JOB NO.: TCS00670/13

AGREEMENT NO. CE 45/2008 (CE)
LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

7th QUARTERLY ENVIRONMENTAL MONITORING & AUDIT SUMMARY REPORT – (February to April 2015)

PREPARED FOR

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT (CEDD)

Quality Index

Date	Reference No.	Prepared By	Certified By
15 June 2015	TCS00670/13/600/R0382v2		
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1	2 June 2015	First Submission
2	15 June 2015	Amended against IEC comment on 12 June 2015

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16 June 2015

Our ref: 7076192/L18629/RY/AB/AW/FL/rw
Your ref:

AECOM
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By Email & Post

Attention: Mr Simon LEUNG

Dear Sirs

Agreement No. CE 45/2008 (CE)
Liantang/Heung Yuen Wai Boundary Control Point and Associated Works
Independent Environmental Checker – Investigation
Quarterly EM&A Summary Report (No. 7) – February 2015 to April 2015

With reference to the Quarterly EM&A Report No. 7 for February 2015 to April 2015 (Version 2) certified by the ET Leader and received by us on 16 June 2015, please be noted that we have no adverse comments on the captioned submission. We herewith verify the captioned submission in accordance with Section 13.4 of the EM&A Manual.

Thank you for your attention and please do not hesitate to contact the undersigned on tel. 3995 8120 or by email to antony.wong@smec.com; or our Mr Francis LEE on tel. 3995 8144 or by email to francis.lee@smec.com.

Yours faithfully
for and on behalf of
SMEC Asia Limited

Antony WONG
Independent Environmental Checker

cc	CEDD/BCP	-	Mr Karl KL Kwan / Ms Teresa MA/ Mr William CHEUNG / Mr CM OR	by fax: 3547 1659
	AECOM	-	Mr Pat LAM / Mr Perry YAM	by email
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EXECUTIVE SUMMARY

ES.01. This is the **7th** Quarterly EM&A Summary Report for the "*Liantang/Heung Yuen Wai Boundary Control Point and Associated Works"* under Environmental Permit No. EP-404/2011/C (hereinafter ''the EP''), covering the period from **1 February to 30 April 2015** (hereinafter "Reporting Period").

ENVIRONMENTAL MONITORING AND AUDIT ACTIVITIES

ES.02. Environmental monitoring activities under the EM&A programme in the Reporting Period are summarized in the following table.

Environmental Aspect	Environmental Monitoring Parameters / Inspection	Reporting Period	
		Number of Monitoring Locations to undertake	Total Occasions
Air Quality	1-hour TSP	**6**	**300**
	24-hour TSP	**6**	**96**
Construction Noise	$L_{eq(30min)}$ Daytime	**8**	**128**
Water Quality	Water sampling	**Contract 3 (3)**	**37(*)**
		Contract 5 (2)	**35(*)**
Joint Site Inspection / Audit	IEC, ET, the Contractor and RE joint site Environmental Inspection and Auditing	**Contract 2**	**13**
		Contract 3	**13**
		Contract 5	**13**

(*) number of sampling day

BREACHES OF ACTION/LIMIT LEVELS

ES.03. In the Reporting Period, no noise exceedances were registered but one (1) Limit Level exceedance was recorded for 24-hour TSP of air quality monitoring. For water quality monitoring, a total of thirty-six (36) Action/ Limit Level exceedances including the parameter of DO, turbidity and SS were recorded at location WM1 and WM4. The summary of breach of environmental performance is shown below.

Environmental Aspect	Monitoring Parameters	Action Level	Limit Level	Event & Action		
				NOE Issued	Investigation	Corrective Actions
Air Quality	1-hour TSP	0	0	0	--	--
	24-hour TSP	0	**1**	**1**	Not project related	N/A
Construction Noise	$L_{eq(30min)}$ Daytime	0	0	0	--	--
Water Quality	DO	0	**28**	**28**	Not project related	N/A
	Turbidity	0	**3**	**3**		
	SS	**1**	**4**	**5**		

ENVIRONMENTAL COMPLAINT

ES.04. In this Reporting Period, no environmental complaints were received and lodged for Contracts 2, 3 and 5 related to the EM&A programme.

NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

ES.05. No environmental summons or successful prosecutions were recorded in the Reporting Period.

REPORTING CHANGES

ES.06. No reporting changes were made in the Reporting Period.

FUTURE KEY ISSUES

ES.07. During raining season, muddy water or other water pollutants from site surface flow to local stream such as Kong Yiu Channel and Ma Wat Channel or public area will be key environment issue. Water quality mitigation measures to prevent surface runoff into nearby water bodies or public areas should paid attention and fully implement.

ES.08. Construction noise would be a key environmental issue during construction work of the Project. Noise mitigation measures such as using quiet plants should be implemented in accordance with the EM&A requirement.

ES.09. Since most of construction sites under the Project are located adjacent to villages, the Contractors should fully implement air quality mitigation measures to reduce construction dust emission.

ES.10. To control the site performance on waste management, the Contractor shall ensure that all solid and liquid waste management works are fully in compliance with the relevant license/permit requirements, such as the effluent discharge license and the chemical waste producer registration. The Contractor is also reminded to implement the recommended environmental mitigation measures according to the Environmental Monitoring and Audit Manual.

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1. Civil Engineering and Development Department is the Project Proponent and the Permit Holder of *Agreement No. CE 45/2008 (CE) Liantang / Heung Yuen Wai Boundary Control Point and Associated Works*, which is a Designated Project to be implemented under Environmental Permit number EP-404/2011/C granted on 12 March 2015.

1.1.2. The Project consists of two main components: Construction of a Boundary Control Point (hereinafter referred as "BCP"); and Construction of a connecting road alignment. Layout plan of the Project is shown in ***Appendix A***.

1.1.3. The proposed BCP is located at the boundary with Shenzhen near the existing Chuk Yuen Village, comprising a main passenger building with passenger and cargo processing facilities and the associated customs, transport and ancillary facilities. The connecting road alignment consists of six main sections:

1) Lin Ma Hang to Frontier Closed Area (FCA) Boundary – this section comprises at-grade and viaducts and includes the improvement works at Lin Ma Hang Road;
2) Ping Yeung to Wo Keng Shan – this section stretches from the Frontier Closed Area Boundary to the tunnel portal at Cheung Shan and comprises at-grade and viaducts including an interchange at Ping Yeung;
3) North Tunnel – this section comprises the tunnel segment at Cheung Shan and includes a ventilation building at the portals on either end of the tunnel;
4) Sha Tau Kok Road – this section stretches from the tunnel portal at Wo Keng Shan to the tunnel portal south of Loi Tung and comprises at-grade and viaducts including an interchange at Sha Tau Kok and an administration building;
5) South Tunnel – this section comprises a tunnel segment that stretches from Loi Tung to Fanling and includes a ventilation building at the portals on either end of the tunnel as well as a ventilation building in the middle of the tunnel near Lau Shui Heung;
6) Fanling – this section comprises the at-grade, viaducts and interchange connection to the existing Fanling Highway.

1.1.4. Action-United Environmental Services & Consulting has been commissioned as an Independent ET to implement the relevant EM&A program in accordance with the approved EM&A Manual, as well as the associated duties.

1.1.5. This is the **7th** Quarterly EM&A Summary Report for the "*Liantang/Heung Yuen Wai Boundary Control Point and Associated Works"* under Environmental Permit No. EP-404/2011/C, covering the period from **1 February to 30 April 2015**.

1.2 REPORT STRUCTURE

1.2.1 The Monthly Environmental Monitoring and Audit (EM&A) Report is structured into the following sections:-

Section 1 Introduction
Section 2 Project Organization and Construction progress
Section 3 Summary of Impact monitoring Requirements
Section 4 Air Quality Monitoring
Section 5 Construction Noise Monitoring
Section 6 Water Quality Monitoring
Section 7 Waste Management
Section 8 Non-compliance, Complaints, Notifications of Summons and Successful Prosecutions
Section 9 Implementation Status of Mitigation Measures
Section 10 Conclusions and Recommendations

2 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

2.1 CONSTRUCTION CONTRACT PACKAGING

2.1.1 To facilitate the project management and implementation, the Project would be divided by the following contracts:

- Contract 2 (CV/2012/08)
- Contract 3 (CV/2012/09)
- Contract 4 (TCSS)
- Contract 5 (CV/2013/03)
- Contract 6 (CV/2013/08)

2.1.2 The details of each contracts is summarized below and the delineation of each contracts is shown in ***Appendix A***.

Contract 2 (CV/2012/08)

2.1.3 Contract 2 has awarded in December 2013 and construction work was commenced on 19 May 2014. Major Scope of Work of the Contract 2 is listed below:

- construction of an approximately 5.2km long dual two-lane connecting road (with about 0.4km of at-grade road and 4.8km of tunnel) connecting the Fanling Interchange with the proposed Sha Tau Kok Interchange;
- construction of a ventilation adit tunnel and the mid-ventilation building;
- construction of the north and south portal buildings of the Lung Shan Tunnel and their associated slope works;
- provision and installation of ventilation system, E&M works and building services works for Lung Shan tunnel and Cheung Shan tunnel and their portal buildings;
- construction of Tunnel Administration Building adjacent to Wo Keng Shan Road and the associated E&M and building services works; and
- construction of associated footpath, slopes, retaining structures, drainage, sewerage, waterworks, landscaping works and other ancillary works.

Contract 3 (CV/2012/09)

2.1.4 Contract 3 was awarded in July 2013 and construction work was commenced on 5 November 2013. Major Scope of Work of the Contract 3 is listed below:

- construction of four link roads connecting the existing Fanling Highway and the south portal of the Lung Shan Tunnel;
- realignment of the existing Tai Wo Service Road West and Tai Wo Service Road East;
- widening of the existing Fanling Highway (HyD's entrustment works);
- demolishing existing Kiu Tau vehicular bridge and Kiu Tau footbridge and reconstruction of the existing Kiu Tau Footbridge (HyD's entrustment works); and
- construction of associated footpath, slopes, retaining structures, drainage, sewerage, waterworks, landscaping works and other ancillary works.

Contract 4 (NE/2014/02)

2.1.5 The works of Contract 4 are scheduled to commence in the 3rd quarter of 2015. The work of this Contract includes provision and installation of Traffic Control and Surveillance System and the associated electrical and mechanical works for the Project.

Contract 5 (CV/2013/03)

2.1.6 Contract 5 has awarded in April 2013 and construction work was commenced in August 2013. Major Scope of Work of the Contract 5 is listed below:

- site formation of about 23 hectares of land for the development of the BCP;

- construction of an approximately 1.6 km long perimeter road at the BCP including a 175m long depressed road;
- associated diversion/modification works at existing local roads and junctions including Lin Ma Hang Road;
- construction of pedestrian subway linking the BCP to Lin Ma Hang Road;
- provision of resite area with supporting infrastructure for reprovisioning of the affected village houses; and
- construction of associated footpath, slopes, retaining structures, drainage, sewerage, waterworks, landscaping works and other ancillary works.

Contract 6 (CV/2013/08)

2.1.7 Contract 6 has not yet awarded. Major Scope of Work of the Contract 6 will be included below:

- construction of an approximately 4.6km long dual two-lane connecting road (with about 0.6km of at-grade road, 3.3km of viaduct and 0.7km of tunnel) connecting the BCP with the proposed Sha Tau Kok Road Interchange and the associated ventilation buildings;
- associated diversion/modification works at access roads to the resite of Chuk Yuen Village;
- provision of sewage collection, treatment and disposal facilities for the BCP and the resite of Chuk Yuen Village;
- construction of a pedestrian subway linking the BCP to Lin Ma Hang Road;
- provisioning of the affected facilities including Wo Keng Shan Road garden; and
- construction of associated footpath, slopes, retaining structures, drainage, sewerage, waterworks, landscaping works and other ancillary works.

2.2 PROJECT ORGANIZATION

2.2.1 The project organization is shown in ***Appendix B***. The responsibilities of respective parties are:

Civil Engineering and Development Department (CEDD)

2.2.2 CEDD is the Project Proponent and the Permit Holder of the EP of the development of the Project and will assume overall responsibility for the project. An Independent Environmental Checker (IEC) shall be employed by CEDD to audit the results of the EM&A works carried out by the ET.

Environmental Protection Department (EPD)

2.2.3 EPD is the statutory enforcement body for environmental protection matters in Hong Kong.

Engineer or Engineers Representative (ER)

2.2.4 The ER is responsible for overseeing the construction works and for ensuring that the works are undertaken by the Contractor in accordance with the specification and contract requirements. The duties and responsibilities of the ER with respect to EM&A are:

- Monitor the Contractors' compliance with contract specifications, including the implementation and operation of the environmental mitigation measures and their effectiveness
- Monitor Contractors's, ET's and IEC's compliance with the requirements in the Environmental Permit (EP) and EM&A Manual
- Facilitate ET's implementation of the EM&A programme
- Participate in joint site inspection by the ET and IEC
- Oversee the implementation of the agreed Event / Action Plan in the event of any exceedance
- Adhere to the procedures for carrying out complaint investigation
- Liaison with DSD, Engineer/Engineer's Representative, ET, IEC and the Contractor of the "Construction of the DSD's Regulaiton of Shenzhen River Stage 4 (RSR 4)" Project discussing regarding the cumulative impact issues.

The Contractor(s)

2.2.5 There will be one contractor for each individual works contract. The Contractor(s) should report to the ER. The duties and responsibilities of the Contractor are:

- Comply with the relevant contract conditions and specifications on environmental protection
- Employ an Environmental Team (ET) to undertake monitoring, laboratory analysis and reporting of EM &A Facilitate ET's monitoring and site inspection activities
- Participate in the site inspections by the ET and IEC, and undertake any corrective actions
- Provide information / advice to the ET regarding works programme and activities which may contribute to the generation of adverse environmental impacts
- Submit proposals on mitigation measures in case of exceedances of Action and Limit levels in accordance with the Event / Action Plans
- Implement measures to reduce impact where Action and Limit levels are exceeded
- Adhere to the procedures for carrying out complaint investigation

Environmental Team (ET)

2.2.6 One ET will be employed for this Project. The ET shall not be in any way an associated body of the Contractor(s), and shall be employed by the Project Proponent/Contractor to conduct the EM&A programme. The ET should be managed by the ET Leader. The ET Leader shall be a person who has at least 7 years' experience in EM&A and has relevant professional qualifications. Suitably qualified staff should be included in the ET, and resources for the implementation of the EM&A programme should be allocated in time under the Contract(s), to enable fulfillment of the Project's EM&A requirements as specified in the EM&A Manual during construction of the Project. The ET shall report to the Project Proponent and the duties shall include:

- Monitor and audit various environmental parameters as required in this EM&A Manual
- Analyse the environmental monitoring and audit data, review the success of EM&A programme and the adequacy of mitigation measures implemented, confirm the validity of the EIA predictions and identify any adverse environmental impacts arising
- Carry out regular site inspection to investigate and audit the Contractors' site practice, equipment/plant and work methodologies with respect to pollution control and environmental mitigation, and effect proactive action to pre-empt problems
- Monitor compliance with conditions in the EP, environmental protection, pollution prevention and control regulations and contract specifications
- Audit environmental conditions on site
- Report on the environmental monitoring and audit results to EPD, the ER, the lEC and Contractor(s) or their delegated representatives
- Recommend suitable mitigation measures to the Contractor in the case of exceedance of Action and Limit levels in accordance with the Event and Action Plans
- Liaise with the IEC on all environmental performance matters and timely submit all relevant EM&A proforma for approval by IEC
- Advise the Contractor(s) on environmental improvement, awareness, enhancement measures etc., on site
- Adhere to the procedures for carrying out complaint investigation
- Liaison with the client departments, Engineer/Engineer's Representative, ET, lEC and the Contractor(s) of the concurrent projects as listed under Section 2.3 below regarding the cumulative impact issues.

Independent Environmental Checker (IEC)

2.2.7 One IEC will be employed for this Project. The Independent Environmental Checker (IEC) should not be in any way an associated body of the Contractor(s) or the ET for the Project. The IEC should be employed by the Permit Holder (i.e., CEDD) prior to the commencement of the construction of the Project. The IEC should have at least 10 years' experience in EM&A and have relevant professional qualifications. The duty of IEC should be:

- Provide proactive advice to the ER and the Project Proponent on EM&A matters related to the project, independent from the management of construction works, but empowered to audit the environmental performance of construction
- Review and audit all aspects of the EM&A programme implemented by the ET
- Review and verify the monitoring data and all submissions in connection with the EP and EM&A Manual submitted by the ET
- Arrange and conduct regular, at least monthly site inspections of the works during construction phase, and ad hoc inspections if significant environmental problems are identified
- Check compliance with the agreed Event / Action Plan in the event of any exceedance
- Check compliance with the procedures for carrying out complaint investigation
- Check the effectiveness of corrective measures
- Feedback audit results to ET by signing off relevant EM&A proforma
- Check that the mitigation measures are effectively implemented
- Report the works conducted, the findings, recommendation and improvement of the site inspections, after reviewing ET's and Contractor's works, and advices to the ER and Project Proponent on a monthly basis
- Liaison with the client departments, Engineer/Engineer's Representative, ET, lEC and the Contractor(s) of the concurrent projects as listed under Section 2.3 below regarding the cumulative impact issues.

2.3 CONCURRENT PROJECTS

2.3.1 The concurrent construction works that may be carried out include, but not limited to, the following:

(a) Regulation of Shenzhen River Stage;
(b) Building works and road works by contractors of ArchSD;
(c) Widening of Fanling Highway – Tai Hang to Wo Hop Shek Interchange – Contract No. HY/2012/06;
(d) Construction of cross-boundary vehicular and pedestrian bridges (total 5 numbers) across the Shenzhen River; and
(e) Construction of BCP facilities in Shenzhen.

2.4 CONSTRUCTION PROGRESS

2.4.1 In the Reporting Period, the major construction activity conducted under the Project is located in Contract 2, Contract 3 and Contract 5. They are summarized in below. Moreover, the master construction program of the Contract 2, Contract 3 and Contract 5 is enclosed in ***Appendix C***.

Contract 2 (CV/2012/08)

2.4.2 Construction work of Contract 2 was commenced on 19 May 2014, the following activities were conducted in the Reporting Period.

- ***North Portal:***
  - Sub-station construction
  - Permanent slope formation (soil nailing works)
  - Spoil basin and conveyor belt system construction
  - Top heading excavation (canopies) for Southbound
  - Platform excavation for South bound tunnel bench excavation
  - TBM Site Installation (site formation works, back up cradle, spoil basin, water treatment system installation, slab concreting, tower crane foundation)
  - Conveyor Belt System Construction for Tunnel Boring Machine (TBM)
  - South Bound Tunnel Bench excavation
  - North Bound Top heading excavation (canopies)
  - TBM onsite assembly + testing and commissioning
  - MS (water treatment system) testing and commissioning

- ***Mid Vent Portal:***
  - Sub-station construction and CLP installation
  - Top heading canopies and bench excavation
  - Full face excavation

- ***South Portal:***
  - Sub-station construction and CLP installation
  - Slope stabilization and site installation
  - Site formation and tree felling works
  - Temporary Slope Cut with Soil Nails Installation
  - 2nd Wetsep Delivery + testing and commissioning
- ***Admin Building:***
  - Preparation works for surcharge backfilling
  - Backfilling for surcharge
  - Drainage works
  - Site hoarding

Contract 3 (CV/2012/09)

2.4.3 Contract commenced in November 2013, the following activities were conducted in the Reporting Period.

- Cable detection and trial trenches
- Box Culvert inlet structure
- Cable detection and trial trenches
- Erection of temporary support at DSD nullah for Bridge E
- Filling Works at Tong Hang East
- Lagging wall and capping beam for bored pile wall
- Lay storm drains
- Diversion of DN600
- Pier construction
- Pile cap works
- Piling works
- Road works at Fanling Highway
- Sewer works at Tai Wo Service Road West (TWSRW)
- Socket H-pile load test
- Utilities duct laying
- Viaduct segment erection
- Waterworks
- Tree felling works
- Abutment construction for Bridge E
- E&M work for new valve control and Telemetry House
- Noise barrier construction
- Pre-drilling
- Catch fence erection
- Demolition of central divider at Fanling Highway
- Pier table construction

Contract 4 (NE/2014/02)

2.4.4 The contract has not yet awarded.

Contract 5 (CV/2013/03)

2.4.5 Contract commenced in August 2013, the following activities were conducted in the Reporting Period.

- Bituminous laying at proposed Lin Ma Hang (LMH) road
- Construction of Western pedestrian subway and pump room at LMH
- Deck construction works at Bridge J
- Construction of chain link fence and trapezoidal channel at BCPA

- Construction of retaining wall No.5
- Drainage works at existing / proposed Lin Ma Hang Road
- Drainage works at BCP area
- Water works at existing / proposed Lin Ma Hang Road
- Formation Works at BCP Area
- Pruning/ felling/ transplanting of existing tree
- Soil cement slope along BCP Area.
- Installation of underground utilities at proposed LMH road.
- Road works (kerb laying) for proposed LMH Road
- Utility laying (132kV & 11kV) at existing LMH road
- Preparation works for additional rising main at Lin Ma Hang (LMH) road
- Construction of secondary boundary fencing
- Construction of Depressed Road at BCP3
- Construction of retaining wall No.2b
- Waterproofing and backfilling works for Western pedestrian subway & staircase at LMH
- Drainage works (Connection to Box 3, Box 4 & construction of sedimentation tank) at BCP Area
- Transplanting of trees at BCP4
- Laying additional rising mains at LMH road
- Parapet installation at Bridge J

Contract 6 (CV/2013/08)

2.4.6 The contract has not yet awarded.

2.5 SUMMARY OF ENVIRONMENTAL SUBMISSIONS

2.5.1 In according to the EP, the required documents have submitted to EPD for retention which listed in below:

- Project Layout Plans of Contracts 2, 3 and 5
- Landscape Plan
- Topsoil Management Plan
- Environmental Monitoring and Audit Programme
- Baseline Monitoring Report (TCS00690/13/600/R0030v3) for the Project
- Waste Management Plan of the Contracts 2, 3 and 5
- Contamination Assessment Plan (CAP) for Po Kat Tsai, Loi Tung and the workshops in Fanling
- Contamination Assessment Report (CAR) for Po Kat Tsai, Loi Tung and the workshops in Fanling
- Vegetation Survey Report

2.5.2 Summary of the relevant permits, licenses, and/or notifications on environmental protection for the Project of each contracts are presented in ***Table 2-1***.

Table 2-1 Status of Environmental Licenses and Permits of the Contracts

Item	Description	License/Permit Status	
Contract 2			
1	Air pollution Control (Construction Dust) Regulation	Ref No.: 368864	31 Dec 2013
2	Chemical Waste Producer Registration	***North Portal*** Waste Producers Number: No. 5213-652-D2523-01	Valid from 25 Mar 2014
		Mid-Vent Portal Waste Producers Number: No. 5213-634-D2524-01	Valid from 25 Mar 2014
		South Portal Waste Producers Number: No. 5213-634-D2526-01	Valid from 9 Apr 2014

Item	Description	License/Permit Status	
3	Water Pollution Control Ordinance - Discharge License	No.WT00018374-2014	Valid from 3 Mar 2014 to 28 Feb 2019
		No.: W5/1I389	Valid from 28 Mar 2014 to 31 Mar 2019
		No.: W5/1I390	Valid from 24 Mar 2014 to 31 Mar 2019 Surrendered, effective 19 June 2014
		No.: W5/1I391	Valid from 28 Mar 2014 to 31 Mar 2019
		No.: W5/1I392	Valid from 28 Mar 2014 to 31 Mar 2019
4	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7019105	Valid from 8 Jan 2014
5	Construction Noise Permit	GW-RN0693-14	Valid 11 Nov 2014 - 10 May 2015
		GW-RN0092-15	Valid 23 Feb 2015 - 22 May 2015
		GW-RN0091-15	Valid 23 Feb 2015 - 22 May 2015
		GW-RN0778-14	Valid 29 Dec 2014 - 28 Jun 2015
		GW-RN0087-15	Valid 23 Feb 2015 - 22 May 2015
		GW-RN0195-15	Valid 30 Mar 2015 - 30 May 2015
Contract 3			
1	Air pollution Control (Construction Dust) Regulation	Ref. No: 362101	Notification received by EPD on 17 Jul 2013
2	Chemical Waste Producer Registration	Waste Producers Number: No.:5113-634-C3817-01	Valid form 7 Oct 2013 till the end of Contract
3	Water Pollution Control Ordinance - Discharge License	No.:WT00016832 – 2013	Valid from 28 Aug 13 to 31 Aug 2018
4	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7017914	Valid form 2 Aug 13 till the end of Contract
5	Construction Noise Permit	GW-RN0485-14	Valid on 7 Aug 2014 till 5 Feb 2015
		GW-RN0810-14	Valid on 4 Jan 2015 till 15 Feb 2015
		GW-RN0022-15	Valid on 25 Jan 2015 till 22 Feb 2015
		GW-RN0684-14	Valid on 16 Nov 2014 till 26 Apr 2015
		GW-RN0045-15	Valid on 31 Jan 2015 till 28 Feb 2015
		GW-RN0095-15	Valid on 24 Feb 2015 till 18 Jul 2015

Item	Description	License/Permit Status	
		GW-RN0129-15	Valid on 3 Mar 2015 till 30 May 2015
		GW-RN0120-15	Valid on 8 Mar 2015 till 1 Jul 2015
		GW-RN0230-15	Valid on 15 Apr 2015 till 14 Oct 2015
Contract 5			
1	Air pollution Control (Construction Dust) Regulation	Ref. No: 359338	Notified EPD on 13 May 2013
2	Chemical Waste Producer Registration	Waste Producers Number No.: 5213-642-S3735-01	Valid form 8 Jun 2013 till the end of Contract
3	Water Pollution Control Ordinance - Discharge License	No.: W5/1G44/1	Valid from 8 Jun 13 to 30 Jun 2018
4	Waste Disposal Regulation - Billing Account for Disposal of Construction Waste	Account No. 7017351	Valid form 29 Apr 13 till the end of Contract
5	Construction Noise Permit	NA	NA

3 PROJECT ORGANIZATION AND CONSTRUCTION PROGRESS

3.1 GENERAL

3.1.1 The Environmental Monitoring and Audit requirements are set out in the Approved EM&A manual. Environmental issues such as air quality, construction noise and water quality were identified as the key issues during the construction phase of the Project.

3.1.2 A summary of construction phase EM&A requirements are presented in the sub-sections below.

3.2 MONITORING PARAMETERS

3.2.1 The EM&A program of construction phase monitoring shall cover the following environmental issues:

- Air quality;
- Construction noise; and
- Water quality

3.2.2 A summary of the monitoring parameters is presented in ***Table 3-1.***

Table 3-1 Summary of EM&A Requirements

Environmental Issue	Parameters
Air Quality	• 1-hour TSP by Real-Time Portable Dust Meter; and • 24-hour TSP by High Volume Air Sampler.
Noise	• $L_{eq(30min)}$ in normal working days (Monday to Saturday) 07:00-19:00 except public holiday; and • 3 sets of consecutive $L_{eq(5min)}$ on restricted hours i.e. 19:00 to 07:00 next day, and whole day of public holiday or Sunday • Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.
Water Quality	**In-situ Measurements** • Dissolved Oxygen Concentration (mg/L); • Dissolved Oxygen Saturation (%); • Turbidity (NTU); • pH unit; • Water depth (m); and • Temperature (℃).
	Laboratory Analysis • Suspended Solids (mg/L)

3.3 MONITORING LOCATIONS

3.3.1 The designated monitoring locations as recommended in the *EM&A Manual* are shown in ***Appendix D***. As the access to some of the designated monitoring locations was questionable due to safety reason or denied by the landlords, alternative locations therefore have had proposed. The proposed alternative monitoring locations has updated in the revised EM&A Programme which verified by IEC and certified by ET Leader prior submitted to EPD on 10 July 2013. ***Table 3-2***, ***Table 3-3*** and ***Table 3-4*** are respectively listed the air quality, construction noise and water quality monitoring locations for the Project and a map showing these monitoring stations is presented in ***Appendix E***.

Table 3-2 Impact Monitoring Stations - Air Quality

Station ID	Description	Works Area	Related to the Work Contract
AM1a*	Garden Farm, Tsung Yuen Ha Village	BCP	Contract 5
AM2	Village House near Lin Ma Hang Road	LMH to Frontier Closed Area	Contract 5, Contract 6
AM3	Ta Kwu Ling Fire Service Station of Ta	LMH to Frontier	Contract 5,

Station ID	Description	Works Area	Related to the Work Contract
	Kwu Ling Village.	Closed Area	Contract 6
AM4a	A village house located at about 160m east side of the original point AM4	LMH to Frontier Closed Area	Contract 6
AM5	Ping Yeung Village House	Ping Yeung to Wo Keng Shan	Contract 6
AM6	Wo Keng Shan Village House	Ping Yeung to Wo Keng Shan	Contract 6
AM7b@	Loi Tung Village House	Sha Tau Kok Road	Contract 2
AM8	Po Kat Tsai Village No. 4	Po Kat Tsai	Contract 2
AM9b#	Nam Wa Po Village House No. 80	Fanling	Contract 3

 # Proposal for the change of air quality monitoring location from AM9a to AM9b was submitted to EPD on 4 Nov 2013 after verified by the IEC and it was approved by EPD (EPD's ref.: (15) in EP 2/N7/A/52 Pt.10 dated 8 Nov 2013).
** Proposal for the change of air quality monitoring location from AM1to AM1a was submitted to EPD on 24 March 2014 after verified by the IEC. It was approved by EPD (EPD's ref.: (6) in EP 2/N7/A/52 Pt.12 dated 9 Jun 2014).*
@ Proposal for the change of air quality monitoring location from AM7a to AM7b was submitted to EPD on 4 June 2014 after verified by the IEC. It was approved by EPD (EPD's ref.: (7) in EP 2/N7/A/52 Pt.12 dated 9 Jun 2014).

Table 3-3 Impact Monitoring Stations - Construction Noise

Station ID	Description	Works Area	Related to the Work Contract
NM1	Tsung Yuen Ha Village House No. 63	BCP	Contract 5
NM2	Village House near Lin Ma Hang Road	Lin Ma Hang to Frontier Closed Area	Contract 5, Contract 6
NM3	Ping Yeung Village House (facade facing northeast)	Ping Yeung to Wo Keng Shan	Contract 6
NM4	Wo Keng Shan Village House	Ping Yeung to Wo Keng Shan	Contract 6
NM5	Village House, Loi Tung	Sha Tau Kok Road	Contract 2, Contract 6
NM6	Tai Tong Wu Village House 2	Sha Tau Kok Rpad	Contract 2, Contract 6
NM7	Po Kat Tsai Village	Po Kat Tsai	Contract 2
NM8	Village House, Tong Hang	Fanling	Contract 2 Contract 3
NM9	Village House, Kiu Tau Village	Fanling	Contract 3
NM10	Nam Wa Po Village House No. 78	Fanling	Contract 3

Table 3-4 Impact Monitoring Stations - Water Quality

Station ID	Description	Designated / Alternative Location		Nature of the location	Related to the Work Contract
		Coordinates			
		Easting	Northing		
WM1	Downstream of Kong Yiu Channel	833679	845421	Alternative location located at upstream 51m of the designated location	Contract 5
WM1-Control	Upstream of Kong Yiu Channel	834185	845917	NA	Contract 5
WM2A	Downstream of River Ganges	834204	844471	Alternative location located at downstream 81m of the designated location	Contract 6

Station ID	Description	Designated / Alternative Location		Nature of the location	Related to the Work Contract
		Coordinates			
		Easting	Northing		
WM2A-Control	Upstream of River Ganges	835270	844243	Alternative location located at upstream 78m of the designated location	Contract 6
WM2B	Downstream of River Ganges	835433	843397	NA	Contract 6
WM2B-Control	Upstream of River Ganges	835835	843351	Alternative location located at downstream 31m of the designated location	Contract 6
WM3	Downstream of River Indus	836324	842407	NA	Contract 6
WM3-Control	Upstream of River Indus	836763	842400	Alternative location located at downstream 26m of the designated location	Contract 6
WM4	Downstream of Ma Wat Channel	833850	838338	Alternative location located at upstream 11m of the designated location	Contract 3
WM4–Control A	Kau Lung Hang Stream	834028	837695	Alternative location located at downstream 28m of the designated location	Contract 3
WM4–Control B	Upstream of Ma Wat Channel	833760	837395	Alternative location located at upstream 15m of the designated location	Contract 3

3.4 MONITORING FREQUENCY AND PERIOD

3.4.1 The requirements of impact monitoring are stipulated in *Sections 2.1.6, 3.1.5* and *4.1.6* of the approved *EM&A Manual* and presented as follows.

Air Quality Monitoring

3.4.2 Frequency of impact air quality monitoring is as follows:

- 1-hour TSP 3 times every six days during course of works
- 24-hour TSP Once every 6 days during course of works.

Noise Monitoring

3.4.3 One set of $L_{eq(30min)}$ as 6 consecutive $L_{eq(5min)}$ between 0700-1900 hours on normal weekdays and once every week during course of works. If construction work necessary to carry out at other time periods, i.e. restricted time period (19:00 to 07:00 the next morning and whole day on public holidays) (hereinafter referred as "the restricted hours"), 3 consecutive $L_{eq(5min)}$ measurement will depended CNP requirements to undertake. Supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

Water Quality Monitoring

3.4.4 The water quality monitoring frequency shall be 3 days per week during course of works. The interval between two sets of monitoring shall not be less than 36 hours.

3.5 MONITORING EQUIPMENT

Air Quality Monitoring

3.5.1 The 24-hour and 1-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.* If the ET proposes to use a direct reading dust meter to measure 1-hour TSP levels, it shall submit sufficient information to the IEC to approve.

3.5.2 The filter paper of 24-hour TSP measurement shall be determined by HOKLAS accredited

laboratory.

3.5.3 All equipment to be used for air quality monitoring is listed in ***Table 3-5***.

Table 3-5 Air Quality Monitoring Equipment

Equipment	Model
24-Hour TSP	
High Volume Air Sampler	TISCH High Volume Air Sampler, HVS Model TE-5170
Calibration Kit	TISCH Model TE-5025A
1-Hour TSP	
Portable Dust Meter	Sibata LD-3B Laser Dust monitor Particle Mass Profiler & Counter

Wind Data Monitoring Equipment

3.5.4 According to the approved EM&A Manual, wind data monitoring equipment shall also be provided and set up for logging wind speed and wind direction near the dust monitoring locations. The equipment installation location shall be proposed by the ET and agreed with the IEC. For installation and operation of wind data monitoring equipment, the following points shall be observed:

1) The wind sensors should be installed 10 m above ground so that they are clear of obstructions or turbulence caused by buildings.
2) The wind data should be captured by a data logger. The data shall be downloaded for analysis at least once a month.
3) The wind data monitoring equipment should be re-calibrated at least once every six months.
4) Wind direction should be divided into 16 sectors of 22.5 degrees each.

3.5.5 ET has liaised with the landlords of the successful granted HVS installation premises. However, the owners rejected to provide premises for wind data monitoring equipment installation.

3.5.6 Under this situation, the ET proposed alternative methods to obtain representative wind data. Meteorological information as extracted from "the Hong Kong Observatory Ta Kwu Ling Station" is alternative method to obtain representative wind data. For Ta Kwu Ling Station, it is located nearby the Project site. Moreover, this station is located at 15m above mean sea level while its anemometer is located at 13m above the existing ground which in compliance with the general setting up requirement. Furthermore, this station also can be to provide the humidity, rainfall, and air pressure and temperature etc. meteorological information. In Hong Kong of a lot development projects, weather information extracted from Hong Kong Observatory is common alternative method if weather station installation not allowed.

Noise Monitoring

3.5.7 Sound level meter 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. The sound level meter shall be checked using an acoustic calibrator. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m s^{-1}.

3.5.8 Noise monitoring equipment to be used for monitoring is listed in ***Table 3-6***.

Table 3-6 Construction Noise Monitoring Equipment

Equipment	Model
Integrating Sound Level Meter	B&K Type 2238 or Rion NL-14 or Rion NL-31or Rion NL-52
Calibrator	B&K Type 4231
Portable Wind Speed Indicator	Testo Anemometer

3.5.9 Sound level meters listed above comply with the *International Electrotechnical Commission Publications 651: 1979 (Type 1)* and *804: 1985 (Type 1)* specifications, as recommended in TM issued under the NCO. The acoustic calibrator and sound level meter to be used in the impact monitoring will be calibrated yearly.

Water Quality Monitoring

3.5.10 DO and water temperature should be measured in-situ by a DO/temperature meter. The instrument should be portable and weatherproof using a DC power source. It should have a membrane electrode with automatic temperature compensation complete with a cable. The equipment should be capable of measuring:

- DO level in the range of 0-20 mg/l and 0-200% saturation; and
- temperature of between 0 and 45 degree Celsius.

3.5.11 A portable pH meter capable of measuring a range between 0.0 and 14.0 should be provided to measure pH under the specified conditions accordingly to the APHA Standard Methods.

3.5.12 The instrument should be portable and weatherproof using a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU.

3.5.13 A portable, battery-operated echo sounder or tape measure will be used for the determination of water depth at each designated monitoring station as appropriate.

3.5.14 A water sampler e.g. Kahlsico Water Sampler, which is a transparent PVC cylinder with capacity not less than 2 litres, will be used for water sampling if water depth over than 0.5m. For sampling from very shallow water depths e.g. <0.5 m, water sample collection will be directly from water surface below 100mm use sampling plastic bottle to avoid inclusion of bottom sediment or humus. Moreover, Teflon/stainless steel bailer or self-made sampling buckets maybe used for water sampling. The equipment used for sampling will be depended the sampling location and depth situations.

3.5.15 Water samples for laboratory measurement of SS will be collected in high density polythene bottles, packed in ice (cooled to 4 ºC without being frozen), and delivered to the laboratory in the same day as the samples were collected.

3.5.16 Analysis of suspended solids should be carried out in a HOKLAS or other accredited laboratory. Water samples of about 1L should be collected at the monitoring stations for carrying out the laboratory suspended solids determination. The SS determination work should start within 24 hours after collection of the water samples. The SS analyses should follow the *APHA Standard Methods 2540D* with Limit of Reporting of 2 mg/L.

3.5.17 Water quality monitoring equipment used in the impact monitoring is listed in ***Table 3-7***. Suspended solids (SS) analysis is carried out by a local HOKLAS-accredited laboratory, namely *ALS Technichem (HK) Pty Ltd*.

Table 3-7 Water Quality Monitoring Equipment

Equipment	Model
Water Depth Detector	Eagle Sonar or tape measures
Water Sampler	A 2-litre transparent PVC cylinder with latex cups at both ends or teflon/stainless steel bailer or self-made sampling bucket
Thermometer & DO meter	YSI Professional Plus / YSI 6820/650MDS / YSI PRO20 Handheld Dissolved Oxygen Instrument / YSI 550A Multifunctional Meter
pH meter	AZ8685 pH pen-style meter / YSI Professional Plus / YSI 6820/650MDS
Turbidimeter	Hach 2100Q / YSI Professional Plus / YSI 6820/650MDS
Sample Container	High density polythene bottles (provided by laboratory)
Storage Container	'Willow' 33-liter plastic cool box with Ice pad

3.6 MONITORING METHODOLOGY

1-hour TSP Monitoring

3.6.1 The 1-hour TSP monitor was a brand named "Sibata LD-3B Laser Dust monitor Particle Mass Profiler & Counter" which is a portable, battery-operated laser photometer. The 1-hour TSP meter provides a real time 1-hour TSP measurement based on 90° light scattering. The 1-hour TSP monitor consists of the following:

(a.) A pump to draw sample aerosol through the optic chamber where TSP is measured;
(b.) A sheath air system to isolate the aerosol in the chamber to keep the optics clean for maximum reliability; and
(c.) A built-in data logger compatible with Windows based program to facilitate data collection, analysis and reporting.

3.6.2 The 1-hour TSP meter is used within the valid period as follow manufacturer's Operation and Service Manual.

24-hour TSP Monitoring

3.6.3 The equipment used for 24-hour TSP measurement is Thermo Andersen Model GS2310 TSP high volume air sampling system, which complied with *EPA Code of Federal Regulation, Appendix B to Part 50*. The High Volume Air Sampler (HVS) consists of the following:

(a.) An anodized aluminum shelter;
(b.) A 8"x10" stainless steel filter holder;
(c.) A blower motor assembly;
(d.) A continuous flow/pressure recorder;
(e.) A motor speed-voltage control/elapsed time indicator;
(f.) A 7-day mechanical timer, and
(g.) A power supply of 220v/50 Hz

3.6.4 The HVS is operated and calibrated on a regular basis in accordance with the manufacturer's instruction using Tisch Calibration Kit Model TE-5025A. Calibration would carry out in two month interval.

3.6.5 24-hour TSP is collected by the ET on filters of HVS and quantified by a local HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd (ALS), upon receipt of the samples. The ET keep all the sampled 24-hour TSP filters in normal air conditioned room conditions, i.e. 70% RH (Relative Humidity) and 25°C, for six months prior to disposal.

Noise Monitoring

3.6.6 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (L_{eq}) measured in decibels dB(A). Supplementary statistical results (L_{10} and L_{90}) were also obtained for reference.

3.6.7 During the monitoring, all noise measurements were performed with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (L_{eq}). $Leq_{(30min)}$ in six consecutive $Leq_{(5min)}$ measurements were used as the monitoring parameter for the time period between 0700-1900 hours on weekdays; and also $Leq_{(15min)}$ in three consecutive $Leq_{(5min)}$ measurements is used as monitoring parameter for other time periods (e.g. during restricted hours), if necessary.

3.6.8 Prior of noise measurement, the accuracy of the sound level meter is checked using an acoustic calibrator generating a known sound pressure level at a known frequency. The checking was performed before and after the noise measurement.

Water Quality

3.6.9 Water quality monitoring is conducted at the designated locations. The sampling produce with the

in-situ monitoring are presented as below:

Sampling Procedure

3.6.10 A Digital Global Positioning System (GPS) is used to identify the designated monitoring stations prior to water sampling. A portable, battery-operated echo sounder is used for the determination of water depth at each station. At each station, water sample would be collected from 0.1m below water surface or the water surface to prevent the river bed sediment for stirring.

3.6.11 The sample container will be rinsed with a portion of the water sample. The water sample then will be transferred to the high-density polythene bottles as provided by the laboratory, labeled with a unique sample number and sealed with a screw cap.

3.6.12 Before sampling, general information such as the date and time of sampling, weather condition as well as the personnel responsible for the monitoring would be recorded on the field data sheet.

3.6.13 A 'Willow' 33-liter plastic cool box packed with ice will be used to preserve the water samples prior to arrival at the laboratory for chemical determination. The water temperature of the cool box is maintained at a temperature as close to 4^0C as possible without being frozen. Samples collected are delivered to the laboratory upon collection.

In-situ Measurement

3.6.14 Instrument including YSI Professional Plus or YSI 6820/650MDS or YSI PRO20 Handheld Dissolved Oxygen Instrument or YSI 550A Multifunctional Meter is used for water in-situ measures, which automates the measurements and data logging of temperature, dissolved oxygen and dissolved oxygen saturation. Before each round of monitoring, the dissolved oxygen probe would be calibrated by the wet bulb method.

3.6.15 A portable AZ8685 pH pen-style meter or YSI Professional Plus or YSI 6820/650MDS is used for in-situ pH measurement. The pH meter is capable of measuring pH in the range of 0 – 14 and readable to 0.1.

3.6.16 A portable Hach 2100Q Turbidimeter or YSI Professional Plus or YSI 6820/650MDS is used for in-situ turbidity measurement. The turbidity meter is capable of measuring turbidity in the range of 0 – 1000 NTU. StablCal® Standards of known NTU are used for calibration of the instrument before and after measurement.

3.6.17 All in-situ measurement equipment are calibrated by HOKLAS accredited laboratory of three month interval.

Laboratory Analysis

3.6.18 All water samples are analyzed with Suspended Solids (SS) as specified in the *EM&A Manual* by a local HOKLAS-accredited testing laboratory (ALS Technichem (HK) Pty Ltd HOKLAS registration no. 66). SS analysis is determined by the laboratory upon receipt of the water samples using *APHA Standard Methods 2540D* (namely ALS Method EA-025 as accredited HOKLAS Scheme) started within 48 hours of water sample receipt.

3.7 EQUIPMENT CALIBRATION

3.7.1 Calibration of the HVS is performed upon installation and thereafter at bimonthly intervals in accordance with the manufacturer's instruction using the certified standard calibrator (TISCH Model TE-5025A). Moreover, the Calibration Kit would be calibrated annually. The calibration data are properly documented and the records are maintained by ET for future reference.

3.7.2 The 1-hour TSP meter was calibrated by the supplier prior to purchase. Zero response of the equipment would be checked before and after each monitoring event. Annually calibration with the High Volume Sampler (HVS) in same condition would be undertaken by the Laboratory.

3.7.3 The sound level meter and calibrator are calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme at yearly basis.

3.7.4 All water quality monitoring equipment is calibrated by HOKLAS accredited laboratory of three month intervals.

3.7.5 The calibration certificates of all monitoring equipment used for the impact monitoring program in the Reporting Period and the HOKLAS accredited certificate of laboratory are presented in the relevant monthly EM&A reports.

3.8 DERIVATION OF ACTION/LIMIT (A/L) LEVELS

3.8.1 The baseline results form the basis for determining the environmental acceptance criteria for the impact monitoring. According to the approved Environmental Monitoring and Audit Manual, the air quality, construction noise and water quality criteria were set up, namely Action and Limit levels are listed in ***Tables 3-8, 3-9*** and ***3-10***.

