back up stock of silt curtain for emergency use.</p>	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.	<p>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.</p> <p>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</p>	Interim Report was submitted to EPD on 20 June 2014.



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					<p>the dispersion was observed partly extended beyond the outermost layer silt curtain at 1000hrs. Immediate follow up action was requested.</p> <p>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.</p> <p>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.</p> <p>The Contractor's investigation report on the complaint case was submitted to EPA via email on 18 June 2014.</p>	
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.	<p>1) Construction noise impact referred by RSS was received by ET on 25 July 2014</p> <p>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.</p> <p>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</p> <p>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."</p>	<p>Final report (Issue1) issued on 31 July 2014.</p> <p>Further to complainant follow-up, Final report (Issue2) Issued on 12 Aug 2014.</p>



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					<p>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.</p> <p>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.</p>	
141016	14/10/2014	<p>EPD Ref.: EP860/E2/24 Annex IV</p> <p>ICC complaint received by ET on 10 October 2014</p>	Work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	Construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.	<p>A public complaint regarding construction noise impact referred by EPD was received by ET on 16 October 2014 (EPD Ref.: EP860/E2/24 Annex IV dated 16 October 2014).</p> <p>The complainant reported that construction noise like piling works was heard on 14 October 2014 night until 23:45 hrs. It was suspected that the noise was emanated from the work site next to new Wan Chai Ferry Pier and opposite to Wan Chai Sports Ground.</p> <p>ET confirmed with the Resident Site Staff that From 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area.</p> <p>Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area.</p> <p>Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p>	<p>Interim investigation report submitted to EPD on 23 October 2014.</p> <p>Updated interim investigation with supplementary information submitted to EPD on 17 November 2014</p>



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					<p>From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway.</p> <p>Total one scissor platform and two hand held drills (battery) were in operation.</p> <p>From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road.Total one crane lorry was in operation.</p> <p>According to the relevant site records under Contract HK/2009/02, from 19:00hrs to 23:00hrs on 14 October 2014, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area. Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 05:00 hrs, dredging works was conducted under Contractor of HK/2009/02 at WCR3 Area.Total one grab dredger was in operation. Mitigation measures including provision of steel sheeting screening to the power generation part of the grab dredger was implemented by the Contractor of HK/2009/02.</p> <p>From 23:00 hrs to 06:00hrs, panel replacement works was conducted under Contractor of HK/2009/02 at the Temporary Covered Walkway. Total one scissor platform and two hand held drills (battery) were in operation.</p> <p>From 23:00 hrs to 06:00hrs, trial pit works was conducted under Contractor of HK/2009/02 at Hung Hing Road. Total one crane lorry was in operation.</p> <p>In view of the above findings, no direct information associated with the noise concern was considered available.</p>	



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
141110	07/11/2014	EPD Ref.: H05/RS/000278 15-14  EPD complaint received by ET on 10 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.	<p>A public complaint regarding odour concern referred by EPD was received by ET on 07 November 2014 (EPD Ref.: H05/RS/00027815-14 dated 10 November 2014).</p> <p>The complainant reported that Malodour of construction plant exhaust from the construction site at old Wan Chai Ferry Pier was scented that affecting the swimmers at Wan Chai Swimming Pool.</p> <p>ET confirmed with the Resident Site Staff that</p> <p>ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool).</p> <p>Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated.</p> <p>Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier.</p> <p>Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.</p> <p>Dredging works was conducted on 7 November 2014 during daytime at WCR3 (East of old Wan Chai Ferry Pier)</p> <p>Total 1 no .of dredger, 1 no. of hopper and 1 no. of tug boat were operated.</p> <p>According to the relevant site records under Contract HK/2009/02, ELS works was conducted on 7 November 2014 during daytime at Portion 2 (Area oppsite to WanChai Swimming Pool). Total 3 nos. of excavators, 2 nos. of crawler cranes, 2 nos. of generator, 1 no. of crane lorry and 2 no. of dump trucks were operated. Demolition works was conducted on 7 November 2014 during daytime at West of old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. of tug boat were operated.</p> <p>Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site. The condition of chemical waste storage was considered satisfactory and no malodour was identified. Despite no information related to malodour was identified, the Contractor was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.</p>	<p>Interim investigation report submitted to EPD on 17 November 2014.</p> <p>EPD advised no comment on the interim report and case closed on 1 Dec 2014.</p>



Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
					Based on the relevant information provided by RSS, despite no information associated with the malodour concern was identified after investigation, the Contractor was reminded to conduct regular checking on the condition of PME used on site to ensure only well maintained PME are used on site The interim report would be submitted to EPD on 17 November 2014.	
141113	12/11/2014	EPD Ref.: H05/RS/000282 53-14  EPD complaint received by ET on 13 November 2014	Construction site at old Wan Chai Ferry Pier	Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians.	<p>A public complaint regarding odour concern referred by EPD was received by ET on 13 November 2014 (EPD Ref.: H05/RS/00028253-14 dated 13 November 2014). The complainant reported that Malodour and dark smoke emission from an excavator located at the construction site at old Wan Chai Ferry Pier was observed that affecting the pedestrians. (Contract HK/2009/02)</p> <p>ET confirmed with the Resident Site Staff that demolition works was conducted under Contract HK/2009/02 on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated.</p> <p>According to the relevant site records under Contract HK/2009/02, demolition works was conducted on 12 November 2014 during daytime at old Wan Chai Ferry Pier. Total 2 nos. of excavators, 1 no. of derrick barge and 1 no. tug boat were operated.</p> <p>In addition, investigation found that due to malfunctioning of one of the excavators deployed at old Wan Chai Ferry Pier, dark smoke was emitted from the defective excavator for a short period of approximately 30 seconds at around 15:00 hrs on 12 November 2014. The operation of excavator was immediately suspended and followed by repair works. The normal operation of the excavator was resumed after repair.</p> <p>Follow-up inspection was conducted during weekly environmental inspection on 13 November 2014, no dark smoke emission was observed from the PMEs operating on-site and the Contractor of HK/2009/02 was reminded to conduct regular checking on the condition of PMEs to ensure only well maintained PMEs are used on site.</p>	Interim investigation report submitted to EPD on 19 November 2014.  EPD advised no comment on the interim report and case closed on 8 Dec 2014.





Complaint Log No.	Date of Complaint	Received From and Received By	Location of Complainant	Nature of Complaint	Outcome	Status
141121	Not Specified	EPD Ref: H08/RS/28263-14  EPD complaint information and findings was received by ET via email on 21 Nov 2014	Causeway Bay Typhoon Shelter	Resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night.	EPD received a construction noise complaint from dredging works at Causeway Bay Typhoon Shelter and a resident in Hing Fat Street complaining about loud noise from dredging work in CBTS up to 10pm at night.  EPD investigation found that the operation of a derrick barge is covered by CNP no. GW-RS0701-14.  EPD reminded the Contractor of HY/2011/08 to ensure the work strictly follow the permit conditions and endeavor to minimize the noise as so not to disturb the nearby residents.	Complaint case handled by EPD and relevant investigation findings was sent to ET on 21 November 2014



***Appendix 10.1***

***Construction Programme of Individual Contracts***

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014					
								Sep	Oct	Nov	Dec		
<b>HK/2009/01 - Works Programme Rev.6E Ver4 (Data Date: 20-Sep-14)</b>													
<b>Key Dates (Contractual)</b>													
<b>Major Works</b>													
KD-0400B	Completion of Outstanding Works for Section 4 - Salt Watermains	0	0		31-Oct-14	0%	653						
KD-0610	Completion of Section 6A of Works - Gov't Offices cooling water discharge	0	0		18-Oct-14*	0%	0						
KD-0620	Completion of Section 6B of Works - Great Eagle Centre cooling water discharge	0	0		18-Oct-14*	0%	0						
KD-0630	Completion of Section 6C of Works - China Resources Bldg cooling water discharge	0	0		18-Oct-14*	0%	0						
KD-0800	Completion of Section 8 of Works - Works in Area 6	0	0		05-Nov-14*	0%	0						
KD-1200	Completion of Section 12 of Works - Works in Area 10	0	0		20-Sep-14*	0%	-164						
<b>Key Dates (Forecast Completion)</b>													
<b>Major Works</b>													
KD-0405B	Completion of Outstanding Works for Section 4 - Salt Watermains & Works in Area 3	0	0		25-Sep-14	0%	689						
<b>Preliminaries</b>													
<b>Method Statement &amp; Design (Major) Approval by AECOM</b>													
PRE-2030B	ELS for CWB Stage 2	30	1	20-Mar-14 A	17-Oct-14	0%	667						
PRE-2030C	ELS for CWB Stage 3	30	30	19-Apr-14 A	16-Nov-14	0%	-191						
<b>Statutory / Authority Approval</b>													
PRE-3050B	ELS for CWB Tunneling Works Stage 2 (GEO)	28	28	21-Jul-14 A	17-Oct-14	0%	-191						
PRE-3050C	ELS for CWB Tunneling Works Stage 3 (GEO)	28	28	20-Oct-14	16-Nov-14	0%	-191						
PRE-3050D	ELS for CWB Tunneling Works Stage 1b (GEO) for Bottom Up	28	1	20-Apr-11 A	20-Sep-14	0%	-162						
PRE-3310	Stage 2 Tunnel Structure Design	60	60	20-Jul-14 A	18-Nov-14	0%	635						
PRE-3320	Stage 3 Tunnel Structure Design	60	60	02-Dec-14	31-Jan-15	0%	562						
<b>Watermains Connection Submission Approval by WSD/Stakeholders</b>													
PRE-3200C	Salt Water Mains (S3)	28	28	20-Sep-14*	17-Oct-14	0%	106						
PRE-3200D	Salt Water Mains (S8)	28	28	20-Sep-14*	17-Oct-14	0%	653						
PRE-3200E	Salt Water Mains (S9)	28	28	20-Sep-14*	17-Oct-14	0%	-476						
PRE-3200O	Cooling Watermains (BF)	28	28	20-Sep-14*	17-Oct-14	0%	0						
PRE-3200P	Cooling Watermains (BG)	28	28	20-Sep-14*	17-Oct-14	0%	0						
PRE-3200Q	Cooling Watermains (BI)	28	28	20-Sep-14*	17-Oct-14	0%	0						
<b>Contractor's Design (CWB Diaphragm Wall)</b>													
PRE-4030	AECOM's and GEO's approval on Detailed Design	60	60	20-Sep-14	18-Nov-14	0%	635						
<b>Contractor's Design (PS1.94)</b>													
PRE-5100C	Approval of ICCP of Cross-Harbour Mains - by AECOM & Relevant Authorities	9	10	04-Mar-11 A	30-Sep-14	100%	685						
<b>Major Materials Manufacture &amp; Site Delivery</b>													
<b>Section 3 - CWB Tunnel</b>													
MM-3010	Construction of Jetty near Expo Drive East	35	35	01-Dec-14*	04-Jan-15	0%	588						
<b>TTA Implementation and Completion Summary Milestone</b>													
<b>Zone A3 (At Fenwick Pier Street)</b>													
TTAM-A3-1030	TTA Completion - Combination of Zone A3-5D & A3-4D (Sewer)	0	0		25-Oct-14	0%	-55						
TTAM-A3-1040	TTA Implementation - Zone A3-2C (Sewer)	0	0	26-Oct-14		0%	-55						
TTAM-A3-1050	TTA Completion - Zone A3-2C (Sewer)	0	0		21-Nov-14	0%	-54						
TTAM-A3-1060	TTA Implementation - Zone A3-2D (Sewer)	0	0	22-Nov-14		0%	-54						
TTAM-A3-1070	TTA Completion - Zone A3-2D (Sewer)	0	0		18-Dec-14	0%	605						
<b>Zone A5 (At Harbour Road)</b>													
TTAM-A5-1050B	TTA Completion - Zone A5-6	0	0		31-Oct-14	0%	653						
<b>Area X3 (Fleming Road b/w Harbour Road &amp; Convention Avenue)</b>													
TTAM-X3-1000B	TTA Completion - Zone X1-1	0	0		10-Oct-14	0%	8						
TTAM-X3-1010B	TTA Completion - Zone X1-2	0	0		12-Dec-14	0%	611						
TTAM-X3-1020B	TTA Completion - Zone X1-3	0	0		21-Nov-14	0%	632						
TTAM-X3-1030B	TTA Completion - Zone X1-4A	0	0		31-Oct-14	0%	653						
<b>Zone C (Expo Drive East)</b>													
TTAM-C3-1000B	TTA Completion - Zone C3-1	0	0		15-Nov-14	0%	638						
<b>Section 3 of the Works - CWB Tunnel, Slip Roads 2 &amp; 3, Works in Area 8</b>													
<b>CWB Tunneling Works (Stage 1 : CH2947 - CH3045)</b>													

■ Remaining Work     ■ Summary Bar  
■ Actual Work  
■ Summary Bar  
■ Critical Remaining Work  
◆ Milestone

CEDD CONTRACT NO. HK/2009/01  
 Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)  
WORKS PROGRAMME Rev.6C - 3 Month Programme starting from 20-Sep-14

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014				
								Qtr 4				
								Sep	Oct	Nov	Dec	
<b>Stage 1 - Tunnel Structure Works (Bay 1 to Bay 7 : Ch2947 - Ch 3045)</b>												
<b>Tunnel Structure at Stage 1A &amp; 1B (CH2947 - CH3045)</b>												
S3A-TS-2000	Tunnel Structures Works including Waterproofing and OHVD	300	99	28-Feb-14 A	27-Dec-14	0%	180					
<b>CWB Tunnelling Works (Stage 2 : Ch3045 - Ch3129)</b>												
<b>Stage 2 - Foundation Works (Bottom Up Method : CH3045 - CH3129 / CH120 - CH225)</b>												
S3B-FW-1040C	ELS for Exhaust Duct (~-5.0mPD)	170	86	27-Jun-14 A	14-Dec-14	0%	531					ELS
S3B-FW-1090	Installation of Dewatering Well (assume 18 nos.)	60	14	30-Jun-14 A	03-Oct-14	76.67%	-129					Installation of Dewatering Well (assume 18 nos.)
S3B-FW-1095	Pumping Test of Stage 2 (as at excavation approaching to -5.0mPD)	13	13	04-Oct-14	16-Oct-14	0%	-129					Pumping Test of Stage 2 (as at excavation approaching to -5.0mPD)
<b>Stage 2 - Excavation Works (For Bottom Slab Construction : CH3045 - CH3129)</b>												
S3B-EW-1000A	Stage 2 ELS - excavate to approx. +0.5mPD and installation of 1st layer strut/waling	84	14	19-May-14 A	03-Oct-14	0%	-162					Stage 2 ELS - excavate to approx. +0.5mPD and installation of 1st layer strut/waling
S3B-EW-1000B	Stage 2 ELS - excavate to approx. -3.0mPD and installation of 2nd layer strut/waling (15,000m <sup>3</sup> )	46	46	04-Oct-14	18-Nov-14	0%	-162					Stage 2 ELS - excavate to approx. -3.0mPD and installation of 2nd layer strut/waling (15,000m <sup>3</sup> )
S3B-EW-1000C	Stage 2 ELS - excavate to approx. -6.4mPD and installation of 3rd layer strut/waling (16,500m <sup>3</sup> )	70	70	19-Nov-14	27-Jan-15	0%	-162					Stage 2 ELS - excavate to approx. -6.4mPD and installation of 3rd layer strut/waling (16,500m <sup>3</sup> )
<b>Stage 2 - Tunnel Structure Works (Bay 8 to Bay 10 : CH3045 - CH3129)</b>												
S3B-TS-1000	Bay 10 Top Slab	25	8	20-Sep-14	27-Sep-14	0%	-141					Bay 10 Top Slab
S3B-TS-2000A	Construction of Exhaust Duct (CH2988 - CH3045)	48	48	15-Dec-14	31-Jan-15	0%	531					
<b>CWB Tunnelling Works (Stage 3 : Ch3129 - Ch3245)</b>												
<b>Stage 3 - Reclamation Works</b>												
<b>Demolition Works - Stage 3</b>												
DW3-1000	Demolition of Existing 10nos. Pump Houses along Convention Avenue	90	11	21-May-14 A	30-Sep-14	0%	343					Demolition of Existing 10nos. Pump Houses along Convention Avenue
DW3-1020	Demolition of Remaining Existing Expo Drive East Bridge at Southern Bound	24	11	01-Sep-14 A	30-Sep-14	0%	-235					Demolition of Remaining Existing Expo Drive East Bridge at Southern Bound
<b>Stage 3 - Foundation Works</b>												
S3C-FW-1050C	Stage 3 Pre-bored H-pile (Phase 4 - 160 nos w/4~5 rigs)	128	124	21-Jul-14 A	21-Jan-15	0%	-267					
<b>Stage 3 - Excavation Works (Ch3129 - Ch3245)</b>												
<b>Excavation Works at Stage 3</b>												
S3C-EW-1000	Excavation to +0mPD (approx 21,400m <sup>3</sup> ) including strut/waling installation	40	37	15-Sep-14 A	26-Oct-14	0%	-270					Excavation to +0mPD (approx 21,400m <sup>3</sup> ) including strut/waling installation
S3C-EW-1010	Excavation to -4.0 mPD (approx 26,600m <sup>3</sup> ) including strut/waling installation	96	96	27-Oct-14	30-Jan-15	0%	-270					Excavation to -4.0 mPD (approx 26,600m <sup>3</sup> ) including strut/waling installation
S3C-EW-1010C	Installation of Dewatering Well (24nos.) and Pumping Test	45	46	16-Dec-14	30-Jan-15	0%	-267					Installation of Dewatering Well (24nos.) and Pumping Test
<b>Section 4 of the Works - Salt Water Mains, Works in Area 3</b>												
<b>S8B (DN800) Salt Watermains</b>												
<b>Testing and Commissioning</b>												
S4-1500	Pressure Test of S8B	6	6	20-Sep-14	25-Sep-14	0%	675					Pressure Test of S8B
S4-1510	Cleaning of S8B	7	7	26-Sep-14	02-Oct-14	0%	675					Cleaning of S8B
S4-1520	Connection to Existing Mains (S8B)	7	7	18-Oct-14	24-Oct-14	0%	653					Connection to Existing Mains (S8B)
<b>S9 (DN450) Salt Watermains &amp; Sewer</b>												
<b>Testing and Commissioning</b>												
S4-2500	Pressure Test of S9	6	6	20-Sep-14	25-Sep-14	0%	682					Pressure Test of S9
S4-2510	Cleaning of S9	7	7	26-Sep-14	02-Oct-14	0%	682					Cleaning of S9
S4-2520	Connection to Existing Mains (S9)	7	7	18-Oct-14	24-Oct-14	0%	660					Connection to Existing Mains (S9)
<b>Section 6A of the Works - Cooling Water Discharge System (3 nos. Govt Towers)</b>												
S6A-1200	Zone X1-1 - CHBF (11m)	21	21	20-Sep-14	10-Oct-14	0%	-14					Zone X1-1 - CHBF (11m)
S6A-1210	Zone X1-2 - CHBF (5m)	21	21	22-Nov-14	12-Dec-14	0%	-77					Zone X1-2 - CHBF (5m)
S6A-1220	Zone X1-3 - CHBF (7m)	21	21	01-Nov-14	21-Nov-14	0%	-77					Zone X1-3 - CHBF (7m)
S6A-1230	Zone X1-4A - CHBF (21m) & S3 (21m) Connection Point	24	42	20-Jan-14 A	31-Oct-14	100%	-77					Zone X1-4A - CHBF (21m) & S3 (21m) Connection Point
S6A-1240	Zone C3-1 - CHBF (16m) Test and Connection Point	60	57	22-Jun-14 A	15-Nov-14	0%	-50					Zone C3-1 - CHBF (16m) Test and Connection Point
<b>Section 6B of the Works - Cooling Water Intake &amp; Discharge System (Great Eagle / Harbour Centre)</b>												
S6B-1220	Zone C3-1 - CHBG (16m) Test and Connection Point	60	57	22-Jun-14 A	15-Nov-14	0%	-50					Zone C3-1 - CHBG (16m) Test and Connection Point
<b>Section 6C of the Works - Cooling Water Discharge System (China Resources Building)</b>												
S6C-1600	Zone C3-1 - CHBI (16m) Test and Connection Point	60	57	22-Jun-14 A	15-Nov-14	0%	-50					Zone C3-1 - CHBI (16m) Test and Connection Point
<b>Common Works for Sections 6A, 6B &amp; 6C</b>												
<b>Discharge Outfall Construction</b>												
S6-1030	Connection of the Completed Cooling Mains to Precast Outfall Unit	0	0		15-Nov-14	0%	-24					Connection of the Completed Cooling Mains to Precast Outfall Unit
S6-1040	Reinstatement of Existing Seawall after Connection	30	30	16-Nov-14	15-Dec-14	0%	608					Reinstatement of Existing Seawall after Connection
<b>Section 8 of the Works - Works in Area 6 (Utilities other than Watermains in Fenwick Pier Street)</b>												