Table 3-8 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level (μg /m^3)		Limit Level (μg/m^3)	
	1-hour TSP	24-hour TSP	1-hour TSP	24-hour TSP
AM1/ AM1a	265	143	500	260
AM2	268	149		
AM3	269	145		
AM4a	267	148		
AM5	268	143		
AM6	269	148		
AM7a / AM7b	275	156		
AM8	269	144		
AM9a / AM9b	271	151		

Table 3-9 Action and Limit Levels for Construction Noise

Monitoring Location	Action Level	Limit Level in dB(A)
	Time Period: 0700-1900 hours on normal weekdays	
NM1, NM2, NM3, NM4, NM5, NM6, NM7, NM8, NM9, NM10	When one or more documented complaints are received	75 dB(A)[Note 1 & Note 2]

Note 1: Acceptable Noise Levels for school should be reduced to 70 dB(A) and 65 dB(A) during examination period
Note 2: If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the NCA have to be followed.

Table 3-10 Action and Limit Levels for Water Quality

Parameter	Performance criteria	Monitoring Location				
		WM1	WM2A	WM2B	WM3	WM4
DO (mg/L)	Action Level	(*)4.23	(**)4.00	(*)4.74	(**)4.00	(*)4.14
	Limit Level	(#)4.19	(**)4.00	(#)4.60	(**)4.00	(#)4.08
Turbidity (NTU)	Action Level	51.3	24.9	11.4	13.4	35.2
		AND 120% of upstream control station of the same day				
	Limit Level	67.6	33.8	12.3	14.0	38.4
		AND 130% of upstream control station of the same day				
SS (mg/L)	Action Level	54.5	14.6	11.8	12.6	39.4
		AND 120% of upstream control station of the same day				
	Limit Level	64.9	17.3	12.4	12.9	45.5
		AND 130% of upstream control station of the same day				

Remarks:
(*) *The Proposed **Action Level** of Dissolved Oxygen is adopted to be used 5%-ile of baseline data*
(**) *The Proposed **Action & Limit Level** of Dissolved Oxygen is used 4mg/L*
(#) *The Proposed **Limit Level** of Dissolved Oxygen is adopted to be used 1%-ile of baseline data*

3.8.2 Should non-compliance of the environmental quality criteria occurs, remedial actions will be triggered according to the Event and Action Plan which presented in ***Appendix F*.**

3.9 DATA MANAGEMENT AND DATA QA/QC CONTROL

3.9.1 All monitoring data will be handled by the ET's in-house data recording and management system. The monitoring data recorded in the equipment will be downloaded directly from the equipment at the end of each monitoring day. The downloaded monitoring data will input into a computerized database properly maintained by the ET. The laboratory results will be input directly into the computerized database and checked by personnel other than those who input the data.

3.9.2 For monitoring parameters that require laboratory analysis, the local laboratory shall follow the QA/QC requirements as set out under the HOKLAS scheme for the relevant laboratory tests.

4 AIR QUALITY MONITORING

4.1 GENERAL

4.1.1 In the Reporting Period, construction works under the project have been commenced in Contracts 2, 3 and 5 and air quality monitoring was performed at ***6*** relevant designated locations as below:

- AM1a - Garden Farm, Tsung Yuen Ha Village;
- AM2 - Village House near Lin Ma Hang Road;
- AM3 - Ta Kwu Ling Fire Service Station of Ta Kwu Ling Village;
- AM7b – Loi Tung Village;
- AM8 - Po Kat Tsai Village;
- AM9b - Nam Wa Po Village House No. 80

4.2 SUMMARY OF MONITORING RESULTS

4.2.1 Summary of air quality monitoring results during the Reporting Period are tabulated in ***Table 4-1.*** The relevant graphical plots throughout the Reporting Period are presented in ***Appendix G***.

Table 4-1 Summary of Air Quality Monitoring Results

Monitoring Location	1-hour TSP (μg/m^3)			24-hour TSP (μg/m^3)		
	Max	Min	Mean	Max	Min	Mean
AM1a	262	24	116	132	38	66
Record Date	17-Feb-15	12-Mar-15	51 events	9-Feb-15	24-Feb-15	16 events (1 failure)
AM2	261	23	118	142	46	99
Record Date	17-Feb-15	12-Mar-15	51 events	25-Apr-15	24-Feb-15	16 events (1 failure)
AM3	262	21	108	519	30	99
Record Date	7-Feb-15	12-Mar-15	51 events	14-Apr-15	13-Mar-15	16 events (1 failure)
AM7b	260	43	122	148	72	107
Record Date	9-Feb-15	14-Apr-15	48 events	14-Feb-15	7-Mar-15	16 events
AM8	231	46	110	122	30	63
Record Date	7-Mar-15	31-Mar-15	48 events	9-Feb-15	31-Mar-15	16 events
AM9b	255	34	116	146	30	77
Record Date	17-Feb-15	12-Mar-15	51 events	9-Feb-15	31-Mar-15	16 events (1 failure)

4.2.2 Breaches of air quality A/L levels and statistical analysis of compliance for the air quality monitoring results are summarized in ***Table 4-2***.

Table 4-2 Summaries of Breaches of Air Quality A/L Levels

Location	Exceedance	1-hour TSP	24- hour TSP	Total
AM1	Action Level	0	0	0
	Limit Level	0	0	0
AM2	Action Level	0	0	0
	Limit Level	0	0	0
AM3	Action Level	0	0	0
	Limit Level	0	**1**	**1**
AM7b	Action Level	0	0	0
	Limit Level	0	0	0
AM8	Action Level	0	0	0
	Limit Level	0	0	0
AM9b	Action Level	0	0	0
	Limit Level	0	0	0

4.2.3 In the Reporting Period, no exceedances were recorded for 1-hour TSP. However, one (1) Limit Level exceedances for 24-hour TSP was recorded in April 2015. According to investigation

result, it was concluded that the exceedance was not due to the works under the project. The detailed investigation findings have been presented in the relevant monthly EM&A reports.

4.2.4 The summary of weather conditions during the Reporting Period is presented in ***Appendix H.***

5 CONSTRUCTION NOISE MONITORING

5.1 GENERAL

5.1.1 In the Reporting Period, construction works under the project have been commenced in Contracts 2, 3 and 5 and noise monitoring was performed at ***8*** relevant designated locations as below:

- NM1 - Tsung Yuen Ha Village House No. 63
- NM2 - Village House near Lin Ma Hang Road
- NM5 - Village House, Loi Tung
- NM6 - Tai Tong Wu Village House 2
- NM7 - Po Kat Tsai Village
- NM8 - Village House, Tong Hang
- NM9 - Village House, Kiu Tau Village; and
- NM10 - Nam Wa Po Village House No. 80

5.2 SUMMARY OF MONITORING RESULTS

5.2.1 The sound level meter was set in 1m from the exterior of the building façade including noise monitoring locations NM1, NM2, NM5, NM6, NM7, NM8 and NM9. No façade correction (+3 dB(A) is added according to acoustical principles and EPD guidelines. However, free-field status is performed at NM10 and façade correction (+3 dB(A) has added according to the requirement.

5.2.2 Summary of noise monitoring results during the Reporting Period are tabulated in ***Table 5-1.*** The relevant graphical plots throughout the Reporting Period are presented in ***Appendix G***.

Table 5-1 Summary of Construction Noise Monitoring Results

Monitoring Location	Leq, 30min (dB((A))	
	Max	**Min**
NM1	60	47
Record Date	30-Mar-15	23-Feb-15
NM2	67	55
Record Date	17-Feb-15	23-Feb-15
NM5	68	46
Record Date	14-Feb-15	25-Mar-15
NM6	64	59
Record Date	3 and 6 Feb-15	24-Feb-15
NM7	71	54
Record Date	3-Feb-15	25-Apr-15
NM8	62	55
Record Date	12-Mar-15	2-Feb-15
NM9	65	55
Record Date	13-Feb-15	29-Apr-15
NM10(*)	75	58
Record Date	18-Mar-15	29-Apr-15

(*) *façade correction (+3 dB(A) is added according to acoustical principles and EPD guidelines*

5.2.3 Breaches of construction noise A/L levels and statistical analysis of compliance for construction noise monitoring results are summarized in ***Table 5-2***.

Table 5-2 Summaries of Breaches of Construction Noise A/L Levels

Station	Limit Level	Action Level	Received Date
NM1	0	0	NA
NM2	0		
NM5	0		
NM6	0		
NM7	0		
NM8	0		
NM9	0		
NM10	0		

5.2.4 In this Reporting Period, the noise level measured at the eight (8) designated monitoring locations were below 75dB(A). Furthermore, there was no noise complaints (Action Level exceedance) received by the RE, Contractors or CEDD in the Reporting Period. Therefore, no Action or Limit Level exceedance was triggered and no corrective action was required.

6 WATER QUALITY MONITORING

6.1 GENERAL

6.1.1 In the Reporting Period, water quality monitoring was performed at 5 designated locations which related the Contract 3 and Contract 5 as below:

- WM1 – Contract 5 working site downstream at Kong Yiu Channel;
- WM1-Control – Contract 5 working site upstream at Kong Yiu Channel;
- WM4 – Contract 3 working site Downstream of Ma Wat Channel;
- WM4-Control A – Contract 3 working site Kau Lung Hang Stream; and
- WM4-Control B – Contract 3 working site Upstream of Ma Wat Channel

6.2 SUMMARY OF MONITORING RESULTS

6.2.1 Summary of monitoring results during the Reporting Period are tabulated in ***Tables 6-1 and 6-2.*** The relevant graphical plots throughout the Reporting Period are presented in ***Appendix G***.

Table 6-1 Summary of the Water Quality Monitoring Results – Contract 5

Statistics	DO (mg/L)		Turbidity (NTU)		SS (mg/L)	
	WM1	WM1-Control	WM1	WM1-Control	WM1	WM1-Control
Min	0.18	3.38	8.6	10.5	6	3
Max	8	11.26	605.5	864.5	263	374.5
Average	3.01	7.28	61.41	63.47	43.06	32.21

Table 6-2 Summary of the Water Quality Monitoring Results – Contract 3

Statistics	DO (mg/L)			Turbidity (NTU)			SS (mg/L)		
	WM4	WM4 - CA	WM4 - CB	WM4	WM4 - CA	WM4 - CB	WM4	WM4 - CA	WM4 - CB
Min	2.21	3.16	1.06	5.82	2.91	5.2	5.5	<2	3
Max	7.58	8.68	7.49	34.1	32.7	35.1	48	22.5	16
Average	4.96	6.54	3.65	20.85	10.76	12.84	20.72	6.08	8.20

Noted:
WM4-CA = WM4-Control A; WM4-CB = WM4-Control B

6.2.2 Breaches of water quality A/L levels and statistical analysis of compliance for the water quality monitoring results are summarized in ***Tables 6-3.***

Table 6-3 Summaries of Breaches of the Existing Water Quality A/L Levels

Reporting Period	No. of sampling day	Location	DO (mg/L)		Turbidity (NTU)		SS (mg/L)	
			Action	Limit	Action	Limit	Action	Limit
Feb-15	11	WM1	0	**7**	0	0	0	0
		WM4	0	0	0	0	0	0
Mar-15	13	WM1	0	**11**	0	0	**1**	0
		WM4	0	**3**	0	0	0	**1**
Apr-15	11	WM1	0	**2**	0	**3**	0	**3**
	13	WM4	0	**5**	0	0	0	0
Total	**35**	WM1	0	**20**	0	**3**	**1**	**3**
	37	WM4	0	**8**	0	0	0	**1**

In the Reporting Period, a total of thirty six (36) Action/ Limit Level exceedances namely 28 exceedances of DO, 3 exceedances of turbidity and 5 exceedances of SS were recorded. NOEs

were issued to relevant parties upon confirmation of the results. According to investigation result, it was concluded that the exceedances were not due to the works under the project. The detailed investigation findings have been presented in the relevant monthly EM&A reports.

6.2.3 The summary of weather conditions during the Reporting Period is presented in ***Appendix H.***

7 WASTE MANAGEMENT

7.1 GENERAL WASTE MANAGEMENT

7.1.1 Waste management was carried out by an on-site Environmental Officer or an Environmental Supervisor from time to time.

7.2 RECORDS OF WASTE QUANTITIES

7.2.1 All types of waste arising from the construction work are classified into the following:

- Construction & Demolition (C&D) Material;
- Chemical Waste;
- General Refuse

7.2.2 Whenever possible, materials were reused on-site as far as practicable. The quantities of waste for disposal in the Reporting Period are summarized in ***Tables 7-1*** and ***7-2*** and the Waste Flow Table is presented in ***Appendix I***.

Table 7-1 Summary of Quantities of Inert C&D Materials

Type of Waste	Contract No	Quantity				Disposal Location
		Feb 15	Mar 15	Apr 15	Total	
C&D Materials (Inert) (in '000m^3)	**2**	57.998	66.0198	49.233	**182.989**	-
	3	2.429	3.713	3.597		-
	5	0	0	0		-
Reused in this Project (Inert) (in '000m^3)	**2**	0	0.3614	0.277	**4.7344**	
	3	1.518	0.27	2.308		-
	5	0	0	0		-
Reused in other Projects (Inert) (in '000m^3)	**2**	57.3858	65.3359	48.7494	**171.4711**	C5
	3	0	0	0		-
	5	0	0	0		-
Disposal as Public Fill (Inert) (in '000m^3)	**2**	0.6121	0.3225	0.2066	**6.7842**	Tuen Mun 38
	3	0.911	3.443	1.289		Tuen Mun 38
	5	0	0	0		-

Table 7-2 Summary of Quantities of C&D Wastes

Type of Waste	Contract No	Quantity				Disposal Location
		Feb 15	Mar 15	Apr 15	Total	
Recycled Metal ('000kg)	**2**	3.32	0	0	**4.31 + #2.767**	By licensed collector
	3	0	0	#2.767		
	5	0.99	0	0		
Recycled Paper / Cardboard Packing ('000kg)	**2**	0.39	0.292	0.23	**0.912**	By licensed collector
	3	0	0	0		
	5	0	0	0		
Recycled Plastic ('000kg)	**2**	0	0	0	**#0.009**	By licensed collector
	#3	0.003	0.006	0		
	5	0	0	0		
Chemical Wastes ('000kg)	**2**	0.528	0.704	0	**1.232 + #0.9**	By licensed collector
	3	#0.9	0	0		
	5	0	0	0		
General Refuses ('000m^3)	**2**	0.0908	0.1293	0.2278	**1.2579**	NENT
	3	0.07	0.08	0.065		
	5	0.18	0.375	0.04		

Remark #: Unit of recycled metal, recycled paper/ cardboard packing, recycled plastic and chemical waste for Contractor 3 was in ('000m^3).

7.2.3 To control the site performance on waste management, the Contractor shall ensure that all solid and liquid waste management works are fully in compliance with the relevant license/permit requirements, such as the effluent discharge license and the chemical waste producer registration. The Contractor is also reminded to implement the recommended environmental mitigation measures according to the Environmental Monitoring and Audit Manual.

8 SITE INSPECTIONS

8.1 REQUIREMENTS

8.1.1 According to the approved EM&A Manual, the environmental site inspection shall be formulation by ET Leader. Weekly environmental site inspections should carry out to confirm the environmental performance.

Contract 2

8.1.2 During the Reporting Period, ***13*** events of the joint site inspections were undertaken at Contract 2 to evaluate the site environmental performance. The summaries of the findings during site inspection are presented in ***Table 8-1*** and the details of site inspection can be found in relevant EM&A monthly report.

Table 8-1 Summary of Reminders/Observations of Site Inspection – Contract 2

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
February 2015	6, 13, 16 and 27 February 2015	4	Completed
March 2015	6, 13, 19 and 27 March 2015	10	Completed
April 2015	1, 10, 17, 24 and 29 April 2015	12	Completed

8.1.3 In the Reporting Period, no non-compliance was recorded; however, ***26*** observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 3

8.1.4 During the Reporting Period, ***13*** events of the joint site inspections were undertaken at Contract 3 to evaluate the site environmental performance. The summaries of the findings during site inspection are presented in ***Table 8-2*** and the details of site inspection can be found in relevant EM&A monthly report.

Table 8-2 Summary of Reminders/Observations of Site Inspection – Contract 3

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
February 2015	2, 11, 16 and 25 February 2015	6	Completed
March 2015	2, 11, 18, 23 and 30 March 2015	9	Completed
April 2015	8, 15, 20 and 27 April 2015	6	Completed

8.1.5 In the Reporting Period, no non-compliance was recorded; however, ***21*** observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Contract 5

8.1.6 During the Reporting Period, ***13*** events of the joint site inspections were undertaken at Contract 5 to evaluate the site environmental performance. The summaries of the findings during site inspection are presented in ***Table 8-3*** and the details of site inspection can be found in relevant EM&A monthly report.

Table 8-3 Summary of Reminders/Observations of Site Inspection – Contract 5

Reporting Period	Date of site inspection	Nos. of findings / reminders	Follow-Up Status
February 2015	5, 12, 17 and 26 February 2015	6	Completed
March 2015	5, 12, 20 and 26 March 2015	2	Completed
April 2015	2, 9, 16, 23 and 30 April 2015	5	Completed

8.1.7 In the Reporting Period, no non-compliance was recorded; however, ***13*** observations/ reminders were recorded during the site inspections. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

Other Contracts

8.1.8 Since the construction works at the Contract 4 and Contract 6 are not yet commenced, no site inspection is performed for these Contracts.

9 NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

9.1 NON-COMPLIANCE

9.1.1 No environmental non-compliance was recorded in the Reporting Period.

9.2 ENVIRONMENTAL COMPLAINT, SUMMONS AND PROSECUTION

9.2.1 In the Reporting Period, no environmental complaints, summons and prosecution under the EM&A Programme was lodged for Contracts 2, 3 and 5.

9.2.2 The statistical summary table of environmental complaint, summons and prosecution are presented in **Tables 9-1, 9-2** and **9-3**.

Table 9-1 Statistical Summary of Environmental Complaints

Contract No	Reporting Period	Environmental Complaint Statistics				
		Frequency	Cumulative since commencement of project	Complaint Nature		
				Water	Air	Noise
2	Feb 2015	0	11	0	0	0
	Mar 2015	0		0	0	0
	Apr 2015	0		0	0	0
3	Feb 2015	0	3	0	0	0
	Mar 2015	0		0	0	0
	Apr 2015	0		0	0	0
5	Feb 2015	0	2	0	0	0
	Mar 2015	0		0	0	0
	Apr 2015	0		0	0	0

Table 9-2 Statistical Summary of Environmental Summons

Contract No	Reporting Period	Environmental Summons Statistics				
		Frequency	Cumulative since commencement of project	Complaint Nature		
				Water	Air	Noise
2	Feb 2015	0	0	0	0	0
	Mar 2015	0		0	0	0
	Apr 2015	0		0	0	0
3	Feb 2015	0	0	0	0	0
	Mar 2015	0		0	0	0
	Apr 2015	0		0	0	0
5	Feb 2015	0	0	0	0	0
	Mar 2015	0		0	0	0
	Apr 2015	0		0	0	0

Table 9-3 Statistical Summary of Environmental Prosecution

Contract No	Reporting Period	Environmental Prosecution Statistics				
		Frequency	Cumulative since commencement of project	Complaint Nature		
				Water	Air	Noise
2	Feb 2015	0	0	0	0	0
	Mar 2015	0		0	0	0
	Apr 2015	0		0	0	0
3	Feb 2015	0	0	0	0	0
	Mar 2015	0		0	0	0

Contract No	Reporting Period	Environmental Prosecution Statistics				
		Frequency	Cumulative since commencement of project	Complaint Nature		
				Water	Air	Noise
	Apr 2015	0		0	0	0
5	Feb 2015	0	**0**	0	0	0
	Mar 2015	0		0	0	0
	Apr 2015	0		0	0	0

9.2.3 Since the construction works at the Contract 4 and Contract 6 are not yet commenced, no environmental complaint, summons and prosecution are received in the Reporting Period accordingly.

10 IMPLEMENTATION STATUS OF MITIGATION MEASURES

10.1 GENERAL REQUIREMENTS

10.1.1 The environmental mitigation measures that recommended in the Implementation Schedule for Environmental Mitigation Measures (ISEMM) in the approved EM&A Manual covered the issues of dust, noise, water and waste and they are summarized presented in ***Appendix J.***

10.1.2 All contracts under the Project shall be implementing the required environmental mitigation measures according to the approved EM&A Manual as subject to the site condition. Environmental mitigation measures generally implemented by Contracts 2, 3 and 5 in this Reporting Period are summarized in ***Table 10-1***.

Table 10-1 Environmental Mitigation Measures

Issues	Environmental Mitigation Measures
Water Quality	• Wastewater to be treated by the filtration systems i.e. sedimentation tank or AquaSed before to discharge.
Air Quality	• Maintain damp / wet surface on access road • Keep slow speed in the sites • All vehicles must use wheel washing facility before off site • Sprayed water during breaking works • A cleaning truck was regularly performed on the public road to prevent fugitive dust emission
Noise	• Restrain operation time of plants from 07:00 to 19:00 on any working day except for Public Holiday and Sunday. • Keep good maintenance of plants • Place noisy plants away from residence or school • Provide noise barriers or hoarding to enclose the noisy plants or works • Shut down the plants when not in used.
Waste and Chemical Management	• On-site sorting prior to disposal • Follow requirements and procedures of the “Trip-ticket System” • Predict required quantity of concrete accurately • Collect the unused fresh concrete at designated locations in the sites for subsequent disposal
General	• The site was generally kept tidy and clean.

11 CONCLUSIONS AND RECOMMENDATIONS

11.1 CONCLUSIONS

11.1.1 This is the 7th Quarterly EM&A Summary Report presenting the monitoring results and inspection findings for the Reporting Period from 1 February to 30 April 2015.

11.1.2 For air quality monitoring, no exceedances were recorded for 1-hour TSP but one (1) Limit Level exceedances of 24-hour TSP recorded. NOE was issued to relevant parties upon confirmation of the monitoring results. The investigation for the causes of exceedances was completed and it concluded that the exceedance was not related to works under the Project.

11.1.3 No construction noise measurement results that exceeded the Limit Level were recorded in the Reporting Period. However, two noise complaints (which is an Action Level exceedance) were registered for the Project and they were settled by the Contractor.

11.1.4 For water quality monitoring, a total of thirty six (36) Action/ Limit Level exceedances including the parameter of DO, turbidity and SS were recorded at location WM1 and WM4. NOEs were issued to relevant parties upon confirmation of the results. The investigation for the causes of exceedances was completed and it concluded that the exceedances were not related to works under the Project.

11.1.5 During the Reporting Period, 13 events of joint site inspections for Contract 2, Contract 3 and Contract 5 were undertaken to evaluate the site environmental performance. No adverse environmental impacts were observed during the weekly site inspection and environmental audit of the Reporting Period, indicating the implemented mitigation measures for air quality, construction noise and water quality were effective. Minor deficiencies found in the weekly site inspection were in general rectified within the specified deadlines. The environmental performance of the Project was therefore considered satisfactory.

11.1.6 In this Reporting Period, no environmental complaint, summons or successful prosecutions related to the EM&A programme were recorded.

11.2 RECOMMENDATIONS

11.2.1 During wet season, muddy water or other water pollutants from site surface runoff into Kong Yiu Channel and Ma Wat Channel will be key environment issue. Water quality mitigation measures to prevent surface runoff into nearby water bodies and public areas should be paid on special attention. The Contractors should fully implement the water quality mitigation measures.

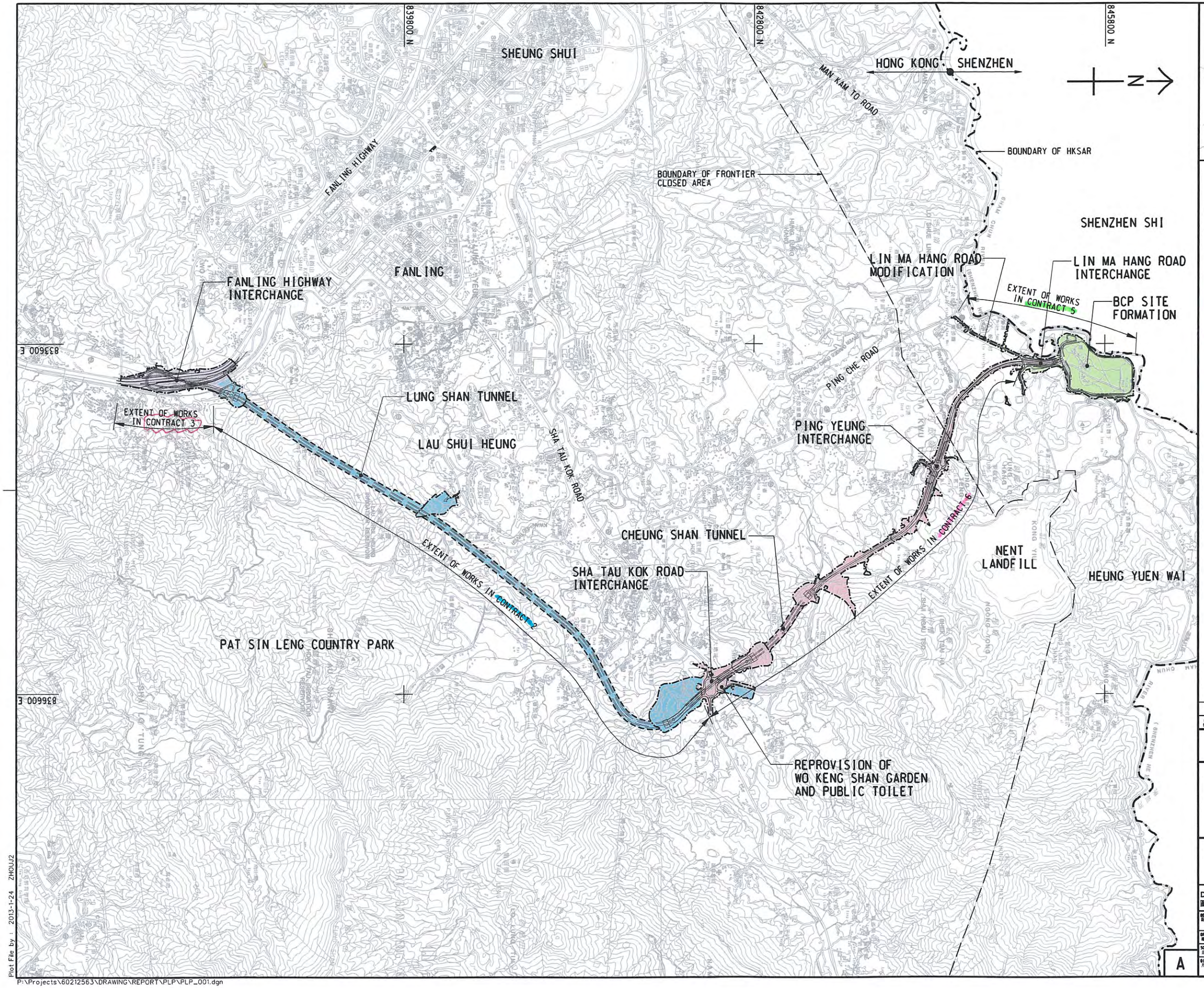
11.2.2 Construction noise should be a key environmental impact during the works. The noise mitigation measures such as use of quiet plants or temporary noise barrier installation at the construction noise predominate area should be implemented as accordance with the EM&A requirement.

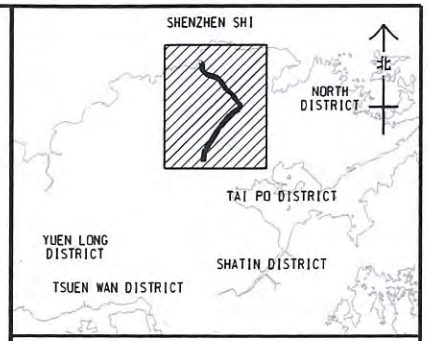
11.2.3 Since most of construction sites under the Project are adjacent to villages, the contractors should be paid attention on the construction dust emission. The Contractor should fully implement the construction dust mitigation measures properly.

11.2.4 Furthermore, daily cleaning and weekly tidiness shall be properly performed and maintained. In addition, mosquito control should be kept to prevent mosquito breeding on site.

Appendix A

Layout plan of the Project





LOCATION PLAN
SCALE 1 : 30000

LEGEND:

- SITE BOUNDARY
- UNDERGROUND WORKS SITE BOUNDARY

REV. 修訂	DESCRIPTION 內容摘要	BY 由	CHECKED 審核	DATE 日期

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

LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS (SITE FORMATION AND INFRASTRUCTURES) - DESIGN AND CONSTRUCTION

PROJECT LAYOUT PLAN

AECOM

DRG.NO. 圖紙編號 60212563/PLP/001

DESIGNED BY 設計	CONTRACT NO. 合約編號	P. Dir. APPROVED 負責人
-	-	-
DRAWN BY 繪圖 ZJ	STATUS 階段	
SCALE 比例 A1 1 : 15000		
DIMENSIONS ARE IN 尺寸單位 METRES	© COPYRIGHT RESERVED 版權所有	

A

Plot File by : 2013-1-24 ZHOUJ2

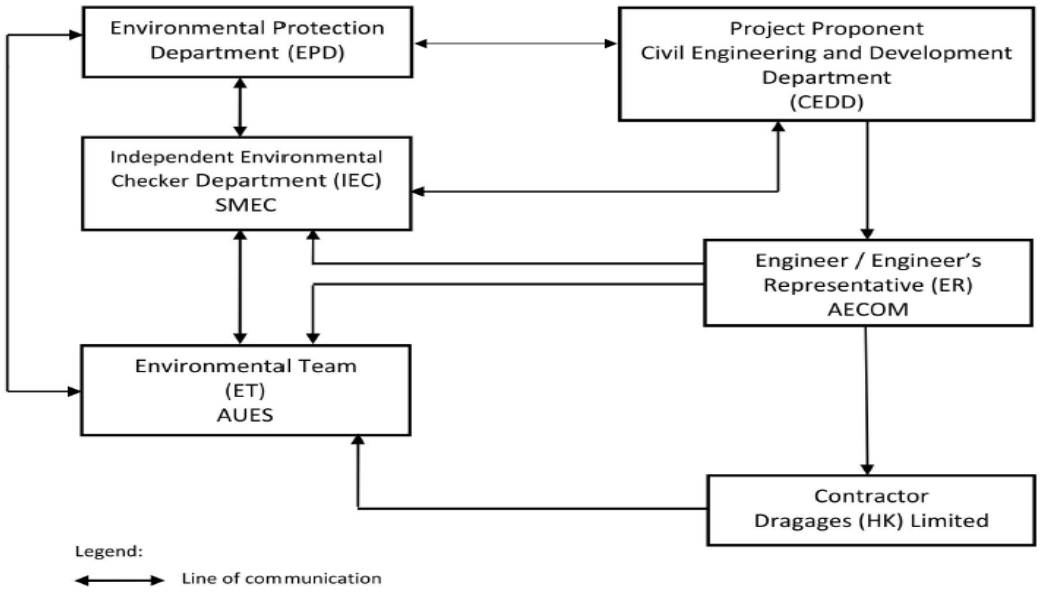
P:\Projects\60212563\DRAWING\REPORT\PLP\PLP_001.dgn

Appendix B

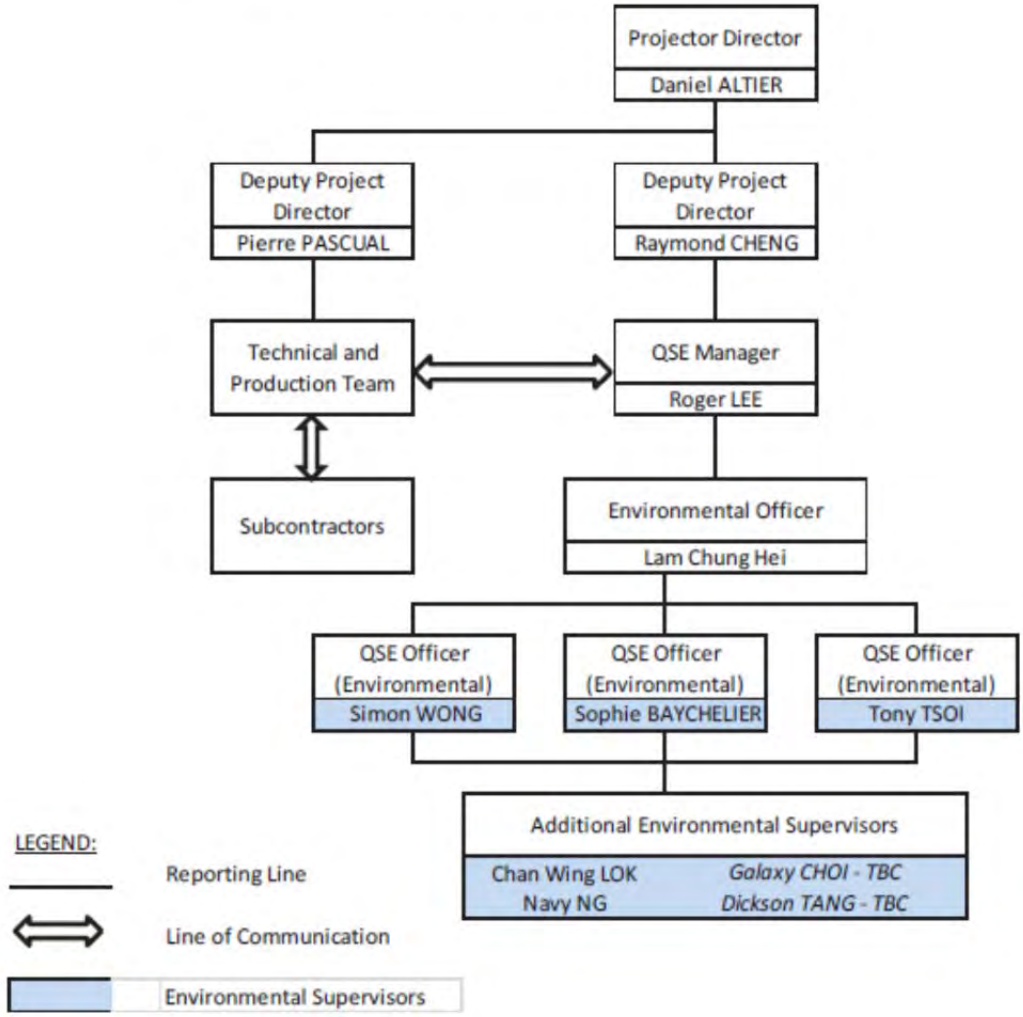
Environmental Management Organization Chart

Environmental Management Organization for Contract 2 - (CV/2012/08)

Project Organization Structure



Structure Within Dragages (HK) Limited



Contact Details of Key Personnel for Contract 2 - CV/2012/08

Organization	Project Role	Name of Key Staff	Tel No	Fax No.
AECOM	Engineer's Representative	Gregory Lo	2171 3300	2171 3498
SMEC	Independent Environmental Checker	Antony Wong	3995 8120	3995 8101
DHK	Project Director	Daniel Altier	2171 3004	2171 3299
DHK	Deputy Project Manager	Raymond Cheng / Pierre Pascual	2171 3004	2171 3299
DHK	QSE Manager	Roger Lee	6293 8726	2171 3299
DHK	Environmental Officer	Lam Chung Hei	2171 3004	2171 3299
DHK	QSE Officer (Environmental)	Simon Wong	9281 4346	2171 3299
DHK	QSE Officer (Environmental)	Sophie Baycheuer	6321 5001	2171 3299
DHK	QSE Officer (Environmental)	Tony Tsoi	6028 5623	2171 3299
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

Legend:

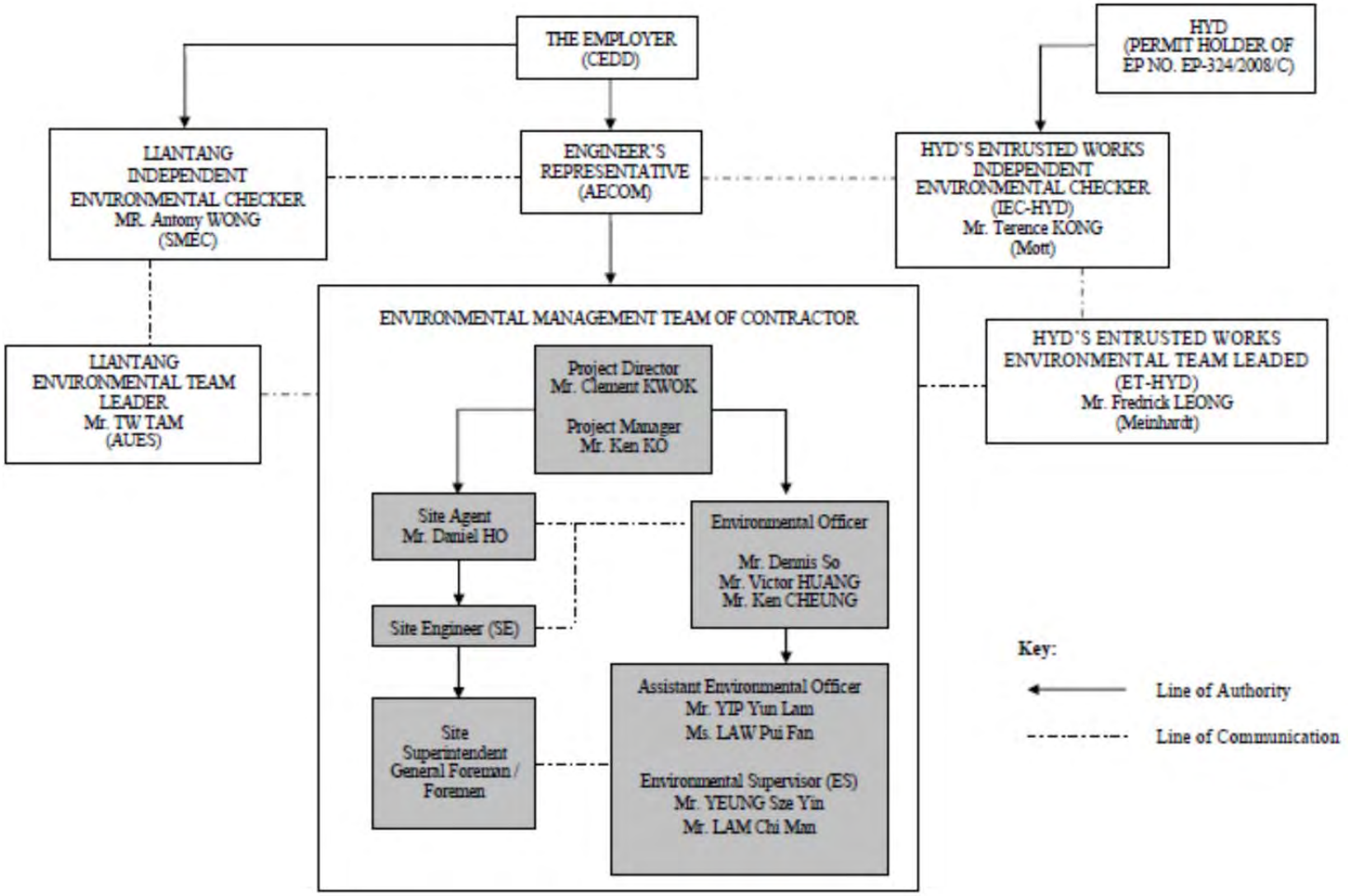
CEDD (Employer) – Civil Engineering and Development Department

AECOM (Engineer) – AECOM Asia Co. Ltd.

DHK(Main Contractor) –Dragages Hong Kong Ltd.

SMEC (IEC) – SMEC Asia Limited

AUES (ET) – Action-United Environmental Services & Consulting



Environmental Management Organization for Contract 3 - (CV/2012/09)

Contact Details of Key Personnel for Contract 3 - CV/2012/09

Organization	Project Role	Name of Key Staff	Tel No	Fax No.
AECOM	Engineer's Representative	Alan Lee	2171 3300	2171 3498
SMEC	Independent Environmental Checker	Antony Wong	3995 8120	3995 8101
Chun Wo	Project Director	Clement Kwok	3758 8735	2638 7077
Chun Wo	Project Manager	Ken Ko	2638 6136	2638 7077
Chun Wo	Site Agent	Daniel Ho	2638 6144	2638 7077
Chun Wo	Environmental Officer	Victor Huang Ken Cheung Dennis So	2638 6115	2638 7077
Chun Wo	Assistant Environmental Officer	Yip Yun Lam Law Pui Fan	2638 6125	2638 7077
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

Legend:

CEDD (Employer) – Civil Engineering and Development Department

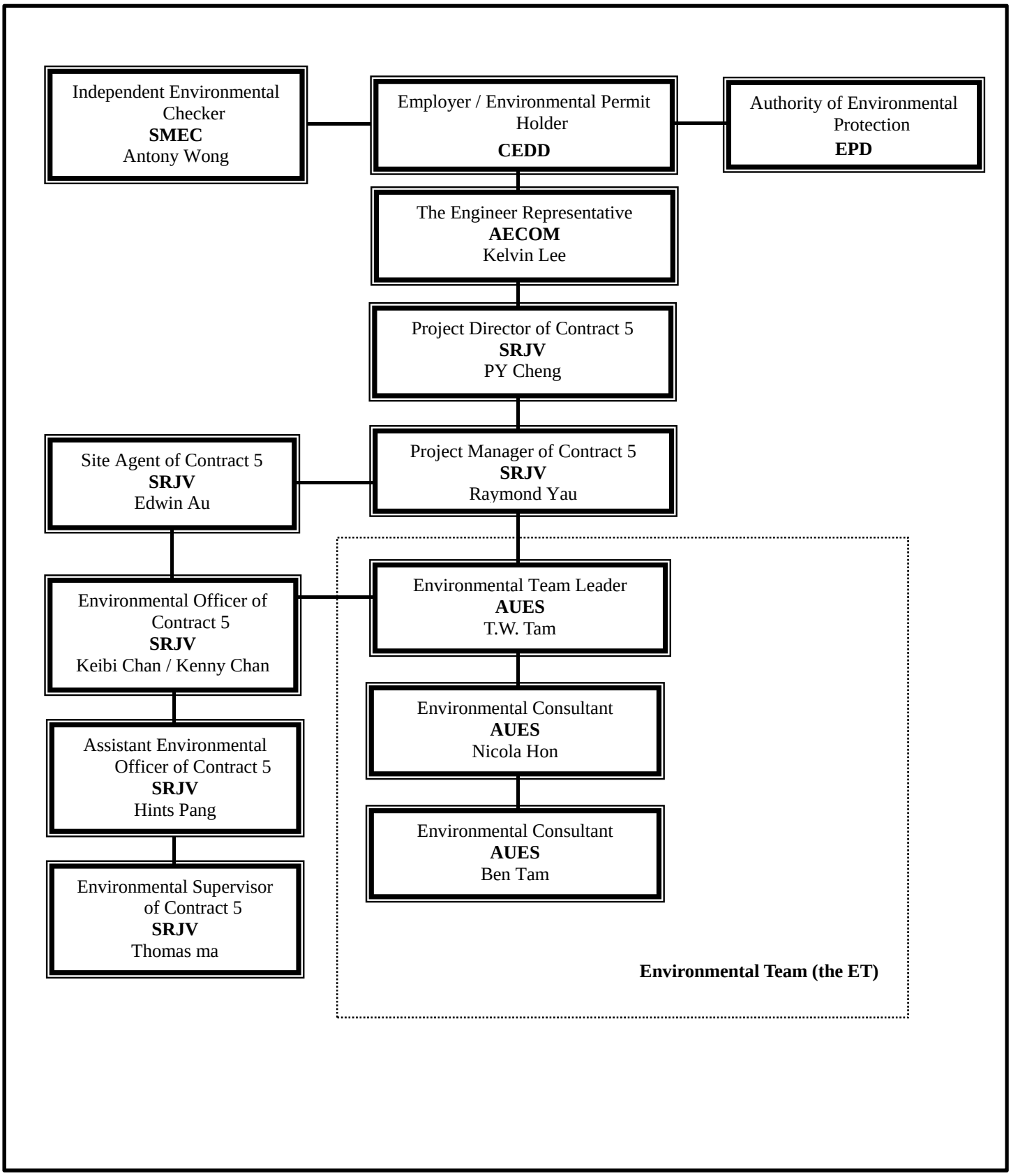
AECOM (Engineer) – AECOM Asia Co. Ltd.

Chun Wo (Main Contractor) – Chun Wo Construction Ltd.

SMEC (IEC) – SMEC Asia Limited

AUES (ET) – Action-United Environmental Services & Consulting

Environmental Management Organization for Contract 5 - (CV/2013/03)



Contact Details of Key Personnel for Contract 5 - CV/2013/03

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
AECOM	Engineer's Representative	Kelvin Lee	2674 2273	2674 7732
SMEC	Independent Environmental Checker	Antony Wong	3995 8120	3995 8101
SRJV	Project Director	PY Cheng	9023 4821	2403 1162
SRJV	Contract Manager	Raymond Yu	9041 1620	2403 1162
SRJV	Project Manager	Aaron Mak	9464 7095	2403 1162
SRJV	Site Agent	Edwin Au	9208 7329	2403 1162
SRJV	Environmental Officer	Chan Ng jhon-keibi / Kenny Chan	6090 0183	2403 1162
SRJV	Environmental Supervisor	Thomas Ma	-	2403 1162
AUES	Environmental Team Leader	T. W. Tam	2959 6059	2959 6079
AUES	Environmental Consultant	Nicola Hon	2959 6059	2959 6079
AUES	Environmental Consultant	Ben Tam	2959 6059	2959 6079

Legend:

CEDD (Employer) – Civil Engineering and Development Department

AECOM (Engineer) – AECOM Asia Co. Ltd.

SRJV (Main Contractor) – Sang Hing Civil – Richwell Machinery JV

SMEC (IEC) – SMEC Asia Limited

AUES (ET) – Action-United Environmental Services & Consulting

Appendix C

Master Construction Programme

Contract 2

Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
Total		1023	20-Jan-14	10-Jul-17
HKLTH Works Programme update 20-Feb-2015 [wpc]		1023	20-Jan-14	10-Jul-17
2 General		877	21-Jul-14	10-Jul-17
Geotechnical Interpretative Report 2nd Revision		65	09-Dec-14	25-Feb-15
DDA Submission		65	09-Dec-14	25-Feb-15
GIR21021940	IPs'/ ER's Review	28	09-Dec-14	13-Jan-15
GIR21021960	Preparation of DDA with ICE Certification for resubmission to ER/ICE/IP	13	14-Jan-15	28-Jan-15
GIR21022050	ER/IP's Approval	28	29-Jan-15	25-Feb-15
Project Wide E&M		877	21-Jul-14	10-Jul-17
E&M Design Works for Civil Design Interface		180	29-Aug-14	18-Feb-15
PD.AE.1130	E&M Spatial Study and Structural Provisions Check for Ventilation Buildings	110	29-Aug-14	10-Jan-15
PD.AE.1140	E&M Spatial Study and Structural Provisions Check for Administration Building	125	20-Sep-14	18-Feb-15
E&M Design & Engineering Works		388	21-Jul-14	29-Aug-15
Engineering Design Submission		230	21-Jul-14	30-Apr-15
PD..FS.DS	Fire Service System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.CM.DS	CMCS System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.EC.DS.a	Environmental Control System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.EL.DS	Electrical System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.EV.DS	ELV System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
PD.PD.DS	Plumbing & Drainage System Submission and Approval by the Engineer	230	21-Jul-14	30-Apr-15
Shop Drawing & Builder's Drawing Submission		177	22-Jan-15	29-Aug-15
PD.DW.1010	Shop Drawings & Builder's Drawings Submission & Approval	177	22-Jan-15	29-Aug-15
Equipment Selection & Submission		433	01-Nov-14	17-Mar-16
PD.PQ.1910	P&D System Submission and Approval by the Engineer	169	01-Nov-14	30-May-15
PD.PQ.2260	ECS System Submission and Approval by the Engineer	263	02-May-15	17-Mar-16
Manufacturing & Delivery of Major Equipment		693	02-Mar-15	10-Jul-17
PD.FS.MD	Manufacturing and Delivery of FS System	398	19-May-15	17-Sep-16
PD.PD.MD	Manufacturing and Delivery of P&D System	409	28-Mar-15	15-Aug-16
PD.PQ.1040	Manufacturing and Delivery of ELV/CMCS/LAN/TEL System	588	02-Mar-15	23-Feb-17
PD.PQ.1410	Manufacturing and Delivery of Electrical Services System	649	02-May-15	10-Jul-17
3 South Portal Area		306	13-Oct-14	04-Sep-15
3.1 South Portal Subcontract & Procurement		120	29-Jan-15	29-Jun-15
SPS&P0060	Subcontract : Ventilation Building Foundation Works	60	29-Jan-15	16-Apr-15
SPS&P0070	Subcontract : Retaining Wall Structure Works	60	17-Apr-15	29-Jun-15
3.2 South Portal Design Submission		133	15-Dec-14	08-Jun-15
South Portal: Ventilation Buildings - Foundation Design		28	01-Jan-15	28-Jan-15
DDA Submission		28	01-Jan-15	28-Jan-15
DSN07990	ER/IP's Approval	28	01-Jan-15	28-Jan-15
South Portal: Temp Works For D&B Tunnelling		28	28-Dec-14	24-Jan-15
DDA Submission		28	28-Dec-14	24-Jan-15
DSN010320	ER/IP's Approval	28	28-Dec-14	24-Jan-15
South Tunnel Permanent Lining		109	18-Feb-15	21-May-15
DDA Submission		109	18-Feb-15	21-May-15
STPL1023520	Preparation for formal submission to ER/ICE/IP	48	18-Feb-15	22-Apr-15
STPL1023570	IPs'/ ER's Review	24	23-Apr-15	21-May-15
South Tunnel Internal Structures		45	30-Mar-15	27-May-15
DDA Submission		45	30-Mar-15	27-May-15
STIS1L1023520	Preparation for formal submission to ER/ICE/IP	45	30-Mar-15	27-May-15

REV	DESCRIPTION	DATE	PREPARED	CHECKED	APPROVED
A	Monthly Report No.14	20/02/2015	RAN	RBS/SJO	PPL/DAL

MAIN CONTRACTOR: 香寶嘉 Dragages HongKong — A member of the Bouygues Construction group

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

THE ENGINEER: AECOM

CONTRACTOR'S DESIGNER: ATKINS

PROJECT: Contract No. CV/2012/08 Liantang/Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure Works Contract 2

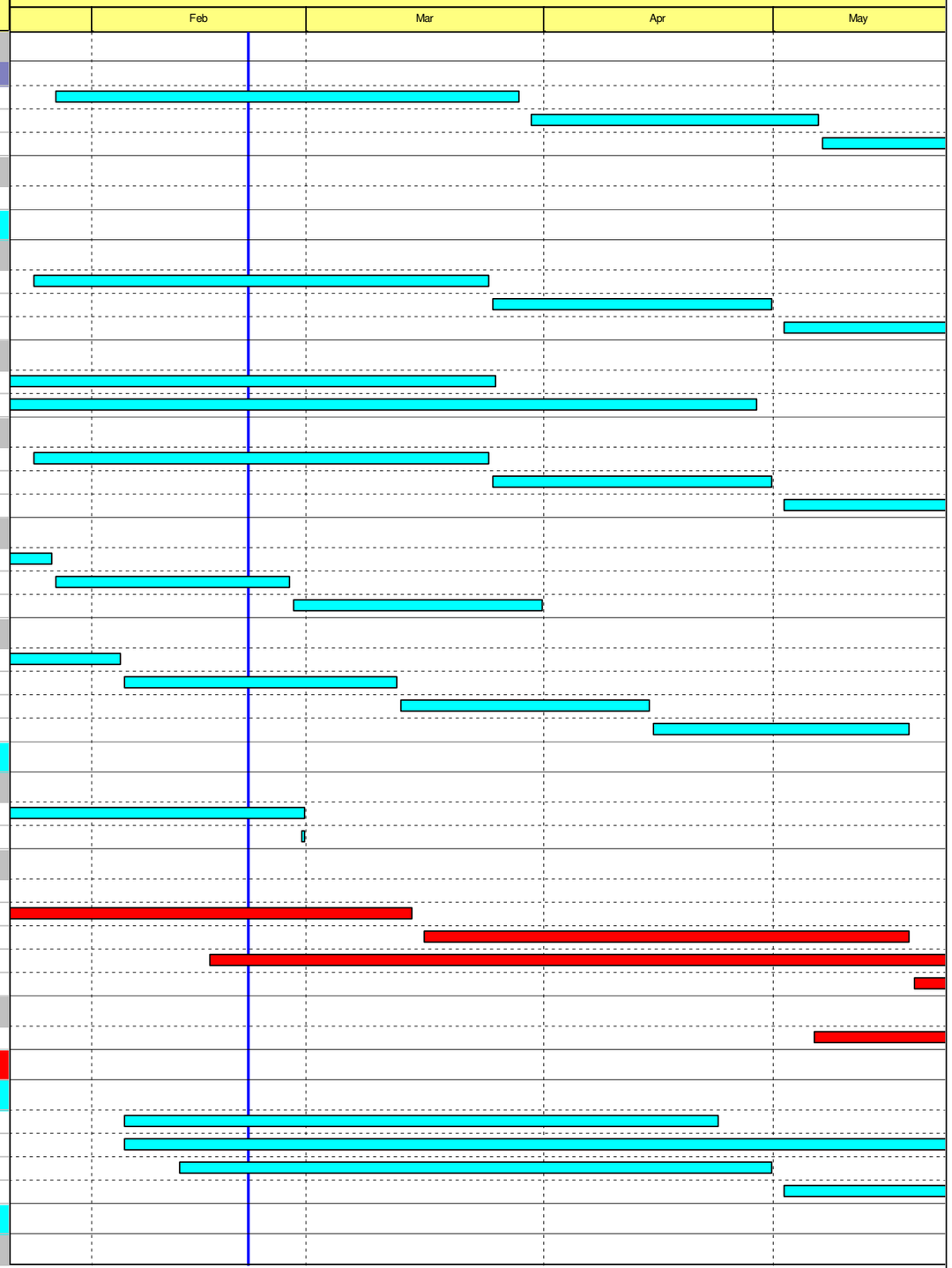
TITLE: Monthly Report No.14 3-Months Rolling Programme (Works Programme Rev. C)

DOCUMENT NO.: LTH/DHK/PGR/PW/PLP/00028/A

DOC. STATUS	CREATION DATE	REVISION
FOR INFO.	20/02/2015	A

PAPER SIZE	SCALE	PAGE
A3	N/A	1 of 6

Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
Cross Passages -Temp Works D&B Tunnel - Soft Ground		90	27-Jan-15	08-Jun-15
DDA Submission		90	27-Jan-15	08-Jun-15
DSN26930	Preparation for formal submission to ER/ICE/IP	50	27-Jan-15	28-Mar-15
DSN26980	IPs'/ ER's Review	28	30-Mar-15	06-May-15
DSN27000	Preparation for resubmission to ER/ICE/IP with ICE Certification	27	07-May-15	08-Jun-15
CIA- South Portal & South D&B Tunnels inc Mid Vent Junction & CP		21	15-Dec-14	04-Jan-15
SC01175	*Final CIA Report (14d)	21	15-Dec-14	04-Jan-15
3.3 South Portal Method Statement Submission		182	13-Oct-14	30-May-15
South Portal: Tunnel Mechanical Excavation		103	24-Jan-15	30-May-15
FL2022093	Prepare Method Statement	48	24-Jan-15	24-Mar-15
FL2022094	Engineer's Comment	28	25-Mar-15	30-Apr-15
FL2022095	Re-submission Method Statement	24	02-May-15	30-May-15
South Tunnels: Blasting Method Statement		160	13-Oct-14	28-Apr-15
FL2022101	Preparation and Submission of Blasting Method Statement	135	13-Oct-14	25-Mar-15
FL2022104	Engineer's/IP's Review & Approval	113	06-Dec-14	28-Apr-15
South Portal: Bored Piling Works		100	24-Jan-15	30-May-15
A25485	Prepare Method Statement	48	24-Jan-15	24-Mar-15
A25486	Engineer's Comment	28	25-Mar-15	30-Apr-15
A25487	Re-submission Method Statement	24	02-May-15	30-May-15
South Portal: Pilecap, Footings & Tie beams		80	22-Dec-14	31-Mar-15
A2340	Engineer's Comment	28	22-Dec-14	26-Jan-15
A2350	Re-submission Method Statement	24	27-Jan-15	26-Feb-15
A2360	Engineer's Approval	28	27-Feb-15	31-Mar-15
South Portal: Permanent Retaining Walls		128	08-Dec-14	18-May-15
A25481	Prepare Method Statement	48	08-Dec-14	04-Feb-15
A25482	Engineer's Comment	28	05-Feb-15	12-Mar-15
A25483	Re-submission Method Statement	24	13-Mar-15	14-Apr-15
A25484	Engineer's Approval	28	15-Apr-15	18-May-15
3.5 South Portal Works		306	18-Oct-14	04-Sep-15
South Portal: CLP Substation		138	18-Oct-14	28-Feb-15
SCLP2060	Sub-station Construction + CLP Installation	106	18-Oct-14	28-Feb-15
SCLP2090	Energization	1	28-Feb-15	28-Feb-15
South Portal: Slopeworks		141	05-Nov-14	06-Jul-15
SV2690	Permanent Cut Slope (+68.0 to apprx +45.0mPD)	55	05-Nov-14	10-Jan-15
SV2700	Temporary Slope Cut below +45.0mPD (soft) w/Soil Nails	48	12-Jan-15	14-Mar-15
SV2701dwp	Temporary Slope Cut below +45.0mPD (soft) w/Soil Nails	48	16-Mar-15	18-May-15
SV2702dwp	Temporary Soil Nails between +44.6mPd to +26.7mPD	71	16-Feb-15	23-May-15
SV2710	Rock Excavation to Vent. Bldg. Formation	36	19-May-15	06-Jul-15
South Tunnels: Southbound Tunnel		101	06-May-15	04-Sep-15
DB6300	D&B Setup / Site Installation	101	06-May-15	04-Sep-15
4 Middle Portal Area		377	26-Sep-14	11-Aug-15
4.1 Middle Portal Subcontract & Procurement		207	05-Feb-15	11-Aug-15
MPS&P0040	Subcontract : Tunnel Lining Works	60	05-Feb-15	23-Apr-15
MPS&P0050	Subcontract : Tunnel Lining Formworks (Design, Fabrication, Delivery, & On-Site Assembly)	150	05-Feb-15	11-Aug-15
MPS&P0060	Subcontract : Ventilation Building Foundation Works	60	12-Feb-15	30-Apr-15
MPS&P0070	Subcontract : Ventilation Building Structure Works	60	02-May-15	14-Jul-15
4.2 Middle Portal Design Submission		282	03-Dec-14	18-Jun-15
Mid Vent Building - Foundation		26	12-Dec-14	11-Feb-15



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MAIN CONTRACTOR: 香寶嘉 Dragages HongKong — A member of the Bouygues Construction group

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THE ENGINEER: AECOM

CONTRACTOR'S DESIGNER: ATKINS

PROJECT: Contract No. CV/2012/08 Liantang/Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure Works Contract 2

TITLE: Monthly Report No.14 3-Months Rolling Programme (Works Programme Rev. C)

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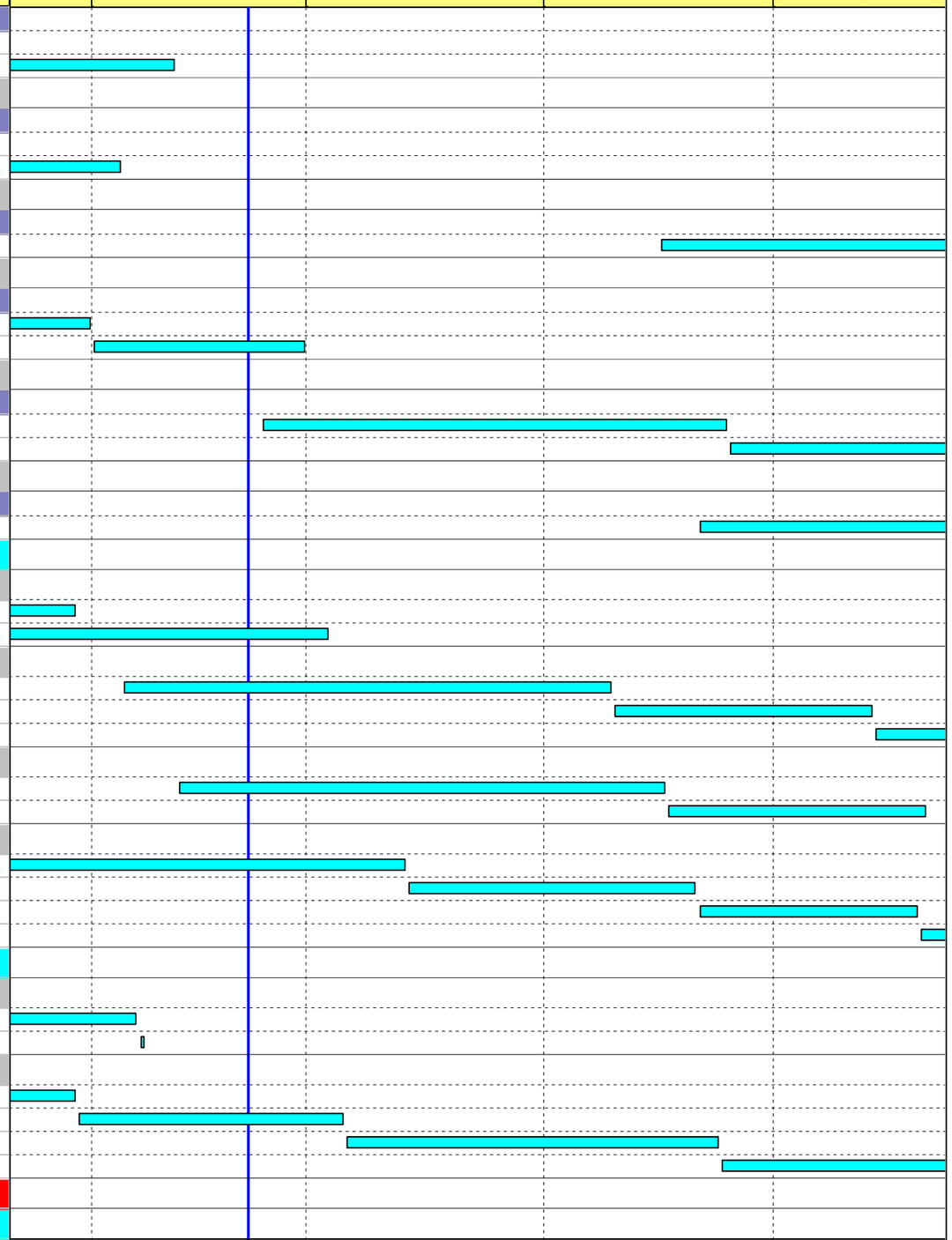
MPR14; HKLTH Works Programme update 20-Feb-2015 [wpc]; DHK_HKLTH_Works Programme new 3MRP; 24-Feb-15; 09:34

Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
DDA Submission		26	12-Dec-14	11-Feb-15
DSN29064	Preparation for resubmission to ER/ICE/IP with ICE Certification	26	12-Dec-14	14-Jan-15
DSN29065	ER/IP's Approval	28	15-Jan-15	11-Feb-15
Mid Vent Adit Permanent Lining		29	03-Dec-14	04-Feb-15
DDA Submission		29	03-Dec-14	04-Feb-15
DSN29076	Preparation for resubmission to ER/ICE/IP with ICE Certification	28	03-Dec-14	07-Jan-15
DSN29077	ER/IP's Approval	28	08-Jan-15	04-Feb-15
Mid Vent Adit Internal Structure		49	16-Apr-15	13-Jun-15
DDA Submission		49	16-Apr-15	13-Jun-15
DSN29082	Preparation for formal submission to ER/ICE/IP	49	16-Apr-15	13-Jun-15
Mid Vent Adit/Junction - Temp Works For D&B Tunnelling		52	29-Dec-14	28-Feb-15
DDA Submission		52	29-Dec-14	28-Feb-15
DSN29088	Preparation for resubmission to ER/ICE/IP with ICE Certification	29	29-Dec-14	31-Jan-15
DSN29089	ER/IP's Approval	28	01-Feb-15	28-Feb-15
Mid Vent Adit/Junction Permanent Lining & Backfill		62	23-Feb-15	29-May-15
DDA Submission		62	23-Feb-15	29-May-15
DSN29094	Preparation for formal submission to ER/ICE/IP	49	23-Feb-15	24-Apr-15
DSN29095	IPs'/ ER's Review	28	25-Apr-15	29-May-15
Mid Vent Junction Internal Structure		49	21-Apr-15	18-Jun-15
DDA Submission		49	21-Apr-15	18-Jun-15
DSN29102	Preparation for formal submission to ER/ICE/IP	49	21-Apr-15	18-Jun-15
4.3 Middle Portal Method Statement Submission		235	14-Oct-14	23-Jun-15
Cavern Blasting Method Statement		197	14-Oct-14	03-Mar-15
FL2022107	Preparation and Submission of Blasting Method Statement	90	14-Oct-14	29-Jan-15
FL2022108	Engineer's/IP's Review & Approval	90	12-Nov-14	03-Mar-15
Middle Ventilation Adit Lining Works		101	05-Feb-15	11-Jun-15
A25513	Prepare Method Statement	48	05-Feb-15	09-Apr-15
A25514	Engineer's Comment	28	10-Apr-15	13-May-15
A25515	Re-submission Method Statement	24	14-May-15	11-Jun-15
Mid Vent Bldg. Foundation		76	12-Feb-15	20-May-15
A25509	Prepare Method Statement	48	12-Feb-15	16-Apr-15
A25510	Engineer's Comment	28	17-Apr-15	20-May-15
Mid Vent Building Construction		128	14-Jan-15	23-Jun-15
FL5900	Prepare Method Statement for Mid Vent Building Construction	48	14-Jan-15	13-Mar-15
FL5910	Engineer's Comment	28	14-Mar-15	20-Apr-15
FL5920	Re-submission Method Statement for Mid Vent Building Construction	24	21-Apr-15	19-May-15
FL5930	Engineer's Approval	28	20-May-15	23-Jun-15
4.5 Middle Portal Works		230	26-Sep-14	17-Jul-15
Middle Portal: CLP Substation		152	26-Sep-14	07-Feb-15
TSS3P2060	Sub-station Construction + CLP Installation	110	26-Sep-14	06-Feb-15
TSS3P2090	Energization	1	07-Feb-15	07-Feb-15
Adit Construction - Mid Portal		217	14-Oct-14	17-Jul-15
MV2490dwp2a	Top Heading Canopies & Bench Excavation Ch24>Ch70	91	14-Oct-14	29-Jan-15
MV2490dwp3	Blast door installation + Noise Measurement and 24Hr permit approval	30	30-Jan-15	05-Mar-15
MV2490dwp4	D&B Full Face Ch70>Ch133; 63m	41	06-Mar-15	23-Apr-15
MV2490dwp5	D&B Full Face Ch133>Ch302 169m	70	24-Apr-15	17-Jul-15
5 North Portal Area		603	20-Jan-14	30-Sep-15
5.1 North Portal Subcontract & Procurement		395	20-Jan-14	23-May-15



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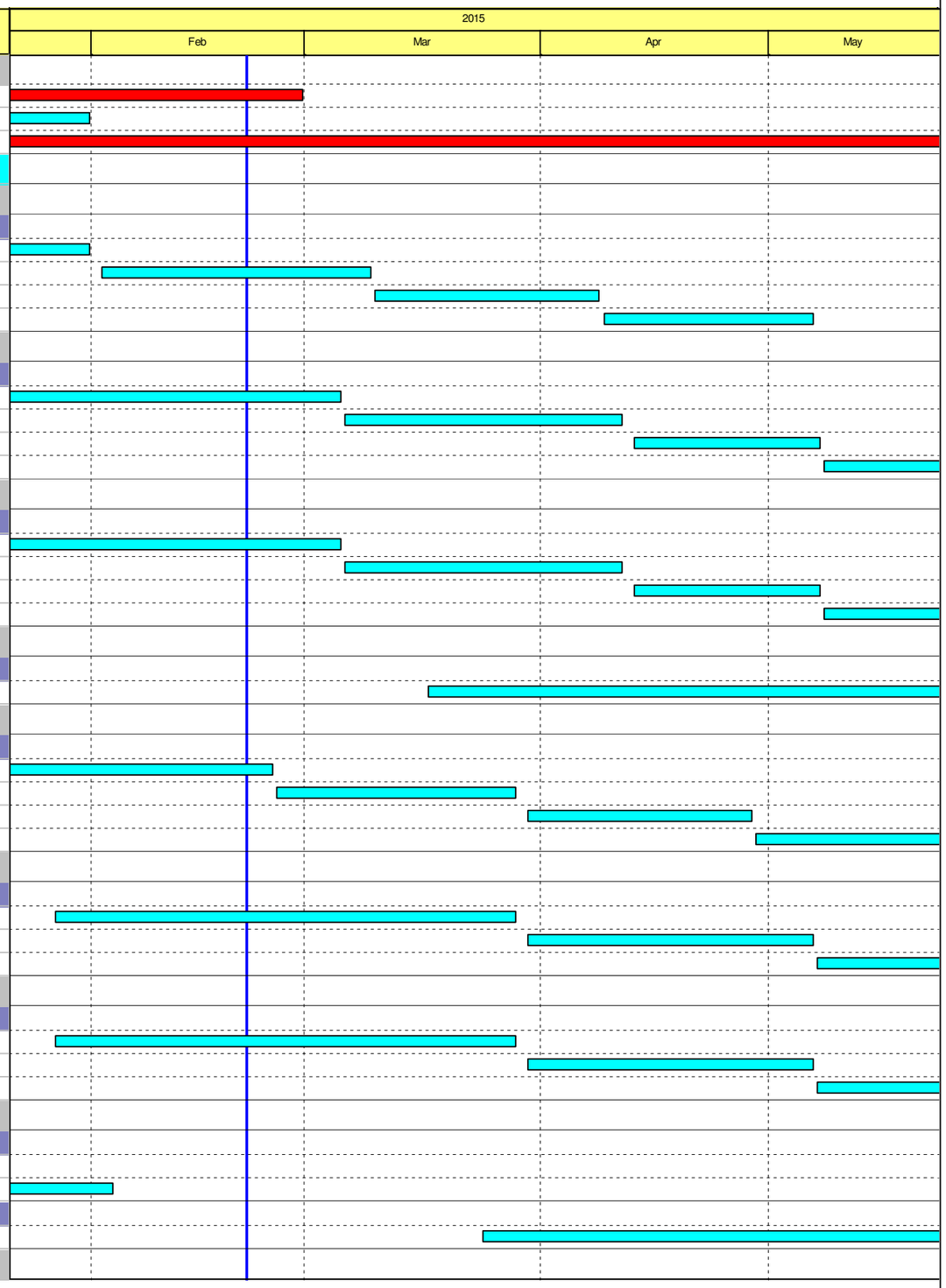
MPR14; HKLTH Works Programme update 20-Feb-2015 [wpc]; DHK_HKLTH_Works Programme new 3MRP; 24-Feb-15; 09:34

Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
North Portal: TBM Procurement & Delivery		395	20-Jan-14	23-May-15
DSN027980	TBM Procurement, Fabrication & Delivery	405	20-Jan-14	28-Feb-15
DSN027981	Conveyor Belt System Procurement & Delivery	90	03-Nov-14	31-Jan-15
N21410a	Precast Segment Fabrication (1.6m Ring) - Temporary Segments	190	30-Sep-14	23-May-15
5.2 North Portal Design Submission		342	25-Nov-14	15-Aug-15
North Tunnel Curved Section Southbound Temp Support For Enlargement		155	25-Nov-14	06-May-15
DDA Submission		155	25-Nov-14	06-May-15
FL2022145	Preparation for formal submission to ER/ICE/IP	56	25-Nov-14	31-Jan-15
FL2022146	IPs'/ ER's Review	28	02-Feb-15	09-Mar-15
FL2022147	Preparation for resubmission to ER/ICE/IP with ICE Certification	22	10-Mar-15	08-Apr-15
FL2022148	ER/IP's Approval	28	09-Apr-15	06-May-15
Bored Tunnel OHVD Slab		177	13-Jan-15	04-Jun-15
DDA Submission		177	13-Jan-15	04-Jun-15
FL2022165	Preparation for formal submission to ER/ICE/IP	42	13-Jan-15	05-Mar-15
FL2022166	IPs'/ ER's Review	28	06-Mar-15	11-Apr-15
FL2022167	Preparation for resubmission to ER/ICE/IP with ICE Certification	21	13-Apr-15	07-May-15
FL2022168	ER/IP's Approval	28	08-May-15	04-Jun-15
Bored Tunnel Internal Structure (except OHVD Slab)		113	13-Jan-15	04-Jun-15
DDA Submission		113	13-Jan-15	04-Jun-15
FL2022173	Preparation for formal submission to ER/ICE/IP	42	13-Jan-15	05-Mar-15
FL2022174	IPs'/ ER's Review	28	06-Mar-15	11-Apr-15
FL2022175	Preparation for resubmission to ER/ICE/IP with ICE Certification	21	13-Apr-15	07-May-15
FL2022176	ER/IP's Approval	28	08-May-15	04-Jun-15
Bored Tunnel/ D&B Tunnel Transition - Headwall Structure (N/B & S/B)		95	17-Mar-15	14-Jul-15
DDA Submission		95	17-Mar-15	14-Jul-15
FL2022181	Preparation for formal submission to ER/ICE/IP	95	17-Mar-15	14-Jul-15
Northbound TBM Dismantling Cavern Temporary Works		114	03-Jan-15	26-May-15
DDA Submission		114	03-Jan-15	26-May-15
FL2022185	Preparation for formal submission to ER/ICE/IP	42	03-Jan-15	24-Feb-15
FL2022186	IPs'/ ER's Review	28	25-Feb-15	28-Mar-15
FL2022187	Preparation for resubmission to ER/ICE/IP with ICE Certification	22	30-Mar-15	28-Apr-15
FL2022188	ER/IP's Approval	28	29-Apr-15	26-May-15
Bored Tunnel Cross Passages Temp Works (Soft Ground)		105	27-Jan-15	08-Jun-15
DDA Submission		105	27-Jan-15	08-Jun-15
FL2022197	Preparation for formal submission to ER/ICE/IP	50	27-Jan-15	28-Mar-15
FL2022198	IPs'/ ER's Review	28	30-Mar-15	06-May-15
FL2022199	Preparation for resubmission to ER/ICE/IP with ICE Certification	27	07-May-15	08-Jun-15
Bored Tunnel Cross Passages Temp Works (Rock)		95	27-Jan-15	08-Jun-15
DDA Submission		95	27-Jan-15	08-Jun-15
FL2022201	Preparation for formal submission to ER/ICE/IP	50	27-Jan-15	28-Mar-15
FL2022202	IPs'/ ER's Review	28	30-Mar-15	06-May-15
FL2022203	Preparation for resubmission to ER/ICE/IP with ICE Certification	27	07-May-15	08-Jun-15
Bored Tunnel Cross Passages Permanent Lining (Soft Ground)		146	20-Dec-14	23-Jun-15
AIP Submission		35	20-Dec-14	03-Feb-15
FL2022207	Preparation for resubmission to ER/ICE/IP with ICE Certification	12	20-Dec-14	06-Jan-15
FL2022208	ER/IP's Approval	28	07-Jan-15	03-Feb-15
DDA Submission		72	24-Mar-15	23-Jun-15
FL2022209	Preparation for formal submission to ER/ICE/IP	72	24-Mar-15	23-Jun-15
Bored Tunnel Cross Passages Permanent Lining (Rock)		127	20-Dec-14	17-Jul-15



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MAIN CONTRACTOR: 香寶嘉 Dragages HongKong — A member of the Bouygues Construction group

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CONTRACTOR'S DESIGNER: ATKINS

PROJECT: Contract No. CV/2012/08 Liantang/Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure Works Contract 2

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MPR14; HKLTH Works Programme update 20-Feb-2015 [wpc]; DHK_HKLTH_Works Programme new 3MRP; 24-Feb-15; 09:34

Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
AIP Submission		35	20-Dec-14	03-Feb-15
FL2022215	Preparation for resubmission to ER/ICE/IP with ICE Certification	12	20-Dec-14	06-Jan-15
FL2022216	ER/IP's Approval	28	07-Jan-15	03-Feb-15
DDA Submission		92	24-Mar-15	17-Jul-15
FL2022217	Preparation for formal submission to ER/ICE/IP	92	24-Mar-15	17-Jul-15
Bored Tunnel Cross Passages Internal Structures		245	27-Nov-14	15-Aug-15
AIP Submission		144	27-Nov-14	16-Apr-15
FL2022221	Preparation for formal submission to ER/ICE/IP	42	27-Nov-14	17-Jan-15
FL2022222	IPs'/ ER's Review	28	19-Jan-15	23-Feb-15
FL2022223	Preparation for resubmission to ER/ICE/IP with ICE Certification	21	24-Feb-15	19-Mar-15
FL2022224	ER/IP's Approval	28	20-Mar-15	16-Apr-15
DDA Submission		75	18-May-15	15-Aug-15
FL2022225	Preparation for formal submission to ER/ICE/IP	75	18-May-15	15-Aug-15
Temp Pre-Cast Reinforced Box for TBM Segment Del in Curved Section		147	03-Dec-14	25-Apr-15
DDA Submission		147	03-Dec-14	25-Apr-15
FL2022229	Preparation for formal submission to ER/ICE/IP	42	03-Dec-14	23-Jan-15
FL2022230	IPs'/ ER's Review	28	24-Jan-15	28-Feb-15
FL2022231	Preparation for resubmission to ER/ICE/IP with ICE Certification	24	02-Mar-15	28-Mar-15
FL2022232	ER/IP's Approval	28	29-Mar-15	25-Apr-15
5.3 North Portal Method Statement Submission		160	13-Nov-14	19-Jun-15
North Tunnel (D&B Section) Blasting Method Statement		60	13-Nov-14	24-Jan-15
FL2022110	Engineer's/IP's Review & Approval	60	13-Nov-14	24-Jan-15
MS for TBM On-Site Assembly		43	23-Dec-14	14-Feb-15
FL4885	Prepare & Re-submit Method Statement	18	23-Dec-14	15-Jan-15
FL4890	ER's Approval for Method Statement	30	16-Jan-15	14-Feb-15
MS for TBM Launching		160	02-Dec-14	13-Apr-15
FL2022061	Prepare & Submit Method Statement	40	02-Dec-14	20-Jan-15
FL2022062	ER's Comment for Method Statement	30	21-Jan-15	19-Feb-15
FL2022063	Prepare & Re-submit Method Statement	18	23-Feb-15	14-Mar-15
FL2022064	ER's Approval for Method Statement	30	15-Mar-15	13-Apr-15
MS forTBM Excavation		64	01-Jan-15	26-Mar-15
FL2880	ER's Comment for Method Statement	30	01-Jan-15	30-Jan-15
FL2885	Prepare & Re-submit Method Statement	18	31-Jan-15	24-Feb-15
FL2890	ER's Approval for Method Statement	30	25-Feb-15	26-Mar-15
North Portal: MS for Cross Passage Ground Treatment		40	04-May-15	19-Jun-15
FL2022065	Prepare & Submit Method Statement	40	04-May-15	19-Jun-15
North Portal: WSD Tunnel Instrumentation		30	07-Dec-14	05-Jan-15
FL2022494	ER's Approval for Method Statement	30	07-Dec-14	05-Jan-15
5.5 North Portal Works		394	07-Oct-14	30-Sep-15
CLP Substation		131	07-Oct-14	14-Feb-15
N21060	Sub-station Construction	110	07-Oct-14	14-Feb-15
N21090	Energization	1	14-Feb-15	14-Feb-15
North Portal: Site Formation		265	23-Oct-14	30-Sep-15
N20635	NB: Stage 2 Excavation from +38mPD to +18mPD w/10 rows Soil Nail	74	23-Oct-14	20-Jan-15
N20655	NB: Stage 3 Permanent Slope from +75mPD to +30mPD	192	21-Jan-15	30-Sep-15
North Portal: Site Installation for TBM		78	08-Nov-14	06-May-15
SC01310	Site Installation and Logistics for TBM Works	60	08-Nov-14	20-Jan-15
TD1000	Conveyor Belt System Construction	75	26-Jan-15	06-May-15
Southbound Tunnel (Mined Excavation) inc Enlargement		136	06-Dec-14	18-May-15

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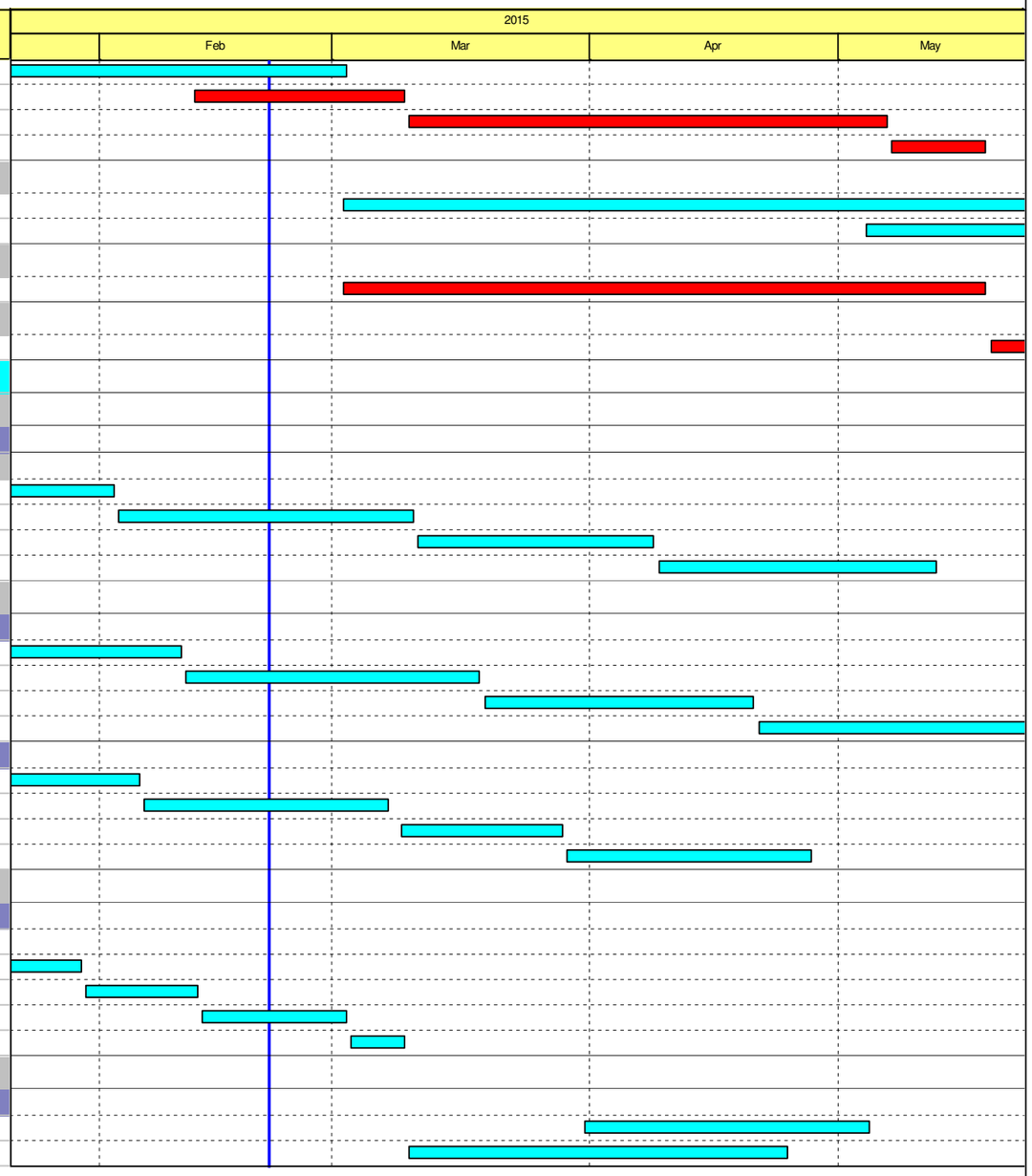
Activity ID	Activity Name	Working Duration	BL Project Start	BL Project Finish
DB6370c	Top Heading Excavation (Canopies) (Ch6,415>Ch6,355) (60m) [P21: 4815 to 4755]	72	06-Dec-14	02-Mar-15
DB6370d	Platform excavation for bench excavation	22	12-Feb-15	09-Mar-15
DB6370e	Bench Excavation (Ch6,450>Ch6,355) (95m) [P21: 4850 to 4755]	48	10-Mar-15	06-May-15
DB6372	RC Slab Cradle for TBM Shifting way	10	07-May-15	18-May-15
Northbound Tunnel (Mined Excavation)		82	02-Mar-15	08-Jun-15
DB6400a	Top Heading Canopies (Ch6446>Ch6410); 36m; [P20: 4824 to 4788]	76	02-Mar-15	30-May-15
DB6400a1	Blast door installation + Noise Measurement and 24Hr permit approval	30	04-May-15	08-Jun-15
TBM On-Site Assembly		65	02-Mar-15	18-May-15
TD0990	TBM On-site Assembly and T&C	65	02-Mar-15	18-May-15
Southbound Tunnel (TBM Tunneling)		6	19-May-15	25-May-15
TD0995	TBM Sliding to Face	6	19-May-15	25-May-15
5.6 Administration Building:		158	20-Dec-14	28-May-15
5.62 Administration Building: Design Submission		126	20-Dec-14	12-May-15
Admin. Building - Foundation Design		126	20-Dec-14	12-May-15
DDA Submission		126	20-Dec-14	12-May-15
DSN29107	Preparation for formal submission to ER/ICE/IP	35	20-Dec-14	02-Feb-15
DSN29108	IPs'/ ER's Review	28	03-Feb-15	10-Mar-15
DSN29109	Preparation for resubmission to ER/ICE/IP with ICE Certification	21	11-Mar-15	08-Apr-15
DSN29110	ER/IP's Approval	28	09-Apr-15	12-May-15
5.63 Administration Building: Method Statement Submission		134	09-Jan-15	28-May-15
Method Statement for Admin.Building Construction		109	14-Jan-15	28-May-15
A1990	Prepare Method Statement for Adminstration Building Construction	24	14-Jan-15	10-Feb-15
A2000	ER's Comment	28	11-Feb-15	18-Mar-15
AD2190	Re-submission Method Statement for Building Construction	24	19-Mar-15	20-Apr-15
AD2200	ER's Approval	28	21-Apr-15	28-May-15
MS for Adminstration Building: Demolition		92	09-Jan-15	27-Apr-15
SV2905	Prepare & Submit Demolition Plan & Method Statement	24	09-Jan-15	05-Feb-15
SV2910	ER's Comment for Demolition Plan & Method Statement	30	06-Feb-15	07-Mar-15
SV2915	Prepare & Re-submit Demolition Plan & Method Statement	18	09-Mar-15	28-Mar-15
SV2920	ER's Approval for Demolition & Method Statement	30	29-Mar-15	27-Apr-15
5.64 Administration Building: General Submission		55	02-Jan-15	09-Mar-15
Adminstration Building: Egress/Ingress		55	02-Jan-15	09-Mar-15
N21275	Appoint Consultant for TTMs	12	02-Jan-15	15-Jan-15
N21285	Prepare & Submit Temp.Traffic Management Scheme	12	16-Jan-15	29-Jan-15
N21295	TMLG Meeting	12	30-Jan-15	12-Feb-15
N21305	TTMS Reviewed & Comment	12	13-Feb-15	02-Mar-15
N21315	Notification to RMO	6	03-Mar-15	09-Mar-15
5.65 Administration Building: Works		53	10-Mar-15	04-May-15
Administration Building: Site Formation		53	10-Mar-15	04-May-15
AD2000	Site Hoarding	24	31-Mar-15	04-May-15
AD2050	U/U Diversion & Drainage Diversion (if required)	36	10-Mar-15	24-Apr-15



REV	DESCRIPTION	DATE	PREPARED	CHECKED	APPROVED
A	Monthly Report No.14	20/02/2015	RAN	RBS/SJO	PPL/DAL

MAIN CONTRACTOR: 香寶嘉 港 Dragages HongKong — A member of the Bouygues Construction group

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

THE ENGINEER: AECOM

CONTRACTOR'S DESIGNER: ATKINS

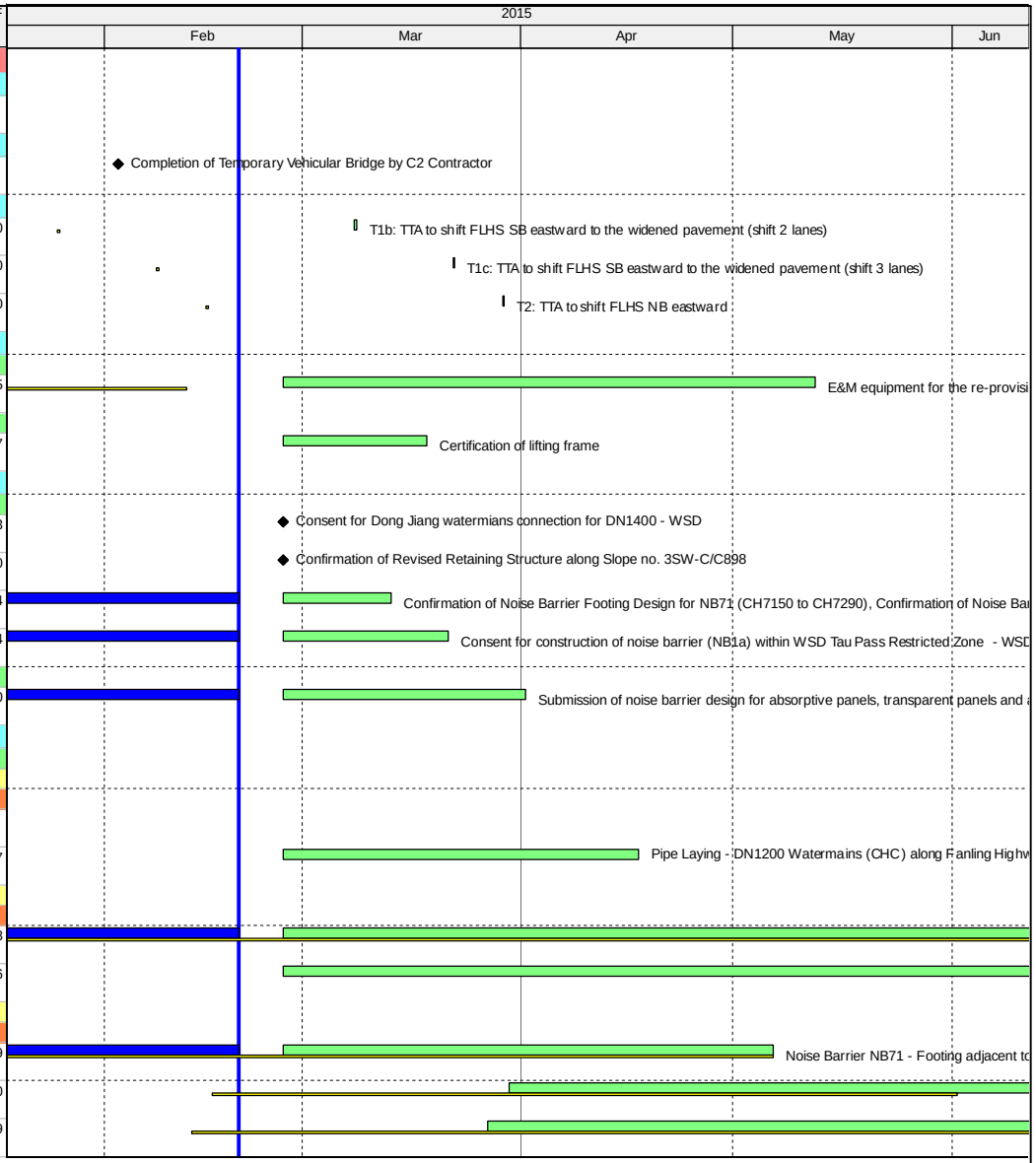
PROJECT: Contract No. CV/2012/08 Liantang/Heung Yuen Wai Boundary Control Point Site Formation and Infrastructure Works Contract 2

TITLE: Monthly Report No.14 3-Months Rolling Programme (Works Programme Rev. C)

DOCUMENT NO.		
LTH/DHK/PGR/PW/PLP/00028/A		
DOC. STATUS	CREATION DATE	REVISION
FOR INFO.	20/02/2015	A
PAPER SIZE	SCALE	PAGE
A3	N/A	6 of 6

Contract 3

Activity ID	Activity Name	OD	RD	Start	Finish	TF
3-Month Rolling Programme 2015-02-21						
Key Dates (Contractual)						
KD-0010	Commencement of Works	0	0	31-Jul-13 A		
Dependent Milestones from Other Contracts						
MS-0100	Completion of Temporary Vehicular Bridge by C2 Contractor	0	0		03-Feb-15 A	
Major Milestones and Events						
MS-2000A2	T1b: TTA to shift FLHS SB eastward to the widened pavement (shift 2 lanes)	1	1	08-Mar-15	08-Mar-15	0
MS-2000A3	T1c: TTA to shift FLHS SB eastward to the widened pavement (shift 3 lanes)	1	1	22-Mar-15	22-Mar-15	0
MS-2000B	T2: TTA to shift FLHS NB eastward	1	1	29-Mar-15	29-Mar-15	0
Major Procurement & Delivery						
Water Supply Pipeworks						
MM-1060	E&M equipment for the re-provisioned WSD Valve Control House	60	60	26-Feb-15	12-May-15	35
Precast Bridge Segment Lifting Frames and Precast Yard						
MM-2050	Certification of lifting frame	18	18	26-Feb-15	18-Mar-15	7
Design and Submissions						
Statutory Approval						
PRE-1210	Consent for Dong Jiang watermians connection for DN1400 - WSD	0	0		26-Feb-15	173
PRE-1510	Confirmation of Revised Retaining Structure along Slope no. 3SW-C/C898	0	0		26-Feb-15*	210
PRE-1500	Confirmation of Noise Barrier Footing Design for NB71 (CH7150 to CH7290)	70	14	17-Apr-14 A	13-Mar-15	14
PRE-1220	Consent for construction of noise barrier (NB1a) within WSD Tau Pass Restricted Zone - WSD	45	21	09-Apr-14 A	21-Mar-15	144
Method Statement and Design (Major) Approved by AECOM						
PRE-2020	Submission of noise barrier design for absorptive panels, transparent panels and associated fixing details	60	30	11-Mar-14 A	01-Apr-15	80
Section IA & IB - Fanling Highway Widening (KD-1 & KD-2)						
Fanling Highway South Portion between CH6935 and CH7470						
Fanling Highway Zone 1 between CH6935 and CH7130 (within SBZ2)						
At-Grade Roadworks (195m)						
FHW-1120*	Pipe Laying - DN1200 Watermains (CHC) across Fanling Highway (total 80m for 2 shafts)	275	0	09-Jun-14 A	12-Feb-15 A	
FHW-1130*	Pipe Laying - DN1200 Watermains (CHC) along Fanling Highway (80m long, 4m depth)	182	40	20-Feb-14 A	17-Apr-15	757
Fanling Highway Zone 2 between CH7130 and CH7290						
At-Grade Roadworks (160m)						
FHW-2110B	Noise Barrier NB71 - Footing adjacent to SB lane (96m) (affected due to design change)	150	150	26-Jul-14 A	28-Aug-15	8
FHW-2130*	Pipe Laying - DN1200 & DN600 Watermains (CHB & CHC) along Fanling Highway (183m long, 4m depth)	210	210	26-Feb-15	10-Nov-15	376
Fanling Highway Zone 3 between CH7290 and CH7380						
At-Grade Roadworks (130m)						
FHW-3130	Noise Barrier NB71 - Footing adjacent to SB lane (130m) Including pile cap	270	55	23-May-14 A	06-May-15	139
FHW-3210	Noise Barrier NB69 - Mini-Piling adjacent to NB lane (CSD: 32nos)	79	79	30-Mar-15	08-Jul-15	0
FHW-3160	Road Formation, Kerb and Pavement (Eastern Side: FLH SB Slow lane and hard should)	90	90	27-Mar-15	18-Jul-15	139



俊和建築工程有限公司
CHUN WO CONSTRUCTION & ENGINEERING CO., LTD.