■ Remaining Work     ■ Summary Bar  
■ Actual Work  
■ Summary Bar  
■ Critical Remaining Work  
◆ Milestone

CEDD CONTRACT NO. HK/2009/01  
 Wan Chai Development Phase II - Central-Wan Chai Bypass at HKCEC (Contract 1)  
 WORKS PROGRAMME Rev.6C - 3 Month Programme starting from 20-Sep-14

Activity ID	Activity Name	OD	RD	Start	Finish	% Comp	Total Float	2014				
								Qtr 4				
								Sep	Oct	Nov	Dec	
<b>Sewerage Works</b>												
S8-1030	Zone A3-5D & A3-4D	23	29	10-Jan-14 A	25-Oct-14	100%	-45	Zone A3-5D & A3-4D				
S8-1040	Zone A3-2C	23	23	27-Oct-14	21-Nov-14	0%	-45	Zone A3-2C				
S8-1050	Zone A3-2D	23	23	22-Nov-14	18-Dec-14	0%	-45					
S8-2500	CCTV Survey	1	1	19-Dec-14	19-Dec-14	0%	-45					
<b>Section 9 of the Works - Remaindar of the Works</b>												
<b>Box Culvert Construction</b>												
S9-1030	Construction of Precast Bay 1	76	76	01-Oct-14	16-Dec-14	0%	-235					
S9-1040A	Installation of Sheet Pile / ELS and Construction for Bay 7	180	203	07-Sep-14 A	10-Apr-15	0%	-235					
S9-1040B	Installation of Sheet Pile / ELS and Construction for Bay 2	180	182	11-Oct-14	10-Apr-15	0%	-235					
<b>Waterworks in Area 9</b>												
<b>Salt Water Mains (S3, S5A &amp; S5B)</b>												
S9-5500A	Zone X1-1 - S3 (5m)	0	0		10-Oct-14	0%	8	◆ Zone X1-1 - S3 (5m)				
S9-5500B	Zone X1-2 - S3 (5m)	0	0		12-Dec-14	0%	36					
S9-5500C	Zone X1-3 - S3 (5m)	0	0		21-Nov-14	0%	57	◆ Zone X1-3 - S3 (5m)				
<b>Fresh Water Mains (F3)</b>												
S9-7040	Zone X1-1 - F3 (5m)	0	0		10-Oct-14	0%	99	◆ Zone X1-1 - F3 (5m)				
S9-7050	Zone X1-2 - F3 (5m)	0	0		12-Dec-14	0%	36					
S9-7060	Zone X1-3 - F3 (5m)	0	0		21-Nov-14	0%	57	◆ Zone X1-3 - F3 (5m)				
<b>Section 12 of the Works - Works in Area 10 (other than Section 4)</b>												
VO106-1000	Demolition of Existing HKCEC Pump House in Area 10 & 11 (Kiu Lok Portion - Variation Ord	100	11	26-May-14 A	30-Sep-14	0%	150	Demolition of Existing HKCEC Pump House in Area 10 & 11 (Kiu Lok Portion				
<b>Section 13 of the Works - Works in Area 11 (other than Section 11)</b>												
S13-3000	Completion of Backfilling to +5.0mPD	0	0		30-Sep-14	0%	150	◆ Completion of Backfilling to +5.0mPD				
VO106-2000	Demolition of Existing HKCEC Pump House in Area 10 & 11 (Kiu Lok Portion - Variation Ord	0	0		30-Sep-14	0%	150	◆ Demolition of Existing HKCEC Pump House in Area 10 & 11 (Kiu Lok Portion				
<b>Section 9A of the Works - Landscape Softworks in Area 9</b>												
S9A-1000	Transplanting at Expo Drive East and Convention Avenue Junction	180	180	20-Sep-14	18-Mar-15	0%	150					

■ Remaining Work     ■ Summary Bar  
■ Actual Work  
■ Summary Bar  
■ Critical Remaining Work  
◆ Milestone

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float	2014					2015										
								October		November		December		January		February		March					
								19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	01
<b>3MRP - Nov 2014 to Feb 2015</b>																							
<b>02 - PRE-CONSTRUCTION WORKS</b>																							
<b>02.3 - Method Statement / Shop Drawings</b>																							
0230-1380	MS Landscape Deck Structure - Submission	28	08-Feb-15	07-Mar-15	28-Mar-17	25-Apr-17	780																
0230-1450	MS Permanent Noise Barrier Cantilever - No Adverse Comment	14	19-Aug-14 A	03-Dec-14	03-Jan-15	17-Jan-15	45																
0230-1660	MS Approach Ramp - Submission	28	20-Nov-14	17-Dec-14	24-Aug-16	21-Sep-16	644																
0230-1670	MS Approach Ramp - ER Review & Comment	28	18-Dec-14	14-Jan-15	21-Sep-16	19-Oct-16	644																
0230-1680	MS Approach Ramp - Resubmission	28	15-Jan-15	11-Feb-15	19-Oct-16	16-Nov-16	644																
0230-1690	MS Approach Ramp - ER Approval	28	12-Feb-15	11-Mar-15	16-Nov-16	14-Dec-16	644																
0230-1760	MS Temporary Bridge TB - Resubmission	0	16-Oct-14 A	18-Nov-14 A	12-Dec-14	12-Dec-14																	
0230-1770	MS Temporary Bridge TB - ER Approval	15	19-Dec-14 A	04-Dec-14	12-Dec-14	27-Dec-14	23																
0230-1820	MS Bridge Demolition Pier E3 to P20 - Submission	4	20-Jul-14 A	23-Nov-14	19-Nov-14	23-Nov-14	0																
0230-1830	MS Bridge Demolition Pier E3 to P20 - ER Review & Comment	6	07-Aug-14 A	29-Nov-14	23-Nov-14	29-Nov-14	0																
0230-1840	MS Bridge Demolition Pier E3 to P20 - Resubmission	5	13-Aug-14 A	28-Nov-14	23-Nov-14	28-Nov-14	0																
0230-1850	MS Bridge Demolition Pier E3 to P20 - No Adverse Comment	0	14-Sep-14 A	15-Nov-14 A	28-Nov-14	28-Nov-14																	
A5910	MS W/B Bridge Demolition & Reconstruction - Submission	20	20-Nov-14	09-Dec-14	04-Feb-15	23-Feb-15	76																
A5920	MS W/B Bridge Demolition & Reconstruction - ER Review & Comment	12	10-Dec-14	21-Dec-14	24-Feb-15	07-Mar-15	76																
A5930	MS W/B Bridge Demolition & Reconstruction - Resubmission	6	22-Dec-14	27-Dec-14	08-Mar-15	13-Mar-15	76																
A5940	MS W/B Bridge Demolition & Reconstruction - ER No Adverse Comment	18	28-Dec-14	14-Jan-15	14-Mar-15	31-Mar-15	76																
A5960	MS ADB Ground Beam & Pile Cap - ER Review & Comment	0	14-Oct-14 A	01-Nov-14 A	23-Dec-14	23-Dec-14																	
A5970	MS ADB Ground Beam & Pile Cap - Resubmission	6	20-Nov-14	25-Nov-14	28-Feb-15	06-Mar-15	101																
A5980	MS ADB Ground Beam & Pile Cap - ER No Adverse Comment	18	26-Nov-14	13-Dec-14	06-Mar-15	24-Mar-15	101																
A7560	MS Temporary Bridge TA2 - Submission	10	20-Nov-14	29-Nov-14	01-Dec-14	11-Dec-14	12																
A7570	MS Temporary Bridge TA2 - ER Review & Comment	12	30-Nov-14	11-Dec-14	11-Dec-14	23-Dec-14	12																
A7580	MS Temporary Bridge TA2 - Resubmission	6	12-Dec-14	17-Dec-14	23-Dec-14	29-Dec-14	12																
A7590	MS Temporary Bridge TA2 - ER No Adverse Comment	18	18-Dec-14	04-Jan-15	29-Dec-14	16-Jan-15	12																
<b>02.4 - Contractor's Design and Build Items</b>																							
0240-1070	Temp Bridge "TB" Design - Resubmission	0	16-Oct-14 A	30-Oct-14 A	26-Dec-14	26-Dec-14																	
0240-1080	Temp Bridge "TB" Design - ER Approval	0	31-Oct-14 A	15-Nov-14 A	26-Dec-14	26-Dec-14																	
0240-1085	Temp Bridge "TB" Tower Fabrication Fabrication	1	01-Nov-14 A	20-Nov-14	26-Dec-14	27-Dec-14	37																
0240-1111	Noise Enclosure Structural Design - No Adverse Comment	11	03-Aug-14 A	30-Nov-14	04-Jun-16	15-Jun-16	563																
0240-1137	Noise Barrier Panel - Design No Adverse Comment	21	13-Aug-14 A	10-Dec-14	18-Dec-14	08-Jan-15	29																
0240-1141	Noise Barrier Panel - Fabricate Type C Column (77 nos.)	36	20-Nov-14	25-Dec-14	18-Dec-14	23-Jan-15	29																
0240-1142	Noise Barrier Panel - Fabricate Type B Column (25 nos.)	24	02-Dec-14	25-Dec-14	13-Jan-15	06-Feb-15	43																
0240-1143	Noise Barrier Panel - Fabricate Type A Column (38 nos.)	30	14-Dec-14	12-Jan-15	25-Jan-15	24-Feb-15	43																

- Remaining Level of Effort
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**Contract HY/2009/19**

**Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)**



Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float	2014							2015								
								October		November		December			January		February		March				
								19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	01
0240-1170	HGHK Permanent Carpark Design - Prep & Submit	90	01-Jan-15*	31-Mar-15	20-Dec-15	19-Mar-16	354																
0240-1270	Landscaping Design - Submission	90	01-Jan-15*	31-Mar-15	04-May-17	01-Aug-17	854																
0240-1429	Noise Barrier Panel - Fabricate Beams (203 nos.)	48	02-Dec-14	18-Jan-15	30-Dec-14	16-Feb-15	29																
A5860	Temp Bridge "TA2" Design (Foundation & Structure) - Prep & Submit	0	15-Jan-14 A	10-Nov-14 A	18-Jan-15	18-Jan-15																	
A5870	Temp Bridge "TA2" Design (Foundation & Structure) - ER review and comment	13	11-Nov-14 A	02-Dec-14	18-Jan-15	30-Jan-15	59																
A5880	Temp Bridge "TA2" Design (Foundation & Structure) - Resubmission	25	02-Dec-14	27-Dec-14	30-Jan-15	24-Feb-15	59																
A5890	Temp Bridge "TA2" Design (Foundation & Structure) - ER No Adverse Comment	21	27-Dec-14	17-Jan-15	24-Feb-15	17-Mar-15	59																
A5900	Temp Bridge "TA2" - Fabrication	48	27-Dec-14	13-Feb-15	24-Feb-15	13-Apr-15	59																
<b>02.5 - Bridge Segment/Beam Off-site Precasting</b>																							
0250-1720.14	Precast Beam Bridge C1 1819-F	0	05-Oct-14 A	02-Nov-14 A	06-Feb-15	06-Feb-15																	
0250-1720.15	Precast Beam Bridge C1 1920-A	19	20-Nov-14	08-Dec-14	06-Feb-15	24-Feb-15	78																
0250-1720.16	Precast Beam Bridge C1 1920-B	18	08-Dec-14	26-Dec-14	24-Feb-15	14-Mar-15	78																
0250-1720.17	Precast Beam Bridge C1 2021-A	18	26-Dec-14	13-Jan-15	14-Mar-15	01-Apr-15	78																
0250-1720.18	Precast Beam Bridge C1 2021-B	18	13-Jan-15	31-Jan-15	01-Apr-15	19-Apr-15	78																
0250-1720.19	Precast Beam Bridge C1 2021-C	18	31-Jan-15	18-Feb-15	19-Apr-15	07-May-15	78																
0250-1720.20	Precast Beam Bridge C1 2122-A	18	18-Feb-15	08-Mar-15	07-May-15	25-May-15	78																
0250-1720.22	Precast Beam Bridge C1 2122-C	18	13-Jan-15	31-Jan-15	01-Apr-15	19-Apr-15	78																
0250-1720.23	Precast Beam Bridge C1 2122-D	18	31-Jan-15	18-Feb-15	19-Apr-15	07-May-15	78																
0250-1720.25	Precast Beam Bridge C1 2122-E	18	18-Feb-15	08-Mar-15	07-May-15	25-May-15	78																
0250-1720.27	Precast Beam Bridge E E3E2-A	18	08-Dec-14*	25-Dec-14	08-Dec-14	25-Dec-14	0																
0250-1720.28	Precast Beam Bridge E E3E2-B	18	26-Dec-14	12-Jan-15	29-Dec-14	15-Jan-15	3																
0250-1720.29	Precast Beam Bridge E E3E2-C	18	13-Jan-15	30-Jan-15	16-Jan-15	02-Feb-15	3																
0250-1720.30	Precast Beam Bridge E E4E3-A	18	31-Jan-15	17-Feb-15	03-Feb-15	20-Feb-15	3																
0250-1720.31	Precast Beam Bridge E E4E3-B	18	18-Feb-15	07-Mar-15	21-Feb-15	10-Mar-15	3																
0250-2010	Bridg C3 Pier 28 End-span Segment Off-site Casting (6 nos.)	0	22-Oct-14 A	04-Nov-14 A	13-Dec-14	13-Dec-14																	
0250-2020	Bridg C3 Pier 25 End-span Segment Off-site Casting (5 nos.)	3	12-Oct-14 A	23-Nov-14	13-Dec-14	16-Dec-14	24																
0250-2030	Bridg C2 Pier 24 T-span Segment Off-site Casting (11 nos.)	27	20-Nov-14	16-Dec-14	19-Nov-14	16-Dec-14	0																
0250-2040	Bridg C2 Pier 23 T-span Segment Off-site Casting (13 nos.)	31	17-Dec-14	16-Jan-15	16-Dec-14	16-Jan-15	0																
0250-2050	Bridg C2 Pier 25 End-span Segment Off-site Casting (6 nos.)	0	02-Nov-14 A	16-Nov-14 A	16-Dec-14	16-Dec-14																	
0250-2060	Bridg C2 Pier 22 End-span Segment Off-site Casting (5 nos.)	16	23-Nov-14	09-Dec-14	31-Dec-14	16-Jan-15	39																
0250-2070	Bridg F1C Pier 36 T-span Segment Off-site Casting (13 nos.)	31	17-Jan-15	16-Feb-15	16-Jan-15	16-Feb-15	0																
0250-2080	Bridg F1C Pier 37 T-span Segment Off-site Casting (11 nos.)	27	17-Feb-15	15-Mar-15	16-Feb-15	15-Mar-15	0																
0250-2090	Bridg F1C Abut D12 End-span Segment Off-site Casting (7 nos.)	22	09-Dec-14	31-Dec-14	25-Jan-15	16-Feb-15	48																
0250-2100	Bridg F1C Pier 38 End-span Segment Off-site Casting (6 nos.)	19	31-Dec-14	19-Jan-15	19-Feb-15	10-Mar-15	51																
0250-2120	Bridg F2C Pier 38 End-span Segment Off-site Casting (5 nos.)	16	19-Jan-15	04-Feb-15	10-Mar-15	26-Mar-15	51																

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**Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)**









Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float	2014							2015									
								October		November			December		January		February		March					
								19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	01	08
A5424	APS Basement (Zone B) - Partition Wall (Reb. Fix + Concreting)	45	02-Feb-15	28-Mar-15	04-Mar-15	29-Apr-15	24																	
A5454	Tunnel (Zone A) - Bulkhead Wall Removal (Hole Drilling into Bulkhead Wall)	30	20-Dec-14	26-Jan-15	19-Dec-14	26-Jan-15	0																	
A5464	Tunnel (Zone A) - Bulkhead Wall Removal (Saw Cutting)-Eastbound	25	21-Jan-15	18-Feb-15	20-Jan-15	18-Feb-15	0																	
A5465	Tunnel (Zone A) - Bulkhead Wall Removal (Saw Cutting)-westbound	25	07-Feb-15	11-Mar-15	06-Feb-15	11-Mar-15	0																	
<b>05.1.4 - Tunnel Structure</b>																								
A4432	Tunnel Bay 14 -Trim Off - Barrette Head	0	19-Oct-14 A	29-Oct-14 A	16-Jul-20	16-Jul-20																		
A4442	Tunnel Bay 14 - Prepare C.J at D-Wall	0	19-Oct-14 A	29-Oct-14 A	16-Jul-20	16-Jul-20																		
A4452	Tunnel Bay 14 - (Waterproofing)	3	01-Dec-14	03-Dec-14	09-Dec-14	11-Dec-14	8																	
A4462	Tunnel Bay 14 - Reb. Fix + Concreting	14	04-Dec-14	17-Dec-14	12-Dec-14	25-Dec-14	8																	
A4952	Tunnel Bay 14 - Struts Removal	4	18-Dec-14	21-Dec-14	26-Dec-14	29-Dec-14	8																	
A4962	Tunnel Bay 14 - Central Wall - (Reb. Fix )	7	22-Dec-14	28-Dec-14	30-Dec-14	05-Jan-15	8																	
A4972	Tunnel Bay 14 - Central Wall - (Concrete)	3	29-Dec-14	31-Dec-14	06-Jan-15	08-Jan-15	8																	
A4982	OHVD Bay 14 - Falseworks	12	29-Dec-14	12-Jan-15	06-Jan-15	19-Jan-15	6																	
A4992	OHVD Bay 14 - Steel Fixing	3	13-Jan-15	15-Jan-15	20-Jan-15	22-Jan-15	7																	
A5002	OHVD Bay 14 - Concreting	2	16-Jan-15	17-Jan-15	23-Jan-15	24-Jan-15	7																	
A5012	OHVD Bay 14 - Curing of Concrete + Prepare CJ	2	18-Jan-15	19-Jan-15	25-Jan-15	26-Jan-15	7																	
A5022	OHVD Bay 14 - Reb. Fix. + Formworks	2	20-Jan-15	21-Jan-15	27-Jan-15	28-Jan-15	6																	
A5032	OHVD Bay 14 - (Hanger Wall) - Concrete	1	22-Jan-15	22-Jan-15	30-Jan-15	30-Jan-15	8																	
A5042	Tunnel Bay 14 -Tunnel Roof - Falseworks	10	23-Jan-15	01-Feb-15	30-Jan-15	08-Feb-15	7																	
A5052	Tunnel Bay 14 -Tunnel Roof - CJ Preparation	8	02-Feb-15	09-Feb-15	09-Feb-15	16-Feb-15	7																	
A5062	Tunnel Bay 14 -Tunnel Roof - Steel Fixing	8	09-Feb-15	16-Feb-15	16-Feb-15	23-Feb-15	7																	
A5072	Tunnel Bay 14 -Tunnel Roof - (Concrete)	3	17-Feb-15	19-Feb-15	24-Feb-15	26-Feb-15	7																	
A5083	Tunnel Bay 15 -Trim Off - Barrette Head	0	21-Oct-14 A	29-Oct-14 A	28-Nov-14	28-Nov-14																		
A5093	Tunnel Bay 15 - Prepare C.J at D-Wall	0	20-Oct-14 A	29-Oct-14 A	28-Nov-14	28-Nov-14																		
A5103	Tunnel Bay 15 - (Waterproofing)	0	03-Nov-14 A	06-Nov-14 A	28-Nov-14	28-Nov-14																		
A5113	Tunnel Bay 15 - Reb. Fix + Concreting	0	15-Nov-14 A	19-Nov-14 A	28-Nov-14	28-Nov-14																		
A5123	Tunnel Bay 15 - Struts Removal	10	20-Nov-14	29-Nov-14	28-Nov-14	08-Dec-14	9																	
A5133	Tunnel Bay 15 - Central Wall - (Reb. Fix )	8	18-Dec-14	25-Dec-14	20-Dec-14	28-Dec-14	3																	
A5143	Tunnel Bay 15 - Central Wall - (Concrete)	1	26-Dec-14	26-Dec-14	28-Dec-14	29-Dec-14	3																	
A5153	OHVD Bay 15 - Falseworks	13	26-Dec-14	07-Jan-15	28-Dec-14	10-Jan-15	3																	
A5163	OHVD Bay 15 - Steel Fixing	3	08-Jan-15	10-Jan-15	10-Jan-15	13-Jan-15	3																	
A5173	OHVD Bay 15 - Concreting	2	11-Jan-15	12-Jan-15	13-Jan-15	15-Jan-15	3																	
A5183	OHVD Bay 15 - Curing of Concrete + Prepare CJ	2	13-Jan-15	14-Jan-15	15-Jan-15	17-Jan-15	3																	
A5193	OHVD Bay 15 - Reb. Fix. + Formworks	2	15-Jan-15	16-Jan-15	17-Jan-15	19-Jan-15	3																	
A5203	OHVD Bay 15 - (Hanger Wall) - Concrete	1	17-Jan-15	17-Jan-15	20-Jan-15	21-Jan-15	4																	