Actual Work
Remaining Work
Summary Bar
Critical Remaining Work
Milestone
Project Baseline Bar

CEDD Contract No. CV/2012/09

Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2015-02-21

Date	Revision	Checked	Approved
26-Feb-15	Rev.1	SL	

Activity ID	Activity Name	OD	RD	Start	Finish	TF
FHW-3150*	Pipe Laying - DN600, DN1200 Watermains (CHB &CHC) along Fanling Highway (90m long, 3m depth)	150	115	07-Jun-14 A	18-Jul-15	579
Fanling Highway Zone 4 between CH7380 and CH7470						
At-Grade Roadworks (90m)						
FHW-4120*	Pipe Laying - Twin DN1400 Watermains (CHE & CHG) along Fanling Highway (90m long, 3m depth)	155	15	15-Oct-14 A	14-Mar-15	69
FHW-4130*	Pipe Laying - DN600 & DN1200 Watermains (CHB &CHC) along Fanling Highway (90m long, 3m depth)	60	21	27-Nov-14 A	21-Mar-15	781
FHW-4100	Noise Barrier NB71 & NB72 - Footing adjacent to SB lane (90m)	140	140	07-May-15	23-Oct-15	373
Miscellaneous Works for Facilitating Traffic Diversion of Fanling Highway						
FHW-M-1020	Permanent Road Formation with 2 lanes width between CH6935 and CH7130 (Eastern Side) by means of re-construction	45	9	10-Nov-14 A	07-Mar-15	0
FHW-M-1030	Permanent Road Formation with 3 lanes width between CH6935 and CH7130 (Eastern Side) by means of re-surfacing	12	12	09-Mar-15	21-Mar-15	0
FHW-M-1040	Demolition of a certain section of Central Barrier & Make Good of Road Pavement for further Traffic Diversion	6	6	23-Mar-15	28-Mar-15	0
Fanling Highway North Portion between CH7470 and CH7925						
Fanling Highway Zone 5 between CH7470 and CH7600 (Provision of Kiu Tau Footbridge)						
Kiu Tau Footbridge Reprovision (East)						
FHW-5000A2	KT-AB1 - Piling Works (5 out of 12 nos of Pile) - Phase 2, conflict with temp cycle track/ existing tree	25	25	28-Feb-15	28-Mar-15	33
FHW-5000E	KT-P4 - Piling Works (8 out of 8 nos of Pile) - Phase 2, conflict with temp cycle track/ existing tree	40	40	30-Mar-15	20-May-15	33
FHW-5010B	KT-AB2 - Pile Cap & Abutment	105	105	08-Apr-15	12-Aug-15	219
At-Grade Road Works (130m)						
FHW-5120A	Preparation Works for Implementation of TTA Scheme E2	25	25	08-Apr-15	07-May-15	90
FHW-5120B	Implementation of TTA - Scheme E2 (shifting TWSR East towards Pier AA4 for pipe laying works at crossing)	0	0	08-May-15		90
Fanling Highway Zone 7 between CH7660 and CH7925						
At-Grade Roadworks (265m)						
FHW-7100	Site Formation, Preparation Works & Tree Transplant	127	177	30-Aug-13 A	30-Sep-15	8
Section II - Remainder of the Works (KD-3)						
WSD Works						
DN450 Fire Mains (CHA)						
WA-1030	Pipe Laying - CHA 260 - 360 (DN450) near Ext. TWSR West, 100m long & 2m depth	65	65	30-Mar-15	19-Jun-15	686
DN600 Water Mains (CHB)						
WB-0100	Temporary Local Diversion for DN600 near Abutment AD1 (CHB 0 - 100)	80	0	25-Sep-14 A	12-Feb-15 A	
WB-1020	Pipe Laying - CHB 245 - 335 (DN600) near Fanling Highway S/B (FHW: CH7380-7470), 90m long (common trench with NB)	60	21	27-Nov-14 A	21-Mar-15	613
WB-1030B	Pipe Laying - CHB 350 - 450 (DN600) from Pier AA4 to Portal AB7/AD9/AC12	30	30	27-Feb-15	02-Apr-15	90
WB-1030A	Pipe Laying - CHB 335 - 350 (DN600) near crossing TWSRE 15m long & 3m depth	30	30	08-May-15	12-Jun-15	590
WB-1090	Pipe Laying - CHB 756 - 849 (DN600) near Realigned TWSR East (along Access Road A), 93m long & GL	40	40	29-Apr-15	16-Jun-15	4
WB-1010	Pipe Laying - CHB 153 - 245 (DN600) near Fanling Highway S/B (FHW: CH7290-7380), 92m long (common trench with NB)	60	60	07-May-15	18-Jul-15	579
DN1200 Water Mains (CHC)						
WC-1030B	Pipe Laying - CHC 100 - 155 (DN1200) across Fanling Highway & associated Grouting Works	46	0	14-Nov-14 A	14-Feb-15 A	
WC-1080	Pipe Laying - CHC 510 - 600 (DN1200) near Fanling Highway S/B (FHW: CH7380-7470), 90m long (common trench with NB)	60	21	27-Nov-14 A	21-Mar-15	781

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CEDD Contract No. CV/2012/09

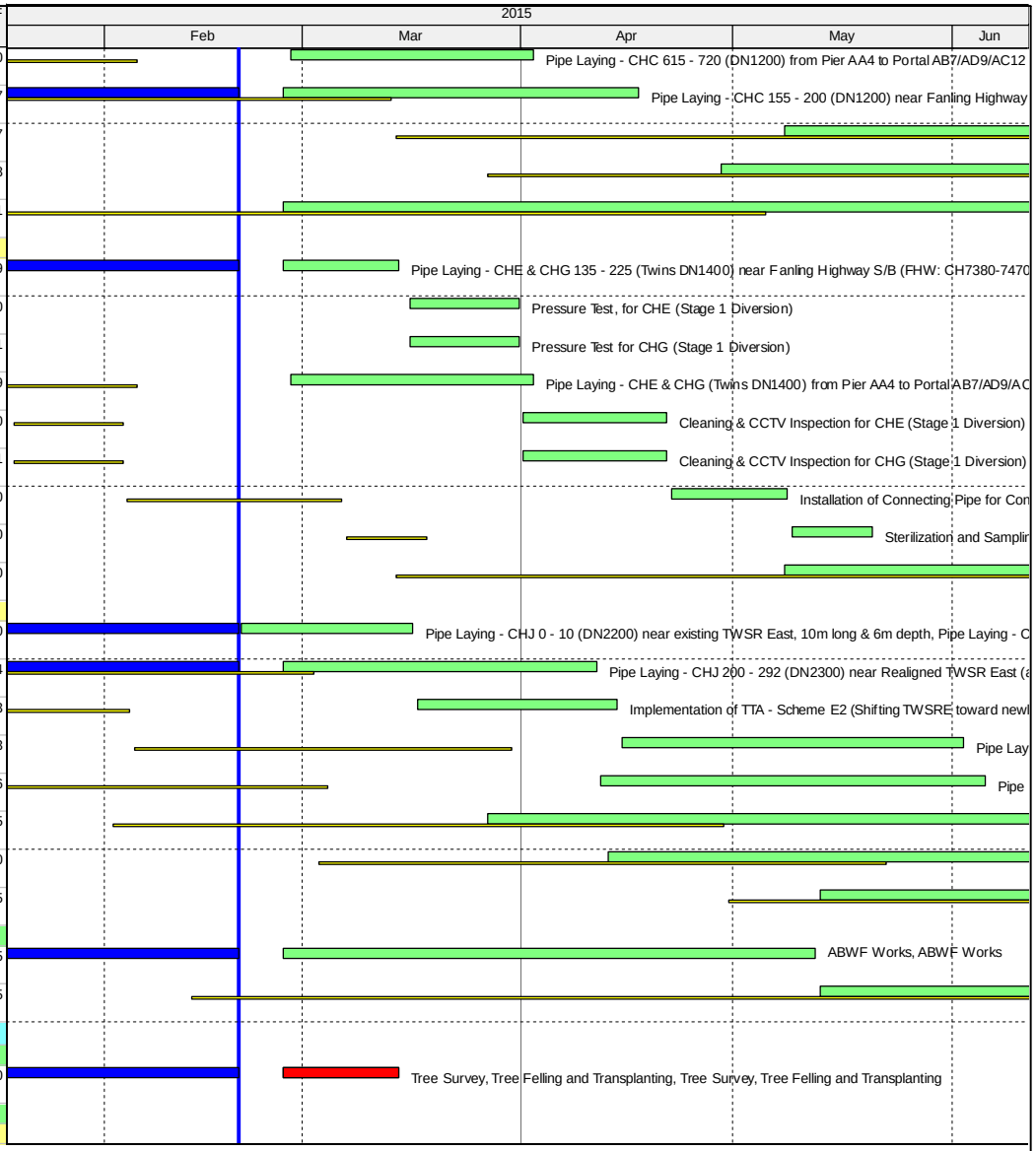
Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2015-02-21

Date	Revision	Checked	Approved
26-Feb-15	Rev.1	SL	

Activity ID	Activity Name	OD	RD	Start	Finish	TF
WC-1090B	Pipe Laying - CHC 615 - 720 (DN1200) from Pier AA4 to Portal AB7/AD9/AC12	30	30	27-Feb-15	02-Apr-15	90
WC-1050A	Pipe Laying - CHC 155 - 200 (DN1200) near Fanling Highway S/B (FHW: CH6935-7130), 45m long, 4m depth	120	40	15-Oct-14 A	17-Apr-15	757
WC-1090A	Pipe Laying - CHC 600 - 615 (DN1200) near crossing TWSRE 15m long & 3m depth	30	30	08-May-15	12-Jun-15	287
WC-1150	Pipe Laying - CHC 1030 - 1123 (DN1200) near Realigned TWSR East (along Access Road A), 93m long & GL	40	40	29-Apr-15	16-Jun-15	38
WC-1060	Pipe Laying - CHC 235 - 420 (DN1200) near Fanling Highway S/B (FHW: CH7130-7290), 185m long (common trench with NB)	95	95	26-Feb-15	24-Jun-15	491
Twin DN1400 Water Mains (CHE & CHG)						
WE-1020	Pipe Laying - CHE & CHG 135 - 225 (Twins DN1400) near Fanling Highway S/B (FHW: CH7380-7470), 90m long & 3m depth	155	15	15-Oct-14 A	14-Mar-15	69
WE-2000A	Pressure Test, for CHE (Stage 1 Diversion)	14	14	16-Mar-15	31-Mar-15	130
WE-2000B	Pressure Test for CHG (Stage 1 Diversion)	14	14	16-Mar-15	31-Mar-15	181
WE-1040	Pipe Laying - CHE & CHG (Twins DN1400) from Pier AA4 to Portal AB7/AD9/AC12	30	30	27-Feb-15	02-Apr-15	69
WE-2010A	Cleaning & CCTV Inspection for CHE (Stage 1 Diversion)	14	14	01-Apr-15	21-Apr-15	130
WE-2010B	Cleaning & CCTV Inspection for CHG (Stage 1 Diversion)	14	14	01-Apr-15	21-Apr-15	181
WE-2020A	Installation of Connecting Pipe for Connection to Existing Mains (CHE)	14	14	22-Apr-15	08-May-15	130
WE-2030A	Sterilization and Sampling for CHE (Stage 1 Diversion)	10	10	09-May-15	20-May-15	130
WE-1030	Pipe Laying - CHE & CHG 225 - 240 (Twins DN1400) near crossing TWSRE 15m long & 3m depth	30	30	08-May-15	12-Jun-15	90
DN2300 Water Mains and Leakage Collection System (CHJ & CHKA/CHK)						
WJ-1010A	Pipe Laying - CHJ 0 - 10 (DN2200) near existing TWSR East, 10m long & 6m depth	90	25	13-Oct-14 A	16-Mar-15	80
WJ-1050	Pipe Laying - CHJ 200 - 292 (DN2300) near Realigned TWSR East (along Access Road A), 92m long & GL	68	35	02-Jan-15 A	11-Apr-15	4
WJ-1000	Implementation of TTA - Scheme E2 (Shifting TWSRE toward newly formation area beside Fanling Highway)	21	21	17-Mar-15	14-Apr-15	63
WJ-1010B	Pipe Laying - CHJ 10 - 50 (DN2200) crossing existing TWSR East, 40m long & 6m depth	40	40	15-Apr-15	02-Jun-15	63
WJ-1020B	Pipe Laying - CHKA 0 - 73 (DN1400) near Realigned TWSR East, 73m long & 4m depth	55	55	12-Apr-15	05-Jun-15	6
WJ-1010C	Pipe Laying - CHJ 50 - 100 (DN2200) near existing TWSR East, 50m long & 6m depth	65	65	27-Mar-15	17-Jun-15	15
WJ-1100	DN300 Washout at around CHJ 268	65	65	13-Apr-15	30-Jun-15	40
WJ-1110	DN300 Washout at CHJ 155	65	65	13-May-15	30-Jul-15	15
Kau Lung Hang Valve Control & Telemetry House Reprovision						
VCTH-1040	ABWF Works	70	60	06-Jan-15 A	12-May-15	35
VCTH-1010	BS and E&M Works	120	120	13-May-15	05-Oct-15	35
Stage 1A - Realignment of Tai Wo Service Road West (KD-7)						
Preliminary Works						
TWSRW-1100	Tree Survey, Tree Felling and Transplanting	81	15	16-Oct-13 A	14-Mar-15	-60
TWSRW Zone 1 betweeen CH100 and CH155						
At-Grade Roadworks						



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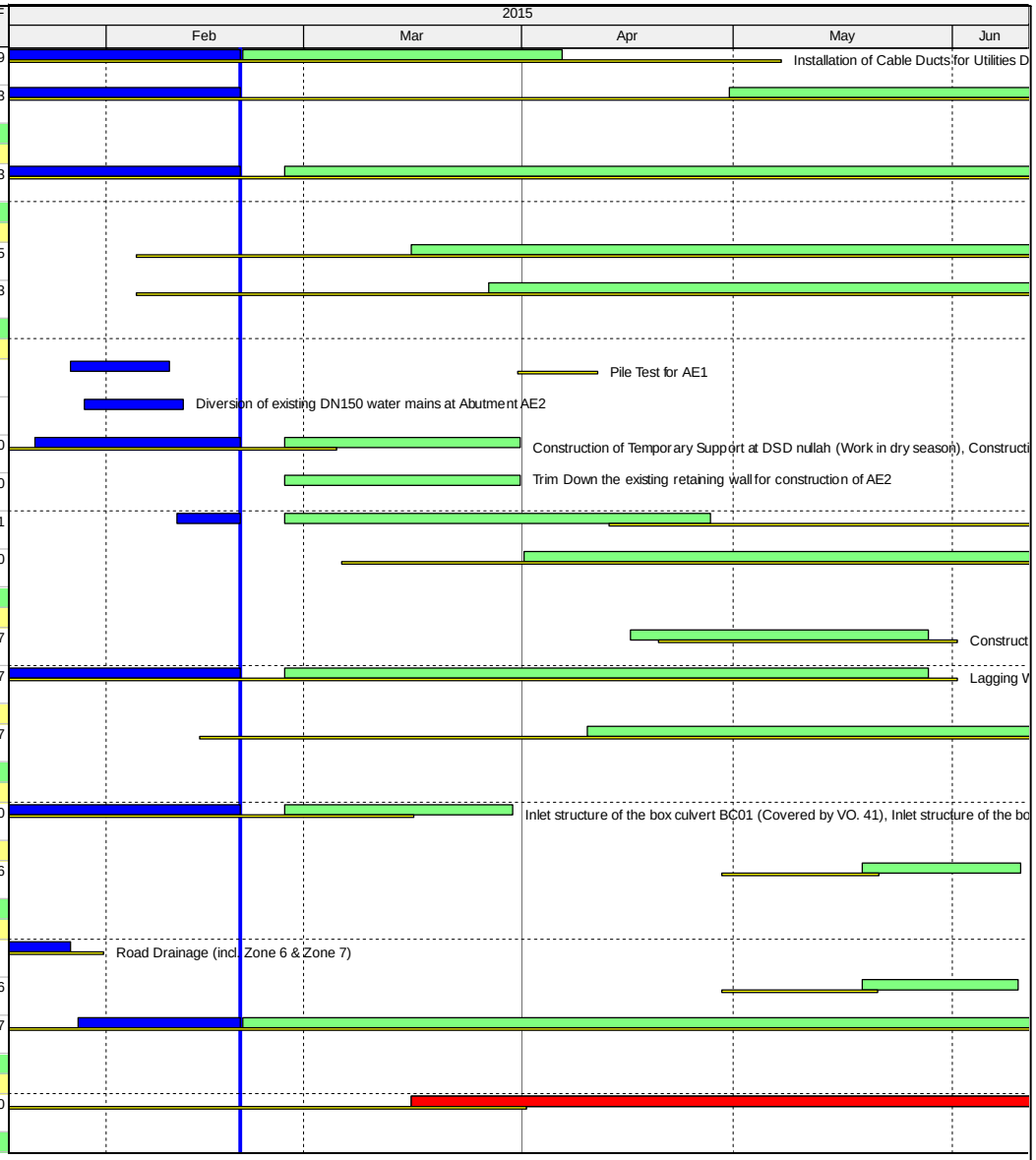
Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2015-02-21

Date	Revision	Checked	Approved
26-Feb-15	Rev.1	SL	

Activity ID	Activity Name	OD	RD	Start	Finish	TF
TWSRW-1150	Installation of Cable Ducts for Utilities Diversion Works at Zone 1 & Zone 2 (Approx. 100m) (by utilities undertakers)	167	46	22-Oct-14 A	06-Apr-15	319
TWSRW-1160	Road Formation, Road Drainage, Kerb, Planter & Pavement	286	182	15-Nov-14 A	05-Dec-15	33
TWSRW Zone 2 betweeen CH155 and CH280						
At-Grade Roadworks						
TWSRW-2120	Road Formation, Road Drainage, Kerb, Planter and Pavement	165	232	16-Oct-14 A	05-Dec-15	33
TWSRW Zone 3 betweeen CH280 and CH315						
At-Grade Roadworks						
TWSRW-3110	Installation of Cable Ducts for Utilities Diversion Works at Zone 3 (Approx. 120m) (by utilities undertakers)	239	239	16-Mar-15*	09-Nov-15	35
TWSRW-3120	Road Formation, Road Drainage, Kerb, Planter and Pavement	207	207	27-Mar-15	05-Dec-15	33
TWSRW Zone 4 betweeen CH315 and CH376						
Construction of Bridge E						
TWSRW-4040A	Pile Test for AE1	7	0	27-Jan-15 A	10-Feb-15 A	
TWSRW-4050C	Diversion of existing DN150 water mains at Abutment AE2	5	0	29-Jan-15 A	12-Feb-15 A	
TWSRW-4060	Construction of Temporary Support at DSD nullah (Work in dry season)	55	29	22-Jan-15 A	31-Mar-15	0
TWSRW-4050D	Trim Down the existing retaining wall for construction of AE2	29	29	26-Feb-15	31-Mar-15	0
TWSRW-4050A	Pile Cap for AE1	55	48	11-Feb-15 A	27-Apr-15	81
TWSRW-4070	In-situ Casting for Bridge Segment (North Bay & Middle Bay)	100	100	01-Apr-15	04-Aug-15	0
TWSRW Zone 5 betweeen CH376 and CH520						
Construction of Retaining Structures						
TWSRW-5070	Construction of Mass Concrete Wall (FL/RW4)	35	35	16-Apr-15	28-May-15	57
TWSRW-5090	Lagging Wall Construction and Capping Beam	160	73	06-Nov-14 A	28-May-15	7
At-Grade Roadworks						
TWSRW-5100	Noise Barrier NB2 - Footing and Retaining Structure adjacent to Realigned TWSR West (66m)	90	90	10-Apr-15	28-Jul-15	7
TWSRW Zone 6 betweeen CH520 and CH530						
Box Culvert Extension - BC01						
TWSRW-6070	Inlet structure of the box culvert BC01 (Covered by VO. 41)	70	28	17-Dec-14 A	30-Mar-15*	0
At-Grade Roadworks						
TWSRW-6100	Preparation Works for Implementation of TTA (shifting TWSRW traffic towards the edge of extended box culvert	19	19	19-May-15	10-Jun-15	6
TWSRW Zone 7 betweeen CH530 and CH640						
At-Grade Roadworks						
TWSRW-7130	Road Drainage (incl. Zone 6 & Zone 7)	80	0	03-Nov-14 A	27-Jan-15 A	
TWSRW-7100	Preparation Works for Implementation of TTA (shifting TWSRW traffic towards the cut-slope)	18	18	19-May-15	10-Jun-15	6
TWSRW-7140	Installation of Cable Ducts for Utilities Diversion Works at Area 4 (Approx. 150m) (by utilities undertakers)	233	210	28-Jan-15 A	17-Sep-15	7
TWSRW Zone 8 betweeen CH640 and CH695						
Kiu Tau Footbridge Reprovision (West)						
TWSRW-8010	Installation of Socket H-Pile for Proposed Kiu Tau Footbridge (14 nos of Pile)	75	75	16-Mar-15	17-Jun-15	-60
Remainder of the Works						



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Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

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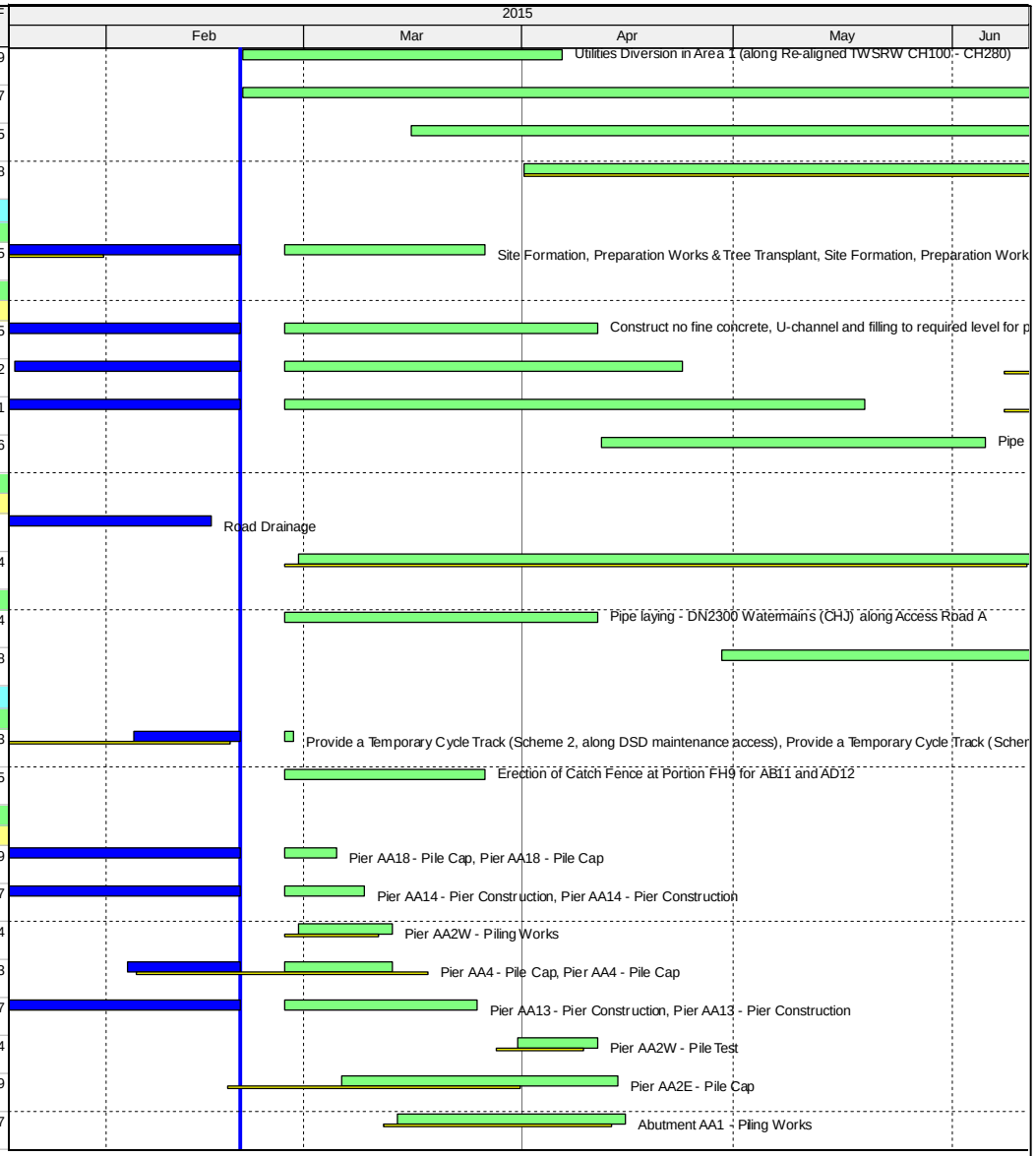
26-Feb-15	Rev.1	SL	

Activity ID	Activity Name	OD	RD	Start	Finish	TF
TWSRW-9010*	Utilities Diversion in Area 1 (along Re-aligned TWSRW CH100 - CH280)	167	46	22-Oct-14 A	06-Apr-15	319
TWSRW-9040*	Utilities Diversion in Area 4 (along Re-aligned TWSRW CH530 - CH640)	233	210	28-Jan-15 A	17-Sep-15	7
TWSRW-9020*	Utilities Diversion in Area 2 (along Re-aligned TWSRW CH 280 - CH315)	239	239	16-Mar-15	09-Nov-15	35
TWSRW-9030	Utilities Diversion in Area 3 (along existing TWSRW, Approx. 150m) (by utilities undertakers)	287	287	01-Apr-15*	12-Jan-16	38
Stage N4A & N4B - Realignment of Tai Wo Service Road East (KD-13 & KD-14)						
Preliminary Works						
TWSRE-4000	Site Formation, Preparation Works & Tree Transplant	65	25	15-Apr-14 A	26-Mar-15	15
TWSRE Zone 1 between CH100 and CH270						
At-Grade Roadworks						
TWSRE-1150	Construct no fine concrete, U-channel and filling to required level for pipe laying works	30	35	06-Jan-15 A	11-Apr-15	5
TWSRE-1110	Noise Barrier NB3 - PC01 & PC02 Pile Cap Construction	55	45	19-Jan-15 A	23-Apr-15	22
TWSRE-1120	Noise Barrier NB3 - Footing adjacent to Realigned TWSR East (96m)	110	66	29-Dec-14 A	19-May-15	1
TWSRE-1140*	Pipe laying - DN1400 Watermains (CHKA) along Realigned TWSR East	55	55	12-Apr-15	05-Jun-15	6
TWSRE Zone 3 between CH380 and CH456						
At-Grade Roadworks						
TWSRE-3030	Road Drainage	55	0	24-Oct-14 A	16-Feb-15 A	
TWSRE-3010	Noise Barrier NB3 - Footing adjacent to Realigned TWSR East (62m)	85	85	28-Feb-15	13-Jun-15	54
Roundabout A, Slip Road and Access Road						
TWSRE-4050A*	Pipe laying - DN2300 Watermains (CHJ) along Access Road A	68	35	02-Jan-15 A	11-Apr-15	4
TWSRE-4040A*	Pipe laying - DN600 & DN1200 Watermains (CHB & CHC) along Access Road A	40	40	29-Apr-15	16-Jun-15	38
Stage 1C - Viaduct Structure & TCSS Civil Provisions (KD-9)						
Preliminaries						
B-5010	Provide a Temporary Cycle Track (Scheme 2, along DSD maintenance access)	28	2	05-Feb-15 A	27-Feb-15	33
B-4050	Erection of Catch Fence at Portion FH9 for AB11 and AD12	25	25	26-Feb-15	26-Mar-15	15
Foundation & Pier Construction						
Bridge A						
BA-18-1020	Pier AA18 - Pile Cap	30	7	15-Jan-15 A	05-Mar-15	99
BA-14-1030	Pier AA14 - Pier Construction	31	10	20-Nov-14 A	09-Mar-15	7
BA-02-1000	Pier AA2W - Piling Works	12	12	28-Feb-15	13-Mar-15	124
BA-04-1020	Pier AA4 - Pile Cap	30	14	04-Feb-15 A	13-Mar-15	53
BA-13-1030	Pier AA13 - Pier Construction	38	24	06-Nov-14 A	25-Mar-15	7
BA-02-1010	Pier AA2W - Pile Test	7	7	31-Mar-15	11-Apr-15	124
BA-02-1020A	Pier AA2E - Pile Cap	30	30	06-Mar-15	14-Apr-15	99
BA-01-1000	Abutment AA1 - Piling Works	24	24	14-Mar-15*	15-Apr-15	187



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Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2015-02-21

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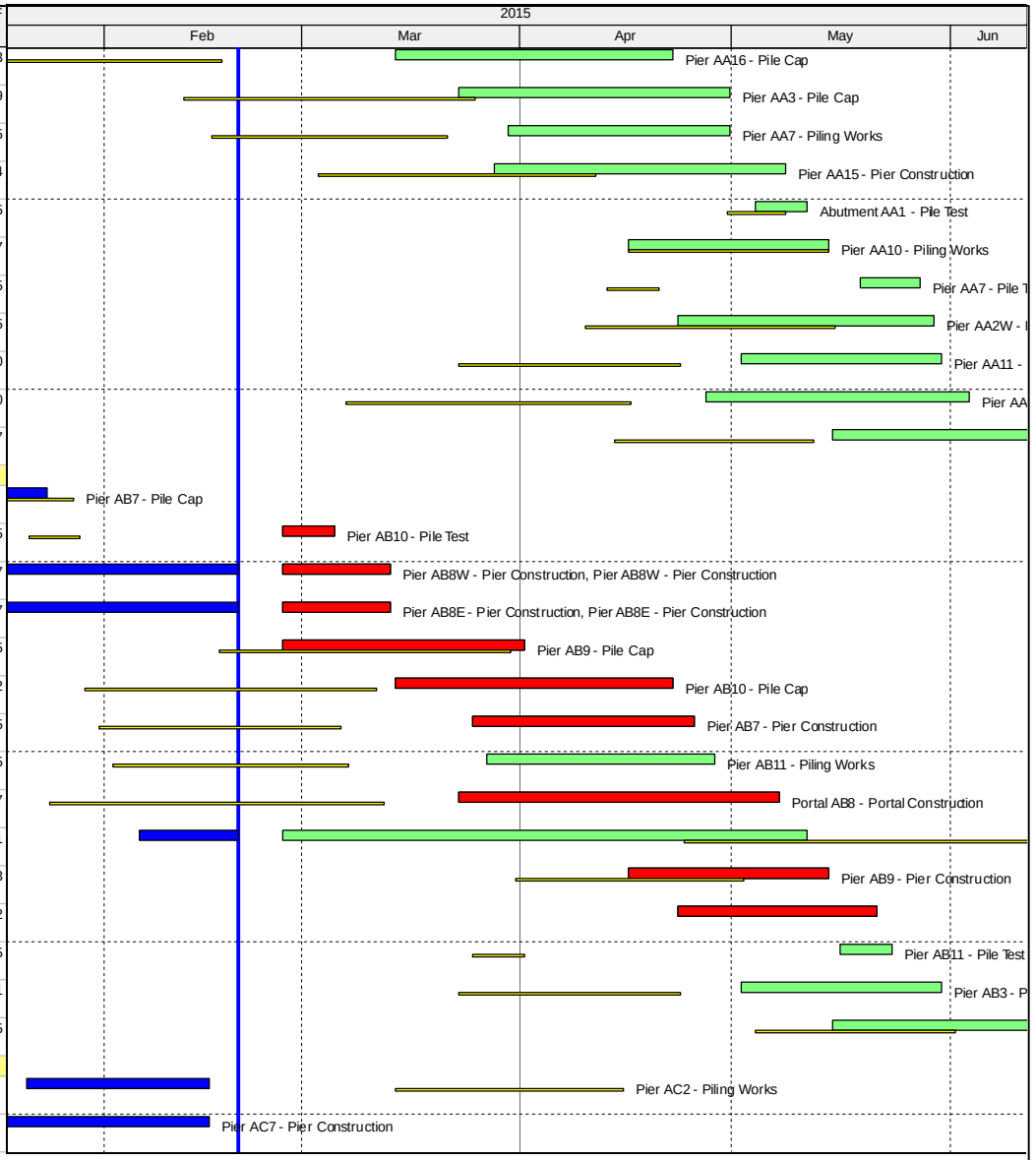
Activity ID	Activity Name	OD	RD	Start	Finish	TF
BA-16-1020	Pier AA16 - Pile Cap	30	30	14-Mar-15	22-Apr-15	53
BA-03-1020	Pier AA3 - Pile Cap	30	30	23-Mar-15	30-Apr-15	49
BA-07-1000	Pier AA7 - Piling Works	24	24	30-Mar-15	30-Apr-15	95
BA-15-1030	Pier AA15 - Pier Construction	31	31	28-Mar-15	08-May-15	14
BA-01-1010	Abutment AA1 - Pile Test	7	7	04-May-15	11-May-15	485
BA-10-1000	Pier AA10 - Piling Works	24	24	16-Apr-15	14-May-15	187
BA-07-1010	Pier AA7 - Pile Test	7	7	19-May-15	27-May-15	95
BA-02-1020B	Pier AA2W - Pile Cap	30	30	23-Apr-15	29-May-15	115
BA-11-1000	Pier AA11 - Piling Works	24	24	02-May-15	30-May-15	70
BA-16-1030	Pier AA16 - Pier Construction	31	31	27-Apr-15	03-Jun-15	50
BA-09-1000	Pier AA9 - Piling Works	24	24	15-May-15	12-Jun-15	187
Bridge B						
BB-07-1020	Pier AB7 - Pile Cap	30	0	05-Jan-15 A	24-Jan-15 A	
BB-10-1010	Pier AB10 - Pile Test	7	7	26-Feb-15	05-Mar-15	-15
BB-08-1030	Pier AB8W - Pier Construction	24	14	15-Dec-14 A	13-Mar-15	-107
BB-08-1040	Pier AB8E - Pier Construction	24	14	13-Dec-14 A	13-Mar-15	-107
BB-09-1020	Pier AB9 - Pile Cap	30	30	26-Feb-15*	01-Apr-15	-35
BB-10-1020	Pier AB10 - Pile Cap	30	30	14-Mar-15	22-Apr-15	-22
BB-07-1030	Pier AB7 - Pier Construction	24	24	25-Mar-15*	25-Apr-15	-105
BB-11-1000	Pier AB11 - Piling Works	24	24	27-Mar-15	28-Apr-15	15
BB-08-1050	Portal AB8 - Portal Construction	35	35	23-Mar-15	07-May-15	-107
BB-12-1000A	Abutment AB12/AD14 - Piling Works	70	59	06-Feb-15 A	11-May-15	61
BB-09-1030	Pier AB9 - Pier Construction	24	24	16-Apr-15	14-May-15	-43
BB-10-1030	Pier AB10 - Pier Construction	24	24	23-Apr-15	21-May-15	-22
BB-11-1010	Pier AB11 - Pile Test	7	7	16-May-15	23-May-15	15
BB-03-1000	Pier AB3 - Piling Works	24	24	02-May-15	30-May-15	101
BB-06-1030	Pier AB6E - Pier Construction	24	24	15-May-15	12-Jun-15	5
Bridge C						
BC-02-1000	Pier AC2 - Piling Works	24	0	21-Jan-15 A	16-Feb-15 A	
BC-07-1030	Pier AC7 - Pier Construction	24	0	10-Nov-14 A	16-Feb-15 A	



Chun Wo Construction & Engineering Co., Ltd.

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

CEDD Contract No. CV/2012/09

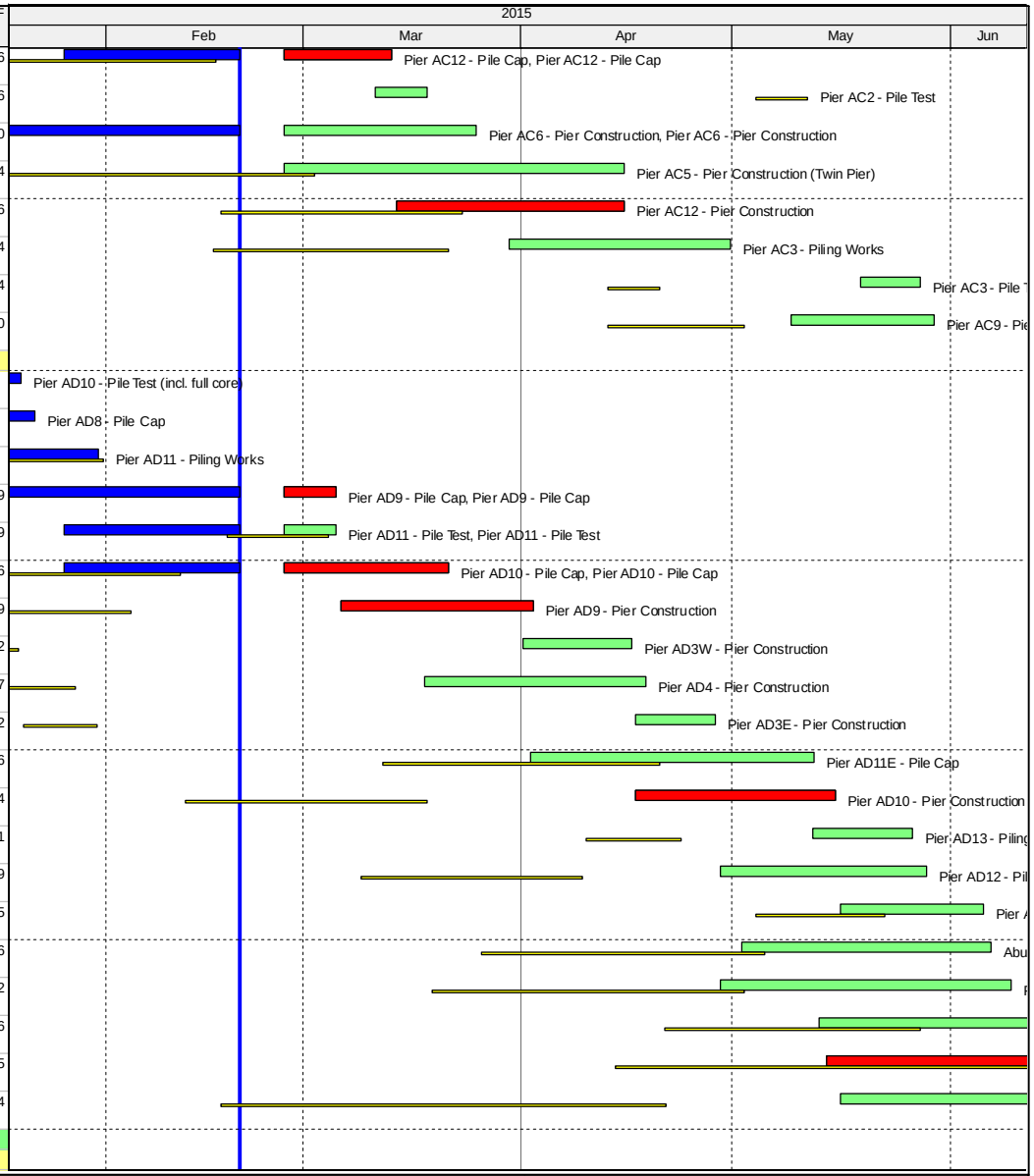
Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2015-02-21

Date	Revision	Checked	Approved
26-Feb-15	Rev.1	SL	

Activity ID	Activity Name	OD	RD	Start	Finish	TF
BC-12-1020	Pier AC12 - Pile Cap	30	14	26-Jan-15 A	13-Mar-15	-96
BC-02-1010	Pier AC2 - Pile Test	7	7	11-Mar-15	18-Mar-15	246
BC-06-1030	Pier AC6 - Pier Construction	24	24	21-Oct-14 A	25-Mar-15	20
BC-05-1030	Pier AC5 - Pier Construction (Twin Pier)	38	38	26-Feb-15	15-Apr-15	14
BC-12-1030	Pier AC12 - Pier Construction	24	24	14-Mar-15	15-Apr-15	-96
BC-03-1000	Pier AC3 - Piling Works	24	24	30-Mar-15	30-Apr-15	64
BC-03-1010	Pier AC3 - Pile Test	7	7	19-May-15	27-May-15	64
BC-09-1030	Pier AC9 - Pier Construction	17	17	09-May-15	29-May-15	60
Bridge D						
BD-10-1010	Pier AD10 - Pile Test (incl. full core)	21	0	08-Dec-14 A	20-Jan-15 A	
BD-08-1020	Pier AD8 - Pile Cap	30	0	18-Nov-14 A	22-Jan-15 A	
BD-11-1000	Pier AD11 - Piling Works	36	0	24-Dec-14 A	31-Jan-15 A	
BD-09-1020	Pier AD9 - Pile Cap	30	7	03-Nov-14 A	05-Mar-15	-89
BD-11-1010	Pier AD11 - Pile Test	7	7	26-Jan-15 A	05-Mar-15	129
BD-10-1020	Pier AD10 - Pile Cap	30	21	26-Jan-15 A	21-Mar-15	-86
BD-09-1030	Pier AD9 - Pier Construction	24	24	06-Mar-15	02-Apr-15	-89
BD-03-1030	Pier AD3W - Pier Construction	10	10	01-Apr-15*	16-Apr-15	2
BD-04-1030	Pier AD4 - Pier Construction	24	24	18-Mar-15	18-Apr-15	57
BD-03-2030	Pier AD3E - Pier Construction	10	10	17-Apr-15	28-Apr-15	2
BD-11-1020A	Pier AD11E - Pile Cap	30	30	02-Apr-15	12-May-15	106
BD-10-1030	Pier AD10 - Pier Construction	24	24	17-Apr-15*	15-May-15	-104
BD-13-1000	Pier AD13 - Piling Works	12	12	12-May-15	26-May-15	61
BD-12-1000	Pier AD12 - Piling Works	24	24	29-Apr-15	28-May-15	89
BD-06-1030	Pier AD6 - Pier Construction	17	17	16-May-15	05-Jun-15	65
BD-01-1020	Abutment AD1 - Pile Cap	30	30	02-May-15	06-Jun-15	86
BD-05-1030	Pier AD5 - Pier Construction (Twin Pier)	34	34	29-Apr-15	09-Jun-15	2
BD-11-1020B	Pier AD11W - Pile Cap	30	30	13-May-15	17-Jun-15	106
BD-09-1040	Portal AB7/AD9/AC12 - Portal Construction	35	35	14-May-15	25-Jun-15	-105
BD-03-2040	Portal AD3 - Portal Construction	35	35	16-May-15	27-Jun-15	14
Pier Head Construction						
Bridge A						



俊和建築工程有限公司
CHUN WO CONSTRUCTION & ENGINEERING CO., LTD.