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█ Remaining Work  
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**Contract HY/2009/19**

**Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)**









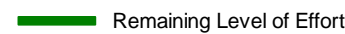

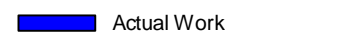




Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float	2014												2015													
								October			November			December			January			February			March										
								19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	01	08	15	22	01	08	15	22			
0630-3119.95	Grd. Beam - Stage C-(GL > C1-F2) - Cast Vertical and Beam Blinding Layer	6	22-Jan-15	28-Jan-15	27-Feb-15	06-Mar-15	29																										
0630-3119.96	Grd. Beam - Stage C-(GL > C1-F2) - Rebar Fixing (Grd. Beam & Pile Cap) + Formworks	8	29-Jan-15	06-Feb-15	06-Mar-15	16-Mar-15	29																										
0630-3119.97	Grd. Beam - Stage C-(GL > C1-F2) - Concreting (Grd. Beam & Pile Cap)	1	07-Feb-15	07-Feb-15	16-Mar-15	17-Mar-15	29																										
0630-3119.98	Grd. Beam - Stage C-(GL > C1-F2) - Formworks, Sheet-Pile Removal and Backfill	6	09-Feb-15	14-Feb-15	17-Mar-15	24-Mar-15	29																										
0630-3121.4	Grd. Beam - Stage I-(GL > P3-R6) - Loading Test for HP17c	9	10-Nov-14 A	29-Nov-14	02-Jan-15	13-Jan-15	36																										
0630-3121.41	Grd. Beam - Stage I-(GL > P3-R6) - Drive Sheet-Pile Copperdam	15	10-Nov-14 A	06-Dec-14	02-Jan-15	20-Jan-15	36																										
0630-3121.42	Grd. Beam - Stage I-(GL > P3-R6) - Excavate G.L to -2.16mPD and install Waling/Struts	6	08-Dec-14	13-Dec-14	20-Jan-15	27-Jan-15	36																										
0630-3121.43	Grd. Beam - Stage I-(GL > P3-R6) - Install Capping Plate	6	15-Dec-14	20-Dec-14	27-Jan-15	03-Feb-15	36																										
0630-3121.44	Grd. Beam - Stage I-(GL > P3-R6) - Blinding of Cap,Grnd. Beam	1	22-Dec-14	22-Dec-14	03-Feb-15	04-Feb-15	36																										
0630-3121.45	Grd. Beam - Stage I-(GL > P3-R6) - Water-Proofing	5	23-Dec-14	29-Dec-14	04-Feb-15	10-Feb-15	36																										
0630-3121.46	Grd. Beam - Stage I-(GL > P3-R6) - Construct Base Slab w/ Kicker	5	30-Dec-14	05-Jan-15	10-Feb-15	16-Feb-15	36																										
0630-3121.47	Grd. Beam - Stage I-(GL > P3-R6) - Remove waling and strut	5	06-Jan-15	10-Jan-15	16-Feb-15	25-Feb-15	36																										
0630-3121.48	Grd. Beam - Stage I-(GL > P3-R6) - Construct Walls, Columns & Remaining Beams	16	12-Jan-15	29-Jan-15	25-Feb-15	16-Mar-15	36																										
0630-3121.49	Grd. Beam - Stage I-(GL > P3-R6) - Formworks, Sheet-Pile Removal and Backfill	7	30-Jan-15	06-Feb-15	16-Mar-15	24-Mar-15	36																										
0630-3121.5	Grd. Beam - Stage II-(GL > P2-R3) - Excavate G.L to +2.5mPD beam formation to +1.8mPD	9	31-Dec-14	10-Jan-15	03-Feb-15	13-Feb-15	29																										
0630-3121.51	Grd. Beam - Stage II-(GL > P2-R3) - Install Capping Plate	7	12-Jan-15	19-Jan-15	13-Feb-15	25-Feb-15	29																										
0630-3121.52	Grd. Beam - Stage II-(GL > P2-R3) - Cast Beam Blinding Layer	1	20-Jan-15	20-Jan-15	25-Feb-15	26-Feb-15	29																										
0630-3121.53	Grd. Beam - Stage II-(GL > P2-R3) - Rebar Fixing for Beam	7	21-Jan-15	28-Jan-15	26-Feb-15	06-Mar-15	29																										
0630-3121.54	Grd. Beam - Stage II-(GL > P2-R3) - Erect Formworks for Beam	7	29-Jan-15	05-Feb-15	06-Mar-15	14-Mar-15	29																										
0630-3121.55	Grd. Beam - Stage I-(GL > P2-R3) - Cast Concrete for Beam	3	06-Feb-15	09-Feb-15	14-Mar-15	18-Mar-15	29																										
0630-3121.57	Grd. Beam - Stage I-(GL > P2-R3) - Formworks Removal and Backfill	5	10-Feb-15	14-Feb-15	18-Mar-15	24-Mar-15	29																										

**08 - SECTION 5 WORK**

**08.1 - Retaining Wall 'F' Substructure**

A7653	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS36a	18	03-Jan-15	23-Jan-15	09-Jan-15	29-Jan-15	5																								
A7654	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS36b	18	03-Jan-15	23-Jan-15	09-Jan-15	29-Jan-15	5																								
A7655	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS37a	18	03-Jan-15	23-Jan-15	09-Jan-15	29-Jan-15	5																								
A7656	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS37b	18	24-Jan-15	13-Feb-15	30-Jan-15	23-Feb-15	5																								
A7657	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS38a	18	24-Jan-15	13-Feb-15	30-Jan-15	23-Feb-15	5																								
A7658	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS38b	18	24-Jan-15	13-Feb-15	30-Jan-15	23-Feb-15	5																								
A7660	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS39a	18	14-Feb-15	10-Mar-15	24-Feb-15	16-Mar-15	5																								
A7670	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS39b	18	14-Feb-15	10-Mar-15	24-Feb-15	16-Mar-15	5																								
A7671	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40a	18	11-Dec-14	02-Jan-15	17-Dec-14	08-Jan-15	5																								
A7672	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS40b	18	11-Dec-14	02-Jan-15	17-Dec-14	08-Jan-15	5																								
A7673	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS41a	18	11-Dec-14	02-Jan-15	17-Dec-14	08-Jan-15	5																								
A7680	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42a	18	20-Nov-14	10-Dec-14	26-Nov-14	16-Dec-14	5																								

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◆ Milestone

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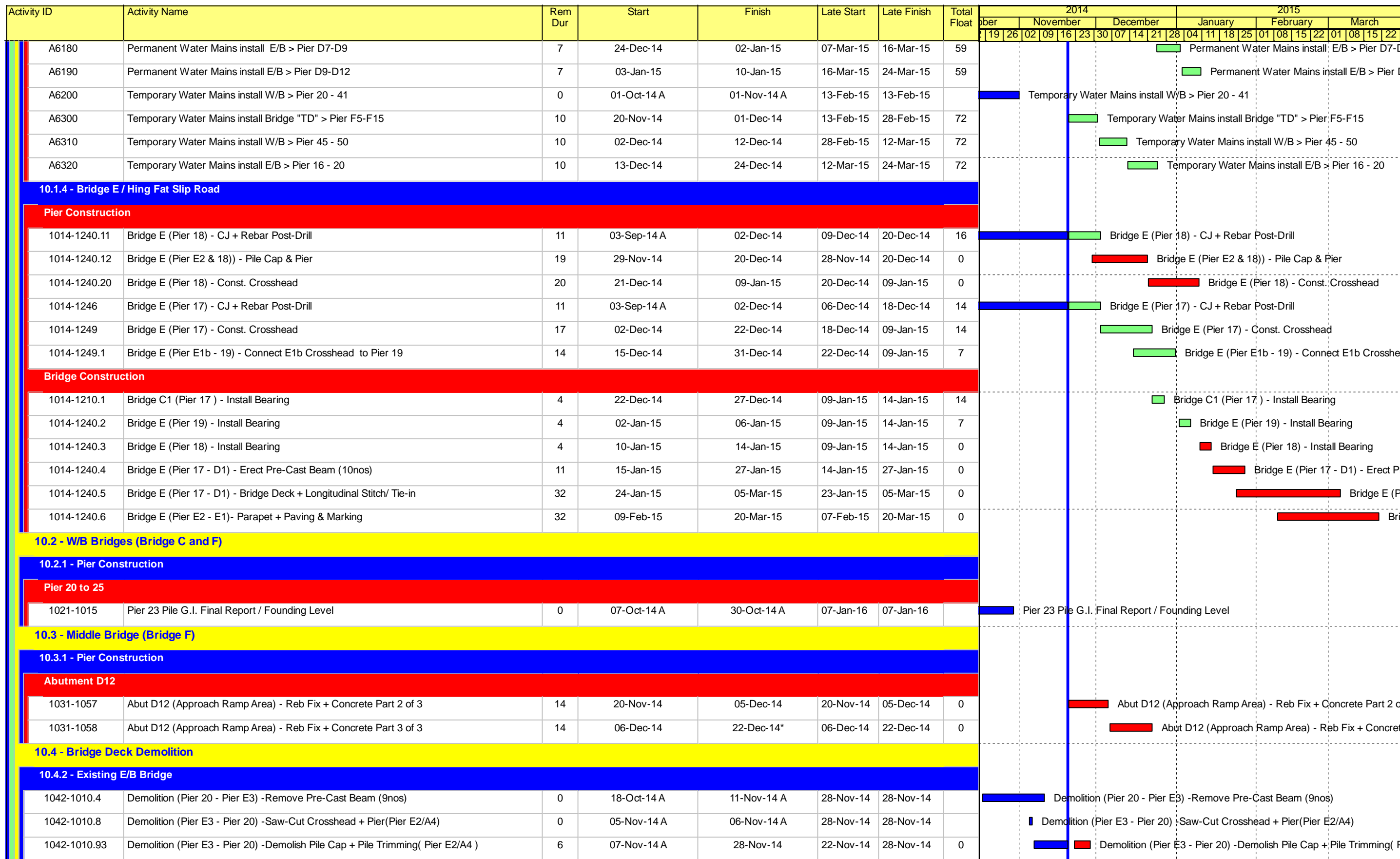
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								October			November			December			January			February			March					
								19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	01	08	15	22	01	08
A7690	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS42b	18	20-Nov-14	10-Dec-14	26-Nov-14	16-Dec-14	5																					Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS
A7720	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS44a	18	14-Feb-15	10-Mar-15	24-Feb-15	16-Mar-15	5																					Retaining
A7790	Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS47b	18	20-Nov-14	10-Dec-14	26-Nov-14	16-Dec-14	5																					Retaining Wall F Pre-Bored H-Pile - H - Beam + Grout > BS
<b>09 - SECTION 6 OF THE WORKS</b>																												
<b>09.2 - Westbound - Pier 26-27</b>																												
0920-2100	Pre-drilling for Piling at IVB (2nos.)	12	13-Oct-14 A	03-Dec-14	07-Feb-20	20-Feb-20	1563																					Pre-drilling for Piling at IVB (2nos.)
0920-2105	Pier 26 Pile G.I. Final Report / Founding Level	12	04-Dec-14	17-Dec-14	21-Feb-20	05-Mar-20	1563																					Pier 26 Pile G.I. Final Report / Founding Level
<b>10 - SECTION X OF THE WORKS</b>																												
<b>10.1 - E/B Bridges (Bridge D, E and F)</b>																												
<b>10.1.1 - Marine Pier Construction</b>																												
<b>Pier F03 to F15</b>																												
1011-3272	F3 Dolphin Construction	23	08-Jul-14 A	16-Dec-14	01-Dec-14	29-Dec-14	10																					F3 Dolphin Construction
1011-3273	F2 Dolphin Construction	23	11-Jul-14 A	16-Dec-14	01-Dec-14	29-Dec-14	10																					F2 Dolphin Construction
1011-3274	F1 Dolphin Construction	26	23-Jul-14 A	19-Dec-14	27-Nov-14	29-Dec-14	7																					F1 Dolphin Construction
<b>Pier F01 to F02</b>																												
1011-2895	F1B Pile Cap Construction	0	15-Jul-14 A	06-Nov-14 A	18-Aug-17	18-Aug-17																						F1B Pile Cap Construction
1011-2900	F1B Pier/Column Construction	12	20-Nov-14	03-Dec-14	18-Aug-17	01-Sep-17	825																					F1B Pier/Column Construction
1011-2910	F1B Crosshead Construction	18	04-Dec-14	24-Dec-14	01-Sep-17	22-Sep-17	825																					F1B Crosshead Construction
1011-2930	Bearing installation pier F1B/F2B	12	26-Dec-14	09-Jan-15	22-Sep-17	09-Oct-17	825																					Bearing installation pier F1B/F2B
<b>10.1.3 - E/B Bridge Construction</b>																												
<b>Bridge F1A</b>																												
1013-1868.1	Bridge F1A Int. Double Noise Encl. Install Panel	15	24-Nov-14	10-Dec-14	13-Feb-15	06-Mar-15	69																					Bridge F1A Int. Double Noise Encl. Install Panel
<b>Bridge F2A</b>																												
1013-1378.1	Bridge F2A Int. Double Noise Encl. Install Panel	15	11-Dec-14	29-Dec-14	06-Mar-15	24-Mar-15	69																					Bridge F2A Int. Double Noise Encl. Install Panel
<b>Bridge F5/F4</b>																												
1013-2172.25	Bridge F4 MJ at Pier F14	3	20-Nov-14	22-Nov-14	24-Nov-14	27-Nov-14	4																					Bridge F4 MJ at Pier F14
<b>All E/B Bridges (Common)</b>																												
1013-1710	Permanent Noise Barrier Type C1 E/B Bridge Ch 1059-1362 (304m)	36	12-Nov-14 A	02-Feb-15	17-Jan-15	04-Mar-15	23																					Permanent Noise Barrier Typ
1013-1720	Permanent Noise Barrier Type B1 E/B Bridge Ch 962-1059 (132m)	24	12-Jan-15	07-Feb-15	06-Feb-15	10-Mar-15	23																					Permanent Noise Barrier T
1013-1730	Permanent Noise Barrier Type A1 E/B Bridge Ch 826-962 (136m)	24	26-Jan-15	25-Feb-15	24-Feb-15	24-Mar-15	23																					Permanent Nois
1013-1735	Noise Barrier Mock-up	0	12-Nov-14 A	12-Nov-14 A	17-Jan-15	17-Jan-15																						Noise Barrier Mock-up
1013-1750	E/B Bridge Sign Gentries and Misc. Mounting Structure/Support	42	05-Jan-15	25-Feb-15	30-Jan-15	24-Mar-15	23																					E/B Bridge Sign
A6150	Permanent Water Mains install E/B > Pier D1 - D3	7	29-Nov-14	06-Dec-14	07-Feb-15	16-Feb-15	59																					Permanent Water Mains install E/B > Pier D1 - D3
A6160	Permanent Water Mains install E/B > Pier D3-D5	7	08-Dec-14	15-Dec-14	16-Feb-15	27-Feb-15	59																					Permanent Water Mains install E/B > Pier D3-D5
A6170	Permanent Water Mains install E/B > Pier D5-D7	7	16-Dec-14	23-Dec-14	27-Feb-15	07-Mar-15	59																					Permanent Water Mains install E/B > Pier D5-D7

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

Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)