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CEDD Contract No. CV/2012/09

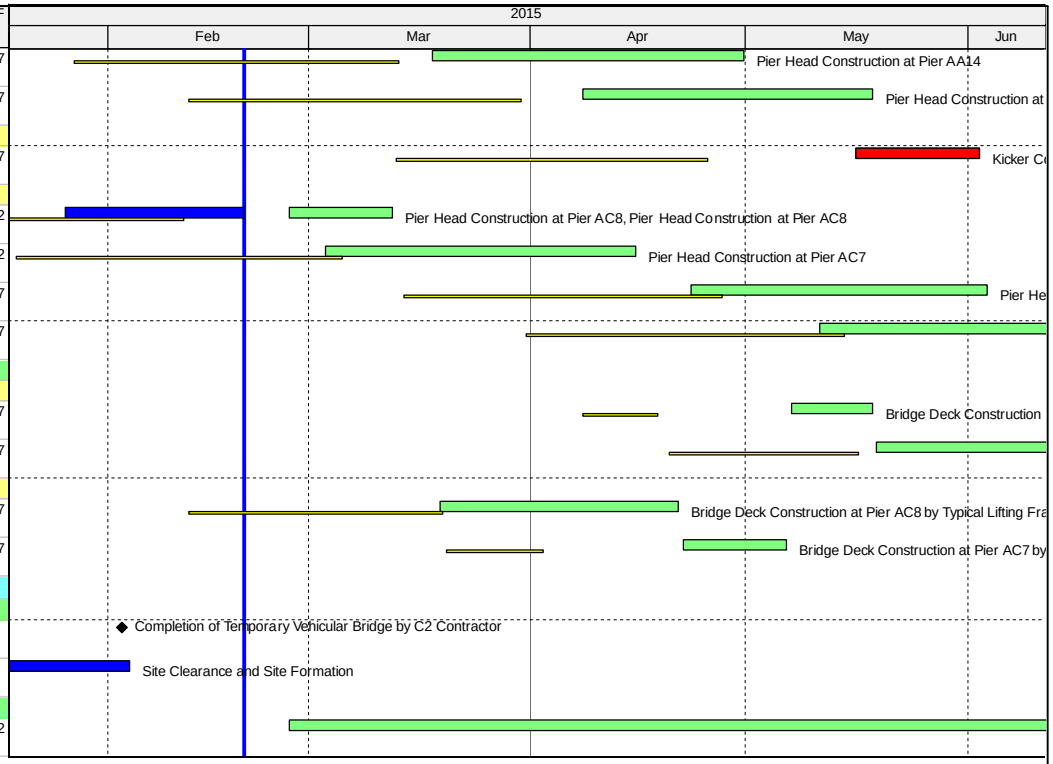
Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

3-Month Rolling Programme

3-Month Rolling Programme updated to 2015-02-21

Date	Revision	Checked	Approved
26-Feb-15	Rev.1	SL	

Activity ID	Activity Name	OD	RD	Start	Finish	TF
PA-1140	Pier Head Construction at Pier AA14	34	34	18-Mar-15	30-Apr-15	7
PA-1130	Pier Head Construction at Pier AA13	34	34	08-Apr-15	18-May-15	7
Bridge B						
PB-1080	Kicker Construction at Portal AB8	14	14	16-May-15	02-Jun-15	-107
Bridge C						
PC-1080	Pier Head Construction at Pier AC8	34	13	26-Jan-15 A	12-Mar-15	12
PC-1070	Pier Head Construction at Pier AC7	34	34	03-Mar-15	15-Apr-15	12
PC-1060	Pier Head Construction at Pier AC6	34	34	23-Apr-15	03-Jun-15	7
PC-1050	Pier Head Construction at Pier AC5	34	34	11-May-15	19-Jun-15	7
Viaduct Bridge Segement Erection						
Bridge A						
EA-1140	Bridge Deck Construction at Pier AA14 by Typical Lifting Frame (21 nos)	10	10	07-May-15	18-May-15	7
EA-1130	Bridge Deck Construction at Pier AA13 by Typical Lifting Frame (26 nos)	23	23	19-May-15	15-Jun-15	7
Bridge C						
EC-1080	Bridge Deck Construction at Pier AC8 by Typical Lifting Frame (24 nos)	25	25	19-Mar-15	21-Apr-15	7
EC-1070	Bridge Deck Construction at Pier AC7 by Typical Lifting Frame (27 nos)	12	12	22-Apr-15	06-May-15	7
Section VI - Works in Portion FH9 (KD-6A)						
Preliminary Preparation Works						
S6-1000	Completion of Temporary Vehicular Bridge by C2 Contractor	0	0		03-Feb-15 A	
S6-1020	Site Clearance and Site Formation	21	0	13-Jan-15 A	04-Feb-15 A	
Major Works						
S6-2000	Construction of Abutment AB12/AD14 (including Piling, Pile Cap & Abutment construction)	276	225	06-Feb-15 A	27-Nov-15	282



俊和建築工程有限公司
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Liantang / Heung Yuen Wai BCP - Site Formation & Infrastructure Works, Contract 3

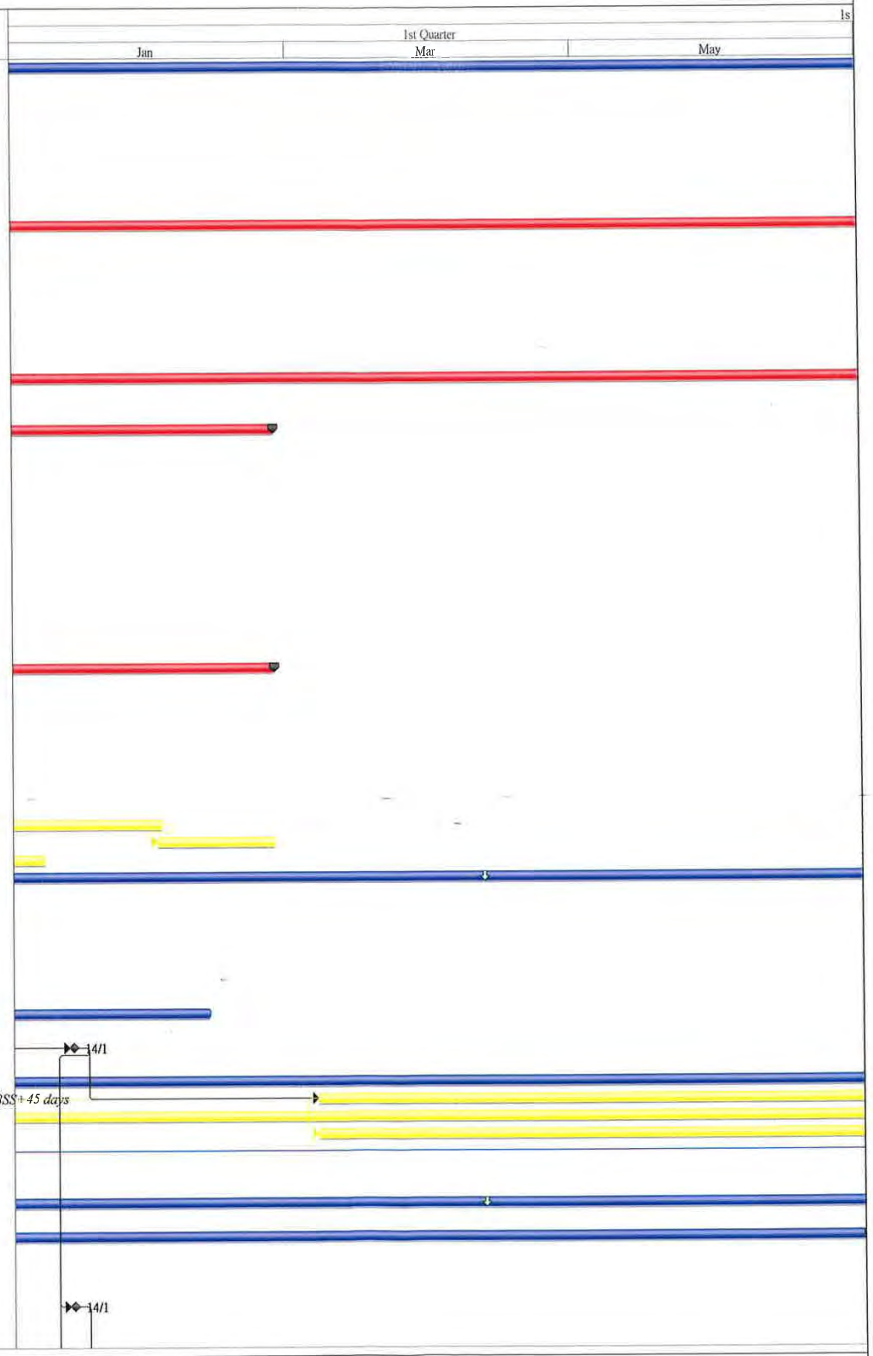
3-Month Rolling Programme

3-Month Rolling Programme updated to 2015-02-21

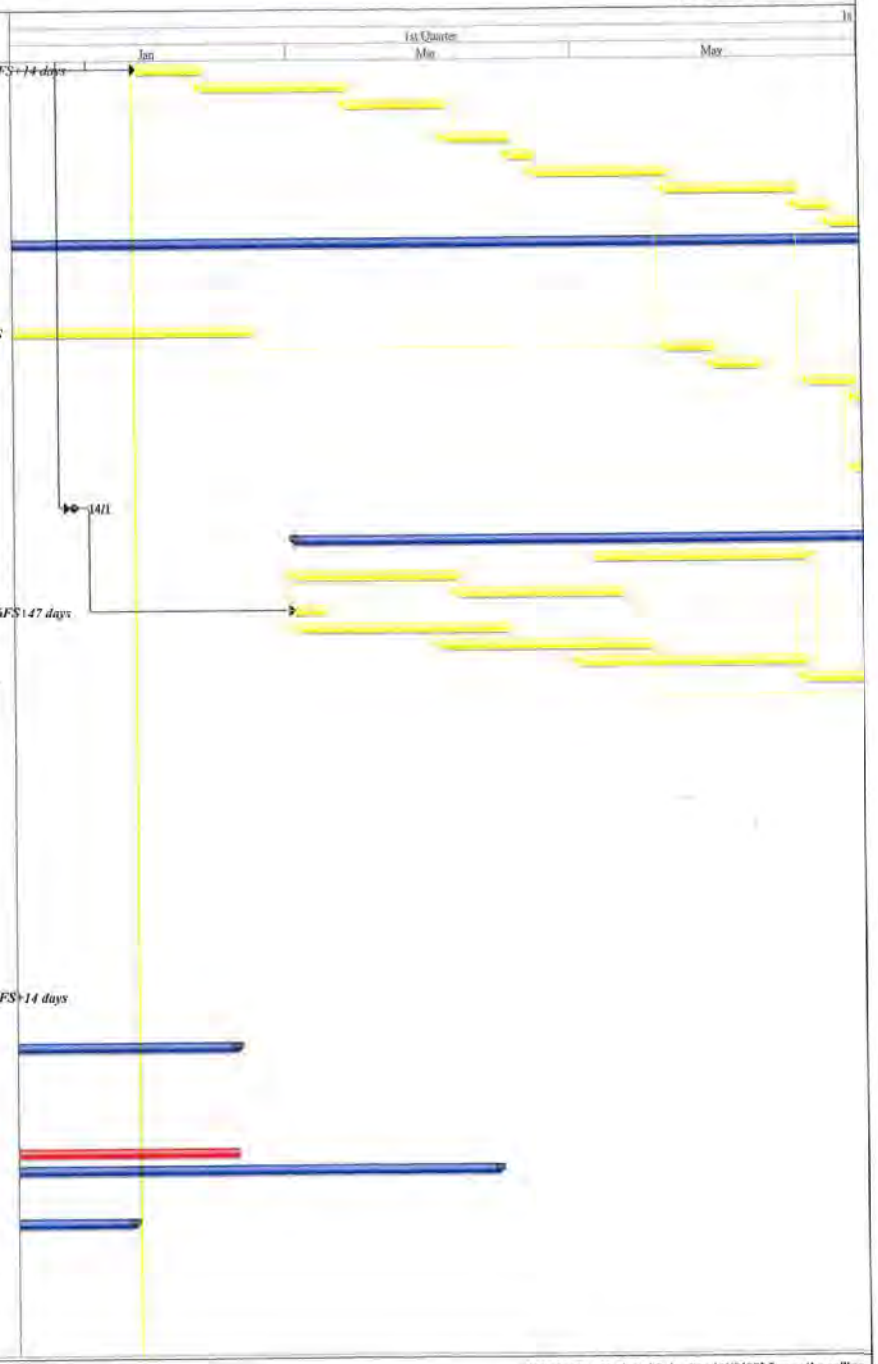
Date	Revision	Checked	Approved
26-Feb-15	Rev.1	SL	

Contract 5

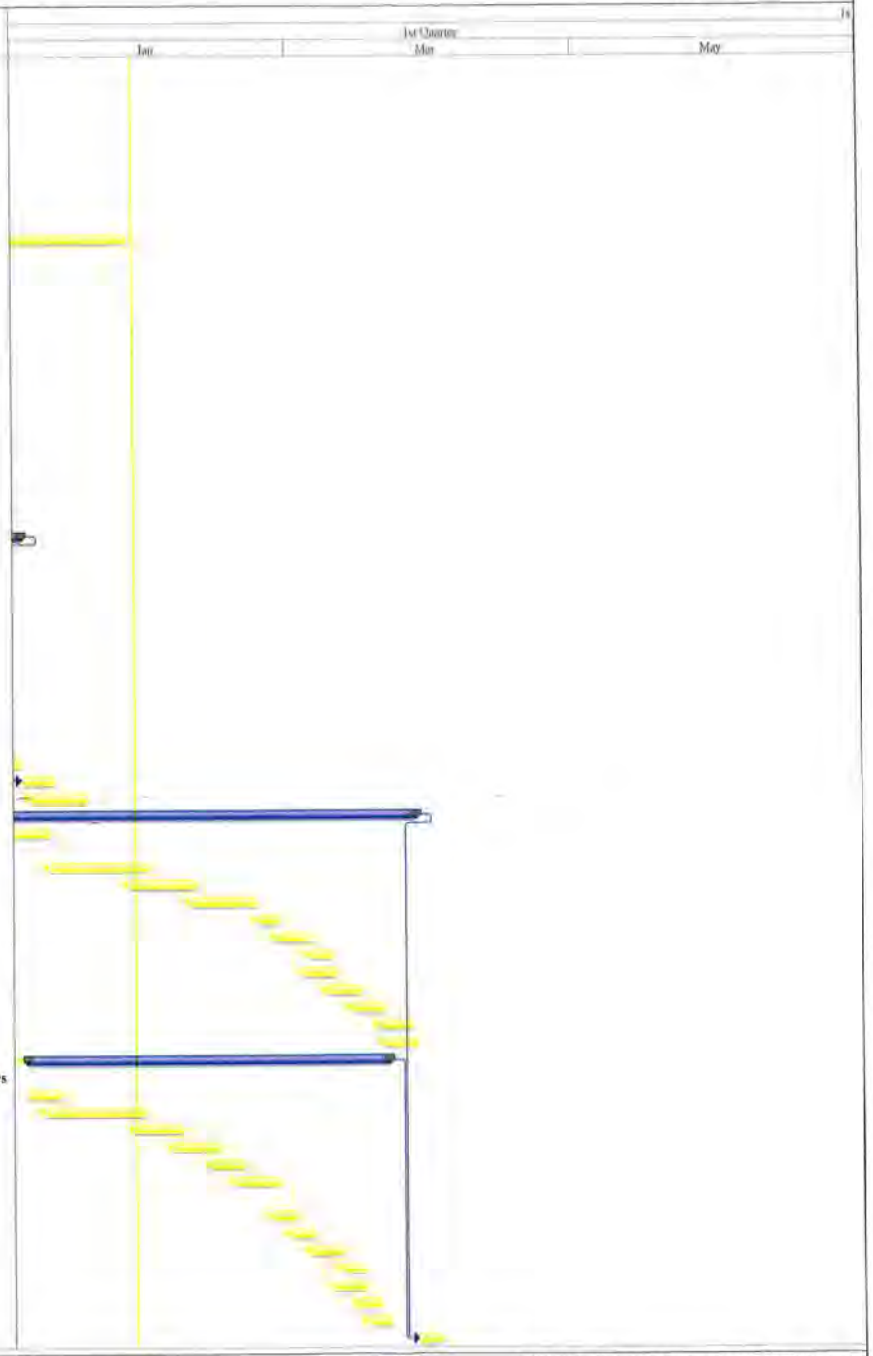
ID	WBS	Task Name	Duration	Start	Finish	Predecessors
1	1	**Key Dates**	**1110 days**	**Thu 28/3/13**	**Sun 10/4/16**	
47	2	**Preliminaries and Statuary / Contractual Submissions**	**424 days**	**Thu 11/4/13**	**Mon 9/6/14**	4
48	2.1	**Site Establishment**	**399 days**	**Thu 11/4/13**	**Thu 15/5/14**	
53	2.2	**Applications to Government Department**	**89 days**	**Fri 12/4/13**	**Tue 9/7/13**	
58	2.3	**Temporary Traffic Arrangement (TTA) Scheme for temp. LMH Rd**	**131 days**	**Fri 12/4/13**	**Tue 20/8/13**	
63	2.4	**Liaison with Utility Undertakers**	**363 days**	**Fri 12/4/13**	**Wed 9/4/14**	
66	2.5	**Environmental Baseline & Impact Monitoring**	**132 days**	**Thu 11/4/13**	**Wed 21/8/13**	
77	2.6	General Site Clearance	424 days	Fri 12/4/13	Mon 9/6/14	5SS
78	3	**Stage of the Works**	**180 days**	**Thu 11/4/13**	**Mon 7/10/13**	
94	4	**Section of the Works**	**1363 days**	**Fri 12/4/13**	**Tue 3/1/17**	
95	4.1	**Section I of the Works - Ground Investigation field works (Drg. 7101A-7111A)**	**251 days**	**Thu 30/5/13**	**Tue 4/2/14**	**74SS+13 days**
100	4.2	**Section II of the Works - All laboratory tests for Section I**	**188 days**	**Sat 31/8/13**	**Thu 6/3/14**	**97**
105	4.3	**Section III of the Works - Site formation works for Portions RS1, RS2 & RS3 (seek for certificate of completion in letter ref. SRJV/W47/SO/J5/1308/00416 dated 23/8/2013)**	**89 days**	**Sun 12/5/13**	**Thu 8/8/13**	**24,25,26**
111	4.4	**Section IV of the Works - Village house within portion RS4 - EOT3 completion 15/5/2014**	**399 days**	**Fri 12/4/13**	**Thu 15/5/14**	**4**
123	4.5	**Section V of the Works-All works within portion RS4 exclude Section IV - EOT4 completion 11/4/2015**	**831 days**	**Fri 12/4/13**	**Tue 21/7/15**	**4**
143	4.6	**Section VII of the Works - All works within Area CRD**	**249 days**	**Mon 9/9/13**	**Thu 15/5/14**	**8**
180	4.7	**Section VIII of the Works - All works within Area BCPA - EOT6 completion 2/1/2015**	**625 days**	**Tue 11/6/13**	**Wed 25/2/15**	**6,7,18**
181	4.7.1	**ISSUE OF VO NO. 028 - Revised Works for Retaining Wall BCP/RW2 at BCP**	**0 days**	**Fri 13/6/14**	**Fri 13/6/14**	
182	4.7.2	**Claim No. 013 - VO No. 028 - Site Possession from DC/2011/06 (Portion B) (from Area D3 to D10)**	**0 days**	**Tue 12/8/14**	**Tue 12/8/14**	
183	4.7.3	**Claim No. 013 - VO No. 028 - Site Possession from DC/2011/06 (Portion A) (from Area C8 to D2)**	**0 days**	**Tue 16/9/14**	**Tue 16/9/14**	
184	4.7.4	**Claim No. 009 - Delays due to Delayed Possession of Portion BCP4 of the Site**	**0 days**	**Fri 26/9/14**	**Fri 26/9/14**	
185	4.7.5	**Retaining Wall BCP/RW2B**	**92 days**	**Mon 14/7/14**	**Mon 13/10/14**	
200	*4.7.6*	*install 150UPVC perforated pipe behind retaining wall*	*4 days*	*Fri 17/10/14*	*Mon 20/10/14*	*196FS+3 days*
201	*4.7.7*	*install geotextile filter & backfill D4, B6 & A4 to +15.0*	*28 days*	*Tue 21/10/14*	*Mon 17/11/14*	*200*
202	*4.7.8*	*Outstanding site formation work for Area BCPA*	*200 days*	*Fri 13/6/14*	*Mon 29/12/14*	*181*
203	**4.7.9**	**Slope drainage works (Drg. 7156B-7159B)**	**625 days**	**Tue 11/6/13**	**Wed 25/2/15**	
204	4.7.9.1	submission of setting out for slope drain	0 days	Fri 20/6/14	Fri 20/6/14	
205	4.7.9.2	approval of setting out for slope drain (VO No. 048 received on 29/8/2014)	80 days	Tue 11/6/13	Thu 29/8/13	
206	4.7.9.3	submission of design of sedimentation tank/pond	0 days	Wed 20/8/14	Wed 20/8/14	
207	***4.7.9.4***	***approval of design of sedimentation tank/pond (NOT YET)***	***60 days***	***Wed 20/8/14***	***Sat 18/10/14***	***206***
208	*4.7.9.5*	*DN1050 from A13-A4-A2 (VO 048 received on 29/8/2014)*	*80 days*	*Sat 30/8/14*	*Mon 17/11/14*	*205*
209	*4.7.9.6*	*Handover from DC/2011/06 for Box Culvert 4*	*1 day*	*Tue 18/11/14*	*Tue 18/11/14*	*207,208*
210	*4.7.9.7*	*Connect to existing Box Culvert Box Culvert 4*	*40 days*	*Wed 19/11/14*	*Sun 28/12/14*	*209*
211	*4.7.9.8*	*discharge from A2, through D6 to existing Box Culvert*	*35 days*	*Mon 29/12/14*	*Sun 1/2/15*	*210*
212	*4.7.9.9*	*shortcreted TC*	*25 days*	*Sun 1/2/15*	*Wed 25/2/15*	*211FS-1 day*
213	*4.7.9.10*	*Chain Link Fence*	*40 days*	*Sat 29/11/14*	*Wed 7/1/15*	*209FS+10 days*
214	4.8	**Section IX of the Works - All works within Area BCPB - EOTO7 completion 19 October 2015**	**669 days**	**Fri 20/12/13**	**Mon 19/10/15**	**7**
215	4.8.1	**Claim No. 009 - Delays due to Delayed Possession of Portion BCP4 of the Site - Orginal 7/3/2014 and possessed on 25/9/2014**	**0 days**	**Fri 26/9/14**	**Fri 26/9/14**	**184**
216	4.8.2	**Submission for demolition of existing building structures**	**37 days**	**Fri 20/12/13**	**Sat 25/1/14**	
217	4.8.3	**Approval of submission for demolish existing building structures**	**41 days**	**Sun 26/1/14**	**Fri 7/3/14**	**216**
218	***4.8.4***	***Demolition of existing building structures UPON instruction (included Asbestos Investigation, Report & Asbestos Abatement***	***76 days***	***Fri 3/10/14***	***Wed 17/12/14***	***215FS+7 days,217***
219	4.8.5	**Section XIV of the Works - Tree felling/removal works and tree transplanting works at BCP4 (include tree survey etc)**	**139 days**	**Fri 26/9/14**	**Wed 11/2/15**	**706SS**
220	4.8.6	**Claim No. 007 - Delay due to Non-Possession of Parts of Portion BCP3 due to Resistant by Local Resident (NOT YET)**	**0 days**	**Wed 14/1/15**	**Wed 14/1/15**	**184**
221	4.8.7	**Site formation works**	**330 days**	**Sun 2/11/14**	**Sun 27/9/15**	
222	*4.8.7.1*	*site formation works (surrounding areas B1-3,B5-6, B9)*	*175 days*	*Sat 7/3/15*	*Fri 28/8/15*	*220FS+52 days,218SS+45 days*
223	*4.8.7.2*	*site formation works (area BCP4 - B4,7,8,10-B17)*	*330 days*	*Sun 2/11/14*	*Sun 27/9/15*	*218FS-46 days*
224	*4.8.7.3*	*site formation works (B18-B22)*	*175 days*	*Sat 7/3/15*	*Fri 28/8/15*	*222SS*
225	*4.8.8*	*chain link fence (Drg.1002C, 1032B, 1033B)*	*86 days*	*Sun 26/7/15*	*Mon 19/10/15*	*221SS+266 days*
226	4.9	**Section X of the Works - All works within Area BCPC - EOT5 completion 7/10/2014**	**125 days**	**Thu 5/6/14**	**Tue 7/10/14**	**8**
237	4.10	**Section XI of the Works - All works within Area BCPD (Revised) -Orginal 11/4/2015**	**500 days**	**Mon 14/7/14**	**Wed 25/11/15**	
238	4.10.1	**South West Works for additional 132kV (at Areas D1 & D2) at BCPD**	**321 days**	**Fri 15/8/14**	**Wed 1/7/15**	
239	*4.10.1.1*	*fill platform for CLP (132kV) from +12.8 to +15.3*	*47 days*	*Fri 15/8/14*	*Tue 30/9/14*	
240	4.10.1.2	UU for erection of overhead post & termination of electricity by CLP(132kV)(Area D2)	28 days	Tue 14/10/14	Mon 10/11/14	239FS+13 days
241	4.10.1.3	**Claim No. 007 - Delay due to Non-Possession of Parts of Portion BCP3 due to Resistant by Local Resident - confirmed to possess on 14/1/2015**	**0 days**	**Wed 14/1/15**	**Wed 14/1/15**	**220**



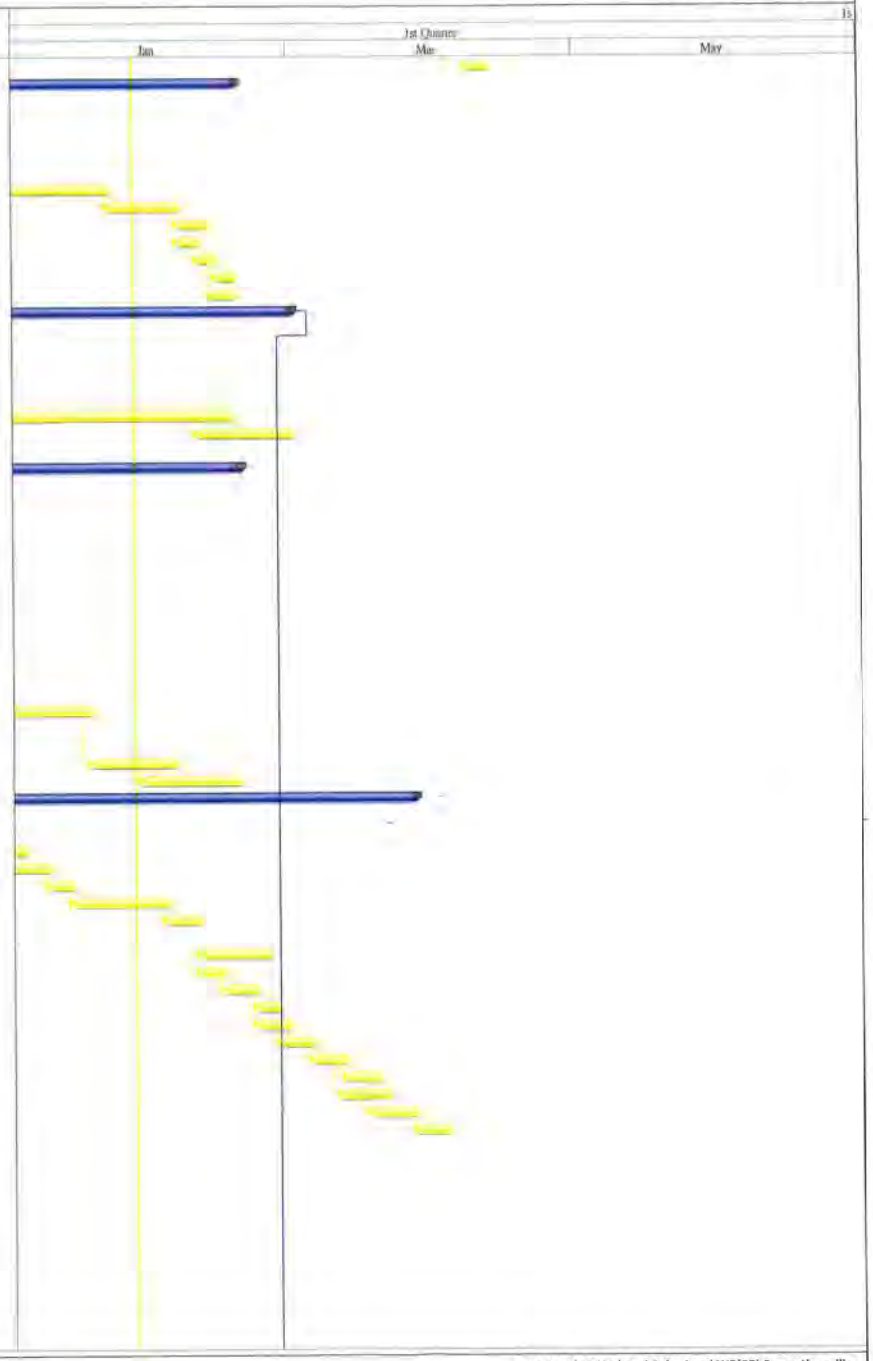
ID	WBS	Task Name	Duration	Start	Finish	Predecessors
242	*4.10.1.4*	*assume filling partly areas D1 & D2 to +13.5 for drain*	*14 days*	*Wed 28/1/15*	*Tue 10/2/15*	*241FS+14 days,183FS+14 days*
243	*4.10.1.5*	*DN2100 to Box Culvert No. 3 (assume cut from +10)*	*31 days*	*Wed 11/2/15*	*Fri 13/3/15*	*242*
244	*4.10.1.6*	*lay sewer FHM513, 514, 515, SMH9937 (backfill with laying of irrigation pipe)*	*21 days*	*Sat 14/3/15*	*Fri 3/4/15*	*243*
245	*4.10.1.7*	*lay sewer STP-FMH520-513*	*14 days*	*Sat 4/4/15*	*Fri 17/4/15*	*244*
246	*4.10.1.8*	*fill trench from laid sewer to drainage formation*	*5 days*	*Sat 18/4/15*	*Wed 22/4/15*	*245*
247	*4.10.1.9*	*lay drainage SMH9961 to 9966 & 9936 to 9937*	*28 days*	*Thu 23/4/15*	*Wed 20/5/15*	*246*
248	*4.10.1.10*	*filling of areas D1 & D2 to +15.3 with D2 soil cement slope*	*28 days*	*Thu 21/5/15*	*Wed 17/6/15*	*247*
249	*4.10.1.11*	*irrigation system at west D1 & D22*	*7 days*	*Thu 18/6/15*	*Wed 24/6/15*	*248*
250	*4.10.1.12*	*additional 132kV (at Areas D1 & D2)*	*7 days*	*Thu 25/6/15*	*Wed 1/7/15*	*249*
251	**4.10.2**	**South West Works for Areas D1 & D2**	**321 days**	**Fri 3/10/14**	**Wed 19/8/15**	
252	*4.10.2.1*	*site clearance, take initial survey*	*21 days*	*Fri 3/10/14*	*Thu 23/10/14*	*184FS+7 days*
253	*4.10.2.2*	*tree felling / transplam*	*45 days*	*Fri 24/10/14*	*Sun 7/12/14*	*252*
254	*4.10.2.3*	*fill trench to formation for Plug-FMH501-502-STP (approx. to +11)*	*5 days*	*Mon 8/12/14*	*Fri 12/12/14*	*253*
255	*4.10.2.4*	*lay sewer Plug-FMH501-502-STP*	*14 days*	*Sat 13/12/14*	*Fri 26/12/14*	*254*
256	*4.10.2.5*	*complete filling for Areas D1 & D2 to formation area*	*70 days*	*Sat 13/12/14*	*Fri 20/2/15*	*253FS-7 days,255SS*
257	*4.10.2.6*	*lay sewer STP-FMH511-512-513*	*10 days*	*Thu 21/5/15*	*Sat 30/5/15*	*247,256FS-41 days*
258	*4.10.2.7*	*lay drainage SMH9941 to 9943-9931*	*10 days*	*Sun 31/5/15*	*Tue 9/6/15*	*257*
259	*4.10.2.8*	*lay drainage SMH9952 to 9953-9942*	*10 days*	*Sat 20/6/15*	*Mon 29/6/15*	*258,250SS-5 days*
260	*4.10.2.9*	*lay drainage SMH9937 to 9930*	*20 days*	*Tue 30/6/15*	*Sun 19/7/15*	*259*
261	*4.10.2.10*	*lay drainage SMH9702A to 9935*	*10 days*	*Mon 20/7/15*	*Wed 29/7/15*	*260*
262	*4.10.2.11*	*lay drainage CP25-SMH9701A-9902-9702A*	*21 days*	*Thu 30/7/15*	*Wed 19/8/15*	*261*
263	*4.10.2.12*	*lay drainage SMH9922 to 9930*	*10 days*	*Thu 6/8/15*	*Sat 15/8/15*	*262FS-14 days*
264	*4.10.2.13*	*water pipe DN250 CHL 150 to 335.749*	*21 days*	*Tue 30/6/15*	*Mon 20/7/15*	*259*
265	*4.10.2.14*	*rising main CHC*	*21 days*	*Fri 10/7/15*	*Thu 30/7/15*	*260FS-10 days*
266	**4.10.3**	**Claim No. 007 - Delay due to Non-Possession of Parts of Portion BCP3 due to Resistant by Local Resident**	**0 days**	**Wed 14/1/15**	**Wed 14/1/15**	**220**
267	**4.10.4**	**South West Work for Construction of Depressed Road**	**188 days**	**Mon 2/3/15**	**Sat 5/9/15**	
268	*4.10.4.1*	*structural work for Pump Room*	*45 days*	*Tue 5/5/15*	*Thu 18/6/15*	*274FF*
269	*4.10.4.2*	*rising main CHA underneath depressed road (Bay 16015-16008)*	*35 days*	*Mon 2/3/15*	*Sun 5/4/15*	*271SS*
270	*4.10.4.3*	*rising main CHA underneath depressed road (Bay 16007-16001)*	*35 days*	*Mon 6/4/15*	*Sun 10/5/15*	*269*
271	***4.10.4.4***	***UU for 11kV & LV lay ducts across & underneath underpass***	***7 days***	***Mon 2/3/15***	***Sun 8/3/15***	***239FS+42 days,266FS+47 days***
272	*4.10.4.5*	*structural work for Bay 16015-16012*	*45 days*	*Tue 3/3/15*	*Thu 16/4/15*	*269FS-34 days*
273	*4.10.4.6*	*structural work for Bay 16011-16008*	*45 days*	*Thu 2/4/15*	*Sat 16/5/15*	*272FS-15 days*
274	*4.10.4.7*	*structural work for Bay 16007-16004*	*48 days*	*Sat 2/5/15*	*Thu 18/6/15*	*273FS-15 days*
275	*4.10.4.8*	*structural work for Bay 16003-16001*	*48 days*	*Fri 19/6/15*	*Wed 5/8/15*	*274,268FS-15 days*
276	*4.10.4.9*	*drainage work inside depressed road (Bay 16015-16008)*	*21 days*	*Thu 16/7/15*	*Wed 5/8/15*	*273,275FF*
277	*4.10.4.10*	*drainage work inside depressed road (Bay 16007-16001)*	*21 days*	*Thu 6/8/15*	*Wed 26/8/15*	*275,276*
278	*4.10.4.11*	*backfill western side of depressed road*	*10 days*	*Thu 6/8/15*	*Sat 15/8/15*	*275*
279	*4.10.4.12*	*irrigation system next to depressed road*	*21 days*	*Sun 16/8/15*	*Sat 5/9/15*	*278*
280	**4.10.5**	**South West Work for Access Road**	**102 days**	**Sat 15/8/15**	**Wed 25/11/15**	
281	4.10.5.1	completion of drainage SMH9922 to 9930, water pipe & rising main & backfill western side of depressed road	0 days	Sat 15/8/15	Sat 15/8/15	263,265,278
282	***4.10.5.2***	***UU for 132kV, 11kV & LV***	***7 days***	***Sun 16/8/15***	***Sat 22/8/15***	***281***
283	***4.10.5.3***	***UU for PCCW***	***7 days***	***Sun 23/8/15***	***Sat 29/8/15***	***282***
284	*4.10.5.4*	*backfill to road formation with SRT98%*	*14 days*	*Sun 30/8/15*	*Sat 12/9/15*	*283*
285	*4.10.5.5*	*sub-base laying*	*7 days*	*Sun 13/9/15*	*Sat 19/9/15*	*284*
286	*4.10.5.6*	*kerb bedding, laying & backing before bituminous material*	*14 days*	*Sun 20/9/15*	*Sat 3/10/15*	*285*
287	***4.10.5.7***	***AC - lay DBM & base course***	***14 days***	***Sun 4/10/15***	***Sat 17/10/15***	***286***
288	*4.10.5.8*	*backfill footpath formation*	*12 days*	*Sun 4/10/15*	*Thu 15/10/15*	*286*
289	*4.10.5.9*	*street lighting ducts, drawpits & controller*	*14 days*	*Fri 16/10/15*	*Thu 29/10/15*	*288*
290	***4.10.5.10***	***UU for CLP (lighting)***	***12 days***	***Fri 30/10/15***	***Tue 10/11/15***	***289***
291	*4.10.5.11*	*footpath paving*	*15 days*	*Wed 11/11/15*	*Wed 25/11/15*	*290*
292	***4.10.5.12***	***AC - lay wearing course***	***7 days***	***Fri 13/11/15***	***Thu 19/11/15***	***290FS+2 days,287FS+14 days***
293	**4.10.6**	**Claim No. 013 - VO No. 028 - Site Possession from DC/2011/06 (Portion B) (from Area D3 to D10)**	**0 days**	**Tue 12/8/14**	**Tue 12/8/14**	**182**
294	**4.10.7**	**Works at Areas D4 to D9 (shown in Section VIII)**	**218 days**	**Mon 14/7/14**	**Mon 16/2/15**	
295	4.10.7.1	Retaining Wall BCP/RW2B	92 days	Mon 14/7/14	Mon 13/10/14	185SS
310	4.10.7.2	install 150UPVC perforated pipe behind retaining wall	4 days	Fri 17/10/14	Mon 20/10/14	200SS
311	4.10.7.3	install geotextile filter & backfill D4, B6 & A4 to +15.0	28 days	Tue 21/10/14	Mon 17/11/14	201SS
312	4.10.7.4	site formation work for Areas D4 to D6	45 days	Tue 4/11/14	Thu 18/12/14	311FS-14 days
313	4.10.7.5	soil cement slopes for Areas D4 to D6	21 days	Fri 5/12/14	Thu 25/12/14	312FS-14 days
314	4.10.7.6	site formation work for Areas D7 to D9	60 days	Fri 19/12/14	Mon 16/2/15	313FS-7 days
315	**4.11**	**Section XII of the Works - All works within Area LMH (revised)**	**600 days**	**Thu 22/8/13**	**Mon 13/4/15**	**74**
316	4.11.1	Submissions for method statement of subway & staircase	70 days	Thu 22/8/13	Wed 30/10/13	
317	4.11.2	Approval of Submissions for method statement of subway & staircase	68 days	Fri 30/8/13	Tue 5/11/13	316SS+8 days
318	**4.11.3**	**Construction of retaining wall RW1 - CH0 to 561.053m**	**499 days**	**Sat 14/9/13**	**Sun 25/1/15**	
319	*4.11.3.1*	*Bay 1075 to Bay 1068 (8 bays) -H1*	*120 days*	*Sat 14/9/13*	*Sat 11/1/14*	*337SS+1 day*
320	*4.11.3.2*	*Bay 1067 to Bay 1060 (8 bays) -H2*	*120 days*	*Sat 28/9/13*	*Sat 25/1/14*	*319SS+14 days*
321	*4.11.3.3*	*Bay 1059 to Bay 1052 (8 bays) - H3*	*120 days*	*Sat 12/10/13*	*Sat 8/2/14*	*320SS+14 days*
322	*4.11.3.4*	*Bay 1051 to Bay 1044 (8 bays) -H4*	*120 days*	*Sat 26/10/13*	*Sat 22/2/14*	*321SS+14 days*
323	4.11.3.5	Bay 1043 to Bay 1036 (8 bays) - H5	120 days	Sat 9/11/13	Sat 8/3/14	322SS+14 days
324	4.11.3.6	Bay 1035 to Bay 1028 (8 bays) -H5,H6	120 days	Sun 5/1/14	Sun 4/5/14	323SS+57 days
325	*4.11.3.7*	*Bay 1027 to Bay 1020 (8 bays) -H6*	*120 days*	*Sat 2/11/13*	*Sat 1/3/14*	*322SS+7 days*



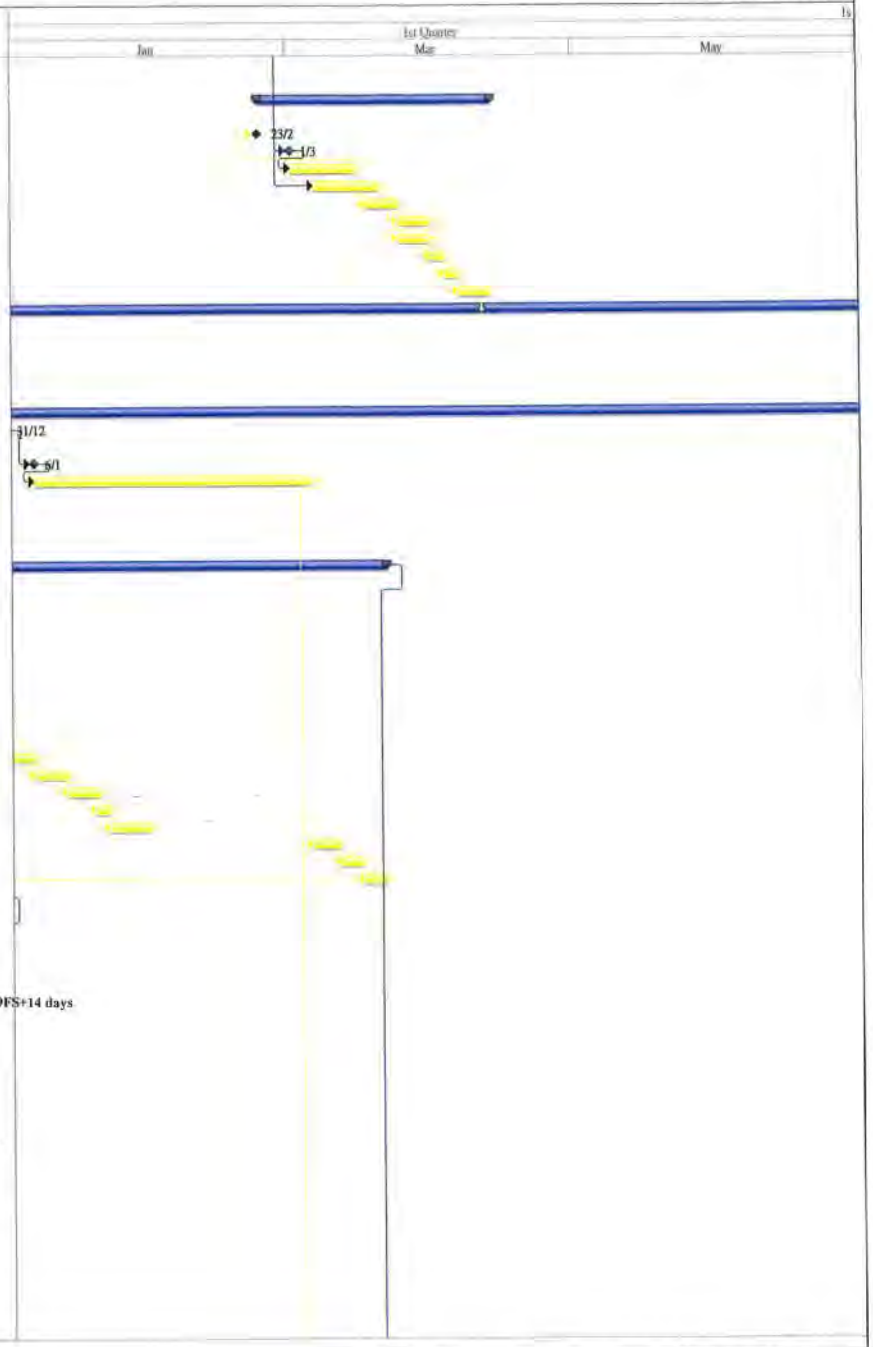
ID	WBS	Task Name	Duration	Start	Finish	Predecessors
326	4.11.3.8	Bay 1019 to Bay 1012 (8 bays) -H7 (except Bays 1013, 1014-require relocation of overhead cable)	196 days	Sat 16/11/13	Fri 30/5/14	325SS+14 days
327	4.11.3.9	Bay 1011 to Bay 1005 (7 bays) H7,H8 (except Bays 1005 to 1006, Bays 1007 & 1008 walls-after pipe jacking with HDPE pipe laying)	150 days	Sat 31/5/14	Mon 27/10/14	326
328	4.11.3.10	Relocation of Overhead Cables at Bay 1013 & 1014	0 days	Sat 28/6/14	Sat 28/6/14	
329	4.11.3.11	walls for Bay 1013 & 1014	45 days	Sat 28/6/14	Mon 11/8/14	328
330	4.11.3.12	complete laying of extended HDPE pipe near Bridge J	45 days	Tue 12/8/14	Thu 25/9/14	329
331	4.11.3.13	Bay 1006 (after laying of HDPE pipe)	20 days	Sat 27/9/14	Thu 16/10/14	330FS+1 day
332	4.11.3.14	Bay 1007 to 1008 (after laying of HDPE pipe)	45 days	Sat 28/6/14	Mon 11/8/14	328
333	4.11.3.15	completion date of cast abutment of Bridge J	0 days	Sat 22/11/14	Sat 22/11/14	401
334	4.11.3.16	Bay 1001 & 1005 - H8 (after abutment of Bridge J)	50 days	Sun 7/12/14	Sun 25/1/15	333FS+14 days
335	**4.11.4**	**Construction of retaining wall RW1A**	**253 days**	**Fri 13/9/13**	**Fri 23/5/14**	
339	4.11.5	filling & slope drainage behind RW1A - (D17)	35 days	Fri 26/9/14	Thu 30/10/14	442FF
340	**4.11.6**	**Works from chainage 970 to chainage 1120 (150m)**	**198 days**	**Sat 31/5/14**	**Sun 14/12/14**	
341	4.11.6.1	earthfilling to lay drainage & waterwork (part D11, D12, H2, H3, part D17)	42 days	Sat 31/5/14	Fri 11/7/14	326
342	4.11.6.2	drainage & waterwork + backfill for CLP	42 days	Sat 12/7/14	Fri 22/8/14	341
343	**4.11.6.3**	**UU - 11kV & LV (both sides) ch970-1120**	**20 days**	**Sun 27/7/14**	**Fri 15/8/14**	**342SS+15 days**
344	4.11.6.4	filling works to formation of road (include SRT98%)	51 days	Sat 23/8/14	Sun 12/10/14	343,342
345	4.11.6.5	sub-base laying	10 days	Mon 13/10/14	Wed 22/10/14	344
346	4.11.6.6	kerb bedding, laying & backing before bituminous material	14 days	Thu 23/10/14	Wed 5/11/14	345
347	4.11.6.7	filling works for UU at footpath	10 days	Thu 6/11/14	Sat 15/11/14	346
348	**4.11.6.8**	**UU - (PCCW, HGC) at east side**	**10 days**	**Fri 21/11/14**	**Sun 30/11/14**	**350,347**
349	**4.11.6.9**	**UU - (PCCW) at west side**	**10 days**	**Fri 21/11/14**	**Sun 30/11/14**	**350**
350	**4.11.6.10**	**AC - lay DBM & base course**	**5 days**	**Sun 16/11/14**	**Thu 20/11/14**	**347**
351	4.11.6.11	street lighting drawpit (ch1103), controller (ch1103) & ductings	10 days	Fri 21/11/14	Sun 30/11/14	350
352	4.11.6.12	irrigation system	14 days	Mon 1/12/14	Sun 14/12/14	351
353	**4.11.7**	**Works from chainage 820 to chainage 970 (150m)**	**202 days**	**Sun 15/6/14**	**Fri 2/1/15**	
354	4.11.7.1	earthfilling to lay drainage & waterwork (D13, part D14, H4, H5, part D17)	45 days	Sun 15/6/14	Tue 29/7/14	341SS+15 days
355	4.11.7.2	drainage & waterwork + backfill for CLP	49 days	Wed 30/7/14	Tue 16/9/14	334
356	**4.11.7.3**	**UU - 11kV & LV (both sides) ch820-970**	**8 days**	**Wed 17/9/14**	**Wed 24/9/14**	**355**
357	4.11.7.4	filling works to formation of road (include SRT98%)	21 days	Thu 25/9/14	Wed 15/10/14	356
358	4.11.7.5	sub-base laying	10 days	Thu 16/10/14	Sat 25/10/14	357
359	4.11.7.6	kerb bedding, laying & backing before bituminous material	12 days	Sat 25/10/14	Wed 5/11/14	358FS-1 day
360	4.11.7.7	filling works for UU at footpath	4 days	Thu 6/11/14	Sun 9/11/14	359
361	**4.11.7.8**	**UU - (PCCW, HGC) at east side**	**5 days**	**Mon 10/11/14**	**Fri 14/11/14**	**360**
362	**4.11.7.9**	**UU - (PCCW) at west side**	**5 days**	**Mon 10/11/14**	**Fri 14/11/14**	**360**
363	**4.11.7.10**	**AC - lay DBM & base course**	**5 days**	**Mon 15/12/14**	**Fri 19/12/14**	**362,361,340**
364	4.11.7.11	street lighting ductings	7 days	Sat 20/12/14	Fri 26/12/14	363
365	4.11.7.12	irrigation system	7 days	Sat 27/12/14	Fri 2/1/15	364
366	**4.11.8**	**UU for CLP (lighting) - chainage 820-1120**	**7 days**	**Sat 3/1/15**	**Fri 9/1/15**	**340,353**
367	4.11.9	footpath paving for chainage 820-1120	12 days	Mon 5/1/15	Fri 16/1/15	366FS-5 days
368	**4.11.10**	**Works from chainage 675 to chainage 820 (145m)**	**106 days**	**Fri 12/12/14**	**Fri 27/3/15**	**334FS-45 days**
369	4.11.10.1	earthfilling to lay drainage & waterwork (part D14, part D15, H6, H7, part D16)	28 days	Fri 12/12/14	Thu 8/1/15	
370	4.11.10.2	drainage & waterwork + backfill for CLP	21 days	Fri 9/1/15	Thu 29/1/15	369
371	**4.11.10.3**	**UU - 11kV & LV (both sides) ch 670-820**	**14 days**	**Mon 26/1/15**	**Sun 8/2/15**	**370FS-4 days**
372	4.11.10.4	filling works to formation of road (include SRT98%)	14 days	Sun 8/2/15	Sat 21/2/15	371FS-1 day
373	4.11.10.5	sub-base laying	5 days	Sun 22/2/15	Thu 26/2/15	372
374	4.11.10.6	kerb bedding, laying & backing before bituminous material	7 days	Thu 26/2/15	Wed 4/3/15	373FS-1 day
375	**4.11.10.7**	**AC - lay DBM & base course**	**5 days**	**Thu 5/3/15**	**Mon 9/3/15**	**374**
376	4.11.10.8	filling works to formation of footpath	7 days	Wed 4/3/15	Tue 10/3/15	374FS-1 day
377	4.11.10.9	street lighting ductings	7 days	Mon 9/3/15	Sun 15/3/15	376FS-2 days
378	4.11.10.10	irrigation system	7 days	Sat 14/3/15	Fri 20/3/15	377FS-2 days
379	**4.11.10.11**	**UU - (PCCW, HGC) at east side**	**7 days**	**Fri 20/3/15**	**Thu 26/3/15**	**378FS-1 day**
380	**4.11.10.12**	**UU - (PCCW) at west side**	**7 days**	**Sat 21/3/15**	**Fri 27/3/15**	**378**
381	**4.11.11**	**Works from chainage 475 to chainage 675 (except Bridge J) - after RW5**	**77 days**	**Sun 4/1/15**	**Sat 21/3/15**	**334FS-30 days,415FS-44 days**
382	4.11.11.1	earthfilling to lay drainage & waterwork (part D15, H8, part D16)	7 days	Sun 4/1/15	Sat 10/1/15	
383	4.11.11.2	drainage & waterwork + backfill for CLP	21 days	Thu 8/1/15	Wed 28/1/15	382FS-3 days
384	**4.11.11.3**	**UU - 11kV & LV (both sides) ch 475-675**	**10 days**	**Tue 27/1/15**	**Thu 5/2/15**	**383FS-2 days**
385	4.11.11.4	street lighting crossings (ch668, 543, 504, 477)	10 days	Wed 4/2/15	Fri 13/2/15	384FS-2 days
386	4.11.11.5	filling works to formation of road (include SRT98%)	7 days	Thu 12/2/15	Wed 18/2/15	385FS-2 days
387	4.11.11.6	street lighting drawpits (ch668, 631, 596, 543, 504, 493, 477), controller (ch493) & ductings	10 days	Tue 17/2/15	Thu 26/2/15	386FS-2 days
388	4.11.11.7	irrigation system	5 days	Wed 25/2/15	Sun 1/3/15	387FS-2 days
389	4.11.11.8	sub-base laying	5 days	Sun 1/3/15	Thu 5/3/15	388FS-1 day
390	4.11.11.9	kerb bedding, laying & backing before bituminous material	7 days	Thu 5/3/15	Wed 11/3/15	389FS-1 day
391	**4.11.11.10**	**AC - lay DBM & base course**	**5 days**	**Thu 12/3/15**	**Mon 16/3/15**	**390**
392	4.11.11.11	filling works to formation of footpath	7 days	Tue 10/3/15	Mon 16/3/15	390FS-2 days
393	**4.11.11.12**	**UU - (PCCW, HGC) at east side**	**5 days**	**Sun 15/3/15**	**Thu 19/3/15**	**392FS-2 days**
394	**4.11.11.13**	**UU - (PCCW) at west side**	**5 days**	**Tue 17/3/15**	**Sat 21/3/15**	**392**
395	**4.11.12**	**UU for CLP (lighting) - chainage 475-820**	**5 days**	**Sat 28/3/15**	**Wed 1/4/15**	**381,368**



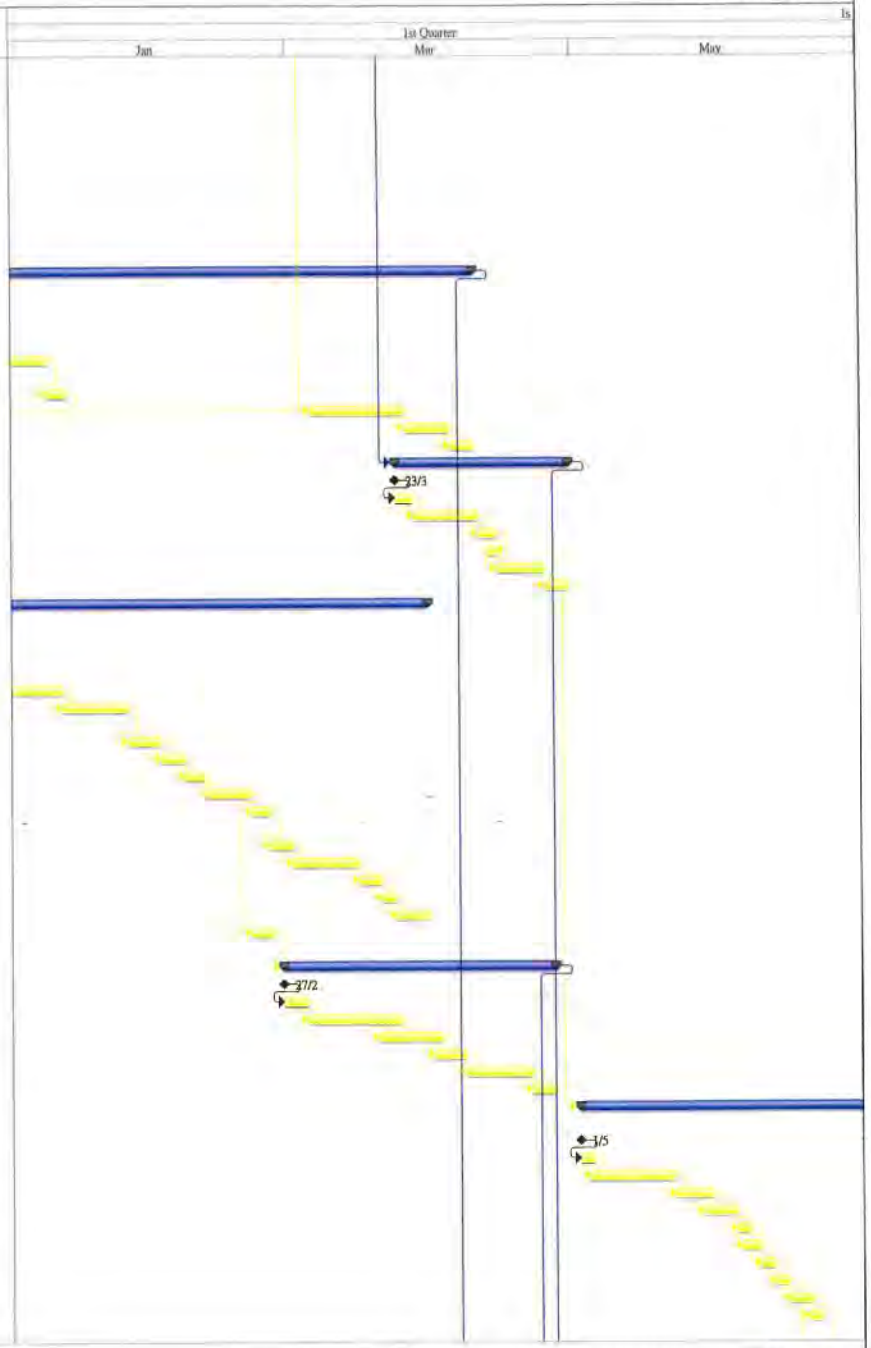
ID	WBS	Task Name	Duration	Start	Finish	Predecessors
396	*4.11.13*	*footpath paving for chainage 475-820*	*5 days*	*Thu 9/4/15*	*Mon 13/4/15*	*395FS+7 days*
397	**4.11.14**	**Construction of Bridge J (ch 597-630)**	**323 days**	**Tue 1/4/14**	**Tue 17/2/15**	
398	*4.11.14.1*	*bored piles*	*73 days*	*Tue 1/4/14*	*Thu 12/6/14*	
399	*4.11.14.2*	*pile caps*	*50 days*	*Fri 13/6/14*	*Fri 1/8/14*	*398*
400	*4.11.14.3*	*trial panel for revised ribs*	*28 days*	*Sat 2/8/14*	*Fri 29/8/14*	*399*
401	*4.11.14.4*	*abutment walls*	*85 days*	*Sat 30/8/14*	*Sat 22/11/14*	*400*
402	*4.11.14.5*	*falsework for deck*	*20 days*	*Sun 23/11/14*	*Fri 12/12/14*	*401*
403	*4.11.14.6*	*deck*	*40 days*	*Sat 13/12/14*	*Wed 21/1/15*	*402*
404	*4.11.14.7*	*parapet*	*15 days*	*Thu 22/1/15*	*Thu 5/2/15*	*403*
405	***4.11.14.8***	***UU - 11kV & LV (west)***	***7 days***	***Fri 6/2/15***	***Thu 12/2/15***	***404***
406	***4.11.14.9***	***UU - for CLP lighting (east)***	***4 days***	***Fri 6/2/15***	***Mon 9/2/15***	***404***
407	***4.11.14.10***	***UU - HGC (east)***	***4 days***	***Tue 10/2/15***	***Fri 13/2/15***	***406***
408	***4.11.14.11***	***UU - PCCW (east)***	***4 days***	***Sat 14/2/15***	***Tue 17/2/15***	***407***
409	*4.11.14.12*	*watermain (west)*	*5 days*	*Fri 13/2/15*	*Tue 17/2/15*	*405*
410	**4.11.15**	**Construction of retaining wall RW5 - Revised (Drg. SK0036A, 0309, 0310, 0115A, 0122A, 0123A)**	**96 days**	**Tue 25/11/14**	**Sun 1/3/15**	**401FS+3 days**
411	**4.11.15.1**	**Latest date to confirm designed details & issue VO on 25/11/2014**	**0 days**	**Tue 25/11/14**	**Tue 25/11/14**	
412	*4.11.15.2*	*drive sheetpile & excavation*	*15 days*	*Wed 26/11/14*	*Wed 10/12/14*	*411SS-20 days*
413	*4.11.15.3*	*grade 200 rock fill*	*15 days*	*Thu 27/11/14*	*Thu 11/12/14*	*412FS-14 days*
414	*4.11.15.4*	*cast blinding layer*	*10 days*	*Tue 9/12/14*	*Thu 18/12/14*	*413FS-3 days*
415	***4.11.15.5***	***Bay 5001-5008***	***64 days***	***Mon 15/12/14***	***Mon 16/2/15***	***414FS-4 days***
416	*4.11.15.6*	*install DN150 UPVC perforated pipe, lay geotextile filter & backfill RW5*	*20 days*	*Tue 10/2/15*	*Sun 1/3/15*	*415FS-7 days*
417	**4.11.16**	**Subways, lift shafts, pump room, staircases**	**423 days**	**Mon 23/12/13**	**Wed 18/2/15**	
418	**4.11.16.1**	***ISSUE VO 31 - RE-ALIGN SUBWAY, LIFT SHAFT & STAIRCASES**	**0 days**	**Fri 21/3/14**	**Fri 21/3/14**	
419	**4.11.16.2**	**Claim No. 011 - VO 20 ADDITIONAL SECTION OF SUBWAY WITHIN BCP**	**0 days**	**Tue 11/3/14**	**Tue 11/3/14**	
420	*4.11.16.3*	*Eastern pedestrian lift shaft*	*106 days*	*Mon 23/12/13*	*Mon 7/4/14*	*418FS-88 days*
421	*4.11.16.4*	*Eastern Pump Room & Subway Bay 7*	*125 days*	*Tue 11/2/14*	*Sun 15/6/14*	*420SS+50 days*
422	*4.11.16.5*	*Eastern Subway Barrel Bays 8 & 6*	*45 days*	*Sun 15/6/14*	*Tue 29/7/14*	*421FS-1 day*
423	*4.11.16.6*	*Eastern Subway Barrel Bay 9*	*55 days*	*Fri 20/6/14*	*Wed 13/8/14*	*422SS+5 days*
424	*4.11.16.7*	*Eastern staircase = additional wall*	*55 days*	*Fri 4/7/14*	*Wed 27/8/14*	*423SS+14 days*
425	*4.11.16.8*	*Diversion for Temporary Haul Road*	*5 days*	*Mon 2/6/14*	*Fri 6/6/14*	*421FS-14 days*
426	*4.11.16.9*	*Western Subway Barrel Bays 5 & 4*	*60 days*	*Sat 7/6/14*	*Tue 5/8/14*	*425*
427	**4.11.16.10**	**Traffic diversion for west Subway (Bays 1-3) & emergency staircase**	**156 days**	**Wed 14/5/14**	**Thu 16/10/14**	**419FS+64 days**
435	4.11.16.11	Western pedestrian lift shaft	50 days	Tue 15/4/14	Tue 3/6/14	420FS+7 days
436	*4.11.16.12*	*Western Subway Barrel Bays 0 & 1*	*48 days*	*Mon 1/12/14*	*Sat 17/1/15*	*438FS-7 days*
437	*4.11.16.13*	*Western staircase*	*16 days*	*Fri 17/10/14*	*Sat 1/11/14*	*434*
438	*4.11.16.14*	*Western Subway Barrel Bays 3 & 2*	*36 days*	*Sun 2/11/14*	*Sun 7/12/14*	*437*
439	*4.11.16.15*	*Emergency Staircase at west side*	*18 days*	*Sun 18/1/15*	*Wed 4/2/15*	*436*
440	*4.11.16.16*	*Filling works at west side*	*21 days*	*Thu 29/1/15*	*Wed 18/2/15*	*439FS-7 days*
441	**4.11.17**	**Works from chainage 1120 to chainage 1270**	**188 days**	**Sun 21/9/14**	**Fri 27/3/15**	
442	*4.11.17.1*	*earth filling adjacent to eastern staircase & Bay 9 (D11, D11, D10,part D17) (CH1130-1270) (after diversion of haul road)*	*40 days*	*Sun 21/9/14*	*Thu 30/10/14*	*424FS+24 days,423FS+38*
443	*4.11.17.2*	*drainage & slope drain (CH1120-1270)*	*65 days*	*Fri 31/10/14*	*Sat 3/1/15*	*442*
444	*4.11.17.3*	*waterwork (CH1120-1270 west side)*	*25 days*	*Mon 15/12/14*	*Thu 8/1/15*	*443FS-20 days*
445	*4.11.17.4*	*backfill for CLP*	*5 days*	*Fri 9/1/15*	*Tue 13/1/15*	*444*
446	***4.11.17.5***	***UU - 11kV & LV (both sides of new Lin Ma Hang Road)***	***20 days***	***Wed 14/1/15***	***Mon 2/2/15***	***445***
447	*4.11.17.6*	*street lighting crossings (ch1213, 1165, 1125 & % ch1165 & 1190), drawpits (ch 1274, 1264, 1232.5, 1213, 1190, 1165,*	*7 days*	*Tue 3/2/15*	*Mon 9/2/15*	*446*
448	*4.11.17.7*	*irrigation system*	*15 days*	*Tue 10/2/15*	*Tue 24/2/15*	*447*
449	*4.11.17.8*	*sub-base laying*	*5 days*	*Tue 10/2/15*	*Sat 14/2/15*	*447*
450	*4.11.17.9*	*kerb bedding, laying & backing before bituminous material*	*7 days*	*Sun 15/2/15*	*Sat 21/2/15*	*449*
451	***4.11.17.10***	***AC - lay DBM & base course***	***5 days***	***Sun 22/2/15***	***Thu 26/2/15***	***450***
452	*4.11.17.11*	*filling works to formation of footpath*	*7 days*	*Sun 22/2/15*	*Sat 28/2/15*	*450*
453	***4.11.17.12***	***UU for CLP (lighting) - chainage 1120-1270***	***7 days***	***Fri 27/2/15***	***Thu 5/3/15***	***452FS-2 days***
454	***4.11.17.13***	***UU for PCCW (both sides of new Lin Ma Hang Road)***	***7 days***	***Fri 6/3/15***	***Thu 12/3/15***	***453***
455	***4.11.17.14***	***UU for HGC (east side of new Lin Ma Hang Road)***	***7 days***	***Fri 13/3/15***	***Thu 19/3/15***	***454***
456	*4.11.17.15*	*footpath paving (west side)*	*10 days*	*Thu 12/3/15*	*Sat 21/3/15*	*454FS-1 day*
457	*4.11.17.16*	*footpath paving (east side)*	*10 days*	*Wed 18/3/15*	*Fri 27/3/15*	*455FS-2 days*
458	***4.11.18***	***AC - lay wearing course - chainage 475-1270***	***7 days***	***Sat 28/3/15***	***Fri 3/4/15***	***457***
459	**4.11.19**	**1 no. DN1650 pipe jacking LV009 including jacking & receiving pits**	**114 days**	**Thu 26/6/14**	**Fri 17/10/14**	
460	**4.11.19.1**	**Confirmation of designed details (NOT YET)**	**0 days**	**Tue 1/7/14**	**Tue 1/7/14**	
461	4.11.19.2	Pits construction	36 days	Thu 26/6/14	Thu 31/7/14	460FS-5 days
462	4.11.19.2.1	utility detection of the area	3 days	Thu 26/6/14	Sat 28/6/14	
463	4.11.19.2.2	inspection pits for jacking pit and receiving pit	5 days	Sun 29/6/14	Thu 3/7/14	462
464	4.11.19.2.3	temporary work & excavation for receiving pit	14 days	Fri 18/7/14	Thu 31/7/14	463,465
465	4.11.19.2.4	temporary work & excavation for jacking pit	14 days	Fri 4/7/14	Thu 17/7/14	463
466	4.11.19.3	Jack sleeve Pipes	49 days	Fri 18/7/14	Thu 4/9/14	
467	4.11.19.3.1	establishment of jacking equipment	14 days	Fri 18/7/14	Thu 31/7/14	465
468	4.11.19.3.2	jack pipe and excavate	35 days	Fri 1/8/14	Thu 4/9/14	467
469	4.11.19.4	HDPE pipes	36 days	Fri 12/9/14	Fri 17/10/14	466FS+7 days
470	4.11.19.4.1	lay HDPE pipes	14 days	Fri 12/9/14	Thu 25/9/14	468



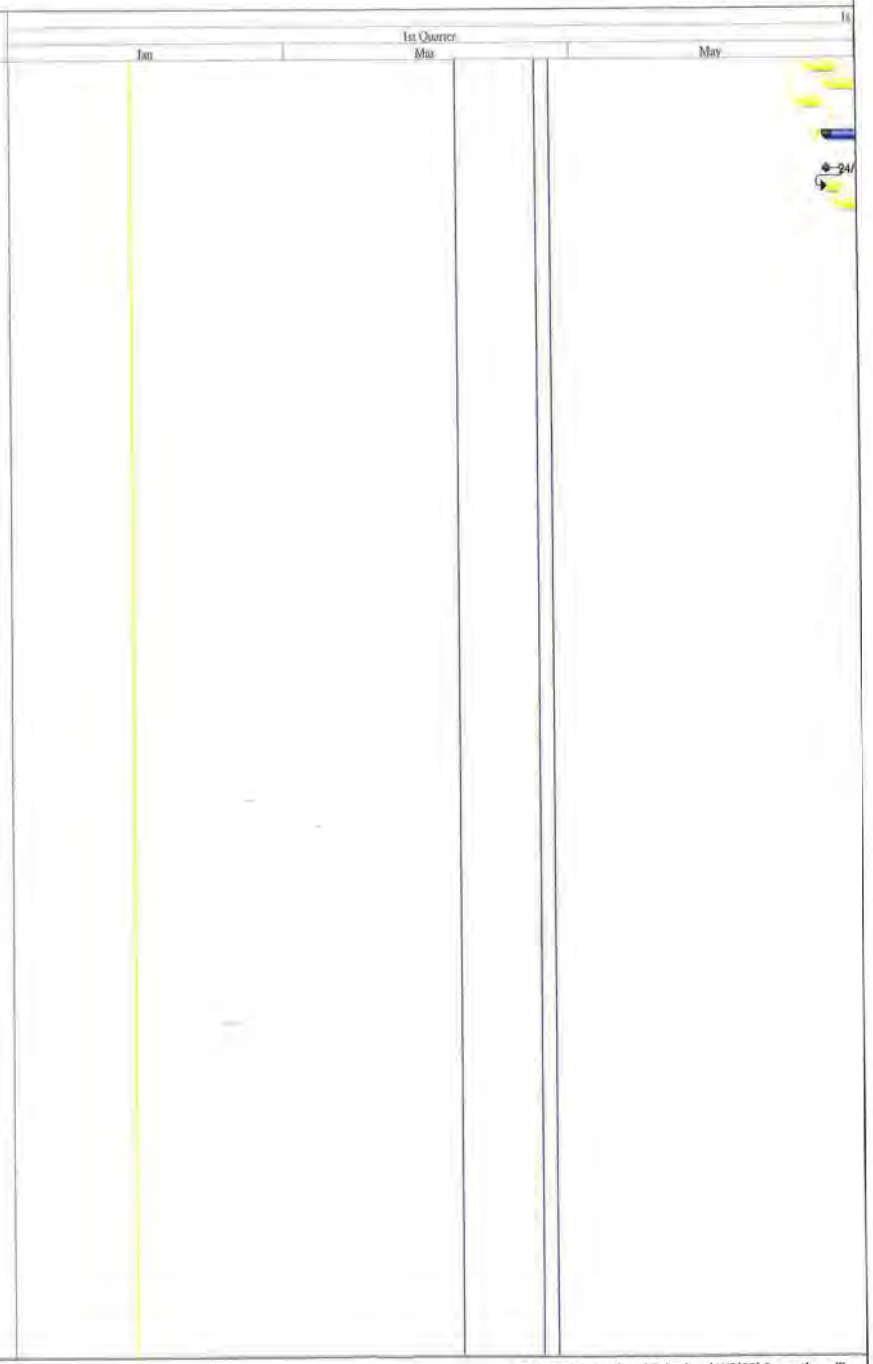
ID	WBS	Task Name	Duration	Start	Finish	Predecessors
471	4.11.19.4.2	grout HDPE pipes	14 days	Fri 26/9/14	Thu 9/10/14	470
472	4.11.19.4.3	remove temporary works and backfilling	8 days	Fri 10/10/14	Fri 17/10/14	471
473	**4.11.20**	**Works for Revised DSD Maintenance Access & Slope (SK0301 & SK0319)**	**50 days**	**Mon 23/2/15**	**Mon 13/4/15**	
474	**4.11.20.1**	**Latest Date for Confirmation of re-design & Issue of VO**	**0 days**	**Mon 23/2/15**	**Mon 23/2/15**	**476FS-21 days**
475	4.11.20.2	completion of Retaining Wall RW5	0 days	Sun 1/3/15	Sun 1/3/15	410
476	*4.11.20.3*	*earthfilling work behind RW5*	*14 days*	*Mon 2/3/15*	*Sun 15/3/15*	*475*
477	*4.11.20.4*	*cut slope at south side*	*14 days*	*Sat 7/3/15*	*Fri 20/3/15*	*475SS+5 days*
478	*4.11.20.5*	*complete earthwork for DSD maintenance access (with 98%SRT)*	*7 days*	*Wed 18/3/15*	*Tue 24/3/15*	*477FS-3 days*
479	*4.11.20.6*	*sub-base laying for access*	*7 days*	*Wed 25/3/15*	*Tue 31/3/15*	*478*
480	*4.11.20.7*	*kerb bedding, laying & backing before bituminous material*	*7 days*	*Wed 25/3/15*	*Tue 31/3/15*	*479FS-7 days*
481	*4.11.20.8*	*AC - lay DBM & base course*	*3 days*	*Wed 1/4/15*	*Fri 3/4/15*	*480*
482	***4.11.20.9***	***wait bituminous test result***	***3 days***	***Sat 4/4/15***	***Mon 6/4/15***	***481***
483	*4.11.20.10*	*AC - lay wearing course*	*7 days*	*Tue 7/4/15*	*Mon 13/4/15*	*482*
484	**4.12**	**Section XIII of the Works - Works not covered in any other Sections (Revised)**	**852 days**	**Thu 22/8/13**	**Mon 21/12/15**	**74**
485	4.12.1	Submissions	70 days	Thu 22/8/13	Wed 30/10/13	
486	4.12.2	Approval of Submissions	68 days	Mon 16/9/13	Fri 22/11/13	485SS+25 days
487	**4.12.3**	**Temporary Traffic Arrangement (TTA) Scheme for Works at existing LMH Rd**	**92 days**	**Fri 23/8/13**	**Fri 22/11/13**	**485SS+1 day**
491	**4.12.4**	**Re-aligned Lin Ma Hang Road**	**789 days**	**Thu 24/10/13**	**Mon 21/12/15**	
492	**4.12.4.1**	**VO FOR RENEWAL OF RISING MAIN (Order confirmed via Email on 31/12/2014)**	**0 days**	**Wed 31/12/14**	**Wed 31/12/14**	
493	**4.12.4.2**	**place order for HDPE pipes**	**0 days**	**Tue 6/1/15**	**Tue 6/1/15**	**492FS+2 days**
494	***4.12.4.3***	***arrival of HDPE pipes***	***59 days***	***Tue 6/1/15***	***Thu 5/3/15***	***493***
495	**4.12.4.4**	**RECEIVE VO 053 ADDITIONAL CROSS ROAD DUCTS FOR EXISTING IRRIGATION PIPES**	**0 days**	**Tue 7/10/14**	**Tue 7/10/14**	
496	**4.12.4.5**	**RECEIVE VO 062 CABLE DUCTS LAYING FOR PUBLIC LIGHTING SYSTEM AT LIN MA HANG ROAD**	**0 days**	**Tue 14/10/14**	**Tue 14/10/14**	
497	**4.12.4.6**	[redacted]	**210 days**	**Sun 24/8/14**	**Sat 21/3/15**	
498	4.12.4.6.1	TTA for ch 310-380(west)	0 days	[redacted]	Sun 24/8/14	
499	*4.12.4.6.2*	*earthwork to lay drainage & waterwork*	*21 days*	*Sun 24/8/14*	*Sat 13/9/14*	*498*
500	*4.12.4.6.3*	*drainage & waterwork + backfill for CLP*	*45 days*	*Sun 14/9/14*	*Tue 28/10/14*	*499*
501	***4.12.4.6.4***	***VO053 - crossing no. 1(whole), 2 (west)***	***18 days***	***Wed 29/10/14***	***Sat 15/11/14***	***500,495***
502	***4.12.4.6.5***	***UU for ch 190-380 (132kV,11kV,LV)***	***19 days***	***Sun 16/11/14***	***Thu 4/12/14***	***501***
503	*4.12.4.6.6*	*filling works to formation of road (include SRT98%)*	*7 days*	*Fri 5/12/14*	*Thu 11/12/14*	*502*
504	*4.12.4.6.7*	*street lighting drawpits & crossroads*	*7 days*	*Fri 12/12/14*	*Thu 18/12/14*	*503*
505	*4.12.4.6.8*	*kerb bedding, laying & backing before bituminous material*	*9 days*	*Fri 19/12/14*	*Sat 27/12/14*	*504*
506	*4.12.4.6.9*	*filling works to formation of footpath*	*4 days*	*Sun 28/12/14*	*Wed 31/12/14*	*505*
507	***4.12.4.6.10***	***UU for CLP (lighting)***	***5 days***	***Thu 1/1/15***	***Mon 5/1/15***	***506***
508	***4.12.4.6.11***	***UU for ch 190-380 (PCCW)***	***7 days***	***Tue 6/1/15***	***Mon 12/1/15***	***507***
509	*4.12.4.6.12*	*irrigation system*	*7 days*	*Tue 13/1/15*	*Mon 19/1/15*	*508*
510	*4.12.4.6.13*	*preparation works to formation of footpath*	*3 days*	*Mon 19/1/15*	*Wed 21/1/15*	*509FS-1 day*
511	*4.12.4.6.14*	*footpath paving*	*9 days*	*Thu 22/1/15*	*Fri 30/1/15*	*510*
512	***4.12.4.6.15***	***VO for renewal of rising main***	***6 days***	***Fri 6/3/15***	***Wed 11/3/15***	***494***
513	*4.12.4.6.16*	*sub-base laying for road*	*5 days*	*Thu 12/3/15*	*Mon 16/3/15*	*512*
514	***4.12.4.6.17***	***AC - lay DBM & base course***	***5 days***	***Tue 17/3/15***	[redacted]	***505,513***
515	**4.12.4.7**	[redacted]	**402 days**	**Fri 22/11/13**	**Mon 29/12/14**	**487**
516	4.12.4.7.1	TTA for ch 380-580(west)	0 days	[redacted]	Fri 22/11/13	
517	4.12.4.7.2	watermain (include issue of alignment and laying)	120 days	Sat 23/11/13	Sat 22/3/14	516
518	4.12.4.7.3	drainage (pipe, manholes & gullies)	155 days	Sun 23/3/14	Sun 24/8/14	517
519	**4.12.4.7.4**	**Received Variation Order Nos. 040 & 042**	**0 days**	**Mon 28/4/14**	**Mon 28/4/14**	
520	**4.12.4.7.5**	**construct DN450mm pipe with concrete surround**	**28 days**	Mon 12/5/14	Sun 8/6/14	**518SS+50 days,519FS+14 days**
521	4.12.4.7.5.1	low stream pipe & catchpit at western side	28 days	Mon 12/5/14	Sun 8/6/14	
522	**4.12.4.7.6**	**construct 1900x950 box culvert with manholes SMH8052A & B**	**49 days**	Mon 9/6/14	Sun 27/7/14	**519,521**
523	4.12.4.7.6.1	support existing DN150mm sewer pipe & watermain	7 days	Mon 9/6/14	Sun 15/6/14	
524	4.12.4.7.6.2	construct box culvert	14 days	Mon 16/6/14	Sun 29/6/14	523
525	4.12.4.7.6.3	construct manholes	28 days	Mon 30/6/14	Sun 27/7/14	524
526	4.12.4.7.7	found existing cables affected construction of gullies & discuss with CLP	18 days	Sat 26/7/14	Tue 12/8/14	518FF-12 days,525FS-2 days
527	4.12.4.7.8	complete preparation work & fill footpath for 132kV, 11kV & LV	8 days	Wed 13/8/14	Wed 20/8/14	526
528	**4.12.4.7.9**	**UU - 132kV+11kV & LV**	**35 days**	**Thu 21/8/14**	**Wed 24/9/14**	**527**
529	4.12.4.7.10	temporary connection of cables	3 days	Thu 25/9/14	Sat 27/9/14	528
530	**4.12.4.7.11**	**960x650 box culvert (low stream & west catchpit)**	**7 days**	Sun 28/9/14	Sat 4/10/14	**529**
532	4.12.4.7.12	construct outstanding drainage & gullies	7 days	Wed 1/10/14	Tue 7/10/14	531FS-4 days
533	4.12.4.7.13	filling work to formation of road (include SRT98%)	5 days	Wed 8/10/14	Sun 12/10/14	532
534	***4.12.4.7.14***	***VO053 - crossing no. 3, 4 (west)***	***10 days***	**Mon 13/10/14**	**Wed 22/10/14**	***495FS+6 days***
535	*4.12.4.7.15*	*complete filling work to formation of road (include SRT98%)*	*5 days*	Thu 23/10/14	Mon 27/10/14	*534*
536	*4.12.4.7.16*	*street lighting drawpits & crossing at ch 523*	*4 days*	Mon 27/10/14	Thu 30/10/14	*535FS-1 day*