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

**Contract HY/2009/19**

**Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)**

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float	2014												2015											
								October			November			December			January			February			March								
								19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	01	08	15	22	01	08	15	22	
1042-1010.94	Demolition (Pier 15 - Pier 21) -TTA Implementation	0	28-Oct-14 A	31-Oct-14 A	27-Nov-14	27-Nov-14		■ Demolition (Pier 15 - Pier 21) -TTA Implementation																							
1042-1010.95	Demolition (Pier 15 - Pier 21) -L3 Railings Installation	0	01-Nov-14 A	15-Nov-14 A	27-Nov-14	27-Nov-14		■ Demolition (Pier 15 - Pier 21) -L3 Railings Installation																							
1042-1010.96	Demolition (Pier 15 - Pier 21) -Parapet Removal	25	24-Nov-14	22-Dec-14	27-Nov-14	27-Dec-14	4	■ Demolition (Pier 15 - Pier 21) -Parapet Removal																							
1042-1010.97	Demolition (Pier E3 - Pier 20) -Saw-Cut Portion of Exis. Crosshead (Pier 19)	8	05-Dec-14	13-Dec-14	12-Dec-14	22-Dec-14	7	■ Demolition (Pier E3 - Pier 20) -Saw-Cut Portion of Exis. Cr																							
<b>10.5 - Temporary Bridge</b>																															
<b>10.5.1 - Temporary Bridge 'TA'</b>																															
1051-1018.1	Temporary Bridge TA2 - Pre-drilling	0	08-Oct-14 A	18-Nov-14 A	10-Dec-14	10-Dec-14		■ Temporary Bridge TA2 - Pre-drilling																							
1051-1019	Temporary Bridge TA2 - Mini-Pile	30	28-Nov-14	03-Jan-15	10-Dec-14	16-Jan-15	11	■ Temporary Bridge TA2 - Mini-Pile																							
1051-1019.1	Temporary Bridge TA2 - Footing	30	05-Jan-15	07-Feb-15	16-Jan-15	24-Feb-15	11	■ Temporary Bridge TA2 - Fo																							
1051-1019.2	Temporary Bridge TA2 - Pier & Beam Along C15	34	09-Feb-15	23-Mar-15	24-Feb-15	08-Apr-15	11	■ T																							
<b>10.5.2 - Temporary Bridge 'TB' &amp; 'TC'</b>																															
A2460	(Pier 16-17) - Steel Tower Erection	23	23-Dec-14	20-Jan-15	27-Dec-14	24-Jan-15	4	■ (Pier 16-17) - Steel Tower Erection																							
A2470	(Pier 16-17) - Beam + Deck Erection	30	21-Jan-15	27-Feb-15	24-Jan-15	04-Mar-15	4	■ (Pier 16-17) - B																							
<b>10.5.3 - Temporary Bridge 'TD'</b>																															
1053-1065.1	"TD" - Pier F14 to F15 Concrete Parapet	2	11-Sep-14 A	21-Nov-14	25-Nov-14	27-Nov-14	5	■ "TD" - Pier F14 to F15 Concrete Parapet																							
1053-1166	Bridge TD - MJ at Pier F14	3	20-Nov-14	22-Nov-14	24-Nov-14	27-Nov-14	4	■ Bridge TD - MJ at Pier F14																							
1053-1167	Bridge TD Bitumin Paving Works Pier F11 - F15	3	15-Sep-14 A	22-Nov-14	24-Nov-14	27-Nov-14	4	■ Bridge TD Bitumin Paving Works Pier F11 - F15																							
<b>10.6 - Tunnel Approach Ramp</b>																															
<b>10.6.1 - Approach Ramp (Excluding Portion IIB)</b>																															
<b>Bored Piles</b>																															
1061-1010	Pre-drilling Approach Ramp Piles Remaining (70 nos) (excl IIB & VD)	10	18-Oct-13 A	29-Jan-15	25-Apr-15	07-May-15	77	■ Pre-drilling Approach Ramp Piles																							
1061-1980	Bored Pile Ramp - BN25	0	07-Aug-14 A	20-Nov-14	26-Nov-16	26-Nov-16	606	■ Bored Pile Ramp - BN25																							
1061-2030	Bored Pile Ramp - BM17	0	14-Oct-14 A	28-Oct-14 A	09-Nov-16	09-Nov-16		■ Bored Pile Ramp - BM17																							
1061-2060	Bored Pile Ramp - BN32	15	20-Nov-14	08-Dec-14	05-Oct-16	24-Oct-16	561	■ Bored Pile Ramp - BN32																							
1061-2070	Bored Pile Ramp - BN34	14	19-Aug-14 A	24-Dec-14	24-Oct-16	09-Nov-16	561	■ Bored Pile Ramp - BN34																							
1061-2080	Bored Pile Ramp - BN33	15	24-Dec-14	13-Jan-15	09-Nov-16	26-Nov-16	561	■ Bored Pile Ramp - BN33																							
1061-2100	Bored Pile Ramp - BM08	15	20-Nov-14	06-Dec-14	09-Nov-16	26-Nov-16	591	■ Bored Pile Ramp - BM08																							
1061-2110	Bored Pile Ramp - BM07	15	13-Jan-15	30-Jan-15	26-Nov-16	14-Dec-16	561	■ Bored Pile Ramp - BM07																							
A7840	Pre-Bored H-Pile - H - Beam + Grout > BS24b	0	30-Sep-14 A	30-Oct-14 A	30-Apr-15	30-Apr-15		■ Pre-Bored H-Pile - H - Beam + Grout > BS24b																							
A7850	Pre-Bored H-Pile - H - Beam + Grout > BS25a	0	16-Oct-14 A	28-Oct-14 A	16-Jul-20	16-Jul-20		■ Pre-Bored H-Pile - H - Beam + Grout > BS25a																							
A7910	Pre-Bored H-Pile - H - Beam + Grout > BS28a	18	29-Nov-14	19-Dec-14	08-Apr-15	28-Apr-15	103	■ Pre-Bored H-Pile - H - Beam + Grout > BS28a																							
A7920	Pre-Bored H-Pile - H - Beam + Grout > BS28b	20	02-Dec-14	24-Dec-14	08-Apr-15	30-Apr-15	101	■ Pre-Bored H-Pile - H - Beam + Grout > BS28b																							
A7930	Pre-Bored H-Pile - H - Beam + Grout > BS29a	18	02-Dec-14	22-Dec-14	08-Apr-15	28-Apr-15	101	■ Pre-Bored H-Pile - H - Beam + Grout > BS29a																							
A7940	Pre-Bored H-Pile - H - Beam + Grout > BS29b	18	26-Nov-14	16-Dec-14	08-Apr-15	28-Apr-15	106	■ Pre-Bored H-Pile - H - Beam + Grout > BS29b																							
A7950	Pre-Bored H-Pile - H - Beam + Grout > BS30a	20	24-Nov-14	16-Dec-14	08-Apr-15	30-Apr-15	108	■ Pre-Bored H-Pile - H - Beam + Grout > BS30a																							

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

**Contract HY/2009/19**

**Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)**

Activity ID	Activity Name	Rem Dur	Start	Finish	Late Start	Late Finish	Total Float	2014												2015											
								October			November			December			January			February			March								
								19	26	02	09	16	23	30	07	14	21	28	04	11	18	25	01	08	15	22	01	08	15	22	
A7960	Pre-Bored H-Pile - H - Beam + Grout > BS30b	8	10-Nov-14 A	28-Nov-14	26-Mar-15	07-Apr-15	103																								
A7970	Pre-Bored H-Pile - H - Beam + Grout > BS31a	18	20-Nov-14	10-Dec-14	10-Apr-15	30-Apr-15	113																								
A7980	Pre-Bored H-Pile - H - Beam + Grout > BS31b	8	29-Oct-14 A	28-Nov-14	22-Apr-15	30-Apr-15	123																								
A7990	Pre-Bored H-Pile - H - Beam + Grout > BS32a	18	20-Nov-14	10-Dec-14	10-Apr-15	30-Apr-15	113																								
A8000	Pre-Bored H-Pile - H - Beam + Grout > BS32b	7	11-Nov-14 A	27-Nov-14	10-Apr-15	17-Apr-15	113																								
A8010	Pre-Bored H-Pile - H - Beam + Grout > BS33a	10	08-Nov-14 A	01-Dec-14	24-Mar-15	07-Apr-15	101																								
A8020	Pre-Bored H-Pile - H - Beam + Grout > BS33b	3	06-Nov-14 A	22-Nov-14	24-Mar-15	26-Mar-15	101																								
A8041	Pre-Bored H-Pile - H - Beam + Grout > BS34a	5	31-Oct-14 A	25-Nov-14	24-Mar-15	28-Mar-15	101																								
A8042	Pre-Bored H-Pile - H - Beam + Grout > BS34b	10	11-Nov-14 A	01-Dec-14	24-Mar-15	07-Apr-15	101																								
<b>10.7 - Section X - Miscellaneous Works</b>																															
<b>10.7.1 - TTM Stages</b>																															
1071-1025	TTM Stage 2B - TMLG / TD / Police Consultation and Endorsement	90	21-Dec-14	20-Mar-15	20-Dec-14	20-Mar-15	0																								
1071-1045	TTM Stage 2C - TMLG / TD / Police Consultation and Endorsement	126	19-Jan-15	24-May-15	20-Jan-15	26-May-15	2																								
<b>11 - SECTION 11 OF THE WORKS</b>																															
<b>11.2 - Roadworks</b>																															
1110-2200	Junction Improvement Work at Portion X1IA (possession 02Sep14)	320	02-Jan-15*	26-Jan-16	31-Dec-14	26-Jan-16	0																								

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

Contract HY/2009/19

Three Months Rolling Programme (20 Nov 2014 to 19 Feb 2015)

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WP13-0		Layout: CWB - Working Layout for DWP Rev M					Date Printed 26-Sep-14 11						
Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
<b>HY/2009/15 - Works Programme Rev. M (DD:20-Sep-12)</b>													
<b>Works in East Ventilation Adit - Based on Alternative Method</b>													
<b>Reinstatement of Breakwater</b>													
S3_54840	Reinstatement works -west side	7d/wk-1	60d	21-Feb-14 08 A	30-Sep-14 18	-85d							
S3_60085	Reinstatement works east side	7d/wk-1	60d	31-May-14 08 A	30-Sep-14 18	-85d							
S3_54845	Completion of Section 3 (KD8) in EVA Area (Alternative Method)	7d/wk-2	0d		30-Sep-14 18	-86d							
<b>Works in TS1/TS2 - OHVD and Cable Trough/Maintenance Walkway</b>													
<b>TS2 - OHVD and Cable Trough/Maintenance Walkway</b>													
<b>OHVD Slab and Cable Trough Construction</b>													
S3_6210	TS2 - OHVD/ Cable trough	7d/wk-1	40d	20-May-14 08 A	30-Sep-14 18	-85d							
S3_6212	Completion of Section 3 - TS1/TS2 Area (below -6mpd) KD8)	7d/wk-2	0d		30-Sep-14 18	-86d							
<b>Works in TS4/ME4 Area (Portion 14A, 14B, 15, 23)</b>													
<b>TS4/ME4 - Removal of Temporary Reclamation</b>													
<b>Remaining Works at TZ6</b>													
<b>Stage 4 - Seawall and Reclamation at TZ6</b>													
A-2010	Installation of seawall blocks (Qty: 245 nos.)	7d/wk-2	6d	15-Sep-14 08 A	26-Sep-14 18	-332d							
A-2020	Soil Backfilling up to -2.45mPD (Qty:3,000 cu.m.)	7d/wk-2	2d	25-Sep-14 08	26-Sep-14 18	-332d							
A-2030	Utilities installation for Mined Tunnel	7d/wk-2	1d	27-Sep-14 08	27-Sep-14 18	-332d							
A-2040	Soil backfilling up to ground level (Qty:2,000 cu.m.)	7d/wk-2	2d	28-Sep-14 08	29-Sep-14 18	-332d							
A-2050	Site clearance	7d/wk-2	1d	30-Sep-14 08	30-Sep-14 18	-305d							
A-2060	Handover to MTR	7d/wk-2	0d		30-Sep-14 18	-305d							
<b>Removal of Temporary Reclamation at TS4/ME4</b>													
<b>Stage 5 (Zones A, D &amp; F - TS4-D33 to D-26, SCL2 &amp; ME4-D19 to D13)</b>													
A-3000	D-Wall horizontal cutting (Qty: 62 pcs.)	7d/wk-2	21d	29-Aug-14 08 A	23-Sep-14 18	-340d							
<b>Stage 6 (Zone C - P4, ME4-D12 to ME4-D10 &amp; P3)</b>													
A-3011	Marine removal of temporary reclamation and seawall blocks (Zones C )	7d/wk-2	21d	31-Aug-14 08 A	02-Oct-14 18	-353d							
A-3030	D-Wall vertical cutting (Qty: 15 pcs.)	7d/wk-2	4d	03-Oct-14 08	06-Oct-14 18	-353d							
A-3040	D-Wall horizontal cutting (Qty: 20 pcs.)	7d/wk-2	5d	06-Oct-14 08	10-Oct-14 18	-352d							

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

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**China State Construction Engineering (Hong Kong) Ltd**  
 Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel ( Causeway Bay Typhoon Shelter Section)  
**WORKS PROGRAMME REV. M**

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		



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

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

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China State Construction Engineering (Hong Kong) Ltd

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

WORKS PROGRAMME REV. M

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		



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



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


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China State Construction Engineering (Hong Kong) Ltd  
 Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel ( Causeway Bay Typhoon Shelter Section)  
**WORKS PROGRAMME REV. M**

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							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3																										
S67885	Achievement of KD5	7d/wk-2	0d		16-Oct-14 18	-323d	◆ Achievement of KD5																																	
S67887	Complete Reinstatement of Vertical Seawall (near PRE Office)	7d/wk-2	0d		27-Oct-14 18	-322d	◆ Complete Reinstatement of Vertical Seawall (near PRE Office)																																	
<b>Reinstate Mucking Out Access Shaft "C"</b>																																								
S67240	Start reinstatement works (after completion of TPCWAW OHVD works)	6d/wk	0d	28-Mar-16 08		-102d	◆ Start reinstatement works (after c																																	
S67225	Cast slab opening at top of CCT West bound (access shaft)	6d/wk	18d	28-Mar-16 08	16-Apr-16 18	-102d	■ Cast slab opening at top of C																																	
S67230	Removal of vertical shaft and backfilling	6d/wk	48d	11-Apr-16 08	04-Jun-16 18	-102d	■ Removal of vertical																																	
S67235	Reinstatement of pavement	6d/wk	12d	30-May-16 08	11-Jun-16 18	-102d	■ Reinstatement of																																	
<b>TPCWAE - OHVD / Cable Trough</b>																																								
S5_7405	TPCWAE - Cable Trough (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d	■ TPCWAE - Cable Trough (access through temp. opening at T																																	
S5_7400	TPCWAE - OHVD Slab AT Area A (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	0d	■ TPCWAE - OHVD Slab AT Area A (access through temp. open																																	
S5_59840	Completion of Section 5 - TPCWAE Area (KD10), below -20mPD	7d/wk-2	0d		02-Nov-15 18*	0d	◆ Completion of Section 5 - TPCWAE Area (KD10), below -20m																																	
<b>Works in TPCWAW Area</b>																																								
<b>TPCWAW - Temporary Reclamation</b>																																								
<b>Temporary Reclamation -</b>																																								
S6_9440	TPCWAW - place levelling stone and tamping, South side	7d/wk-1	6d	15-Oct-14 08	20-Oct-14 18	-122d	■ TPCWAW - place levelling stone and tamping, South side																																	
S6_9450	TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-122d	■ TPCWAW - place seawall block to +4 at South side (Qty: 569 nos. @ 50 nos/day)																																	
S6_9465	TPCWAW - place levelling stone and tamping, North side	7d/wk-1	6d	02-Nov-14 08	07-Nov-14 18	-122d	■ TPCWAW - place levelling stone and tamping, North side																																	
S6_9470	TPCWAW - place seawall blocks to +4 North side (Qty:672 nos @ 50 nos/day)	7d/wk-1	14d	08-Nov-14 08	21-Nov-14 18	-122d	■ TPCWAW - place seawall blocks to +4 North side (Qty:672 nos @ 50 nos/day)																																	
S6_9495	TPCWAW - General fill to +2 within the seawall	7d/wk-1	17d	15-Nov-14 08	01-Dec-14 18	-122d	■ TPCWAW - General fill to +2 within the seawall																																	
S6_9490	TPCWAW - place seawall blocks to +4 at the temporary opening	7d/wk-1	7d	02-Dec-14 08	08-Dec-14 18	-122d	■ TPCWAW - place seawall blocks to +4 at the temporary opening																																	
S6_9475	TPCWAW - Remaining General fill to +4 within the seawall	7d/wk-1	10d	09-Dec-14 08	18-Dec-14 18	-122d	■ TPCWAW - Remaining General fill to +4 within the seawall																																	
<b>TPCWAW - Diaphragm Wall</b>																																								
<b>Diaphragm Wall</b>																																								
S6_9385	Site investigation	7d/wk-1	49d	01-Dec-14 08	21-Jan-15 18	-113d	■ Site investigation																																	
S6_8960	Install guide wall	7d/wk-1	40d	17-Dec-14 08	28-Jan-15 18	-120d	■ Install guide wall																																	
S6_8955	Curtain grout along proposed diaphragm wall	7d/wk-1	40d	19-Dec-14 08	30-Jan-15 18	-122d	■ Curtain grout along proposed diaphragm wall																																	
S6_9382	Set up bentonite silo/plants and equipments	7d/wk-1	30d	19-Dec-14 08	20-Jan-15 18	-112d	■ Set up bentonite silo/plants and equipments																																	
S6_9345	Diaphragm wall construction (34 panels @ 3 panels/ week)	7d/wk-1	68d	30-Jan-15 08	14-Apr-15 18	-141d	■ Diaphragm wall construction (34 panels @ 3 panels/ week)																																	
S6_9350	Install shear pins on diaphragm wall	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d	■ Install shear pins on diaphragm wall																																	
<p>Summary Bar</p> <p>Actual Level of Effort</p> <p>Actual Work</p> <p>Remaining Work</p> <p>Critical Remaining Work</p> <p>◆ Milestone</p>							<p>4 of 18</p> <p>China State Construction Engineering (Hong Kong) Ltd</p> <p>Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel ( Causeway Bay Typhoon Shelter Section)</p> <p><b>WORKS PROGRAMME REV. M</b></p>							<p>Prepared by William Caluza</p> <table border="1"> <thead> <tr> <th>Date</th> <th>Revision</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>26-Sep...</td> <td>1st submission</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p> 中國建築工程(香港)有限公司 CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.</p>							Date	Revision	Checked	Approved	26-Sep...	1st submission														
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							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3				
S6_9355	Install king posts	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d			■									
S6_8970	Diaphragm Wall Pile test	7d/wk-1	40d	20-Mar-15 08	03-May-15 18	-129d			■									
S6_9375	Carry out contact/fissure grouting	7d/wk-1	29d	21-Mar-15 08	22-Apr-15 18	-141d			■									
<b>TPCWAW- ELS Works</b>																		
<b>ELS Works</b>																		
S6_9360	Install dewatering wells and piezometers	7d/wk-1	20d	30-Mar-15 08	22-Apr-15 18	-141d			■									
S6_9365	Install inclinometers inside D-wall	7d/wk-1	20d	15-Apr-15 08	05-May-15 18	-141d			■									
S6_8975	Carry out pumping tests	7d/wk-1	12d	23-Apr-15 08	05-May-15 18	-141d			■									
S6_8980	1st Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	06-May-15 08	15-May-15 18	-141d			■									
S6_9260	Submit pumping test report	7d/wk-1	1d	06-May-15 08	06-May-15 18	-137d												
S6_8985	1st Layer - install lateral support	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			■									
S6_8990	Install vibrating wire strain gauge	7d/wk-1	10d	16-May-15 08	26-May-15 18	-141d			■									
S6_8995	2nd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	18-May-15 08	28-May-15 18	-141d			■									
S6_9000	2nd Layer - install lateral support	7d/wk-1	10d	29-May-15 08	07-Jun-15 18	-141d			■									
S6_9005	3rd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	31-May-15 08	09-Jun-15 18	-141d			■									
S6_9010	3rd Layer - install lateral support	7d/wk-1	10d	10-Jun-15 08	19-Jun-15 18	-141d			■									
S6_9015	4th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	12-Jun-15 08	22-Jun-15 18	-141d			■									
S6_9020	4th Layer - install lateral support	7d/wk-1	10d	23-Jun-15 08	03-Jul-15 18	-141d			■									
S6_9025	5th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	25-Jun-15 08	05-Jul-15 18	-141d			■									
S6_9030	5th Layer - install lateral support	7d/wk-1	10d	27-Jun-15 08	07-Jul-15 18	-141d			■									
S6_9035	6th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	08-Jul-15 08	17-Jul-15 18	-141d			■									
S6_9040	6th Layer - install lateral support	7d/wk-1	10d	18-Jul-15 08	27-Jul-15 18	-69d			■									
<b>TPCWAW - ROCK EXCAVATION</b>																		
S6_6180	Rock excavation to formation	7d/wk-1	112d	18-Jul-15 08	09-Nov-15 18	-141d			■									
S6_9370	Install tie back anchor to D- Walls (area on west side, near Portion 11)	7d/wk-1	25d	20-Jul-15 08	13-Aug-15 18	-69d			■									
S6_9415	Install tie back anchor to D- Walls (east area)	7d/wk-1	20d	20-Jul-15 08	08-Aug-15 18	-69d			■									
S6_9055	Provide Access to WDII Contractor for demolition of bulkhead at Portion 11	7d/wk-2	0d		10-Nov-15 18	-133d			◆									
<b>TPCWAW- CCT RC Structure</b>																		
<b>TPCWAW - CCT / OHVD</b>																		

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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

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

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

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

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China State Construction Engineering (Hong Kong) Ltd

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

WORKS PROGRAMME REV. M

Prepared by William Caluza

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



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



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

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China State Construction Engineering (Hong Kong) Ltd

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

WORKS PROGRAMME REV. M

Prepared by William Caluza

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



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

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**China State Construction Engineering (Hong Kong) Ltd**

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

**WORKS PROGRAMME REV. M**

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

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China State Construction Engineering (Hong Kong) Ltd

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WORKS PROGRAMME REV. M

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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.



Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A9050	EB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	4d			■ EB From West, Lining CH 4005 - 4010 = 1bay				
A9055	EB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	10d	18-Mar-15 08	27-Mar-15 18	4d			■ EB From West, Lining CH 4010 - 4015 = 1bay				
A9060	EB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	10d	26-Mar-15 08	05-Apr-15 18	4d			■ EB From West, Lining CH 4015 - 4020 = 1bay				
A9070	EB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	10d	03-Apr-15 08	13-Apr-15 18	4d			■ EB From West, Lining CH 4020 - 4025 = 1bay				
A9075	EB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	10d	12-Apr-15 08	21-Apr-15 18	4d			■ EB From West, Lining CH 4025 - 4030 = 1bay				
A9080	EB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	10d	20-Apr-15 08	29-Apr-15 18	4d			■ EB From West, Lining CH 4030 - 4035 = 1bay				
A9085	EB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	10d	28-Apr-15 08	08-May-15 18	4d			■ EB From West, Lining CH 4035 - 4040 = 1bay				
A9015	EB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	10d	07-May-15 08	16-May-15 18	4d			■ EB From West, Lining CH 4040 - 4045 = 1bay				
A9020	EB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	10d	15-May-15 08	24-May-15 18	4d			■ EB From West, Lining CH 4045 - 4050 = 1bay				
A9025	EB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	10d	23-May-15 08	01-Jun-15 18	4d			■ EB From West, Lining CH 4050 - 4055 = 1bay				
A9030	EB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	10d	31-May-15 08	09-Jun-15 18	4d			■ EB From West, Lining CH 4055 - 4060 = 1bay				
A9035	EB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	10d	07-Jun-15 08	16-Jun-15 18	4d			■ EB From West, Lining CH 4060 - 4065 = 1bay				
A9040	EB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	4d			■ EB From West, Lining CH 4065 - 4070 = 1bay				
A9045	EB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	10d	25-Jun-15 08	05-Jul-15 18	0d			■ EB From West, Lining CH 4070 - 4075 = 1bay				
A8955	EB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d			■ EB From West, Lining CH 4075 - 4080 = 1bay				
A8960	EB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d			■ EB From West, Lining CH 4080 - 4085 = 1bay				
A8970	EB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d			■ EB From West, Lining CH 4085 - 4090 = 1bay				
A8975	EB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d			■ EB From West, Lining CH 4090 - 4095 = 1bay				
A8980	EB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d			■ EB From West, Lining CH 4095 - 4100 = 1bay				
A8985	EB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d			■ EB From West, Lining CH 4100 - 4105 = 1bay				
A8990	EB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d			■ EB From West, Lining CH 4105 - 4110 = 1bay				
A8995	EB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d			■ EB From West, Lining CH 4110 - 4115 = 1bay				
A9000	EB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d			■ EB From West, Lining CH 4115 - 4120 = 1bay				
A9010	EB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d			■ EB From West, Lining CH 4120 - 4125 = 1bay				
A8965	EB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d			■ EB From West, Lining CH 4125 - 4130 = 1bay				
A8935	EB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d			■ EB From West, Lining CH 4130 - 4135 = 1bay				
A8940	EB From West, Lining CH 4135 - 4140 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d			■ EB From West, Lining CH 4135 - 4140 = 1bay				
A8945	EB From West, Lining CH 4140 - 4145 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d			■ EB From West, Lining CH 4140 - 4145 = 1bay				
A8950	EB From West, Lining CH 4145 - 4149.5 = 4.5m	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d			■ EB From West, Lining CH 4145 - 4149.5 = 4.5m				

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China State Construction Engineering (Hong Kong) Ltd

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

WORKS PROGRAMME REV. M

Prepared by William Caluza

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



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

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

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**China State Construction Engineering (Hong Kong) Ltd**

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

**WORKS PROGRAMME REV. M**

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		





Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
A9100	WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	20d	30-Dec-14 08	19-Jan-15 18	0d		■	WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m					
A9105	WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	0d		■	WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m					
A9110	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	09-Feb-15 08	03-Mar-15 18	0d		■	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m					
A9115	WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	04-Mar-15 08	23-Mar-15 18	0d		■	WB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m					
A9120	WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	24-Mar-15 08	13-Apr-15 18	0d		■	WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m					
A9125	WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	14-Apr-15 08	04-May-15 18	0d		■	WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m					
<b>Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)</b>														
A9180	WB,Inner Bench From West, CH 3993- 4005 = 12m	7d/wk-1a	18d	30-Dec-14 08	17-Jan-15 18	27d		■	WB,Inner Bench From West, CH 3993- 4005 = 12m					
A9205	WB,Inner Bench From West, CH 4005- 4015 = 10m	7d/wk-1a	15d	20-Jan-15 08	03-Feb-15 18	25d		■	WB,Inner Bench From West, CH 4005- 4015 = 10m					
A9190	WB,Inner Bench From West, CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	20d		■	WB,Inner Bench From West, CH 4015- 4025 = 10m					
A9185	WB,Inner Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	04-Mar-15 08	18-Mar-15 18	15d		■	WB,Inner Bench From West, CH 4025- 4035 = 10m					
A9155	WB,Inner Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	24-Mar-15 08	08-Apr-15 18	10d		■	WB,Inner Bench From West, CH 4035- 4045 = 10m					
A9160	WB,Inner Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	14-Apr-15 08	28-Apr-15 18	5d		■	WB,Inner Bench From West, CH 4045- 4055 = 10m					
A9165	WB,Inner Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	0d		■	WB,Inner Bench From West, CH 4055- 4065 = 10m					
A9170	WB,Inner Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	0d		■	WB,Inner Bench From West, CH 4065- 4075 = 10m					
A9175	WB,Inner Bench From West, CH 4075- 4085 = 10m	7d/wk-1a	15d	04-Jun-15 08	18-Jun-15 18	0d		■	WB,Inner Bench From West, CH 4075- 4085 = 10m					
<b>From East (TS4)</b>														
<b>Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)</b>														
A9210	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	20d	14-Jan-15 08	02-Feb-15 18	6d		■	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m					
A9215	WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	03-Feb-15 08	25-Feb-15 18	6d		■	WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m					
A9230	WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7d/wk-1a	20d	26-Feb-15 08	17-Mar-15 18	6d		■	WB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m					
A9232	WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Mar-15 08	07-Apr-15 18	6d		■	WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m					
A9225	WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m	7d/wk-1a	20d	08-Apr-15 08	27-Apr-15 18	6d		■	WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m					
<b>Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)</b>														
A9235	WB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	18-Mar-15 08	01-Apr-15 18	16d		■	WB,Inner Bench From East, CH 4135- 4125 = 10m					
A9240	WB,Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	08-Apr-15 08	22-Apr-15 18	11d		■	WB,Inner Bench From East, CH 4125- 4115 = 10m					
A9245	WB,Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	28-Apr-15 08	13-May-15 18	6d		■	WB,Inner Bench From East, CH 4115- 4105 = 10m					
A9247	WB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	14-May-15 08	28-May-15 18	6d		■	WB,Inner Bench From East, CH 4105- 4095 = 10m					
A9250	WB,Inner Bench From East, CH 4095- 4085 = 10m	7d/wk-1a	15d	29-May-15 08	12-Jun-15 18	6d		■	WB,Inner Bench From East, CH 4095- 4085 = 10m					

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China State Construction Engineering (Hong Kong) Ltd

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

WORKS PROGRAMME REV. M

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CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD.

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015					2016					
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3			
<b>Tunnel Lining Works</b>																	
<b>From West Base Slab (10m/bay, 10m separation with benching excavation)</b>																	
A9295	WB From West, Base Slab CH 3990 - 3995 = 5m bay	7d/wk-1a	10d	18-Jan-15 08	27-Jan-15 18	37d											
A9320	WB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Feb-15 08	13-Feb-15 18	30d											
A9255	WB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	27-Feb-15 08	08-Mar-15 18	50d											
A9260	WB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	19-Mar-15 08	28-Mar-15 18	40d											
A9265	WB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	09-Apr-15 08	18-Apr-15 18	30d											
A9300	WB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	29-Apr-15 08	09-May-15 18	20d											
A9325	WB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	10d											
A9305	WB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	5d											
A9310	WB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	0d											
A9315	WB From West, Base Slab CH 4075 - 4080 = 5m	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	0d											
<b>From East Base Slab (10m/bay, 10m separation with benching excavation)</b>																	
A9960	WB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	10d	23-Apr-15 08	03-May-15 18	26d											
A9955	WB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	10d	14-May-15 08	23-May-15 18	16d											
A9950	WB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	29-May-15 08	07-Jun-15 18	11d											
A9945	WB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	13-Jun-15 08	23-Jun-15 18	6d											
A9940	WB From East, Base Slab CH 4095 - 4085 = 10m/bay	7d/wk-1a	10d	24-Jun-15 08	04-Jul-15 18	6d											
A9941	WB From East, Base Slab CH 4085 - 4080 = 5m	7d/wk-1a	10d	05-Jul-15 08	14-Jul-15 18	6d											
<b>Lining (5m/bay, 10m separation with base slab)</b>																	
A9430	WB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	7d	14-Feb-15 08	23-Feb-15 18	30d											
A9470	WB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	7d	24-Feb-15 08	02-Mar-15 18	30d											
A9435	WB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	7d	03-Mar-15 08	09-Mar-15 18	30d											
A9360	WB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a	7d	10-Mar-15 08	16-Mar-15 18	30d											
A9365	WB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a	7d	17-Mar-15 08	23-Mar-15 18	30d											
A9370	WB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a	7d	24-Mar-15 08	30-Mar-15 18	30d											
A9375	WB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a	7d	31-Mar-15 08	07-Apr-15 18	30d											
A9380	WB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a	7d	08-Apr-15 08	14-Apr-15 18	30d											
A9385	WB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a	7d	15-Apr-15 08	21-Apr-15 18	30d											

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Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016		
							Q4	Q1	Q2	Q3	Q4	Q1	Q2
A9390	WB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a	7d	22-Apr-15 08	28-Apr-15 18	30d			■ WB From West, Lining CH 4035 - 4040 = 1bay				
A9330	WB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	7d	29-Apr-15 08	06-May-15 18	30d			■ WB From West, Lining CH 4040 - 4045 = 1bay				
A9335	WB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	7d	07-May-15 08	13-May-15 18	30d			■ WB From West, Lining CH 4045 - 4050 = 1bay				
A9340	WB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a	7d	14-May-15 08	20-May-15 18	30d			■ WB From West, Lining CH 4050 - 4055 = 1bay				
A9345	WB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	7d	21-May-15 08	27-May-15 18	30d			■ WB From West, Lining CH 4055 - 4060 = 1bay				
A9350	WB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a	7d	28-May-15 08	03-Jun-15 18	30d			■ WB From West, Lining CH 4060 - 4065 = 1bay				
A9355	WB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	5d	04-Jun-15 08	08-Jun-15 18	30d			■ WB From West, Lining CH 4065 - 4070 = 1bay				
A9415	WB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a	5d	11-Jul-15 08	15-Jul-15 18	0d			■ WB From West, Lining CH 4070 - 4075 = 1bay				
A9475	WB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	5d	16-Jul-15 08	20-Jul-15 18	0d			■ WB From West, Lining CH 4075 - 4080 = 1bay				
A9440	WB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d	21-Jul-15 08	25-Jul-15 18	0d			■ WB From West, Lining CH 4080 - 4085 = 1bay				
A9445	WB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a	5d	26-Jul-15 08	30-Jul-15 18	0d			■ WB From West, Lining CH 4085 - 4090 = 1bay				
A9450	WB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d	31-Jul-15 08	04-Aug-15 18	0d			■ WB From West, Lining CH 4090 - 4095 = 1bay				
A9455	WB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d	05-Aug-15 08	09-Aug-15 18	0d			■ WB From West, Lining CH 4095 - 4100 = 1bay				
A9420	WB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d	10-Aug-15 08	14-Aug-15 18	0d			■ WB From West, Lining CH 4100 - 4105 = 1bay				
A9425	WB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d	15-Aug-15 08	19-Aug-15 18	0d			■ WB From West, Lining CH 4105 - 4110 = 1bay				
A9460	WB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d	20-Aug-15 08	24-Aug-15 18	0d			■ WB From West, Lining CH 4110 - 4115 = 1bay				
A9465	WB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d	25-Aug-15 08	29-Aug-15 18	0d			■ WB From West, Lining CH 4115 - 4120 = 1bay				
A9395	WB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d	30-Aug-15 08	03-Sep-15 18	0d			■ WB From West, Lining CH 4120 - 4125 = 1bay				
A9400	WB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d	04-Sep-15 08	08-Sep-15 18	0d			■ WB From West, Lining CH 4125 - 4130 = 1bay				
A9405	WB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d	09-Sep-15 08	13-Sep-15 18	0d			■ WB From West, Lining CH 4130 - 4135 = 1bay				
A9410	WB From West, Lining CH 4135 - 4136.5 = 1bay	7d/wk-1a	5d	14-Sep-15 08	18-Sep-15 18	0d			■ WB From West, Lining CH 4135 - 4136.5 = 1bay				
OHVD(10m/bay) / Utility Trough													
A9480	WB From West OHVD and utility trough =, 153= 16 bays @ 10m/bay @ 7d/bay	7d/wk-1a	115d	08-Jul-15 08	02-Nov-15 18	0d			■ WB From West OHVD and utility trough =, 153= 16 bays @ 10				
Completion of KD10- Section 5													
A8445	KD10- Section 2: Completion of Mined Tunnel Works (orig. Target KD10- 2 Nov 2015)	7d/wk-2	0d		02-Nov-15 18*	0d			◆ KD10- Section 2: Completion of Mined Tunnel Works (orig. Tar				
Interface works with other Contracts													
S5_60115	Handover TZ6 to MTR	7d/wk-2	0d		30-Sep-14 18	-249d			◆ Handover TZ6 to MTR				
S6_5283	Handover TZ4 to CWB(T2)	7d/wk-2	0d		10-Nov-14 18	-290d			◆ Handover TZ4 to CWB(T2)				
S6_5275	Provide access to CWB (CC) Contractor- TS1 & TS2	7d/wk-2	0d		21-Nov-14 18*	-85d			◆ Provide access to CWB (CC) Contractor- TS1 & TS2				

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

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China State Construction Engineering (Hong Kong) Ltd

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

**WORKS PROGRAMME REV. M**

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		

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

Activity ID	Activity Name	Calendar	Original Duration	Start	Finish	Total Float	2015				2016			
							Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
S6_5280	Provide access to CWB (CC) Contractor- TS4, TPCWA, Mined Tunnel	7d/wk-2	0d		31-Mar-16 18*	-124d								◆ Provide access to CWB (CC) C
<b>Stage and Section Completion</b>														
KD_5735	KD8 - Completion of Section 3, (1326d)	7d/wk-2	0d		30-Sep-14 18*	-86d	◆ KD8 - Completion of Section 3, (1326d)							
KD_5720	KD5 - Achievement of Stage 5, (1152d)	7d/wk-2	0d		16-Oct-14 18*	-323d	◆ KD5 - Achievement of Stage 5, (1152d)							
KD_5760	KD13 - Completion of Section 7B, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-353d	◆ KD13 - Completion of Section 7B, (1152d)							
KD_5730	KD7 - Completion of Section 2, (1152d)	7d/wk-2	0d		17-Nov-14 18*	-297d	◆ KD7 - Completion of Section 2, (1152d)							
KD_5740	KD9 - Completion of Section 4, (1739d)	7d/wk-2	0d		10-Nov-15 18*	-132d				◆ KD9 - Completion of Section 4, (1739d)				
KD_5745	KD10 - Completion of Section 5, (1863d)	7d/wk-2	0d		25-Mar-16 18	-144d					◆ KD10 - Completion of Section 5, (			
KD_5750	KD11 - Completion of Section 6, (1949d)	7d/wk-2	0d		23-May-16 18*	-121d						◆ KD11 - Completion of		
<b>Portion Handover Date</b>														
CD_5685	Portion Handover - Portion IV(4), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion IV(4), KD8 +28							
CD_5680	Portion Handover - Portion V (5), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion V (5), KD8 +28							
CD_5695	Portion Handover - Portion VI (6), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion VI (6), KD8 +28							
CD_5735	Portion Handover - Portion XIII (13B), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion XIII (13B), KD8 +28							
CD_5790	Portion Handover - Portion XXII (22), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion XXII (22), KD8 +28							
CD_5670	Portion Handover - Portion III (3), KD8 +28	7d/wk-2	0d		28-Oct-14 18*	-50d	◆ Portion Handover - Portion III (3), KD8 +28							
CD_5720	Portion Handover - Portion XIII A (13A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIII A (13A), KD7 +28							
CD_5705	Portion Handover - Portion VIII (8), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion VIII (8), KD7 +28							
CD_5730	Portion Handover - Portion XIV A (14A), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XIV A (14A), KD7 +28							
CD_5740	Portion Handover - Portion XV (15), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XV (15), KD7 +28							
CD_5805	Portion Handover - Portion XXIII (23), KD7 +28	7d/wk-2	0d		15-Dec-14 18*	-79d	◆ Portion Handover - Portion XXIII (23), KD7 +28							
CD_5775	Portion Handover - Portion XVIII (18), KD10 +28	7d/wk-2	0d		30-Nov-15 18*	0d				◆ Portion Handover - Portion XVIII (18), KD10 +28				
CD_5710	Portion Handover - Portion XI (11), KD9 +28	7d/wk-2	0d		27-Dec-15 18*	0d				◆ Portion Handover - Portion XI (11), KD9 +28				
CD_5700	Portion Handover - Portion IX (9), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5745	Portion Handover - Portion XIV B (14B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5755	Portion Handover - Portion XVI (16), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5750	Portion Handover - Portion XVII (17), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5760	Portion Handover - Portion XIX (19), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			
CD_5780	Portion Handover - Portion XX B (20B), KD10 +28	7d/wk-2	0d		22-Apr-16 18*	-52d					◆ Portion Handover - Portion			

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

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**China State Construction Engineering (Hong Kong) Ltd**

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

**WORKS PROGRAMME REV. M**

Prepared by William Caluza			
Date	Revision	Checked	Approved
26-Sep...	1st submission		





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

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

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China State Construction Engineering (Hong Kong) Ltd

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

**WORKS PROGRAMME REV. M**

Prepared by William Caluza

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



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





Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete	2014					2015
								Sep	Oct	Nov	Dec	Jan	
<b>HK/2012/08 3M Rolling Programme [Sep 2014 to Nov 2014] based on Rev.3/1 (DD 01Sep14)</b>													
<b>Key Dates and Milestone Dates</b>													
<b>Sections of Works Completion (Updated to EOT Order No.3)</b>													
KD10920	Completion of Section VIB	0		04-Sep-14*	0	C3 - 7D w/o holiday	0%						
<b>Planned Sections of Works Completion</b>													
KD10180	Planned Section VIB Completion - Demolish Pump House	0		04-Sep-14	0	C3 - 7D w/o holiday	0%						
<b>Dredging and Reclamation</b>													
<b>Marine Work Construction</b>													
<b>Dredging</b>													
<b>Dredging - Zone D</b>													
MAR11880	Zone D - Remove existing rock armour [S8-S11]	65	16-Apr-14 A	07-Nov-14	28	C3 - 7D w/o holiday	0%						
MAR11900	Zone D - dredging [R8-R10] for caisson 2F, 1C and 1A	22	02-Dec-13 A	11-Oct-14	192	C3 - 7D w/o holiday	0%						
MAR11910	Zone D - dredging [R11-R12] for caisson 2 and 1A-L	2	05-Oct-14	06-Oct-14	28	C3 - 7D w/o holiday	0%						
MAR12685	Zone D - Final Hydrographic Survey [R11-R12]	6	07-Oct-14	13-Oct-14	24	C3 - 6D w/ holiday	0%						
<b>Seawall Construction</b>													
<b>Seawall Construction - Zone D</b>													
MAR11835	Zone D - fill rock mound for Seawall 1C	8	03-Oct-14	10-Oct-14	0	C3 - 7D w/o holiday	0%						
MAR11837	Zone D - lay toe block and level stone for Seawall 1C	12	11-Oct-14	22-Oct-14	0	C3 - 7D w/o holiday	0%						
MAR11839	Zone D - fill temp. rock bund at Seawall 1C - fill rock to +4.0mPD	6	18-Nov-14	23-Nov-14	0	C3 - 7D w/o holiday	0%						
MAR11841	Zone D - fill rock mound for Seawall 1A	8	01-Oct-14	08-Oct-14	45	C3 - 7D w/o holiday	0%						
MAR11842	Zone D - lay toe block and level stone for Seawall 1A	12	09-Oct-14	20-Oct-14	45	C3 - 7D w/o holiday	0%						
MAR11843	Zone D - fill rock mound for Seawall 2	8	01-Oct-14	08-Oct-14	84	C3 - 7D w/o holiday	0%						
MAR11844	Zone D - lay toe block and level stone for Seawall 2	20	09-Oct-14	31-Oct-14	74	C3 - 6D w/ holiday	0%						
MAR11885	Zone D - deliver and Install Caisson Seawall 2F	5	30-Aug-14 A	04-Sep-14	0	C3 - 7D w/o holiday	20%						
MAR11886	Zone D - Caisson Seawall 2F - grouting to recess between piles & base slab and remove buoyancy tanks	28	05-Sep-14	02-Oct-14	20	C3 - 7D w/o holiday	0%						
MAR11888	Zone D - Caisson Seawall 2F - fill type A rockfill (-10mPD to +1.3mPD)	20	03-Oct-14	25-Oct-14	17	C3 - 6D w/ holiday	0%						
MAR11890	Zone D - Caisson Seawall 2F - lay geotextile and filter (-10mPD to +1.3mPD)	7	27-Oct-14	03-Nov-14	17	C3 - 6D w/ holiday	0%						
MAR11940	Zone D - deliver and Install Caisson Seawall 1C	3	23-Oct-14	25-Oct-14	0	C3 - 6D w/ holiday	0%						
MAR11945	Zone D - Caisson Seawall 1C - fill type A rockfill (-10mPD to +1.3mPD)	13	27-Oct-14	10-Nov-14	0	C3 - 6D w/ holiday	0%						
MAR11947	Zone D - Caisson Seawall 1C - lay geotextile and filter (-10mPD to +1.3mPD)	6	11-Nov-14	17-Nov-14	0	C3 - 6D w/ holiday	0%						
MAR11950	Zone D - complete fabrication of Caisson Seawall 1A and ready for delivery	0		17-Oct-14*	0	C3 - 6D w/ holiday	0%						
MAR11960	Zone D - deliver and Install Caisson Seawall 1A	3	06-Nov-14	08-Nov-14	25	C3 - 6D w/ holiday	0%						
MAR11980	Zone D - deliver and Install Caisson Seawall 2	3	30-Nov-14	02-Dec-14	61	C3 - 7D w/o holiday	0%						
MAR12020	Zone D - complete fabrication of Caisson Seawall 1A-L and ready for delivery	0		25-Nov-14*	0	C3 - 6D w/ holiday	0%						
<b>Filling</b>													
<b>Filling - Zone D</b>													
MAR12040	Zone D - Sorted Public Fill up to +2.5mPD (south area behind caisson 2F and 1C)	19	24-Nov-14	15-Dec-14	0	C3 - 6D w/ holiday	0%						

Data Date: 01-Sep-14

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

**3-Month Rolling Programme (Sep 2014 to Nov 2014)**  
**(For Non-CRIII Area)**

Date	Revision	Checked	Approved
01-Sep-14	Rev. 3/1		



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete	2014				2015
								Sep	Oct	Nov	Dec	Jan
<b>Works for Section Completion</b>												
<b>Construction</b>												
<b>Section II - MVB Structure</b>												
<b>Section II - MVB Substructure - Design, Submission and Approval</b>												
SII10180	Sec II - MVB - MS for pumping test - prepare and submit to ICE	2	16-Oct-14	17-Oct-14	24	C3 - 7D w/o holiday	0%					
SII10200	Sec II - MVB - MS for pumping test - ICE check & issue cert	14	18-Oct-14	31-Oct-14	24	C3 - 7D w/o holiday	0%					
SII10220	Sec II - MVB - MS for pumping test - Eng comment and approve	28	01-Nov-14	28-Nov-14	24	C3 - 7D w/o holiday	0%					
SII10280	Sec II - MVB - Temp work design for bulk exc & ELS - Eng comment and approve	28	07-Jul-14 A	06-Sep-14	134	C3 - 7D w/o holiday	78.57%					
SII12321	Sec II - MVB - Temp works for ELS & bulk exc - Prepare tender and sub-contract	120	23-Jun-14 A	30-Nov-14	49	C3 - 7D w/o holiday	24.17%					
SII12322	Sec II - MVB - Temp works for ELS & bulk exc - Award of sub-contract	0		30-Nov-14	49	C3 - 7D w/o holiday	0%					
<b>MVB Substructure - Diaphragm Wall and Sheetpile Wall</b>												
SII10440	Sec II - MVB - predrilling and ground pretreatment for Dwall	158	17-Mar-14 A	29-Nov-14	1227	C3 - 6D w/ holiday	52.53%					
SII10480	Sec II - MVB A - construct Dwall [P1-P12, P34-P40] (1.5m thk on rock)	177	28-May-14 A	05-Dec-14	0	C3 - 6D w/ holiday	54.8%					
SII10500	Sec II - MVB A - contact grout / fissure grout / install pumping well	54	14-Oct-14	15-Dec-14	6	C3 - 6D w/ holiday	0%					
SII10540	Sec II - MVB B - construct Dwall [P13-P33] (1.5m thk on rock)	187	16-Apr-14 A	04-Dec-14	10	C3 - 6D w/ holiday	57.75%					
SII10560	Sec II - MVB B - contact grout / fissure grout / install pumping well	54	14-Oct-14	15-Dec-14	6	C3 - 6D w/ holiday	0%					
SII10590	Sec II - MVB A&B - grout curtain and fissure grout	56	13-Oct-14	16-Dec-14	7	C3 - 6D w/ holiday	0%					
SII10624	Sec II - SCL Enabling Works - Construct Guide Wall - CW2	4	18-Sep-14	22-Sep-14	6	C3 - 6D w/ holiday	0%					
SII10638	Sec II - SCL Enabling Works - construct Dwall - CW2 [1 panel] (1.5m thk)	18	23-Sep-14	15-Oct-14	6	C3 - 6D w/ holiday	0%					
<b>MVB Substructure - Diaphragm Wall - Construction Sequences</b>												
<b>Group 1</b>												
SII-10150	Sec II - MVB - Dwall P31	21	25-Aug-14 A	17-Sep-14	17	C3 - 6D w/ holiday	33.33%					
SII-10160	Sec II - MVB - Dwall P18	20	08-Sep-14	03-Oct-14	17	C3 - 6D w/ holiday	0%					
SII-10170	Sec II - MVB - Dwall P24	18	23-Sep-14	15-Oct-14	17	C3 - 6D w/ holiday	0%					
SII-10180	Sec II - MVB - Dwall P25	20	20-Oct-14	11-Nov-14	17	C3 - 6D w/ holiday	0%					
SII-10190	Sec II - MVB - Dwall P26	17	13-Nov-14	02-Dec-14	17	C3 - 6D w/ holiday	0%					
<b>Group 2</b>												
SII-10290	Sec II - MVB - Dwall P27	23	11-Aug-14 A	05-Sep-14	15	C3 - 6D w/ holiday	78.26%					
SII-10300	Sec II - MVB - Dwall P22	21	20-Oct-14	12-Nov-14	15	C3 - 6D w/ holiday	0%					
SII-10310	Sec II - MVB - Dwall P23	19	13-Nov-14	04-Dec-14	15	C3 - 6D w/ holiday	0%					
<b>Group 3</b>												
SII-11380	Sec II - MVB - Dwall P31	23	22-Aug-14 A	17-Sep-14	69	C3 - 6D w/ holiday	39.13%					
SII-11400	Sec II - MVB - Dwall P32	11	18-Sep-14	30-Sep-14	69	C3 - 6D w/ holiday	0%					
<b>Group 4</b>												
SII-10390	Sec II - MVB - Dwall P2	21	11-Aug-14 A	05-Sep-14	14	C3 - 6D w/ holiday	76.19%					
SII-10400	Sec II - MVB - Dwall P35	20	29-Aug-14 A	25-Sep-14	14	C3 - 6D w/ holiday	0%					
SII-10410	Sec II - MVB - Dwall P06 (seawall)	20	04-Aug-14 A	12-Sep-14	14	C3 - 6D w/ holiday	50%					
SII-10420	Sec II - MVB - Dwall P41	16	16-Sep-14	06-Oct-14	14	C3 - 6D w/ holiday	0%					
SII-10430	Sec II - MVB - Dwall P3	19	19-Sep-14	13-Oct-14	14	C3 - 6D w/ holiday	0%					
SII-10440	Sec II - MVB - Dwall P12	13	30-Sep-14	16-Oct-14	14	C3 - 6D w/ holiday	0%					
SII-10450	Sec II - MVB - Dwall P09	17	29-Sep-14	20-Oct-14	14	C3 - 6D w/ holiday	0%					





Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete	2014				2015
								Sep	Oct	Nov	Dec	Jan
SII-10460	Sec II - MVB - Dwall P40	19	07-Oct-14	28-Oct-14	14	C3 - 6D w/ holiday	0%					
SII-10470	Sec II - MVB - Dwall P05 (seawall)	11	21-Oct-14	01-Nov-14	14	C3 - 6D w/ holiday	0%					
SII-10480	Sec II - MVB - Dwall P34	18	17-Oct-14	06-Nov-14	14	C3 - 6D w/ holiday	0%					
SII-10490	Sec II - MVB - Dwall P12A	23	22-Oct-14	17-Nov-14	14	C3 - 6D w/ holiday	0%					
SII-10492	Sec II - MVB - Dwall P7	14	03-Nov-14	18-Nov-14	14	C3 - 6D w/ holiday	0%					
SII-10494	Sec II - MVB - Dwall P39	23	30-Oct-14	25-Nov-14	14	C3 - 6D w/ holiday	0%					
SII-10496	Sec II - MVB - Dwall P33	24	06-Nov-14	03-Dec-14	14	C3 - 6D w/ holiday	0%					
SII-10500	Sec II - MVB - Dwall P4	15	19-Nov-14	05-Dec-14	14	C3 - 6D w/ holiday	0%					
<b>MVB Substructure - Bored Pile and Prebored H-Pile</b>												
SII10320	Sec II - MVB A&B - Predrilling for bored pile	90	10-May-14 A	15-Sep-14	52	C3 - 6D w/ holiday	86.67%					
SII10340	Sec II - MVB A&B - Construct bored piles	146	26-Jun-14 A	17-Dec-14	4	C3 - 6D w/ holiday	38.36%					
SII10360	Sec II - MVB A&B - bored pile sonic test, interface core & full core	90	11-Sep-14	29-Dec-14	16	C3 - 6D w/ holiday	0%					
<b>MVB Substructure - Bored Pile - Construction Sequences</b>												
<b>Group 1</b>												
SII-11040	Ssec II - MVB - Bored Pile BC2-B	14	01-Sep-14	17-Sep-14	10	C3 - 6D w/ holiday	0%					
SII-11050	Ssec II - MVB - Bored Pile BC4-B	15	06-Sep-14	24-Sep-14	10	C3 - 6D w/ holiday	0%					
SII-11060	Ssec II - MVB - Bored Pile BC1-A	16	26-Sep-14	16-Oct-14	10	C3 - 6D w/ holiday	0%					
SII-11070	Ssec II - MVB - Bored Pile BC5	15	06-Oct-14	22-Oct-14	10	C3 - 6D w/ holiday	0%					
SII-11080	Ssec II - MVB - Bored Pile BC3-B	15	24-Oct-14	10-Nov-14	10	C3 - 6D w/ holiday	0%					
SII-11200	Ssec II - MVB - Bored Pile BC7	15	30-Oct-14	15-Nov-14	10	C3 - 6D w/ holiday	0%					
SII-11210	Ssec II - MVB - Bored Pile BC9	15	18-Nov-14	04-Dec-14	10	C3 - 6D w/ holiday	0%					
SII-11240	Ssec II - MVB - Bored Pile BC18	15	24-Nov-14	10-Dec-14	10	C3 - 6D w/ holiday	0%					
<b>Group 2</b>												
SII-11100	Ssec II - MVB - Bored Pile BC10	15	20-Aug-14 A	06-Sep-14	4	C3 - 6D w/ holiday	60%					
SII-11110	Ssec II - MVB - Bored Pile BC6	15	29-Aug-14 A	11-Sep-14	4	C3 - 6D w/ holiday	40%					
SII-11120	Ssec II - MVB - Bored Pile BC14	13	13-Sep-14	27-Sep-14	4	C3 - 6D w/ holiday	0%					
SII-11130	Ssec II - MVB - Bored Pile BC3-A	13	19-Sep-14	06-Oct-14	4	C3 - 6D w/ holiday	0%					
SII-11140	Ssec II - MVB - Bored Pile BC16	15	08-Oct-14	24-Oct-14	4	C3 - 6D w/ holiday	0%					
SII-11150	Ssec II - MVB - Bored Pile BC8	14	14-Oct-14	29-Oct-14	4	C3 - 6D w/ holiday	0%					
SII-11160	Ssec II - MVB - Bored Pile BC17	15	31-Oct-14	17-Nov-14	4	C3 - 6D w/ holiday	0%					
SII-11170	Ssec II - MVB - Bored Pile BC11	15	06-Nov-14	22-Nov-14	4	C3 - 6D w/ holiday	0%					
SII-11180	Ssec II - MVB - Bored Pile BC15	15	25-Nov-14	11-Dec-14	4	C3 - 6D w/ holiday	0%					
<b>Section II A - CWB Tunnel &amp; Slip Road Structures and Facilities</b>												
<b>Section II A - CWB Tunnel - Design, Submission and Approval</b>												
SIIA10500	CWB Tunnel - Temp work design for bulk exc & ELS - ICE check & issue check cert	26	17-Apr-14 A	26-Sep-14	149	C3 - 7D w/o holiday	0%					
SIIA10520	CWB Tunnel - Temp work design for bulk exc & ELS - Eng comment & approve	26	24-Apr-14 A	26-Sep-14	149	C3 - 7D w/o holiday	10%					
<b>CWB CRIII &amp; A1</b>												
<b>CWB CRIII &amp; A1 - Dwall and Pile Construction</b>												
SIIA11060	Sec II A - CWB A1 - predrilling for Dwall and piles	55	23-Jun-14 A	07-Oct-14	23	C3 - 6D w/ holiday	47.27%					
SIIA11080	Sec II A - CWB A1 - carry out ground pretreatment for Dwall	60	19-Jul-14 A	27-Sep-14	23	C3 - 6D w/ holiday	61.67%					
SIIA11100	Sec II A - CWB A1 - construct Guide Wall	48	09-Aug-14 A	07-Oct-14	23	C3 - 6D w/ holiday	39.58%					



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete	2014				2015
								Sep	Oct	Nov	Dec	Jan
SIIA11120	Sec II A - CWB A1 - construct temporary DWall and temp bulk head wall	76	30-Aug-14 A	01-Dec-14	0	C3 - 6D w/ holiday	0%					
SIIA11140	Sec II A - CWB A1 - Construct pre-bored H-pile	85	13-Sep-14	23-Dec-14	0	C3 - 6D w/ holiday	0%					
SIIA11180	Sec II A - CWB A1 - D-wall grout curtain / contact grout	45	17-Oct-14	08-Dec-14	13	C3 - 6D w/ holiday	0%					
SIIA11220	Sec II A - CWB A1 - D-wall Sonic test	60	27-Sep-14	08-Dec-14	13	C3 - 6D w/ holiday	0%					
SIIA11240	Sec II A - CWB A1 - install dewater/ recharge / observation well	25	17-Nov-14	15-Dec-14	7	C3 - 6D w/ holiday	0%					
<b>CWB A2 &amp; B</b>												
<b>CWB A2 &amp; B - Dwall Construction</b>												
SIIA11460	Sec II A - CWB B: Predrilling for Dwall & piles	75	06-Aug-14 A	04-Nov-14	5	C3 - 6D w/ holiday	29.33%					
SIIA11480	Sec II A - CWB B: ground treatment	60	08-Sep-14	19-Nov-14	5	C3 - 6D w/ holiday	0%					
SIIA11500	Sec II A - CWB B: construct Guide Wall	30	08-Sep-14	15-Oct-14	5	C3 - 6D w/ holiday	0%					
SIIA11520	Sec II A - CWB B: Construct DWall and barrette (1.2m thk on rock) in Relieve Measure Area	83	10-Sep-14	17-Dec-14	5	C3 - 6D w/ holiday	0%					
SIIA11580	Sec II A - CWB B: Dwall sonic test / interface core	120	31-Oct-14	28-Mar-15	62	C3 - 6D w/ holiday	0%					
SIIA11600	Sec II A - CWB B: Dwall grout curtain / contact grout	120	31-Oct-14	28-Mar-15	62	C3 - 6D w/ holiday	0%					
SIIA13340	Sec II A - CWB A2(1): Predrilling for Dwall & piles	54	25-Sep-14	28-Nov-14	36	C3 - 6D w/ holiday	0%					
SIIA13360	Sec II A - CWB A2(1): ground pretreatment	46	04-Oct-14	26-Nov-14	36	C3 - 6D w/ holiday	0%					
SIIA13380	Sec II A - CWB A2(1): Guide Wall	60	05-Nov-14	16-Jan-15	36	C3 - 6D w/ holiday	0%					
<b>CWB C</b>												
<b>CWB C - Dwall Construction</b>												
SIIA11880	Sec II A - CWB CW: Predrilling for Dwall & piles	70	04-Aug-14 A	06-Oct-14	35	C3 - 6D w/ holiday	60%					
SIIA11900	Sec II A - CWB CW: ground Pre-treatment	70	01-Sep-14	24-Nov-14	35	C3 - 6D w/ holiday	0%					
SIIA11920	Sec II A - CWB CW: Guide Wall	60	19-Sep-14	29-Nov-14	35	C3 - 6D w/ holiday	0%					
SIIA12960	Sec II A - CWB CE: Predrilling for Dwall	90	28-Jul-14 A	15-Oct-14	102	C3 - 6D w/ holiday	60%					
SIIA15000	Sec II A - CWB CE: extract existing pipe pile	52	01-Nov-14	03-Jan-15	136	C3 - 6D w/ holiday	0%					
<b>CWB C - Exhaust Duct</b>												
SIIA12820	Sec II A - Exhaust Duct at Slip Rd3: Predrilling for Piles	26	16-Oct-14	14-Nov-14	260	C3 - 6D w/ holiday	0%					
<b>Section VI A - Box Culvert La, L1 &amp; FRP-L Construction</b>												
<b>Sec VI A - Box Culvert La bay 1-3 and Roadwork</b>												
<b>Box Culvert La Bay 1-3</b>												
CUL10480	Sec VI A - Area 1 - Culvert L bay 1-3 - excavation and ELS installation	90	14-Mar-14 A	06-Sep-14	-27	C3 - 6D w/ holiday	93.33%					
CUL10540	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 3 - wall	9	25-Aug-14 A	10-Sep-14	-61	C3 - 6D w/ holiday	11.11%					
CUL10560	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 3 - top slab	8	11-Sep-14	19-Sep-14	-55	C3 - 6D w/ holiday	0%					
CUL10570	Sec VI A - Area 1 - Culvert L bay 3 wall and roof slab - curing, backfill and remove upper layer of strut	9	20-Sep-14	30-Sep-14	-55	C3 - 6D w/ holiday	0%					
CUL10600	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - base slab	6	03-Oct-14	09-Oct-14	-55	C3 - 6D w/ holiday	0%					
CUL10610	Sec VI A - Area 1 - Culvert L bay 2 base slab - curing, backfill and remove upper layer of strut	5	10-Oct-14	15-Oct-14	-55	C3 - 6D w/ holiday	0%					
CUL10620	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - wall	8	16-Oct-14	24-Oct-14	-53	C3 - 6D w/ holiday	0%					
CUL10640	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 2 - top slab	8	21-Oct-14	29-Oct-14	-53	C3 - 6D w/ holiday	0%					
CUL10650	Sec VI A - Area 1 - Culvert L bay 2 wall and top slab - curing, backfill and remove upper layer of strut	9	30-Oct-14	08-Nov-14	-52	C3 - 6D w/ holiday	0%					
CUL10660	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 1 - base slab	6	14-Oct-14	20-Oct-14	-55	C3 - 6D w/ holiday	0%					
CUL10670	Sec VI A - Area 1 - Culvert L bay 1 base slab - curing, backfill and remove upper layer of strut	5	21-Oct-14	25-Oct-14	-55	C3 - 6D w/ holiday	0%					
CUL10675	Sec VI A - Area 1 - Culvert L bay 1 invert slab connected to existing culvert	5	27-Oct-14	31-Oct-14	-55	C3 - 6D w/ holiday	0%					
CUL10680	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 1 - wall	9	01-Nov-14	11-Nov-14	-55	C3 - 6D w/ holiday	0%					