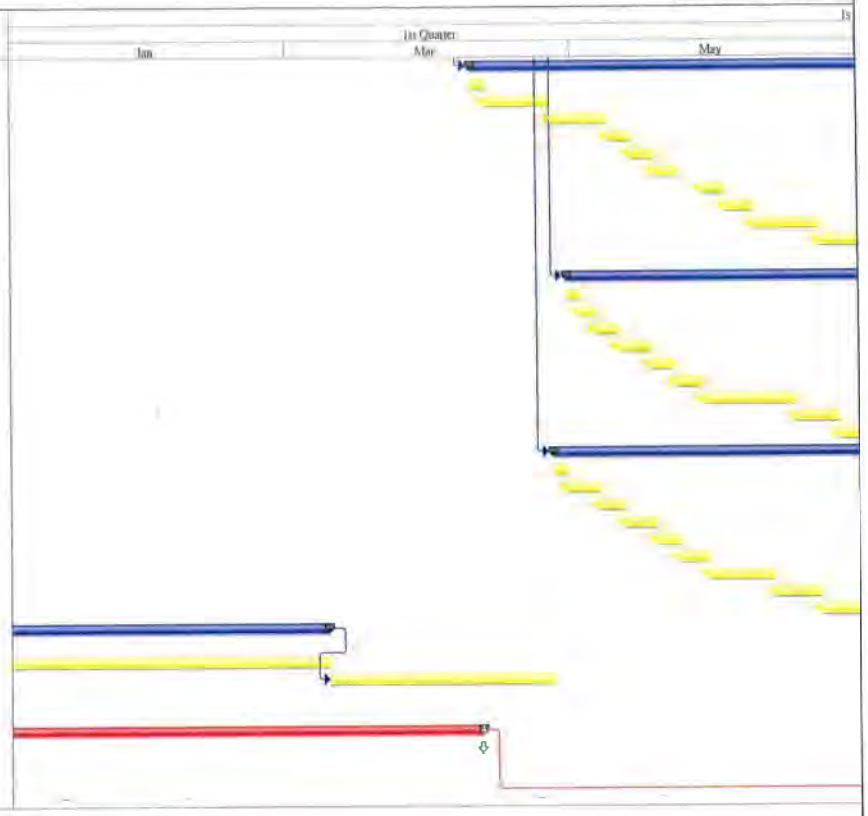
ID	WBS	Task Name	Duration	Start	Finish	Predecessors
537	*4.20.4.2.19*	***UU for CLP (lighting)***	***5 days***	**Fri 31/10/14**	**Tue 4/11/14**	*536*
538	*4.12.4.7.18*	*sub-base laying for road*	*4 days*	Wed 5/11/14	Sat 8/11/14	*537*
539	*4.12.4.7.19*	*kerb bedding, laying & backing before bituminous material*	*12 days*	Sat 8/11/14	Wed 19/11/14	*538FS-1 day*
540	*4.12.4.7.20*	*filling works to formation of footpath*	*5 days*	Thu 20/11/14	Mon 24/11/14	*539*
541	***4.12.4.7.21***	***UU for ch 380-580 (PCCW)***	***14 days***	**Tue 25/11/14**	**Mon 8/12/14**	*540*
542	*4.12.4.7.22*	*irrigation system*	*4 days*	Tue 9/12/14	Fri 12/12/14	*541*
543	*4.12.4.7.23*	*preparation works to formation of footpath*	*3 days*	Sat 13/12/14	Mon 15/12/14	*542*
544	*4.12.4.7.24*	*footpath paving*	*14 days*	Tue 16/12/14	Mon 29/12/14	*543*
545	***4.12.4.7.25***	***AC - lay DBM & base course***	***5 days***	**Thu 20/11/14**		*539*
546	**4.12.4.8**		**134 days**	**Wed 26/11/14**	**Thu 9/4/15**	**545FS+2 days**
547	4.12.4.8.1	TTA for ch 380-580 (east)	0 days		Wed 26/11/14	
548	4.12.4.8.2	remove existing pavement	4 days	*Thu 27/11/14*	*Sun 30/11/14*	547
549	*4.12.4.8.3*	middle stream box culvert 960x650	*14 days*	*Mon 1/12/14*	*Sun 14/12/14*	*548*
550	*4.12.4.8.4*	middle stream DN450mm pipe	*12 days*	*Mon 8/12/14*	*Fri 19/12/14*	*549FS-7 days*
551	***4.12.4.8.5***	***VO053 - crossing no. 2, 3, 4, 5 (east)***	***20 days***	***Sat 20/12/14***	***Thu 8/1/15***	*550*
552	*4.12.4.8.6*	street light crossing at ch 523	*4 days*	*Fri 9/1/15*	*Mon 12/1/15*	*551*
553	4.12.4.8.7	VO for renewal of rising main	20 days	*Fri 6/3/15*	*Wed 25/3/15*	548,494,552
554	*4.12.4.8.8*	sub-base & east kerbing	*10 days*	*Thu 26/3/15*	*Sat 4/4/15*	*553*
555	***4.12.4.8.9***	***AC - lay DBM & base course***	***5 days***	***Sun 5/4/15***		*554*
556	**4.12.4.9**		**37 days**	**Mon 23/3/15**	**Wed 29/4/15**	**497FS+2 days**
557	4.12.4.9.1	TTA for ch 190-380 (east)	0 days		Mon 23/3/15	
558	*4.12.4.9.2*	remove existing pavement	*4 days*	*Tue 24/3/15*	*Fri 27/3/15*	*557*
559	*4.12.4.9.3*	VO for renewal of rising main	*14 days*	*Sat 28/3/15*	*Fri 10/4/15*	*558*
560	*4.12.4.9.4*	street light crossings at ch 287, 350	*4 days*	*Sat 11/4/15*	*Tue 14/4/15*	*559*
561	*4.12.4.9.5*	PCCW crossings at ch 350	2 days	*Mon 13/4/15*	*Tue 14/4/15*	560FF
562	*4.12.4.9.6*	sub-base & east kerbing	*10 days*	*Wed 15/4/15*	*Fri 24/4/15*	*561,560*
563	*4.12.4.9.7*	AC - lay DBM & base course	*5 days*	*Sat 25/4/15*		*562*
564	**4.12.4.10**		**177 days**	**Sun 5/10/14**	**Mon 30/3/15**	
565	**4.12.4.10.1**	**UU for ch 580-785 (132kV,11kV,LV)**	**21 days**	**Sun 5/10/14**	**Sat 25/10/14**	**530**
566	4.12.4.10.2	TTA for ch 580-785(west)	0 days		Wed 26/11/14	546SS
567	*4.12.4.10.3*	*earthwork to lay drainage & waterwork*	*10 days*	*Thu 27/11/14*	*Sat 6/12/14*	*566*
568	*4.12.4.10.4*	*drainage & waterwork*	*36 days*	*Sun 7/12/14*	*Sun 11/1/15*	*567*
569	***4.12.4.10.5***	***VO053 - crossing no. 5, 6, 7&8 & Ducts along ch613-700 (west)***	***14 days***	***Mon 12/1/15***	***Sun 25/1/15***	*568*
570	*4.12.4.10.6*	*filling works to formation of road (include SRT98%)*	*7 days*	*Mon 26/1/15*	*Sun 1/2/15*	*569*
571	*4.12.4.10.7*	*street lighting drawpits & crossings ch760,785*	*5 days*	*Mon 2/2/15*	*Fri 6/2/15*	*570*
572	*4.12.4.10.8*	*sub-base laying for road*	*5 days*	*Sat 7/2/15*	*Wed 11/2/15*	*571*
573	*4.12.4.10.9*	*kerb bedding, laying & backing before bituminous material*	*9 days*	*Thu 12/2/15*	*Fri 20/2/15*	*572*
574	*4.12.4.10.10*	*filling works to formation of footpath*	*4 days*	*Sat 21/2/15*	*Tue 24/2/15*	*573*
575	***4.20.4.5.11***	***UU for CLP (lighting)***	***5 days***	***Wed 25/2/15***	***Sun 1/3/15***	*574*
576	***4.12.4.10.12***	***UU for ch 580-785 (PCCW)***	***14 days***	***Mon 2/3/15***	***Sun 15/3/15***	*574,575*
577	*4.12.4.10.13*	*irrigation system*	*5 days*	*Mon 16/3/15*	*Fri 20/3/15*	*576*
578	*4.12.4.10.14*	*preparation works to formation of footpath*	*3 days*	*Sat 21/3/15*	*Mon 23/3/15*	*577*
579	*4.12.4.10.15*	*footpath paving*	*7 days*	*Tue 24/3/15*	*Mon 30/3/15*	*578*
580	***4.12.4.10.16***	***AC - lay DBM & base course***	***5 days***	***Sat 21/2/15***		*573*
581	**4.12.4.11**		**58 days**	**Fri 27/2/15**	**Sun 26/4/15**	**580FS+2 days**
582	4.12.4.11.1	TTA for ch 580-785 (east)	0 days		Fri 27/2/15	
583	4.12.4.11.2	remove existing pavement	5 days	Sat 28/2/15	Wed 4/3/15	582
584	**4.12.4.11.3**	**VO for renewal of rising main**	**20 days**	**Thu 5/3/15**	**Tue 24/3/15**	**583**
585	**4.12.4.11.4**	**VO053 - crossing no. 5, 6, 7&8 (east)**	**14 days**	**Fri 20/3/15**	**Thu 2/4/15**	**584FS-5 days**
586	4.12.4.11.5	street lighting crossings at ch 760, 785	7 days	Wed 1/4/15	Tue 7/4/15	585FS-2 days
587	4.12.4.11.6	sub-base & east kerbing	14 days	Wed 8/4/15	Tue 21/4/15	586
588	**4.12.4.11.7**	**AC - lay DBM & base course**	**5 days**	**Wed 22/4/15**		**587**
589	**4.12.4.12**		**62 days**	**Fri 1/5/15**	**Thu 2/7/15**	**563FS+2 days**
590	4.12.4.12.1	TTA for ch 125-190 (west)	0 days		Fri 1/5/15	
591	*4.12.4.12.2*	*earthwork to lay drainage & waterwork*	*3 days*	*Sat 2/5/15*	*Mon 4/5/15*	*590*
592	*4.12.4.12.3*	*drainage & waterwork + backfill for CLP*	*18 days*	*Mon 4/5/15*	*Thu 21/5/15*	*591FS-1 day*
593	***4.12.4.12.4***	***UU for ch 125-190 (132kV,11kV,LV)***	***8 days***	***Fri 22/5/15***	***Fri 29/5/15***	*592*
594	*4.12.4.12.5*	*filling works to formation of road (include SRT98%)*	*7 days*	*Thu 28/5/15*	*Wed 3/6/15*	*593FS-2 days*
595	*4.12.4.12.6*	*street lighting drawpits & crossing at ch 154*	*3 days*	*Thu 4/6/15*	*Sat 6/6/15*	*594*
596	*4.12.4.12.7*	*irrigation system*	*4 days*	*Fri 5/6/15*	*Mon 8/6/15*	*595FS-2 days*
597	***4.12.4.12.8***	***UU for CLP (lighting)***	***3 days***	***Tue 9/6/15***	***Thu 11/6/15***	*596*
598	*4.12.4.12.9*	*sub-base laying*	*3 days*	*Fri 12/6/15*	*Sun 14/6/15*	*597*
599	*4.12.4.12.10*	*kerb bedding, laying & backing before bituminous material*	*5 days*	*Mon 15/6/15*	*Fri 19/6/15*	*598*
600	*4.12.4.12.11*	*filling works to formation of footpath*	*3 days*	*Fri 19/6/15*	*Sun 21/6/15*	*599FS-1 day*



ID	WBS	Task Name	Duration	Start	Finish	Predecessors
601	*4.12.4.12.12*	***UU for ch 125-190 (PCCW)***	*5 days*	***Mon 22/6/15***	***Fri 26/6/15***	*600*
602	*4.12.4.12.13*	*footpath paving*	*7 days*	*Fri 26/6/15*	*Thu 2/7/15*	*601FS-1 day*
603	*4.12.4.12.14*	***AC - lay DBM & base course***	*4 days*	***Sat 20/6/15***	[redacted]	*599*
604	**4.12.4.13**	[redacted]	**68 days**	**Wed 24/6/15**	**Mon 31/8/15**	**603FS+1 day**
605	4.12.4.13.1	TTA for ch 80-125(west)	0 days	[redacted]	Wed 24/6/15	
606	*4.12.4.13.2*	*earthwork to lay drainage & waterwork*	*3 days*	Thu 25/6/15	Sat 27/6/15	*605*
607	*4.12.4.13.3*	*drainage & waterwork + backfill for CLP*	*18 days*	Sun 28/6/15	Wed 15/7/15	*606*
608	***4.12.4.13.4***	***UU for ch 80-190 (132kV,11kV,LV)***	***6 days***	**Thu 16/7/15**	**Tue 21/7/15**	*607*
609	*4.12.4.13.5*	*filling works to formation of road (include SRT98%)*	*7 days*	Wed 22/7/15	Tue 28/7/15	*608*
610	*4.12.4.13.6*	*street lighting drawpits & crossing at ch 98*	*3 days*	Wed 29/7/15	Fri 31/7/15	*609*
611	*4.12.4.13.7*	*irrigation system*	*3 days*	Sat 1/8/15	Mon 3/8/15	*610*
612	***4.12.4.13.8***	***UU for CLP (lighting)***	***3 days***	**Tue 4/8/15**	**Thu 6/8/15**	*611*
613	*4.12.4.13.9*	*sub-base laying*	*3 days*	Fri 7/8/15	Sun 9/8/15	*612*
614	*4.12.4.13.10*	*kerb bedding, laying & backing before bituminous material*	*5 days*	Mon 10/8/15	Fri 14/8/15	*613*
615	*4.12.4.13.11*	*filling works to formation of footpath*	*4 days*	Sat 15/8/15	Tue 18/8/15	*614*
616	***4.12.4.13.12***	***UU for ch 80-190 (PCCW)***	***4 days***	**Wed 19/8/15**	**Sat 22/8/15**	*615*
617	*4.12.4.13.13*	*footpath paving*	*9 days*	Sun 23/8/15	Mon 31/8/15	*616*
618	***4.12.4.13.14***	***AC - lay DBM & base course***	***4 days***	**Sat 15/8/15**	[redacted]	*614*
619	**4.12.4.14**	[redacted]	**43 days**	**Wed 19/8/15**	**Thu 1/10/15**	**618FS+1 day**
620	4.12.4.14.1	TTA for ch 125-190 (east)	0 days	[redacted]	Wed 19/8/15	
621	***4.12.4.14.2***	***VO for renewal of rising main***	***7 days***	**Thu 20/8/15**	**Wed 26/8/15**	*620*
622	*4.12.4.14.3*	*filling works to formation of road (include SRT98%)*	*4 days*	Wed 26/8/15	Sat 29/8/15	*621FS-1 day*
623	*4.12.4.14.4*	*street lighting drawpits & crossing at ch 154*	*3 days*	Sun 30/8/15	Tue 1/9/15	*622*
624	*4.12.4.14.5*	*irrigation system*	*3 days*	Wed 2/9/15	Fri 4/9/15	*623*
625	***4.12.4.14.6***	***UU for CLP (lighting)***	***3 days***	**Sat 5/9/15**	**Mon 7/9/15**	*624*
626	*4.12.4.14.7*	*sub-base laying*	*2 days*	Tue 8/9/15	Wed 9/9/15	*625,624*
627	*4.12.4.14.8*	*kerb bedding, laying & backing before bituminous material*	*5 days*	Thu 10/9/15	Mon 14/9/15	*626*
628	*4.12.4.14.9*	*filling works to formation of footpath*	*3 days*	Tue 15/9/15	Thu 17/9/15	*627*
629	***4.12.4.14.10***	***UU for ch 125-200 (PCCW/HGC)***	***5 days***	**Fri 18/9/15**	**Tue 22/9/15**	*628*
630	*4.12.4.14.11*	*footpath paving*	*9 days*	Wed 23/9/15	Thu 1/10/15	*629*
631	***4.12.4.14.12***	***AC - lay DBM & base course***	***4 days***	**Tue 15/9/15**	[redacted]	*627*
632	**4.12.4.15**	[redacted]	**42 days**	**Sat 19/9/15**	**Sat 31/10/15**	**631FS+1 day**
633	4.12.4.15.1	TTA for ch 80-125 (east)	0 days	[redacted]	Sat 19/9/15	
634	***4.12.4.15.2***	***VO for renewal of rising main***	***7 days***	**Sun 20/9/15**	**Sat 26/9/15**	*633*
635	*4.12.4.15.3*	*filling works to formation of road (include SRT98%)*	*5 days*	Fri 25/9/15	Tue 29/9/15	*634FS-2 days*
636	*4.12.4.15.4*	*street lighting drawpits & crossing at ch 98*	*3 days*	Tue 29/9/15	Thu 1/10/15	*635FS-1 day*
637	*4.12.4.15.5*	*irrigation system*	*3 days*	Fri 2/10/15	Sun 4/10/15	*636*
638	***4.12.4.15.6***	***UU for CLP (lighting)***	***3 days***	**Mon 5/10/15**	**Wed 7/10/15**	*637*
639	*4.12.4.15.7*	*sub-base laying*	*3 days*	Thu 8/10/15	Sat 10/10/15	*638*
640	*4.12.4.15.8*	*kerb bedding, laying & backing before bituminous material*	*5 days*	Sun 11/10/15	Thu 15/10/15	*639*
641	*4.12.4.15.9*	*filling works to formation of footpath*	*3 days*	Fri 16/10/15	Sun 18/10/15	*640*
642	***4.12.4.15.10***	***UU for ch 80-125 (PCCW/HGC)***	***4 days***	**Mon 19/10/15**	**Thu 22/10/15**	*641*
643	*4.12.4.15.11*	*footpath paving*	*9 days*	Fri 23/10/15	Sat 31/10/15	*642*
644	***4.12.4.15.12***	***AC - lay DBM & base course***	***4 days***	**Fri 16/10/15**	[redacted]	*640*
645	**4.12.4.16**	[redacted]	**62 days**	**Wed 21/10/15**	**Mon 21/12/15**	**644FS+1 day**
646	*4.12.4.16.1*	*Chainage 80 to Chainage 180 (west side)*	4 days	Wed 21/10/15	Sat 24/10/15	
647	***4.12.4.16.2***	*Chainage 80 to Chainage 180 (east side)*	2 days	Sun 25/10/15	Mon 26/10/15	646
648	*4.12.4.16.3*	*Chainage 180 to Chainage 280 (west side)*	6 days	Tue 27/10/15	Sun 1/11/15	647
649	*4.12.4.16.4*	*Chainage 180 to Chainage 280 (east side)*	5 days	Mon 2/11/15	Fri 6/11/15	648
650	*4.12.4.16.5*	*Chainage 280 to Chainage 380 (west side)*	7 days	Sat 7/11/15	Fri 13/11/15	649
651	***4.12.4.16.6***	*Chainage 280 to Chainage 380 (east side)*	2 days	Sat 14/11/15	Sun 15/11/15	650
652	*4.12.4.16.7*	*Chainage 380 to Chainage 480 (west side)*	7 days	Mon 16/11/15	Sun 22/11/15	651
653	*4.12.4.16.8*	*Chainage 380 to Chainage 480 (east side)*	2 days	Mon 23/11/15	Tue 24/11/15	652
654	*4.12.4.16.9*	*Chainage 480 to Chainage 580 (west side)*	7 days	Wed 25/11/15	Tue 1/12/15	653
655	***4.12.4.16.10***	*Chainage 480 to Chainage 580 (east side)*	2 days	Wed 2/12/15	Thu 3/12/15	654
656	*4.12.4.16.11*	*Chainage 580 to Chainage 680 (west side)*	7 days	Fri 4/12/15	Thu 10/12/15	655
657	***4.12.4.16.12***	*Chainage 580 to Chainage 680 (east side)*	2 days	Fri 11/12/15	Sat 12/12/15	656
658	*4.12.4.16.13*	*Chainage 680 to Chainage 785 (west side)*	7 days	Sun 13/12/15	Sat 19/12/15	657
659	***4.12.4.16.14***	*Chainage 680 to Chainage 785 (east side)*	2 days	Sun 20/12/15	Mon 21/12/15	658

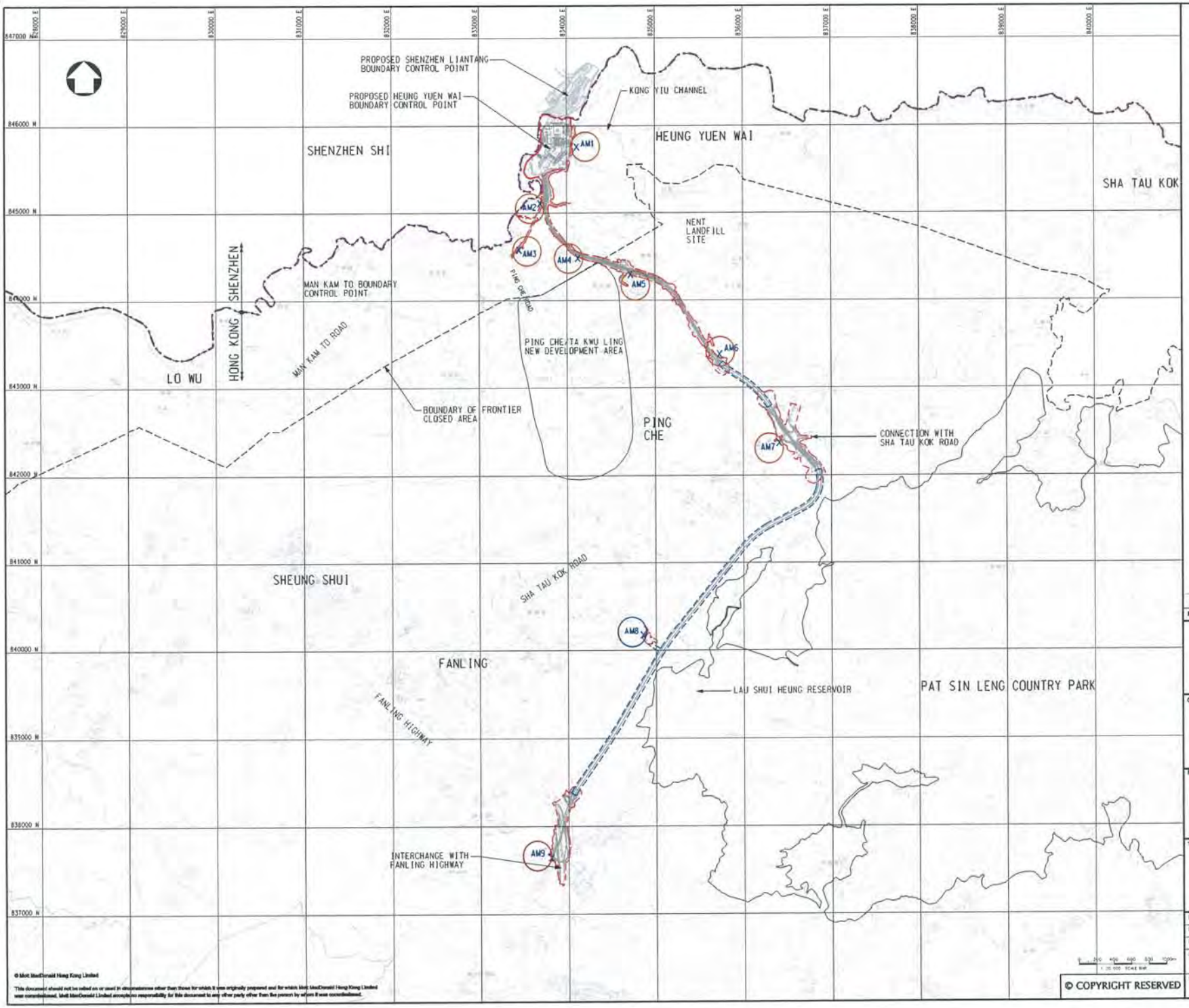


ID	WBS	Task Name	Duration	Start	Finish	Predecessors
660	4.12.4.17	**Eastern Footpath from ch 380-580)**	**98 days**	**Fri 10/4/15**	**Thu 16/7/15**	**546**
661	4.12.4.17.1	*remove existing pavement*	*3 days*	Fri 10/4/15	Sun 12/4/15	
662	4.12.4.17.2	*upper stream box culvert 960x650*	*14 days*	Mon 13/4/15	Sun 26/4/15	*661*
663	4.12.4.17.3	*upper stream DN450mm pipe*	*12 days*	Mon 27/4/15	Fri 8/5/15	*662*
664	***4.12.4.17.4***	***VO053 - crossing no. 2, 3, 4, 5 (east footpath)***	***5 days***	**Sat 9/5/15**	**Wed 13/5/15**	***663***
665	4.12.4.17.5	*filling works to formation of footpath*	*5 days*	Thu 14/5/15	Mon 18/5/15	*664*
666	4.12.4.17.6	*street light crossing at ch523*	*5 days*	Tue 19/5/15	Sat 23/5/15	*665*
667	***4.12.4.17.7***	***UU for CLP (lighting)***	***5 days***	**Fri 29/5/15**	**Tue 2/6/15**	***666FS+5 days***
668	4.12.4.17.8	*sub-base & edging*	*6 days*	Wed 3/6/15	Mon 8/6/15	*667*
669	***4.12.4.17.9***	***UU for ch 380-580 (PCCW/HGC)***	***14 days***	**Tue 9/6/15**	**Mon 22/6/15**	***668***
670	4.12.4.17.10	*construct edging*	*10 days*	Tue 23/6/15	Thu 2/7/15	*669*
671	4.12.4.17.11	*footpath paving*	*14 days*	Fri 3/7/15	Thu 16/7/15	*670*
672	**4.12.4.18**	**Eastern Footpath from ch 190-380)**	**71 days**	**Thu 30/4/15**	**Thu 9/7/15**	**556**
673	4.12.4.18.1	*remove existing pavement*	*3 days*	Thu 30/4/15	Sat 2/5/15	
674	***4.12.4.18.2***	***VO053 - crossing no. 2 (east footpath)***	***3 days***	**Sun 3/5/15**	**Tue 5/5/15**	***673***
675	4.12.4.18.3	*filling works to formation of footpath*	*5 days*	Wed 6/5/15	Sun 10/5/15	*674*
676	4.12.4.18.4	*street light crossings at ch287,350*	*7 days*	Mon 11/5/15	Sun 17/5/15	*675*
677	***4.12.4.18.5***	***UU for CLP (lighting)***	***5 days***	**Mon 18/5/15**	**Fri 22/5/15**	***676***
678	4.12.4.18.6	*sub-base & edging*	*6 days*	Sat 23/5/15	Thu 28/5/15	*677*
679	***4.12.4.18.7***	***UU for ch 190-380 (PCCW/HGC)***	***20 days***	**Fri 29/5/15**	**Wed 17/6/15**	***678***
680	4.12.4.17.10	*construct edging*	*9 days*	Thu 18/6/15	Fri 26/6/15	*679*
681	4.12.4.17.11	*footpath paving*	*13 days*	Sat 27/6/15	Thu 9/7/15	*680*
682	**4.12.4.19**	**Eastern Footpath from ch 580-785)**	**71 days**	**Mon 27/4/15**	**Mon 6/7/15**	**581**
683	4.12.4.19.1	*remove existing pavement*	*3 days*	*Mon 27/4/15*	*Wed 29/4/15*	
684	***4.12.4.19.2***	***VO053 - crossing no. 5, 6, 7&8 (east footpath)***	***7 days***	***Thu 30/4/15***	***Wed 6/5/15***	***683***
685	4.12.4.19.3	*filling works to formation of footpath*	*5 days*	*Thu 7/5/15*	*Mon 11/5/15*	*684*
686	4.12.4.19.4	*street light crossings at ch760,785*	*7 days*	*Tue 12/5/15*	*Mon 18/5/15*	*685*
687	***4.12.4.19.5***	***UU for CLP (lighting)***	***5 days***	***Tue 19/5/15***	***Sat 23/5/15***	***686***
688	4.12.4.19.6	*sub-base & edging*	*6 days*	*Sun 24/5/15*	*Fri 29/5/15*	*687*
689	***4.12.4.19.7***	***UU for ch 580-785 (PCCW/HGC)***	***14 days***	***Sat 30/5/15***	***Fri 12/6/15***	***688***
690	4.20.4.11.10	*construct edging*	*10 days*	*Sat 13/6/15*	*Mon 22/6/15*	*689*
691	4.12.4.19.9	*footpath paving*	*14 days*	*Tue 23/6/15*	*Mon 6/7/15*	*690*
692	**4.12.4.20**	**Construction of retaining wall RW8 - CH0 to 22 (3 bays)**	**70 days**	**Tue 30/12/14**	**Mon 9/3/15**	**515**
693	4.12.4.20.1	*Bay 8001 to Bay 8003 (3 bays)*	*70 days*	*Tue 30/12/14*	*Mon 9/3/15*	
694	4.12.4.21	*Site Formation works for ArchSD Depot (Drg. 1001B)*	*48 days*	*Tue 10/3/15*	*Sun 26/4/15*	*692*
695	**4.12.4.22**	**Archaeological survey (Sections T1 to T3)(Drg. 6403A)**	**147 days**	**Thu 24/10/13**	**Wed 19/3/14**	
701	**4.13**	**Section XIV of the Works - Trees preservation and protection**	**730 days**	**Fri 12/4/13**	**Sat 11/4/15**	**4**
709	**4.14**	**Section XV of the Works - Landscape soft works (including transplant trees to permanent locations)**	**126 days**	**Tue 1/9/15**	**Mon 4/1/16**	
713	***4.15***	***Section XVI of the Works - Establishment works for landscape soft works***	***365 days***	***Tue 5/1/16***	***Tue 3/1/17***	***701,709***



Appendix D

Designated Monitoring Locations as Recommended in the Approved EM&A Manual



LEGEND:

- BOUNDARY OF HKSAR
- WORKS AREA (ABOVE GROUND)
- WORKS AREA (TUNNEL)
- X AIR MONITORING STATIONS

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	AUG 10	MENG	FIRST ISSUE	DC	HT

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Client

CEDD

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Project

AGREEMENT NO. CE45/2008(CE)
LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

Title

PROPOSED LOCATION OF CONSTRUCTION AIR QUALITY MONITORING STATIONS

Designed	DC		Eng.Chk.	EC	
Drawn	MENG		Coordination	EC	
Eng.Chk.	DC		Approved	HT	

Scale at A1: 1:20000

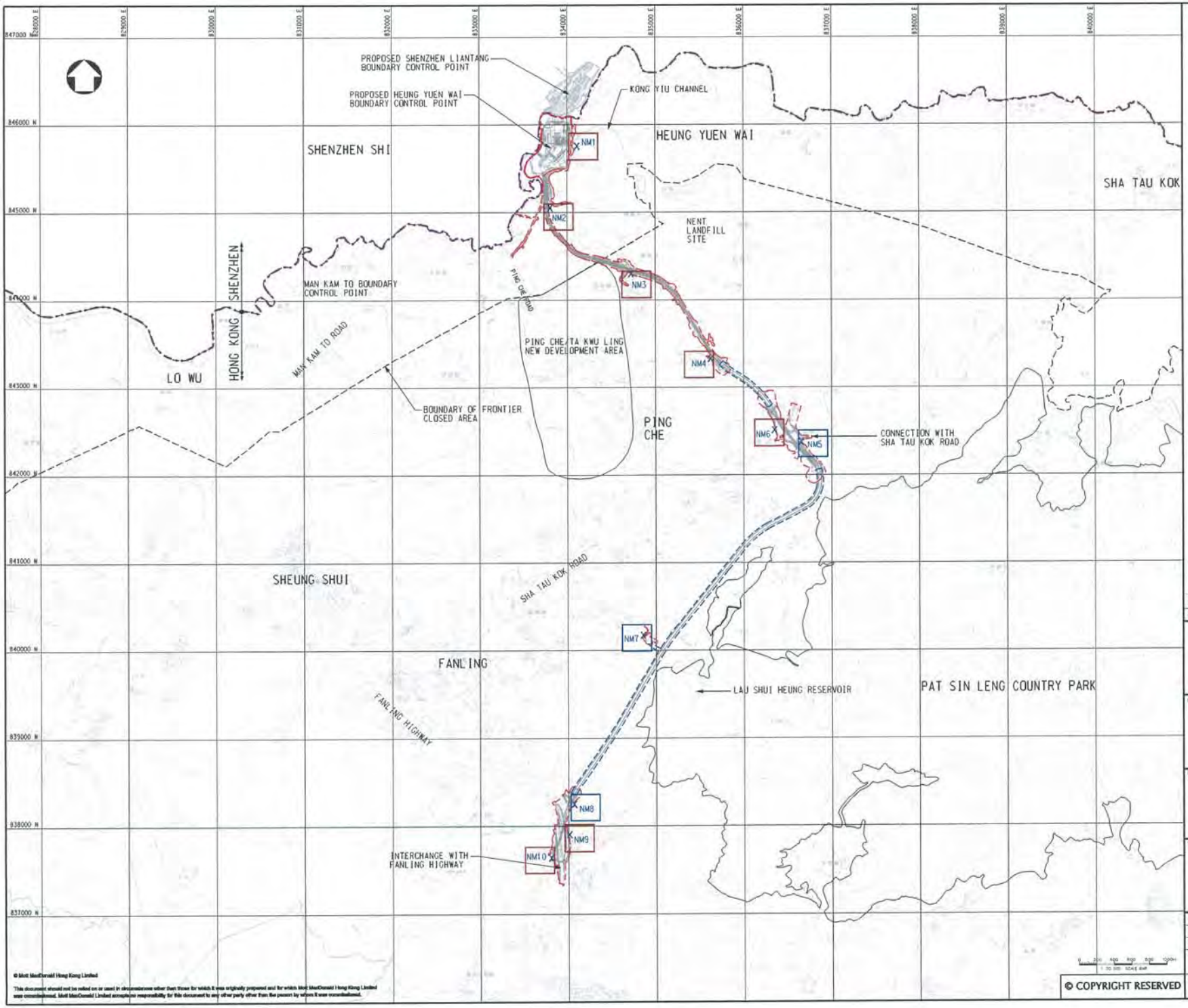
Project: 255228

GAD No: (255228\Report\env\mxds\A0683\FIG 2-1.dgn)

Status: PRE

Drawing No: FIGURE 2.1

Rev: P1



LEGEND:

- BOUNDARY OF HKSAR
- WORKS AREA (ABOVE GROUND)
- WORKS AREA (TUNNEL)
- X CONSTRUCTION NOISE MONITORING STATIONS

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	AUG 10	WING	FIRST ISSUE	DC	HT

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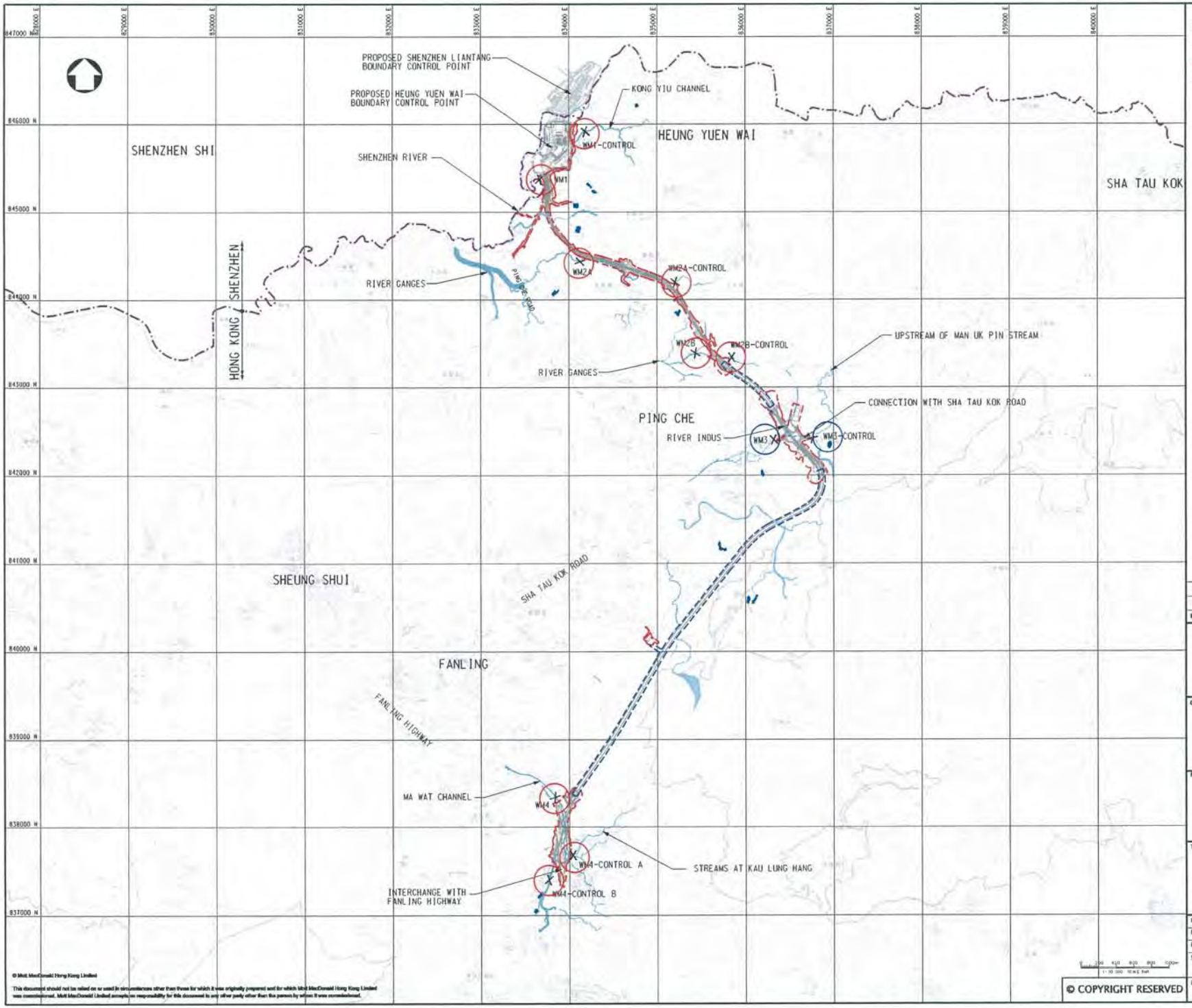
AGREEMENT NO. CE45/2008(CE)
LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

Title

PROPOSED LOCATION OF CONSTRUCTION NOISE MONITORING STATIONS

Designed	DC		Eng.Chk.	EC	
Drawn	WING		Coordination	EC	
Dwg.Chk.	DC		Approved	HT	
Scale at A1	1:20000	Project	255228		Status PRE
		CAD file	J:\255228\Report\env\wed\v\0083\FIG 3.1.dgn		
Drawing No	FIGURE 3.1				Rev P1



LEGEND:

- BOUNDARY OF HKSAR
- LAND REQUIREMENT LIMIT (ABOVE GROUND)
- LAND REQUIREMENT LIMIT (TUNNEL)
- X PROPOSED WATER QUALITY MONITORING STATION

MONITORING STATION	CO-ORDINATES	
	EAST(NG(m)	NORTHING(m)
WM1	833668.635	845371.097
WM1-CONTROL	834185.480	845916.662
WM2A	834132.193	844432.910
WM2A-CONTROL	835205.329	844200.151
WM2B	835434.744	843394.606
WM2B-CONTROL	835845.878	843343.625
WM3	836323.622	842404.977
WM3-CONTROL	836763.419	842425.507
WM4	833840.783	838344.842
WM4-CONTROL A	834038.937	837688.995
WM4-CONTROL B	833769.123	837406.936

Rev	Date	Drawn	Description	Ch'k'd	App'd
P2	NOV 10	WING	GENERAL REVISION	HC	HT
P1	OCT 10	WING	FIRST ISSUE	HC	HT

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Title: LOCATIONS OF PROPOSED WATER QUALITY MONITORING STATIONS

Designed	HC		Eng.Chk.	EC	
Drawn	WING		Coordination	EC	
Eng.Chk.	HC		Approved	HT	
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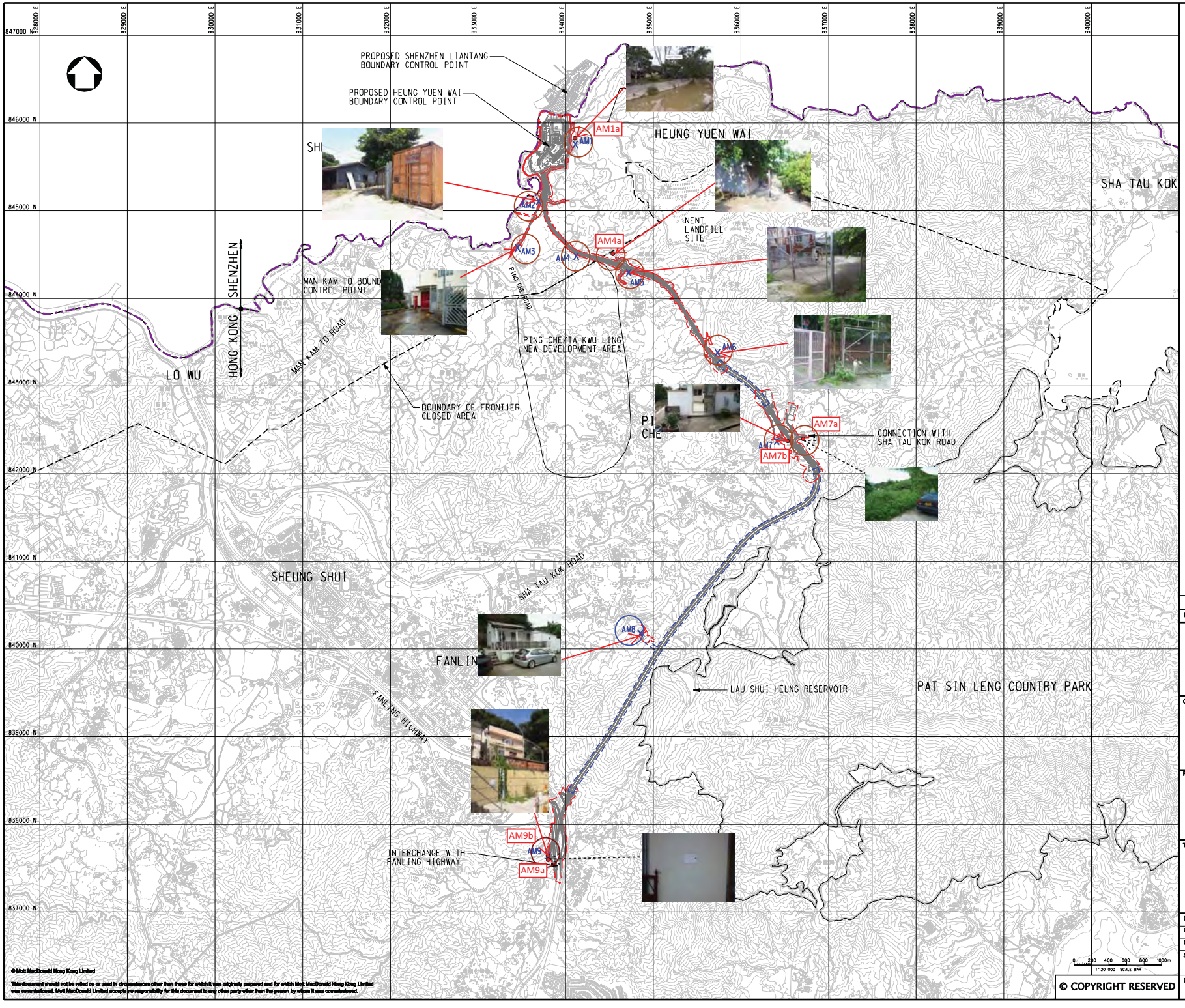
Drawing No	FIGURE 4.1				Rev P2

Appendix E

Monitoring Locations for Impact Monitoring



LEGEND:

- BOUNDARY OF HKSAR
- WORKS AREA (ABOVE GROUND)
- WORKS AREA (TUNNEL)
- X AIR MONITORING STATIONS

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	AUG 10	MING	FIRST ISSUE	DC	HT

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Project

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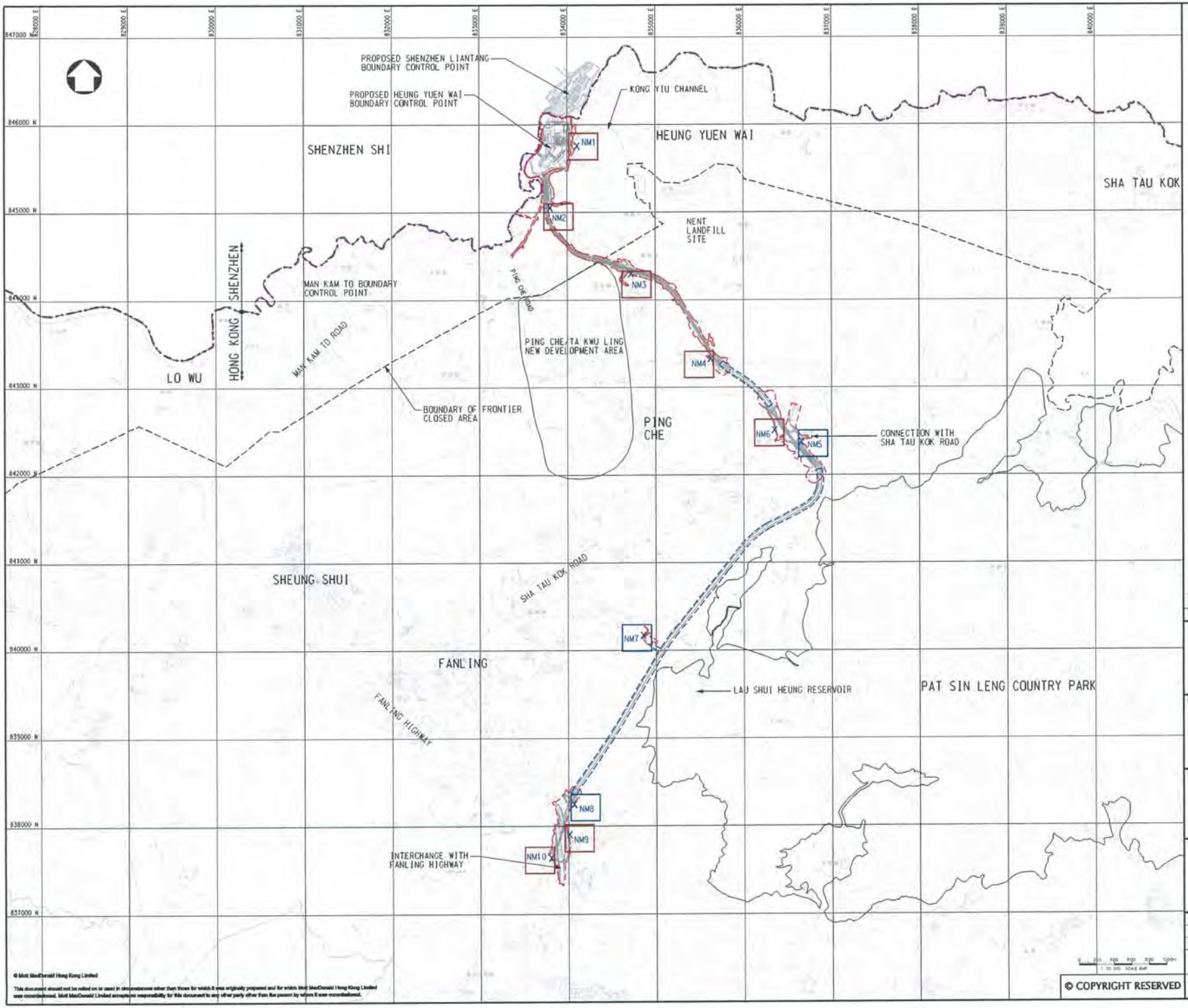
LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

Title

PROPOSED LOCATION OF CONSTRUCTION AIR QUALITY MONITORING STATIONS

Designed	DC		Eng.Chk.	EC	
Drawn	MING		Coordination	EC	
Dwg.Chk.	DC		Approved	HT	
Scale at A1	1:20000	Project	255228	Status	PRE
		CAD file	j:\255228\report\env\em&o\00B3\FIG 2-1.dgn		
Drawing No	FIGURE 2.1			Rev	P1

0 200 400 600 800 1000m
1:20 000 SCALE BAR



LEGEND:

- BOUNDARY OF HKSAR
- WORKS AREA (ABOVE GROUND)
- WORKS AREA (TUNNEL)
- X CONSTRUCTION NOISE MONITORING STATIONS

Rev	Date	Drawn	Description	Ch'k'd	App'd
P1	AUG 10	WING	FIRST ISSUE	DC	HT

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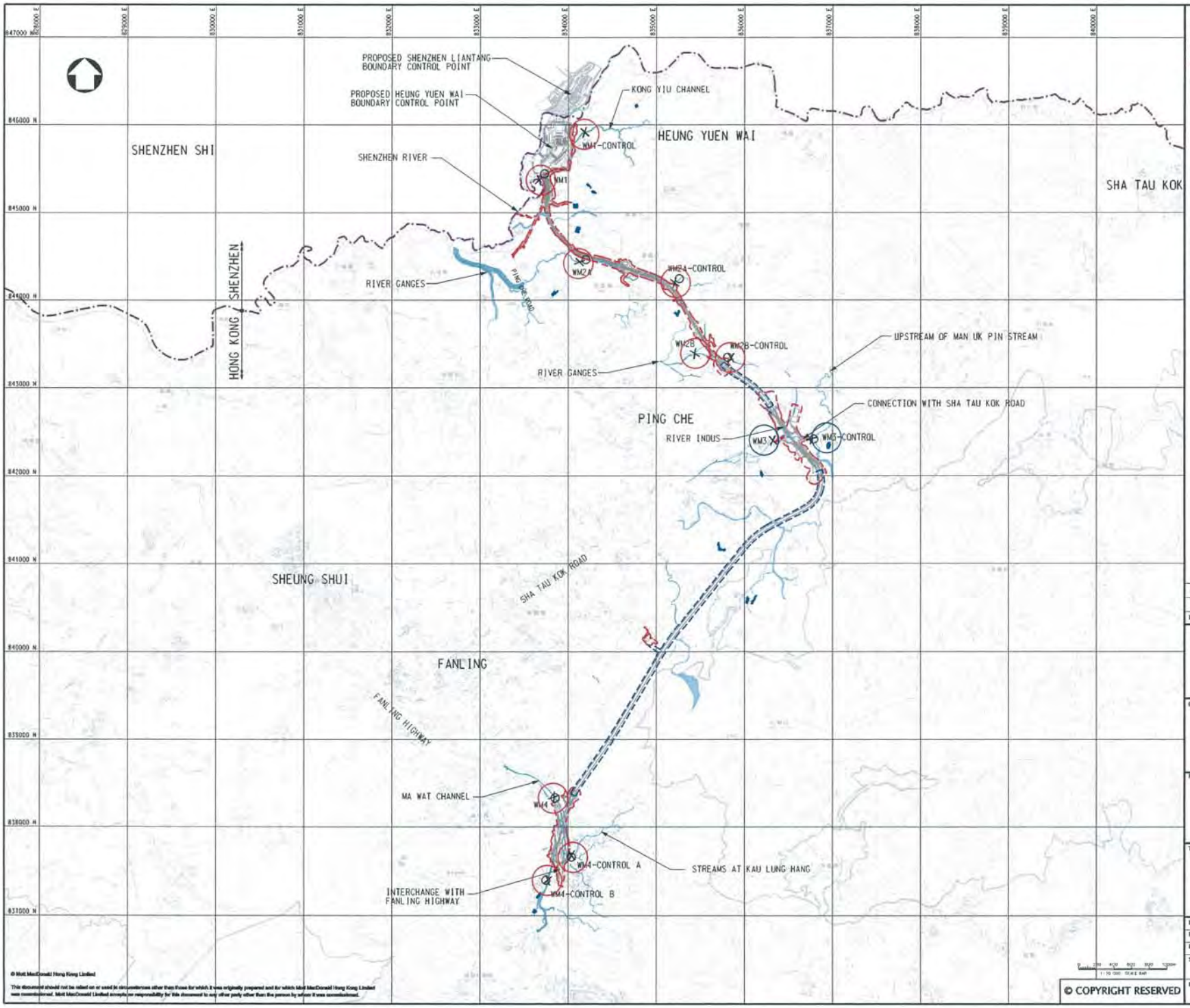
AGREEMENT NO. CE45/2008(CE)
LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