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete	2014					2015
								Sep	Oct	Nov	Dec	Jan	
CUL10700	Sec VI A - Area 1 - Culvert L bay 1-3 - construct bay 1 - top slab	8	04-Nov-14	12-Nov-14	-55	C3 - 6D w/ holiday	0%						
CUL10703	Sec VI A - Area 1 - Culvert L bay 2 wall and roof slab - curing, backfill and remove upper layer of strut	5	13-Nov-14	18-Nov-14	-55	C3 - 6D w/ holiday	0%						
CUL10705	Sec VI A - Area 1 - Culvert L bay 1-3 - construct manhole DO-01; IM-01	6	17-Nov-14	22-Nov-14	-55	C3 - 6D w/ holiday	0%						
CUL10720	Sec VI A - Area 1 - Culvert L bay 1-3 - backfill to pavement formation	12	24-Nov-14	06-Dec-14	-55	C3 - 6D w/ holiday	0%						
<b>Section VI A - Area 2 - Lung King Street Roadwork &amp; Utilities</b>													
SVIA10040	Sec VI A - Area 1 - Summary of Box Culvert La Construction	136	11-Nov-13 A	23-Dec-14	-55	C3 - 6D w/ holiday	30.15%						
SVIA10080	Sec VI A - Area 2 - Reinstate the area	50	07-Nov-14	07-Jan-15	-61	C3 - 6D w/ holiday	0%						
<b>Sec VI C - Box Culvert La bay 4 and Roadwork</b>													
CUL11570	Sec VI C - Culvert L - bay 4 - sheetpile, ELS & Excavation	45	06-Jan-14 A	01-Nov-14	23	C3 - 6D w/ holiday	0%						
CUL11580	Sec VI C - Culvert L - bay 4 (south half) - construct base slab	6	03-Nov-14	08-Nov-14	23	C3 - 6D w/ holiday	0%						
CUL11600	Sec VI C - Culvert L - bay 4 (south half) - construct wall and roof	12	10-Nov-14	22-Nov-14	23	C3 - 6D w/ holiday	0%						
CUL11605	Sec VI C - Culvert L - bay 4 (south half) - curing and remove internal formwork	24	24-Nov-14	20-Dec-14	23	C3 - 6D w/ holiday	0%						
CUL11645	Sec VI C - Culvert L - bay 4 (north half) - drive pipe pile	24	24-Nov-14	20-Dec-14	35	C3 - 6D w/ holiday	0%						
<b>Box Culvert L1 &amp; FRP-L Construction (Bay 5 - Bay 13)</b>													
<b>Box Culvert L1 &amp; FRP-L - Bay 5 to 7</b>													
CUL10010	Drainage Impact Assessment for ex. box culvert L diversion - Eng, DSD comment and approve	60	22-Jul-13 A	26-Sep-14	103	C3 - 7D w/o holiday	56.67%						
CUL10015	Culvert L - form temp opening at existing box culvert Bay 4 for temp flow diversion	35	01-Sep-14	14-Oct-14	1267	C3 - 6D w/ holiday	0%						
CUL10275	Sec VI C - Culvert L - bay 5,6,7 - erect temp platform for predrilling	65	13-Sep-14	29-Nov-14	30	C3 - 6D w/ holiday	0%						
CUL10280	Sec VI C - Culvert L - bay 5,6,7 - predrilling	45	15-Oct-14	05-Dec-14	30	C3 - 6D w/ holiday	0%						
CUL10800	Sec VI C - Culvert L - bay 7 - construct pre-bored H-pile	30	31-Oct-14	04-Dec-14	30	C3 - 6D w/ holiday	0%						
CUL10820	Sec VI C - Culvert L - bay 6 - construct pre-bored H-pile	30	14-Nov-14	18-Dec-14	30	C3 - 6D w/ holiday	0%						
CUL10868	Sec VI C - Culvert L - bay 5-7 - Form Dry Dock for precast culvert units	75	14-Aug-14 A	12-Nov-14	48	C3 - 6D w/ holiday	20%						
CUL10870	Sec VI C - Culvert L - bay 5-7 - Construct bottom slabs for precast culvert units	15	13-Nov-14	29-Nov-14	48	C3 - 6D w/ holiday	0%						
<b>Section VI B - Area 8</b>													
<b>Area 8 - Demolish Ex. Cooling Water Pumping Station</b>													
SVIB10580	Sec VI B - trim down existing seawall	25	02-Aug-14 A	01-Sep-14	0	C3 - 6D w/ holiday	96%						
SVIB10600	Sec VI B - backfill and compaction to formation level	14	20-Aug-14 A	04-Sep-14	0	C3 - 6D w/ holiday	87.14%						
SVIB10620	Achievement of Section VIB of the Works	0		04-Sep-14	0	C3 - 7D w/o holiday	0%						
<b>Section VI C - Area 3, 6, 8A &amp; 8C</b>													
<b>Area 8A &amp; 8C - Seawall Modification (Reviewed)</b>													
<b>Design Submission &amp; Approval</b>													
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	30-Sep-14	35	C3 - 6D w/ holiday	10.71%						
<b>Tenders for Sub-contractor and Procurement</b>													
PCU60310	Sec VI C - Prepare Sub-contract for Seawall Modification and Procurement of Materials	90	14-Nov-13 A	26-Sep-14	4	C3 - 6D w/ holiday	75.56%						
PCU60320	Sec VI C - Assessment and Award of Sub-contract for Seawall Modification	53	27-Sep-14	29-Nov-14	4	C3 - 6D w/ holiday	0%						
<b>MTR Pump Room Stabilization (Reviewed)</b>													
PRS-1020	Sec VI C - Place counter weight on top of MTR pump house	24	03-Oct-14	30-Oct-14	35	C3 - 6D w/ holiday	0%						
PRS-1030	Sec VI C - Trim existing rubble mound	27	31-Oct-14	01-Dec-14	35	C3 - 6D w/ holiday	0%						
<b>Area 6 - Box Culvert bay 5-6</b>													
SVIC10000	Sec VI C - [Summary] Construct Box Culvert Bay 5-6	109	13-Nov-14	28-Mar-15	30	C3 - 6D w/ holiday	0%						
<b>Area 3 - Box Culvert bay 4 and Roadwork</b>													



Activity ID	Activity Name	Orig Dur	Early Start	Early Finish	Total Float	Calendar	Activity % Complete	2014				2015
								Sep	Oct	Nov	Dec	Jan
SVIC10220	Sec VI C - [Summary] Construct Box Culvert Bay 4 in Area 3	116	06-Jan-14 A	24-Mar-15	23	C3 - 6D w/ holiday	0%					
<b>Section VI D - Area 8B &amp; 10</b>												
<b>WDII Box 1 Construction (Reviewed)</b>												
<b>WDII Box 1 Submission and Approval / Material Procurement</b>												
PCU60410	Sec VI D - WD II Box 1 - Prepare Subcontract for Box 1 structure	27	01-Sep-14	27-Sep-14	241	C3 - 7D w/o holiday	0%					
S0721040	Sec VI D - WD II Box 1 - temp work design - ICE check and issue check cert	28	06-Aug-14 A	12-Sep-14	256	C3 - 7D w/o holiday	57.14%					
S0721060	Sec VI D - WD II Box 1 - temp work design - Engineer comment and approve	28	06-Aug-14 A	20-Sep-14	248	C3 - 7D w/o holiday	28.57%					
S0721070	Sec VI D - WD II Box 1 - method statement and temp work design - MTR comment and approve	52	21-Sep-14	11-Nov-14	1541	C3 - 7D w/o holiday	0%					
S0721080	Sec VI D - WD II Box 1 - Prepare and submit method statement	51	21-Sep-14	10-Nov-14	253	C3 - 7D w/o holiday	0%					
S0721090	Sec VI D - WD II Box 1 - method statement - Engineer comment and approve	28	11-Nov-14	08-Dec-14	253	C3 - 7D w/o holiday	0%					
<b>Section VII - Remainder Works</b>												
<b>Tenders for Sub-contract and Material Procurement</b>												
PCU70010	Sec VII - Prepare Sub-contract for removing interim landing steps	90	08-Nov-14	05-Feb-15	35	C3 - 7D w/o holiday	0%					
<b>Section VIII - Landscape Softworks</b>												
<b>Soft Landscaping Works</b>												
SVIII10020	Sec VIII - Tree Felling/Transplanting at Portion 2 & 2A	90	20-Nov-13 A	11-Mar-15	114	C3 - 6D w/ holiday	0%					
<b>Section X - Protection &amp; Preservation of Trees</b>												
<b>Soft Landscaping Works</b>												
SX10020	Sec X - Protection & Preservation of Trees	1632	31-Jan-13 A	20-Jul-17	0	C3 - 7D w/o holiday	35.42%					



Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar	2014					2015	
								Sep 57	Oct 58	Nov 59	Dec 60	Jan 61		
<b>Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (dd 20-Sep-14)</b>														
<b>Programme Milestones (Revised up to EOTO No.10 Issued on 29-Nov-13)</b>														
<b>Contractual Completion Dates</b>														
KDC0110	Section 7 Works (831 days) - Box Culvert N1 & Works at Aea 7 (7-May-12)	0	0	20-Sep-14	20-Sep-14	-222	Calendar Day							
<b>Soft Landscaping &amp; Establishment Key Dates</b>														
KDC0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8 (10-Feb-14)	0	0	20-Sep-14	20-Sep-14	-222	Calendar Day							
<b>Forecast Completion Dates</b>														
<b>Soft Landscaping &amp; Establishment Key Dates</b>														
KDF0140	Section 8C Works (1473 days) - Landscape Softworks in Area 8	0	0	19-Dec-14	19-Dec-14	-312	Calendar Day							
<b>Preliminaries</b>														
<b>Critical Procurement &amp; Site Delivery</b>														
PRE-PRO-1100A	GRP Roof Panel for Temp Covered Walkway (Type 1)	60	21	15-Jun-14 A	11-Oct-14	1473	Calendar Day							
PRE-PRO-1100B	GRP Roof Panel for Temp Covered Walkway (Type 2)	60	21	15-Jun-14 A	11-Oct-14	1473	Calendar Day							
<b>Section 3 of the Works - Re-provisioning of Government Helipad and Public Toilet</b>														
<b>Outstanding Works</b>														
S3-0070-1499	Reinstatement of armour rock, retaining walls & new covered walkway along Expo Drive East	254	25	11-Aug-12 A	22-Oct-14	1173	HK Working Day							
<b>Section 4A of the Works - Cooling Water Pumping System for Sun Hung Kai Centre (P8)</b>														
<b>Cooling Mains Work above Tunnel Portion &amp; connecting to Pump Station</b>														
S4A-0900	Outstanding Works	365	148	16-Feb-14 A	15-Feb-15	1346	Calendar Day							
<b>Section 4B of the Works - Cooling Water Pumping System for China Resources Building (P9)</b>														
<b>Cooling Mains Work above Tunnel Portion &amp; connecting to Pump Station</b>														
S4B-0900	Outstanding Works	365	10	01-Oct-13 A	30-Sep-14	1484	Calendar Day							
<b>Section 4C of the Works - Cooling Water Pumping System for Great Eagle Centre / Harbour Centre (P7)</b>														
<b>Cooling Mains Work above Tunnel Portion &amp; connecting to Pump Station</b>														
S4C-0900	Outstanding Works	365	61	21-Nov-13 A	20-Nov-14	1433	Calendar Day							
<b>Section 5 of the Works - WSD Salt Water Pumping System</b>														
<b>Salt Water Intake Culvert Construction</b>														
<b>Bay 6 - Bay 18: Ex-Pet Garden &amp; Hung Hing Road</b>														
S5-100-3333	Backfilling to Bay 6 to Bay 11 (2,000m3; 150m3/d)	23	7	20-Apr-13 A	29-Sep-14	-707	HK Working Day							
<b>Overall Testing &amp; Commissioning of Re-provisioned Salt Water Intake System</b>														
S5-0900	Outstanding Works	365	166	06-Mar-14 A	05-Mar-15	1328	Calendar Day							
<b>Section 7 of the Works - Box Culvert N1 &amp; Flood Relief System</b>														
<b>Box Culvert and Flood Relief System Construction</b>														
S7-191212-260	Backfilling for 1050mm FRP installation & Strut Removal	4	4	22-Sep-14	26-Sep-14	-339	HK Working Day							
<b>Works in Area 7</b>														
S7-1700	D-Wall Trimming, Drain Installation & Backfilling to Ground Level (13,500m3; 1,000m3/d)	27	16	05-Sep-14 A	06-Oct-14	-882	Calendar Day							
S7-1800	Completion of Tunnel Portion 1 Backfilling	0	0	06-Oct-14	06-Oct-14	-882	Calendar Day							
<b>Transformer Building for Dining Services at Ferry Pier (VO116)</b>														
<b>Civil Works</b>														
S7-TB-2000	Lay 500mm thk. Rubble Mound	2	2	07-Oct-14	08-Oct-14	-907	HK Working Day							
S7-TB-2010	Blinding Layer	1	1	09-Oct-14	09-Oct-14	-907	HK Working Day							
S7-TB-2020	Base Slab Construction (9.3m x 4.9m x 1m thick)	7	7	10-Oct-14	17-Oct-14	-907	HK Working Day							
S7-TB-2030	Concrete Plinth, Side Wall, Beam & Corbel	14	14	21-Oct-14	05-Nov-14	-907	HK Working Day							
S7-TB-2040	Concrete In-Fill at Basement	3	3	10-Nov-14	12-Nov-14	-907	HK Working Day							
S7-TB-2050	Outer Wall & Partition Wall	21	21	13-Nov-14	06-Dec-14	-907	HK Working Day							
S7-TB-2060	Scaffolding Erection & Roof Construction	21	21	08-Dec-14	03-Jan-15	-907	HK Working Day							
S7-TB-2070	Curing	14	14	04-Jan-15	17-Jan-15	-1131	Calendar Day							
S7-TB-2080	Formwork Removal & Scaffolding Dismantling	4	4	19-Jan-15	22-Jan-15	-907	HK Working Day							
<b>E&amp;M Works</b>														
S7-TB-4100	22kV Cable across HHR to Transformer Building by HEC	45	45	07-Oct-14	20-Nov-14	-1016	Calendar Day							
<b>Section 8A of the Works - Re-provisioning of Wan Chai Ferry Pier in Area 8</b>														
<b>ABWF &amp; E&amp;M Installation</b>														
<b>Roof</b>														
S8A-BS-4010	E&M Installation	212	30	10-Sep-13 A	20-Oct-14	1464	Calendar Day							
<b>Works in Area 8 - ABWF Works at Observation Deck of Ferry Pier</b>														
S8B-FP-01100	Roof Finishes & Misc. ABWF Installation	120	30	28-Oct-13 A	20-Oct-14	1464	Calendar Day							
S8B-FP-01300	Handrail & Glass Balustrade Installation	45	7	21-Dec-13 A	27-Sep-14	1487	Calendar Day							
<b>Section 9B of the Works - CWB Tunnel Structure (CH3400 - CH3796)</b>														
<b>Tunnel Portion 2 (CH3425-CH3500)</b>														
<b>Foundation</b>														
S9B-T2-1125	Installation of Pump Test Equipment	77	24	11-Jun-14 A	21-Oct-14	117	HK Working Day							
S9B-T2-1130	Tunnel portion 2 Pump Test	35	12	11-Jun-14 A	07-Oct-14	147	Calendar Day							
<b>CWB Structural Works</b>														
S9B-T2-2000	Tunnel portion 2 ELSW excavation (62,500m3; 500m3/d)	125	105	06-Aug-14 A	27-Jan-15	-9	HK Working Day							
<b>Tunnel Portion 3 &amp; Tunnel Portion 4 (CH3630-CH3790)</b>														
<b>Foundation</b>														
<b>Stage 2 - Southern Wall after HHR Flyover Diversion (Stage 1) (C130A-P131; P144-C154)</b>														
S9B-T34-1230C	Pre-grouting & Guidewall for P147-P154	295	121	11-Feb-14 A	14-Feb-15	-297	Calendar Day							
S9B-T34-1230C	Pre-grouting & Guidewall for P147-P154	28	14	11-Feb-14 A	04-Oct-14	-271	Calendar Day							



█ Remaining Work  
█ Actual Work  
█ Summary Bar  
█ Critical Remaining Work  
◆ Milestone

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

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

Activity ID	Activity Name	OD	RD	Start	Finish	Total Float	Calendar	2014					2015	
								Sep 57	Oct 58	Nov 59	Dec 60	Jan 61		
S9B-T34-1260B	Bored Pile Construction (PS30-PS32; 14d/pile; 1 Rig)	42	14	07-Aug-14 A	04-Oct-14	-229	Calendar Day	Bored Pile Construction (PS30-PS32; 14d/pile; 1 Rig)						
S9B-T34-1250C	D-wall Construction along HHR slow lane (P147-C152, C154; 6d/Panel)	42	42	04-Jan-15	14-Feb-15	-362	Calendar Day	D-wall Construction along HHR slow lane (P147-C152, C154; 6d/Panel)						
<b>Stage 3 - Northern Wall after TWCR4 Reclamation (C88-C105)</b>								105	105	21-Sep-14	03-Jan-15	-362	Calendar Day	
S9B-T34-1435C	D-Wall Plant Mobilization after HHR Stage 2	21	21	21-Sep-14	11-Oct-14	-362	Calendar Day	D-Wall Plant Mobilization after HHR Stage 2						
S9B-T34-1430C	D-wall Construction at TWCR4 (C88-P94; P101-C105; 6d/Panel)	84	84	12-Oct-14	03-Jan-15	-362	Calendar Day	D-wall Construction at TWCR4 (C88-P94; P101-C105; 6d/Panel)						
<b>Stage 4 - Southern Wall after HHR Flyover Diversion (Stage 2) (P132-P143)</b>								96	96	22-Oct-14	25-Jan-15	-438	Calendar Day	
S9B-T34-1600	Complete Removal of Approach Ramp of Existing HHR Flyover	0	0	22-Oct-14		-438	Calendar Day	Complete Removal of Approach Ramp of Existing HHR Flyover						
S9B-T34-1610	Pre-drilling at HHR Flyover	26	26	22-Oct-14	16-Nov-14	-438	Calendar Day	Pre-drilling at HHR Flyover						
S9B-T34-1620	Pre-grouting at HHR Flyover	21	21	17-Nov-14	07-Dec-14	-389	Calendar Day	Pre-grouting at HHR Flyover						
S9B-T34-1630	Guide Wall construction at HHR Flyover	21	21	17-Nov-14	07-Dec-14	-389	Calendar Day	Guide Wall construction at HHR Flyover						
S9B-T34-1650	Bored Pile Construction (PS34-PS38; 14d/pile; 1 Rig)	70	70	17-Nov-14	25-Jan-15	-438	Calendar Day	Bored Pile Construction (PS34-PS38; 14d/pile; 1 Rig)						
<b>Temp Works for HHR Flyover Diversion (Stage 2)</b>								28	28	22-Sep-14	26-Oct-14	-295	Calendar Day	
<b>At-Grade Roadworks</b>								28	28	22-Sep-14	26-Oct-14	-295	Calendar Day	
S9B-TTA-4500	Demolish of Approach Ramp of Existing HHR Flyover for D-Wall Construction	24	24	22-Sep-14	21-Oct-14	-352	HK Working Day	Demolish of Approach Ramp of Existing HHR Flyover for D-Wall Construction						
S9B-TTA-4600	Utility Diversion for D-Wall near Existing HHR Flyover Approach Ramp	35	35	22-Sep-14	26-Oct-14	-368	Calendar Day	Utility Diversion for D-Wall near Existing HHR Flyover Approach Ramp						
<b>Section 11 of the Works - Remainder of Works</b>								135	124	30-Aug-14 A	25-Feb-15	-330	Calendar Day	
<b>Marine Works at WCR3</b>								135	124	30-Aug-14 A	25-Feb-15	-330	Calendar Day	
S11-R3-1000	Demolition of Existing Ferry Pier	60	59	30-Aug-14 A	01-Dec-14	-314	HK Working Day	Demolition of Existing Ferry Pier						
S11-R3-1100	Mobilisation of Dredger of 1st Stage Dredging	2	2	21-Sep-14	22-Sep-14	-413	Calendar Day	Mobilisation of Dredger of 1st Stage Dredging						
S11-R3-0500A	Fabrication of Caisson Seawalls for WCR3 Reclamation (1st Stage - 2 Nos.)	60	60	21-Sep-14	19-Nov-14	-407	Calendar Day	Fabrication of Caisson Seawalls for WCR3 Reclamation (1st Stage - 2 Nos.)						
S11-R3-1200	1st Stage Dredging at Permanent Seawall Area by Night Work (60,000m3 @ 2,000m3/d)	30	30	23-Sep-14	29-Oct-14	-333	Working Day	1st Stage Dredging at Permanent Seawall Area by Night Work (60,000m3 @ 2,000m3/d)						
S11-R3-1300	1st Stage Rockfilling for Seawall by Night Work (24,000m3 @ 1000m3/d)	24	24	29-Oct-14	22-Nov-14	-415	Calendar Day	1st Stage Rockfilling for Seawall by Night Work (24,000m3 @ 1000m3/d)						
S11-R3-0500B	Fabrication of Caisson Seawalls for WCR3 Reclamation (2nd Stage - 3 Nos.)	90	90	20-Nov-14	17-Feb-15	-407	Calendar Day	Fabrication of Caisson Seawalls for WCR3 Reclamation (2nd Stage - 3 Nos.)						
S11-R3-1400	Placing leveling stones to -6.0mPD (1500m2 @ 40m2/d)	38	38	22-Nov-14	30-Dec-14	-415	Calendar Day	Placing leveling stones to -6.0mPD (1500m2 @ 40m2/d)						
S11-R3-1600	2nd Stage Dredging except the Existing Wan Chai Ferry Pier (20,000m3 @ 1,000m3/d)	20	20	02-Dec-14	21-Dec-14	-390	Calendar Day	2nd Stage Dredging except the Existing Wan Chai Ferry Pier (20,000m3 @ 1,000m3/d)						
S11-R3-1500	Installation of Permanent Seawall (3 nos.) & Rockfilling behind seawall	16	16	30-Dec-14	15-Jan-15	-415	Calendar Day	Installation of Permanent Seawall (3 nos.) & Rockfilling behind seawall						
S11-R3-1700	Reclamation from -14 mPD to -2.0mPD by Hopper (121,000m3 @ 3,000m3/d)	41	41	15-Jan-15	25-Feb-15	-415	Calendar Day	Reclamation from -14 mPD to -2.0mPD by Hopper (121,000m3 @ 3,000m3/d)						
<b>Soft Landscaping &amp; Establishment Works</b>								2375	707	24-Feb-10 A	27-Aug-16	0	Calendar Day	
<b>Section 8C of the Works - Landscape Softworks in Area 8</b>								90	90	21-Sep-14	19-Dec-14	-312	Calendar Day	
S8C-0010	Carry out landscape soft work on new ferry pier	90	90	21-Sep-14	19-Dec-14	-312	Calendar Day	Carry out landscape soft work on new ferry pier						
<b>Section 8D of the Works - Establishment Works in Area 8</b>								365	365	20-Dec-14	19-Dec-15	-312	Calendar Day	
S8D-0010	Carry out establishment work on new ferry pier	365	365	20-Dec-14	19-Dec-15	-312	Calendar Day	Carry out establishment work on new ferry pier						
<b>Section 12 of the Works - Protection and Preservation of Existing Trees</b>								2375	707	24-Feb-10 A	27-Aug-16	0	Calendar Day	
S12-0010	Protection and preservation of existing trees	2375	707	24-Feb-10 A	27-Aug-16	0	Calendar Day	Protection and preservation of existing trees						



Activity ID	Activity Name	Original Duration	Start	Finish	2014				2015					
					Nov	Dec	Jan	Feb	Jan	Feb				
<b>DWP-06 - Update Progress As of 20 Nov 14</b>														
<b>Works in TS3</b>														
<b>TS3 East &amp; West Reclamation Works</b>														
<b>TS3E - Reclamation (Advance Works)</b>														
<b>TS3E - East</b>														
TS3E.MW.1090A	TS3E South - Levelling of Rock Fill	2	21-Sep-14 A	22-Nov-14 A	TS3E South - Levelling of Rock Fill									
TS3E.MW.1100	TS3E South & North - Seawall Block Installation	25	22-Sep-14 A	29-Oct-14 A	South & North - Seawall Block Installation									
<b>TS3E - West (Remaining)</b>														
TS3E.MW.N.1000	Rockfill & Levelling - Phase 1	10	13-Oct-14 A	04-Nov-14 A	Rockfill & Levelling - Phase 1									
TS3E.MW.N.1010	Rockfill & Levelling - Phase 2	8	27-Oct-14 A	07-Dec-14	Rockfill & Levelling - Phase 2									
TS3E.MW.N.1020	Levelling (TS3E North)	4	03-Nov-14 A	22-Nov-14	Levelling (TS3E North)									
TS3E.MW.N.1040	TS3E North to Bay 14 - Seawall Block Installation	18	05-Nov-14 A	07-Dec-14	TS3E North to Bay 14 - Seawall Block Installation									
<b>TS3E - General</b>														
TS3E.MW.1160	TS3 East - General Fill (Stage 1)	25	15-Oct-14 A	11-Nov-14 A	TS3 East - General Fill (Stage 1)									
TS3E.MW.1170	TS3 East - General Fill (Stage 2)	26	12-Nov-14 A	15-Dec-14	TS3 East - General Fill (Stage 2)									
TS3E.MW.1180	TS3 East - Handover to D-wall	0		12-Nov-14 A	◆ TS3 East - Handover to D-wall									
<b>TS3W - Reclamation Works (new scheme)</b>														
TS3W.MW.1160	C15 - Complete TZ4	0		07-Nov-14 A	◆ C15 - Complete TZ4									
TS3W.MW.1170	C15 - Move TS3(W) Yachts - Phase II	12	08-Nov-14 A	13-Nov-14 A	C15 - Move TS3(W) Yachts - Phase II									
<b>TS3W - North</b>														
TS3W.MW.2010	TS3W North - Phase 1 Dredging	14	20-Nov-14 A	03-Dec-14	TS3W North - Phase 1 Dredging									
TS3W.MW.2010A	TS3W North - Phase 2 Dredging	28	26-Nov-14	24-Dec-14	TS3W North - Phase 2 Dredging									
TS3W.MW.2010B	TS3W North - HIS of Dredging	2	24-Dec-14	26-Dec-14	TS3W North - HIS of Dredging									
TS3W.MW.2010C	Inspection of Founding	4	26-Dec-14	30-Dec-14	Inspection of Founding									
TS3W.MW.2040	TS3W North - Rockfill	21	30-Dec-14	20-Jan-15	TS3W North - Rockfill									
TS3W.MW.2040A	TS3W North - Levelling	4	20-Jan-15	24-Jan-15	TS3W North - Levelling									
TS3W.MW.2050	TS3W North - Phase 1 Seawall Block Installation	28	24-Jan-15	21-Feb-15	TS3W									
<b>TS3W - (Mid-Point)</b>														
TS3W.MW.2160	TS3W - Dredging (Type 1 & 2)	30	12-Sep-14 A	16-Nov-14 A	TS3W - Dredging (Type 1 & 2)									
TS3W.MW.2170	TS3W - Dredging (Type 1 & 2) - HIS	2	17-Nov-14 A	17-Nov-14 A	TS3W - Dredging (Type 1 & 2) - HIS									
TS3W.MW.2180	Inspection of Founding	3	17-Nov-14 A	20-Nov-14 A	Inspection of Founding									
<b>TS3W - South</b>														
TS3W.MW.2070	TS3W South - Dredging (Type 3)	30	30-Nov-14	29-Dec-14	TS3W South - Dredging (Type 3)									
TS3W.MW.2070A	TS3W South - Dredging (Type 1 & 2)	20	20-Dec-14	08-Jan-15	TS3W South - Dredging (Type 1 & 2)									

- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

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

Activity ID	Activity Name	Original Duration	Start	Finish	2014		2015	
					Nov	Dec	Jan	Feb
					TS3W.MW.2070B	TS3W South - HIS of Dredging	1	09-Jan-15
TS3W.MW.2070C	TS3W South - Inspection of Founding	1	10-Jan-15	10-Jan-15				■ TS3W South - Inspection of Founding
TS3W.MW.2080	TS3W South - Rockfill	14	11-Jan-15	24-Jan-15				■ TS3W South - Rockfill
TS3W.MW.2080A	TS3W South - Levelling	3	25-Jan-15	27-Jan-15				■ TS3W South - Levelling
TS3W.MW.2090	TS3W South - Seawall Block Installation	16	28-Jan-15	12-Feb-15				■ TS3W South - Seawall Block Installation
<b>Works for Box Culvert Q &amp; Water Intake</b>								
<b>Water Intake</b>								
<b>Stage 1 - Water Intake Works</b>								
TS3_1170.20	Install Silt Screen & Sump Pump	2	17-Nov-14 A	18-Nov-14 A	■	Install Silt Screen & Sump Pump		
TS3_1180.20	Test and Commission	4	20-Nov-14	24-Nov-14	■	Test and Commission		
TS3_1170.40	Concen for Shut Down of Sea Water Supply for relocation of Pumping Point	14	25-Nov-14	10-Dec-14	■	Concen for Shut Down of Sea Water Supply for relocation of Pumping Point		
TS3_1180.10	Shut Down and Connect Water Intake to Interim System	1	10-Dec-14	11-Dec-14	■	Shut Down and Connect Water Intake to Interim System		
<b>Box Culvert Q</b>								
<b>Box Culvert Q Outfall Diversion</b>								
TS3_1145.20	Install Temporary Sheet Pile Wall Stage 1	30	13-Aug-14 A	20-Oct-14 A	■	Install Temporary Sheet Pile Wall Stage 1		
TS3_1145.20A	Install Temporary Sheet Pile Wall Stage 2	15	25-Nov-14 A	29-Nov-14	■	Install Temporary Sheet Pile Wall Stage 2		
TS3_1145.30	Commence dredging behind sheet pile wall	0		11-Dec-14	◆	Commence dredging behind sheet pile wall		
TS3_1145.40	Install Strut / Lateral Support Between Sheet Pile Wall and Existing Seawall	12	11-Dec-14	27-Dec-14	■	Install Strut / Lateral Support Between Sheet Pile Wall and Existing Seawall		
TS3_1145.50	Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works	12	07-Jan-15	21-Jan-15	■	Construct Temporary Vertical Seawall (Stone Block) behind Sheet Pile Wall and continue with reclamation works		
<b>Works in SR8 (Open Cut Method)</b>								
<b>SR8 - Cofferdam &amp; Cut &amp; Cover Tunnel Works</b>								
<b>SR8 East Bound - (Seaside to Victoria Road / IEC Central Divider)</b>								
<b>TTA Stage 1 - East Bound</b>								
<b>Stage 2 - East Bound (Ref. DRG. No.CDD/SR8/083)</b>								
SR8.EB.1325	Protect and Shift HV 22kv Cable on carriage way (as required)	18	18-Oct-14 A	29-Oct-14 A	■	Protect and Shift HV 22kv Cable on carriage way (as required)		
SR8.EB.1320	Divert Gas Main to pre-laid Gas Main Pipe at Planter Area Gas Main Trough	18	27-Oct-14 A	29-Oct-14 A	■	Divert Gas Main to pre-laid Gas Main Pipe at Planter Area Gas Main Trough		
SR8.EB.1340	Stage 2 - Sheet Pile Work	18	01-Nov-14 A	11-Dec-14	■	Stage 2 - Sheet Pile Work		
SR8.EB.1350	Stage 2 - Pipe Piling Work	52	17-Nov-14 A	04-Feb-15	■	Stage 2 - Pipe Piling Work		
SR8.EB.1330	Carry out pre-boring work for stage 2 sheet pile	14	20-Nov-14	05-Dec-14	■	Carry out pre-boring work for stage 2 sheet pile		
SR8.EB.1327	Cut and By pass Drainage to the next (existing) collection point (MH)	18	20-Nov-14	10-Dec-14	■	Cut and By pass Drainage to the next (existing) collection point (MH)		
SR8.EB.1380	Demolish part of the Wing Wall of Abutment M	14	19-Jan-15	04-Feb-15	■	Demolish part of the Wing Wall of Abutment M		
<b>SR8 West Bound - Ch. 459.000 to 385.000 (Victoria Road / IEC Central Divider)</b>								
<b>TTA Stage 1 - West Bound</b>								
<b>Stage 2A - West Bound (Ref. DRG. No.CDD/SR8/086)</b>								
SR8.WB.2030	Carry out Stage 2A Pipe Piling Work	42	21-Aug-14 A	24-Nov-14	■	Carry out Stage 2A Pipe Piling Work		

- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

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

Activity ID	Activity Name	Original Duration	Start	Finish	2014				2015			
					Nov		Dec		Jan		Feb	
					Actual	Remaining	Actual	Remaining	Actual	Remaining	Actual	Remaining
SR8.WB.2040	Carry out Stage 2A TAM Grout	14	29-Oct-14 A	01-Dec-14	Actual	Remaining	Actual	Remaining				
SR8.WB.2050	Trim Down Sheet Pile / Pipe Pile and construct Gas Main Trough	8	29-Oct-14 A	05-Nov-14 A	Actual	Remaining						
SR8.WB.2060	Divert Gas Main to Gas Main Trough	6	12-Nov-14 A	16-Dec-14 A	Actual	Remaining						
SR8.WB.2140	Testing of Gas Pipe	6	21-Nov-14 A	21-Nov-14 A	Milestone							
<b>Stage 2B - West Bound (Ref. DRG. No.CDD/SR8/086)</b>												
SR8.WB.2070	Carry out Stage 2B Sheet Pile	7	22-Nov-14 A	29-Nov-14	Actual	Remaining						
SR8.WB.2080	Carry out Stage 2B Pipe Piling	12	01-Dec-14 A	13-Dec-14	Actual	Remaining						
SR8.WB.2100	Demolish Part (WB) Wing Wall of Abutment M	2	14-Dec-14	21-Dec-14	Actual	Remaining						
SR8.WB.2090	Carry out Stage 2B TAM Grout	14	15-Dec-14	02-Jan-15	Actual	Remaining						
SR8.WB.2120	Construct Temporary IEC West Bound Down Ramp	57	22-Dec-14	04-Mar-15	Actual	Remaining						
SR8.WB.2085	Install King Post for Traffic Deck	16	03-Jan-15	21-Jan-15	Actual	Remaining						
SR8.WB.2110	Construct Temporary Traffic Deck	26	22-Jan-15	24-Feb-15	Actual	Remaining						
<b>SR8 Ch.385.000 to Ch.317.500 - (Inside Victoria Park to Tunnel Portal)</b>												
<b>Stage 4 - SR8 Ch.385.000 to Ch.317.500 (Tunnel Portal) (Ref. DRG. No.CDD/SR8/087)</b>												
SR8.VP.4010	Carry Out Stage 4 Sheet Pile Works	90	13-Mar-14 A	03-Nov-14 A	Actual	Remaining						
SR8.VP.4020	Carry Out Stage 4 Pipe Piling Works	145	24-Jul-14 A	17-Nov-14 A	Actual	Remaining						
SR8.VP.4030	Carry Out Stage 4 TAM Grout	36	04-Nov-14 A	24-Dec-14	Actual	Remaining						
SR8.VP.4040	Install Dewatering Wells and Observation Wells & Carry out Pump Test	24	27-Dec-14	24-Jan-15	Actual	Remaining						
<b>SR8 Ch 317.500 to Ch 210.000 - U-Structure &amp; Slab (Victoria Park)</b>												
<b>Excavation and Lateral Support</b>												
SR8_2230	ELS - Excavation to formation level + Lateral Support	96	13-Jun-14 A	13-Dec-14	Actual	Remaining						
<b>Tsing Fung St - RW &amp; Subway Extension &amp; Toe Wall at Hing Fat St</b>												
<b>Ret. Wall &amp; TF Subway Extension (Portion V)</b>												
<b>Retaining Wall RW8C at Tsing Fung Street (Portion V)</b>												
VP_1240	TFS New Ret. Wall - excavation	42	26-Sep-14 A	12-Dec-14	Actual	Remaining						
VP_1260	TFS New Ret. Wall - base slab	42	07-Oct-14 A	13-Dec-14	Actual	Remaining						
VP_1290	TFS New Ret. Wall - wall stem + Railing	60	04-Nov-14 A	24-Feb-15	Actual	Remaining						
<b>Retaining Wall + Toe Wall at Hing Fat Street</b>												
<b>Tree Transplanting at Portion VIII (Tree Zone 20) (6 trees)</b>												
VP_1700	Preparation and Site Hoarding	36	19-Sep-14 A	19-Dec-14	Actual	Remaining						
VP_1140.04	<300mm dia trees (3months, 4nos) - Stage 4 root pruning & removal/Transplanting	12	03-Nov-14 A	23-Dec-14	Actual	Remaining						
<b>RC Works - Toe Wall</b>												
VP_6152	Construct and divert Temporary Footpath	36	24-Dec-14	06-Feb-15	Actual	Remaining						
<b>Works in Victoria Park</b>												
<b>Re-Provisioning Works</b>												

- █ Actual Work
- █ Remaining Work
- █ Critical Remaining Work
- ◆ Milestone

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

Activity ID	Activity Name	Original Duration	Start	Finish	2014				2015					
					Nov		Dec		Jan		Feb			
<b>Bowling Green Office</b>														
<b>BGO - Construction Works</b>														
VP_1190	BGO - ABWF	50	21-Sep-14 A	15-Dec-14	BGO - ABWF									
VP_1180.04	BGO - Roof Slab Waterproofing + Screeding	12	30-Oct-14 A	03-Dec-14	BGO - Roof Slab Waterproofing + Screeding									
VP_1220	BGO - E&M Works	36	14-Nov-14 A	10-Dec-14	BGO - E&M Works									
VP_1250	BGO - T&C	4	11-Dec-14	15-Dec-14	BGO - T&C									
VP_1260.10	Submit Form 501 to FSD (Application for Inspection)	1	16-Dec-14	16-Dec-14	Submit Form 501 to FSD (Application for Inspection)									
VP_1250.40	Statutory Inspections by Other Authorities (EMSD, WSD, ASD)	30	16-Dec-14	14-Jan-15	Statutory Inspections by Other Authorities (EMSD, WSD, ASD)									
VP_1260.20	FSD Inspection & Certification	29	17-Dec-14	14-Jan-15	FSD Inspection & Certification									
VP_1270	BGO - Completion of KD4 - Works in Section1B	0		14-Jan-15	BGO - Completion of KD4 - Works in Section1B									
<b>Tree Transplanting at Portion XIV (Victoria Park Open Space)</b>														
VP_1040	Tree Transplanting & Upkeep at Portion XIV	348	16-Oct-13 A	15-Dec-14	Tree Transplanting & Upkeep at Portion XIV									
VP_1280	Completion of KD 3 - Section 1A, Works in Portion XIV & XV	0		15-Dec-14	Completion of KD 3 - Section 1A, Works in Portion XIV & XV									
<b>Mooring Components Upkeep (CBTS and ATS)</b>														
MAR_2000	Mooring Upkeep at Portion XIX(19) & XX(20) - ATS (if instructed by Engineer)	1399	21-Mar-13 A	17-Jan-17	Mooring Upkeep at Portion XIX(19) & XX(20) - ATS (if instructed by Engineer)									
MAR_1000	Mooring Upkeep at Portion III (3) - CBTS	574	15-May-14 A	09-Dec-15	Mooring Upkeep at Portion III (3) - CBTS									
MAR_3020	Mooring Upkeep at Portion X(10) & XVI(16) - CBTS	979	15-May-14 A	17-Jan-17	Mooring Upkeep at Portion X(10) & XVI(16) - CBTS									
<b>Works for Public Works Regional Laboratory (North Lantau)</b>														
<b>Maintenance and Upkeep of New PWRL (Portion XVII)</b>														
PWRL_1050	Maintenance/ Upkeep of New PWRL	1301	19-Jul-13 A	21-Nov-17	Maintenance/ Upkeep of New PWRL									

- Actual Work
- Remaining Work
- Critical Remaining Work
- ◆ Milestone

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