Title

PROPOSED LOCATION OF CONSTRUCTION NOISE MONITORING STATIONS

Designed	DC		Eng.Chk.	EC	
Drawn	WING		Coordination	EC	
Dwg.Chk.	DC		Approved	HT	
Scale at A1	1:20000	Project	255228		Status PRE
		CAD file	J:\255228\Report\env\wed\v\0083\FIG 3.1.dgn		
Drawing No	FIGURE 3.1				Rev P1



LEGEND:

- BOUNDARY OF HKSAR
- LAND REQUIREMENT LIMIT (ABOVE GROUND)
- LAND REQUIREMENT LIMIT (TUNNEL)
- X — Water Quality Monitoring Location Recommended in EM&A Manual
- O — Alternative Water Quality Monitoring Location for EM&A Programme

Station ID	Location recommended in EM&A Manual – Coordinates: Easting	Location recommended in EM&A Manual – Coordinates: Northing	Location found during site visit – Coordinates: Easting	Location found during site visit – Coordinates: Northing
WM1	833668.635	845371.097	833679	845423
WM1-Control	834185.480	845916.662	834185	845917
WM2A	834132.193	844432.910	834204	844471
WM2A-Control	835205.529	844200.151	835270	844243
WM2B	835434.744	843394.606	835433	843397
WM2B-Control	835845.878	843343.625	835835	843351
WM3	836523.622	842404.977	836524	842407
WM3-Control	836763.419	842425.507	836763	842400
WM4	833840.785	838344.842	833850	838358
WM4-Control A	834038.937	837668.995	834028	837695
WM4-Control B	833769.123	837406.936	833760	837395

Rev	Date	Drawn	Description	Ch'k'd	App'd
P2	NOV 10	MING	GENERAL REVISION	HC	HT
P1	OCT 10	MING	FIRST ISSUE	HC	HT

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Client

CEDD
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

Project

AGREEMENT NO. CE45/2008(CE)
LIANTANG/HEUNG YUEN WAI BOUNDARY CONTROL POINT AND ASSOCIATED WORKS

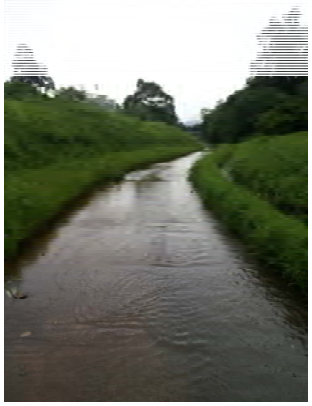
Title

LOCATIONS OF PROPOSED WATER QUALITY MONITORING STATIONS

Designed	HC		Eng.Chk.	EC	
Drawn	MING		Coordination	EC	
Dwg.Chk.	HC		Approved	HT	
Scale at A1	1:20000	Project	255228	Status	PRE
Drawing No	FIGURE 4.1			Rev	P2

Photographic Records for Water Quality Monitoring Location

	
Alternative Location of WM1	**Co-ordinates of Alternative Location of WM1**
	
Alternative Location of WM1 - Control	**Co-ordinates of Alternative Location of WM1 - Control**
	
Alternative Location of WM2A	**Co-ordinates of Alternative Location of WM2A**
	
Alternative Location of WM2-Control A	**Co-ordinates of Alternative Location of WM2 – Control**

	
Location of WM2B-Control	**Co-ordinates of WM2B-Control**
	
Location of WM2B	**Co-ordinates of WM2B**
	
Location of WM3-Control	**Co-ordinates of WM3-Control**
	
Location of WM3	**Co-ordinates of WM3**

	
Location of WM4–Control A	**Co-ordinates of WM4-Control A**
	
Location of WM4–Control B	**Co-ordinates of WM4-Control B**
	
Location of WM4	**Co-ordinates of WM4**

Appendix F

Event and Action Plan

Event and Action Plan for Air Quality

Event	ET	IEC	ER	Action Contractor
Action Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform IEC and ER; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method.	1. Notify Contractor.	1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify source; 2. Inform IEC and ER; 3. Advise the ER on the effectiveness of the proposed remedial measures; 4. Repeat measurements to confirm findings; 5. Increase monitoring frequency to daily; 6. Discuss with IEC and Contractor on remedial actions required; 7. If exceedance continues, arrange meeting with IEC and ER; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ET on the effectiveness of the proposed remedial measures; 5. Monitor the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial to ER within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	1. Identify source, investigate the causes of exceedance and propose remedial measures; 2. Inform ER, Contractor and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the ER on the effectiveness of the proposed remedial measures; 5. Monitor theimplementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
2. Exceedance for two or more consecutive samples	1. Notify IEC, ER, Contractor and EPD; 2. Identify source; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 6. Arrange meeting with IEC and ER to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results; 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss amongst ER, ET, and Contractor on the potential remedial actions; 4. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; 5. Monitor the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented; 4. Ensure remedial measures properly implemented; 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to IEC within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not under control; 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event and Action Plan for Construction Noise

Event	ET	IEC	ER	Action Contractor
Action Level	1. Notify ER, IEC and Contractor; 2. Carry out investigation; 3. Report the results of investigation to the IEC, ER and Contractor; 4. Discuss with the IEC and Contractor on remedial measures required; 5. Increase monitoring frequency to check mitigation effectiveness.	1. Review the investigation results submitted by the ET; 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly; 3. Advise the ER on the effectiveness of the proposed remedial measures.	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.	1. Submit noise mitigation proposals to IEC and ER; 2. Implement noise mitigation proposals.
Limit Level	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.	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.	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.	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.

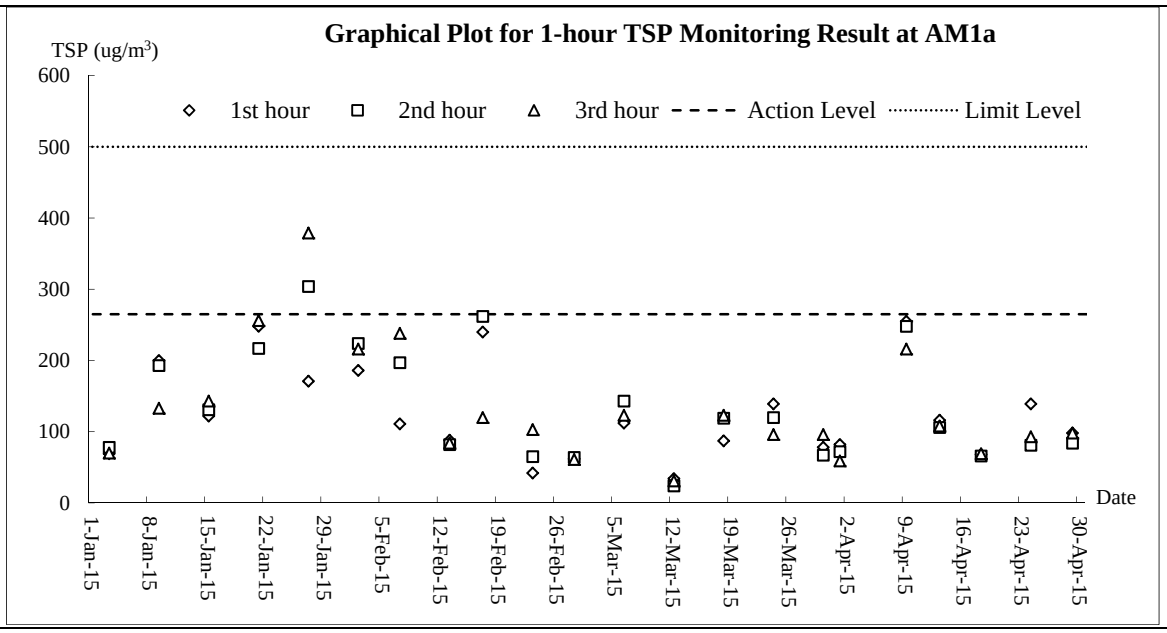
Event and Action Plan for Water Quality

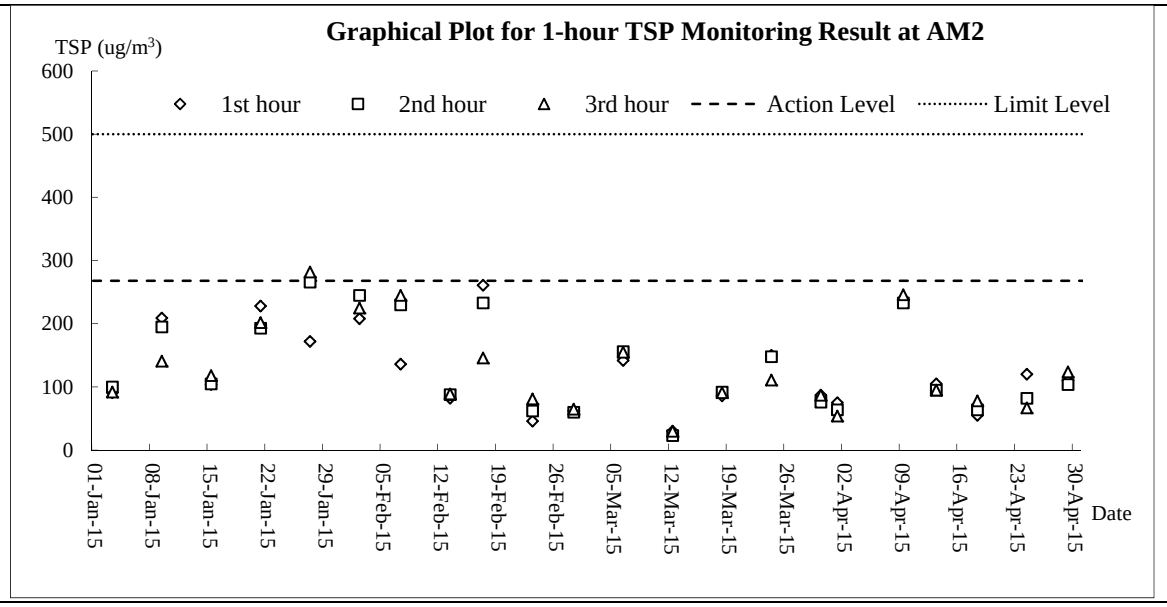
EVENT	ACTION			
	ET	IEC	ER	CONTRACTOR
Action level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify reasons for non-compliance and sources of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess the effectiveness of the implemented mitigation measures	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER; 6. Implement the agreed mitigation measures.
Action Level being exceeded by more than two consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify reasons for non-compliance and sources of impact; 3. Inform IEC and Contractor; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC and Contractor; 6. Ensure mitigation measures are implemented; 7. Prepare to increase the monitoring frequency to daily; 8. Repeat measurement on next day of exceedance.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC on the proposed mitigation measures; 2. Make agreement on the mitigation measures to be implemented; 3. Assess the effectiveness of the implemented mitigation measures	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.
Limit Level being exceeded by one sampling day	1. Repeat in-situ measurement to confirm findings; 2. Identify reasons for non-compliance and sources of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures.
Limit level being exceeded by more than one consecutive sampling days	1. Repeat in-situ measurement to confirm findings; 2. Identify reasons for non-compliance and sources of impact; 3. Inform IEC, Contractor and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, ER and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days.	1. Discuss with ET and Contractor on the mitigation measures; 2. Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IEC, ET and Contractor on the proposed mitigation measures; 2. Request Contractor to critically review the working methods; 3. Make agreement on the mitigation measures to be implemented; 4. Assess the effectiveness of the implemented mitigation measures; 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until no exceedance of Limit Level.	1. Inform the ER and confirm notification of the non-compliance in writing; 2. Rectify unacceptable practice; 3. Check all plant and equipment; 4. Consider changes of working methods; 5. Discuss with ET, IEC and ER and propose mitigation measures to IEC and ER within 3 working days; 6. Implement the agreed mitigation measures; 7. As directed by the ER, to slow down or to stop all or part of the construction activities.

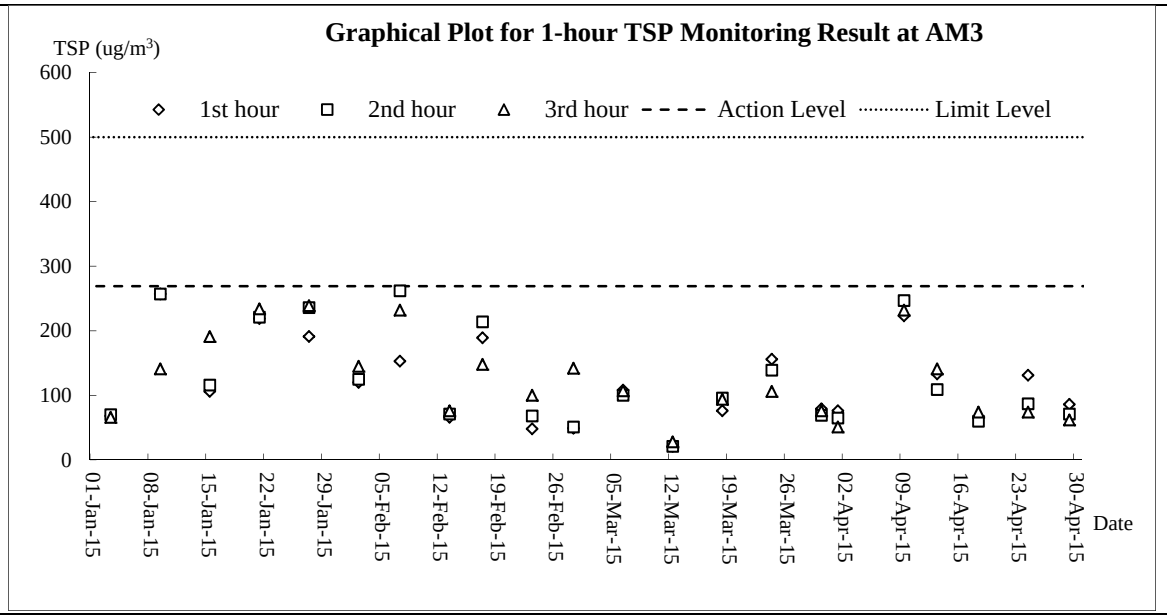
Appendix G

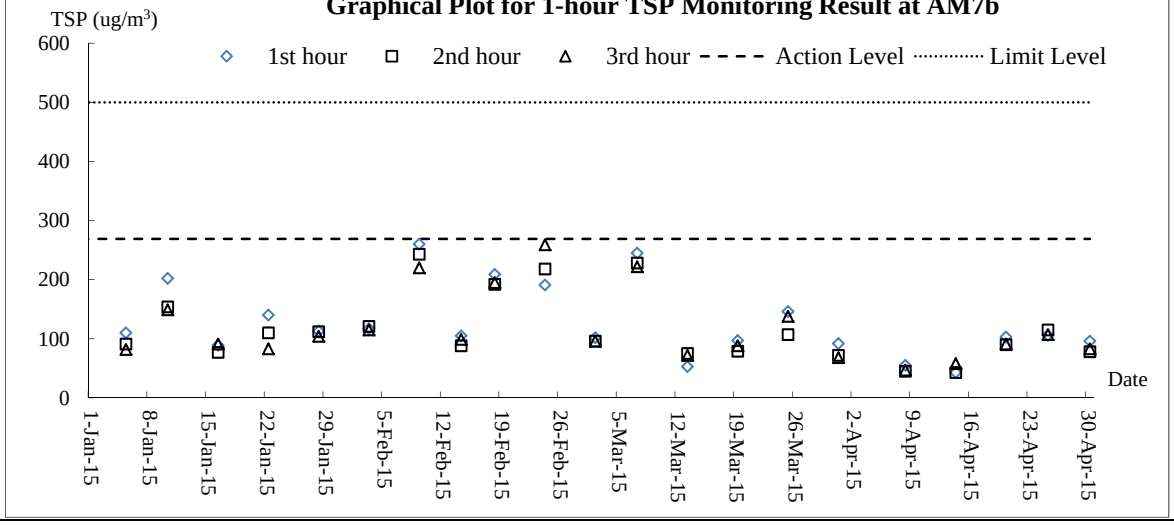
Graphical Plots for Monitoring Result

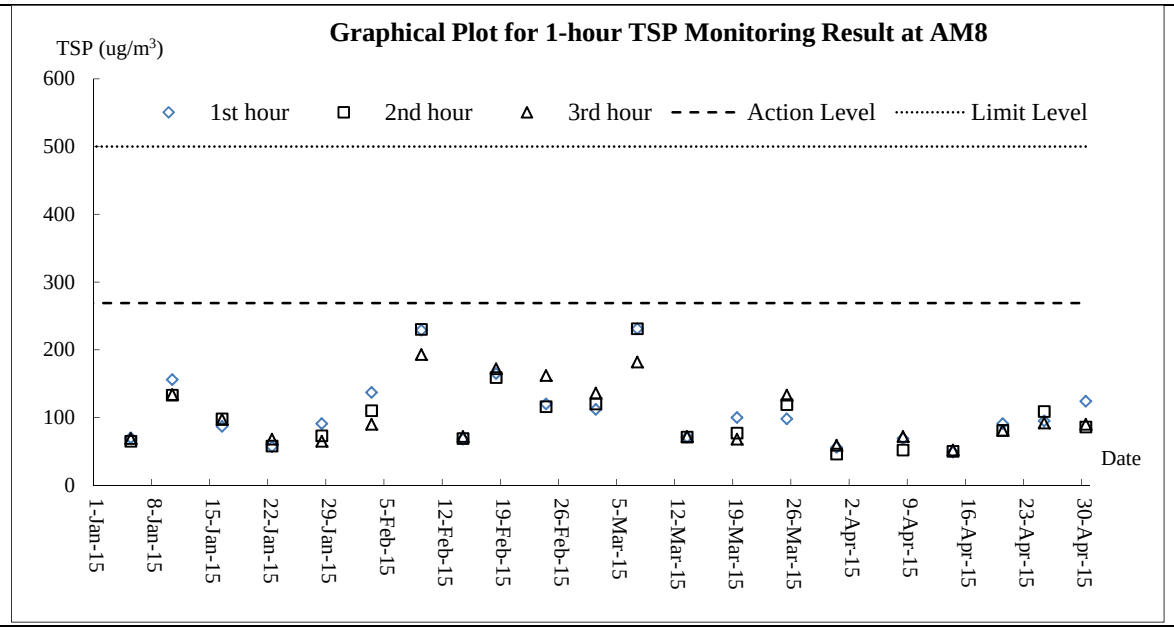
Air Quality – 1-hour TSP








Graphical Plot for 1-hour TSP Monitoring Result at AM7b
TSP (ug/m3)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
12-Feb-15
19-Feb-15
26-Feb-15
5-Mar-15
12-Mar-15
19-Mar-15
26-Mar-15
2-Apr-15
9-Apr-15
16-Apr-15
23-Apr-15
30-Apr-15
Date


Graphical Plot for 1-hour TSP Monitoring Result at AM8
TSP (ug/m3)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
12-Feb-15
19-Feb-15
26-Feb-15
5-Mar-15
12-Mar-15
19-Mar-15
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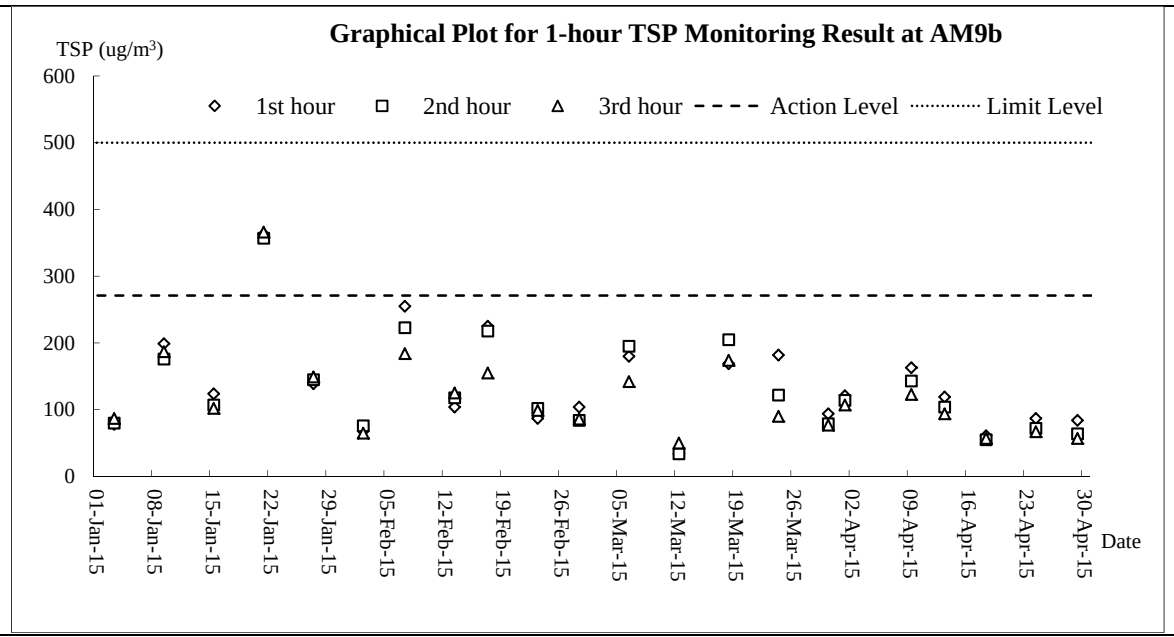
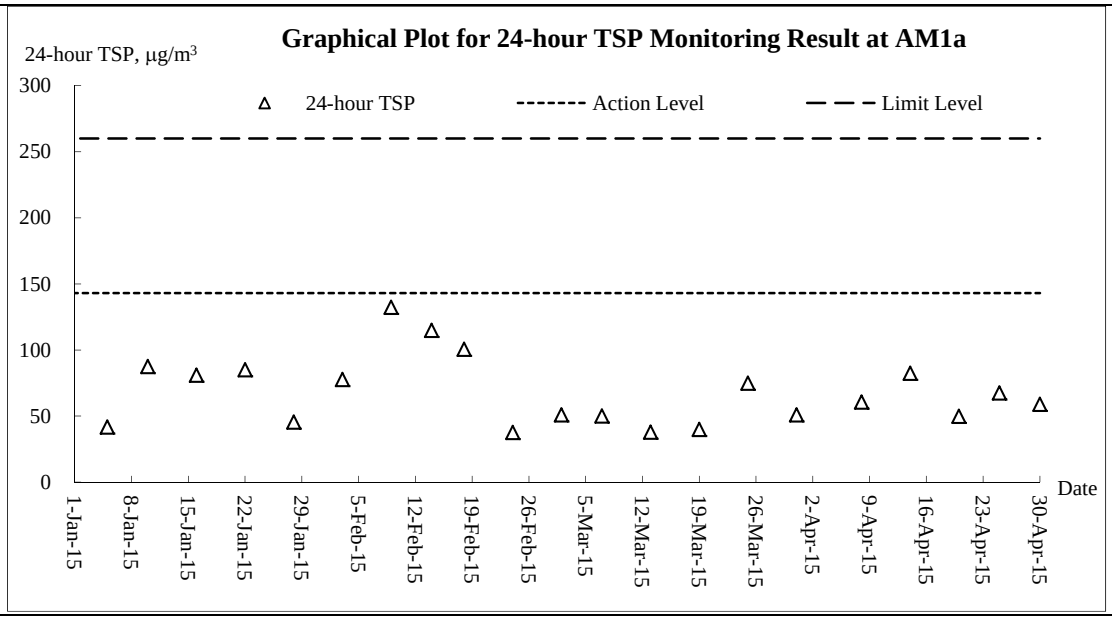
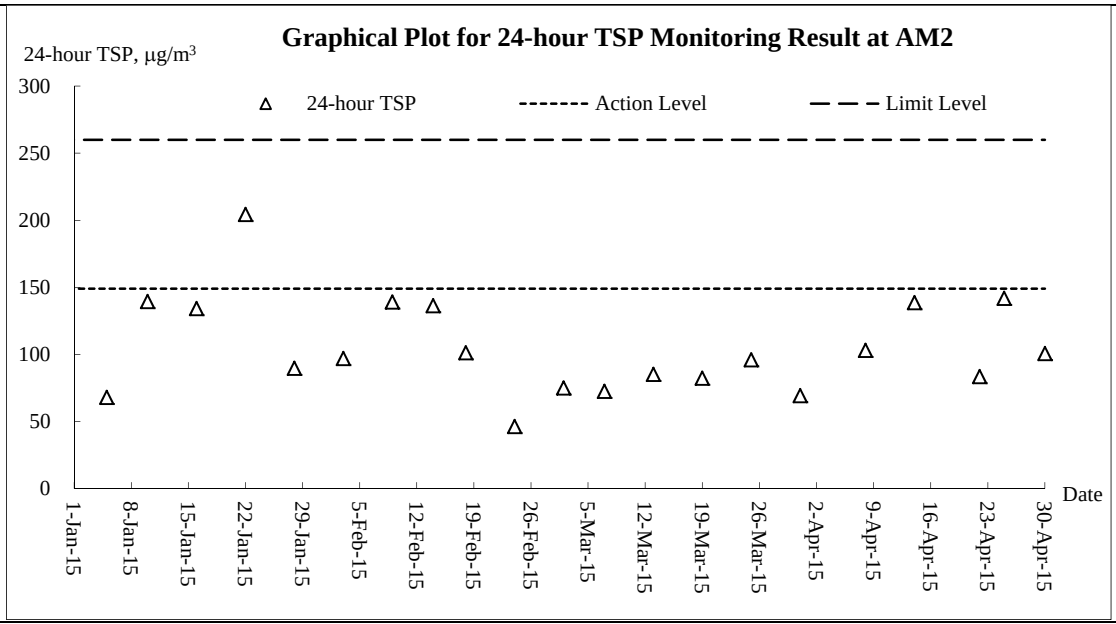
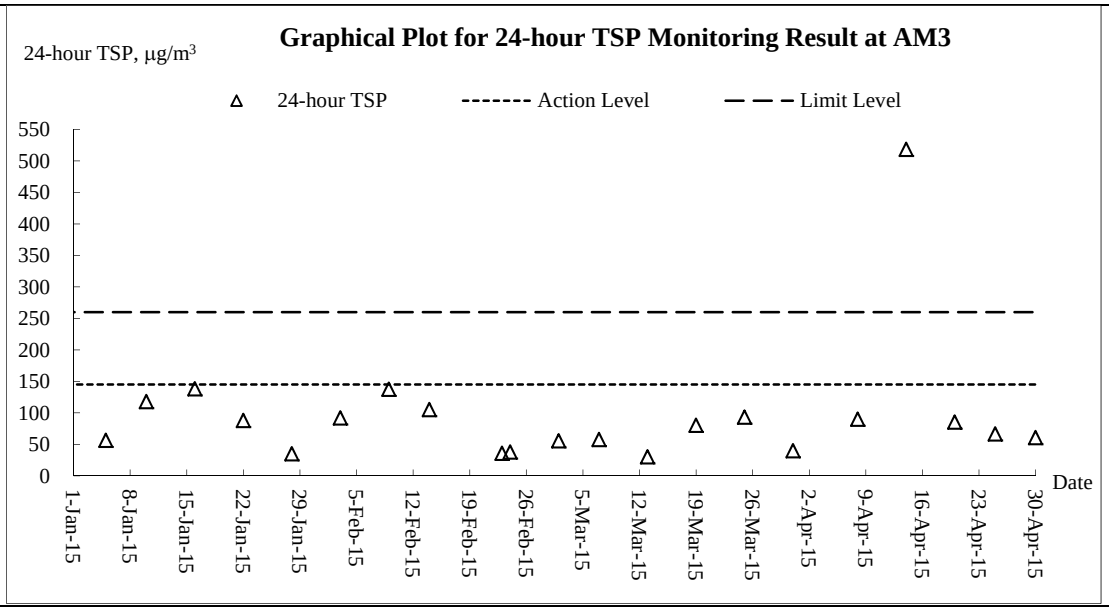
2-Apr-15
9-Apr-15
16-Apr-15
23-Apr-15
30-Apr-15
Date

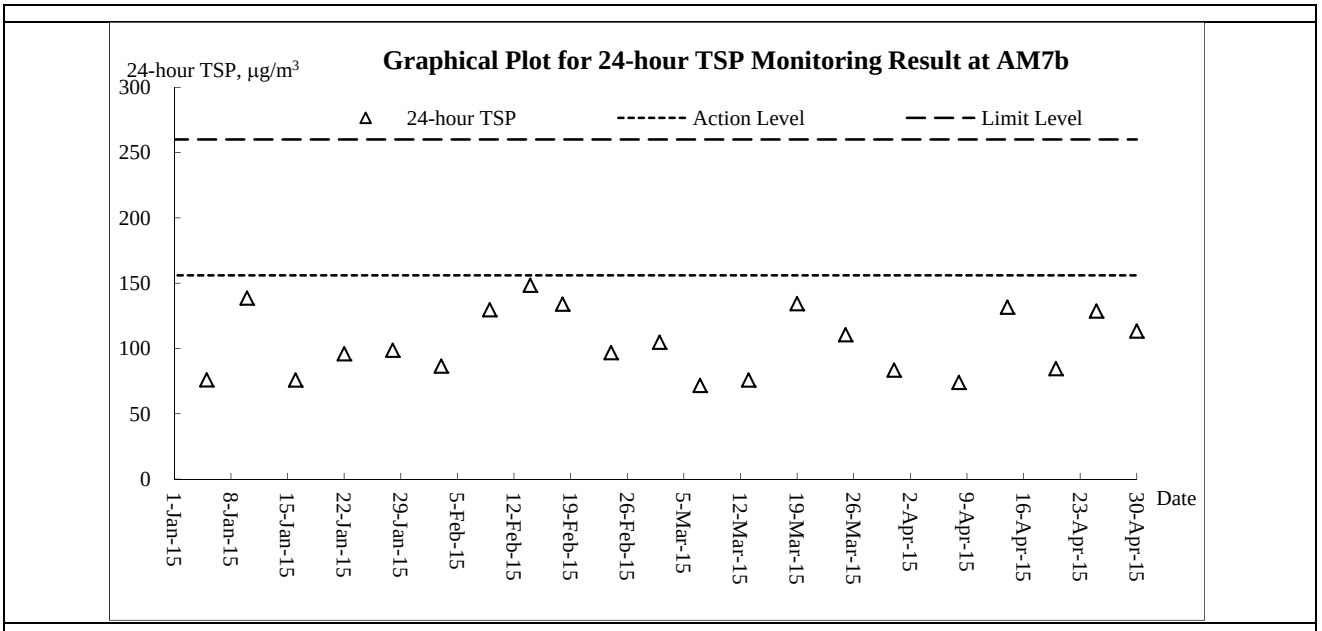

Graphical Plot for 1-hour TSP Monitoring Result at AM9b
TSP (ug/m3)
1st hour
2nd hour
3rd hour
Action Level
Limit Level
600
500
400
300
200
100
0
01-Jan-15
08-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
05-Feb-15
12-Feb-15
19-Feb-15
26-Feb-15
05-Mar-15
12-Mar-15
19-Mar-15
26-Mar-15
02-Apr-15
09-Apr-15
16-Apr-15
23-Apr-15
30-Apr-15
Date

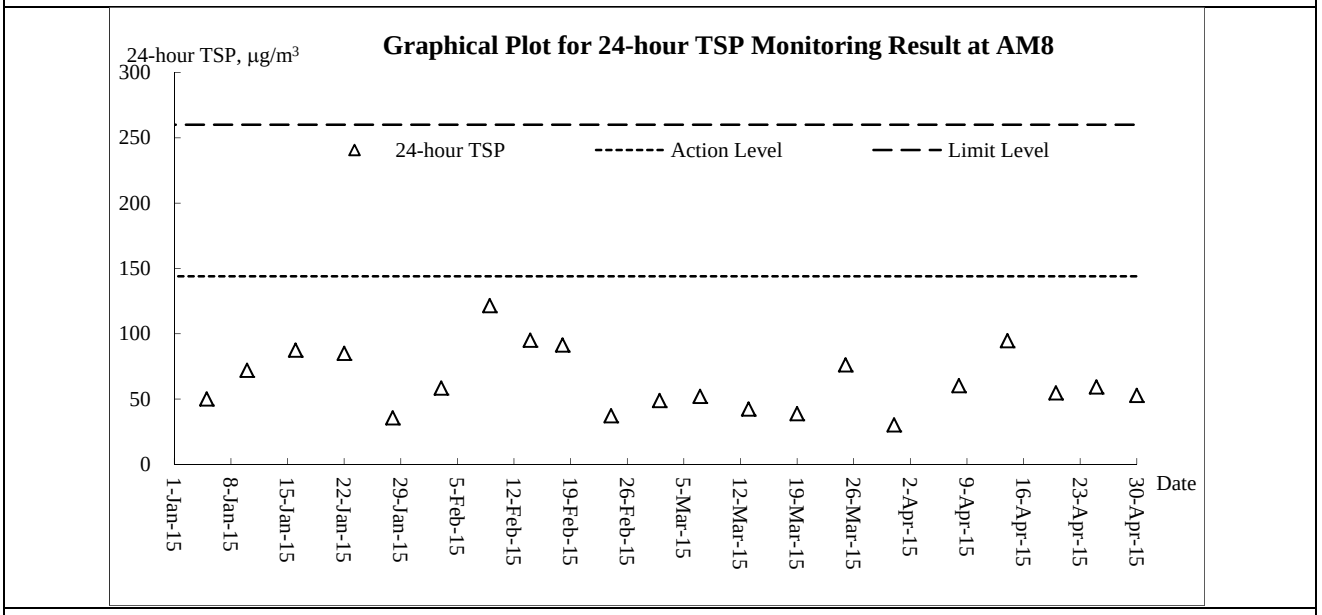
Air Quality – 24-hour TSP








Graphical Plot for 24-hour TSP Monitoring Result at AM7b
24-hour TSP, µg/m³
24-hour TSP
Action Level
Limit Level
300
250
200
150
100
50
0
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
12-Feb-15
19-Feb-15
26-Feb-15
5-Mar-15
12-Mar-15
19-Mar-15
26-Mar-15
2-Apr-15
9-Apr-15
16-Apr-15
23-Apr-15
30-Apr-15
Date


Graphical Plot for 24-hour TSP Monitoring Result at AM8
24-hour TSP, µg/m³
24-hour TSP
Action Level
Limit Level
300
250
200
150
100
50
0
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
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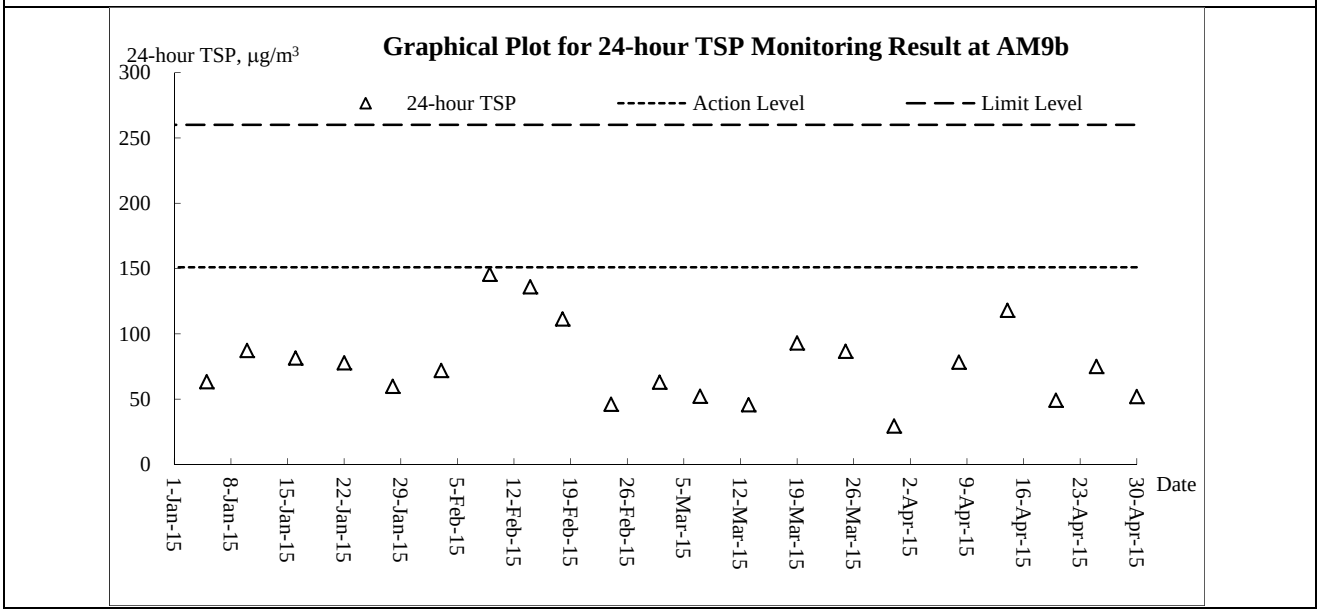
Graphical Plot for 24-hour TSP Monitoring Result at AM9b
24-hour TSP, µg/m³
24-hour TSP
Action Level
Limit Level
300
250
200
150
100
50
0
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
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5-Mar-15
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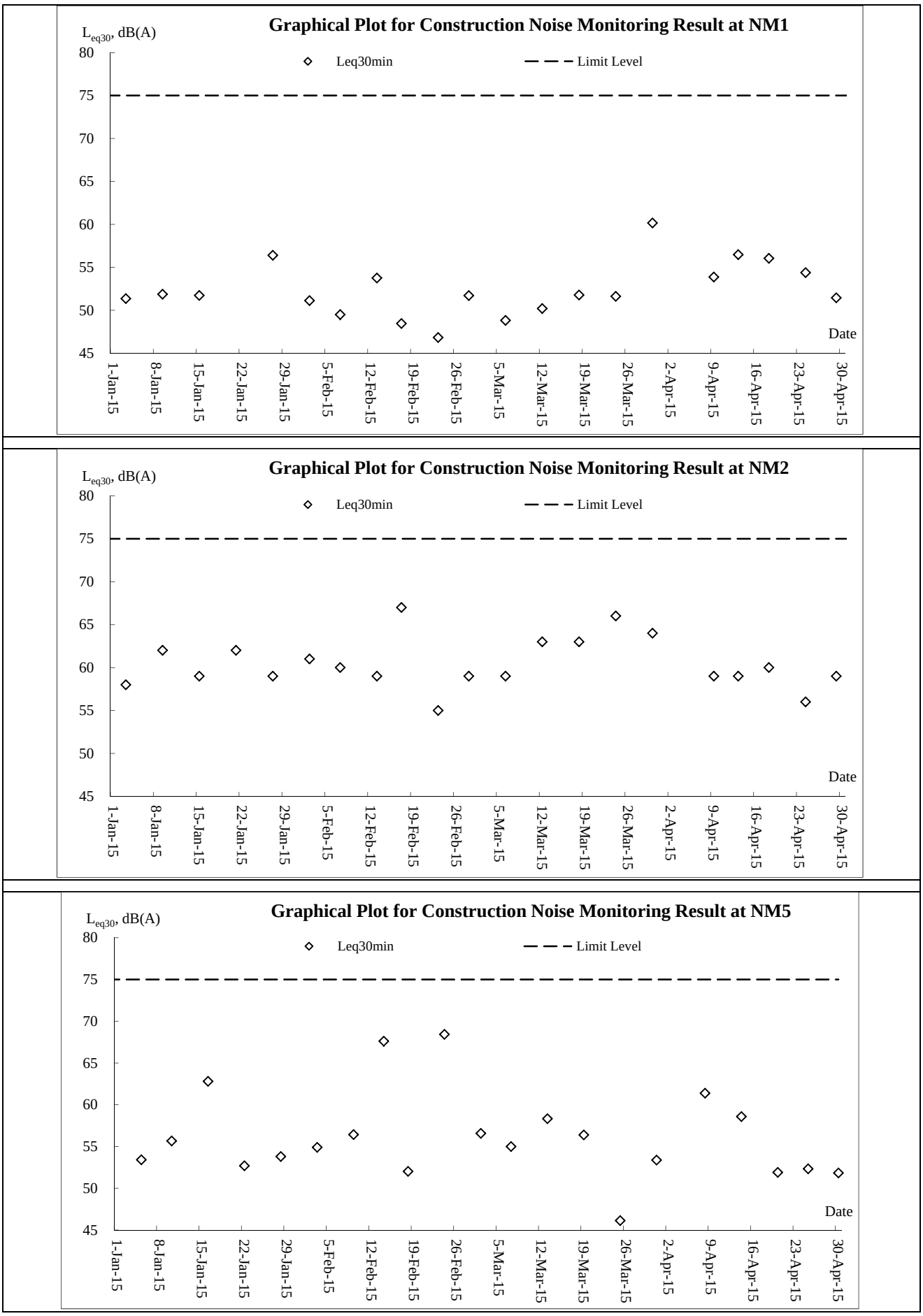
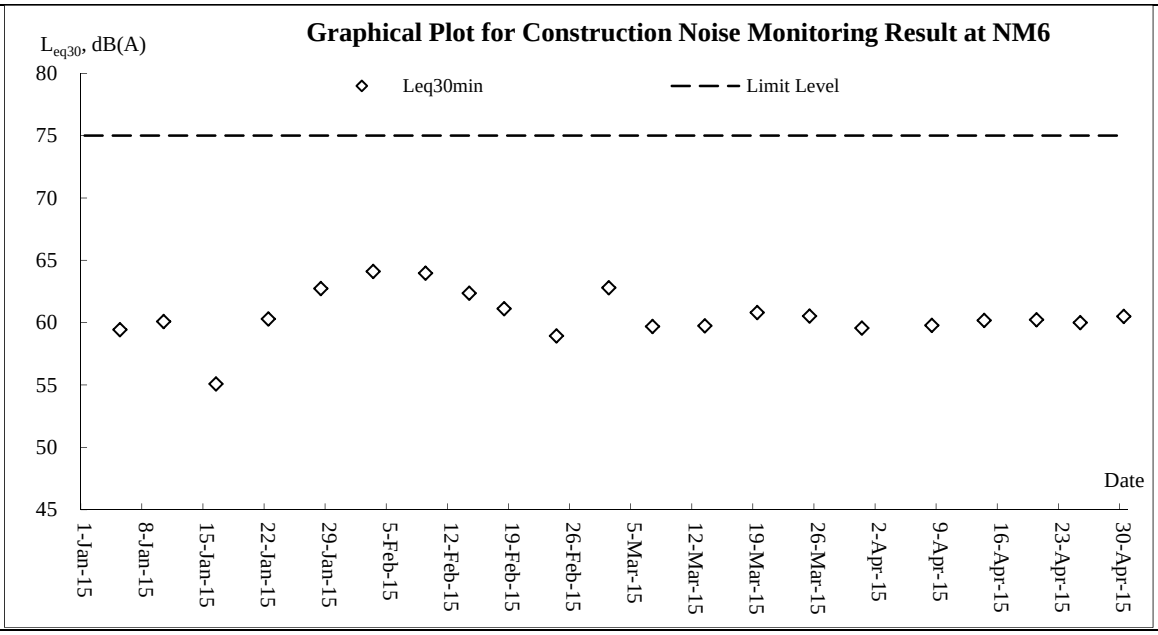
30-Apr-15
Date

Noise


Graphical Plot for Construction Noise Monitoring Result at NM1
Leq30, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
12-Feb-15
19-Feb-15
26-Feb-15
5-Mar-15
12-Mar-15
19-Mar-15
26-Mar-15
2-Apr-15
9-Apr-15
16-Apr-15
23-Apr-15
30-Apr-15
Graphical Plot for Construction Noise Monitoring Result at NM2
Leq30, dB(A)
Leq30min
Limit Level
Date
Graphical Plot for Construction Noise Monitoring Result at NM5
Leq30, dB(A)
Leq30min
Limit Level
Date


Graphical Plot for Construction Noise Monitoring Result at NM6
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
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19-Feb-15
26-Feb-15
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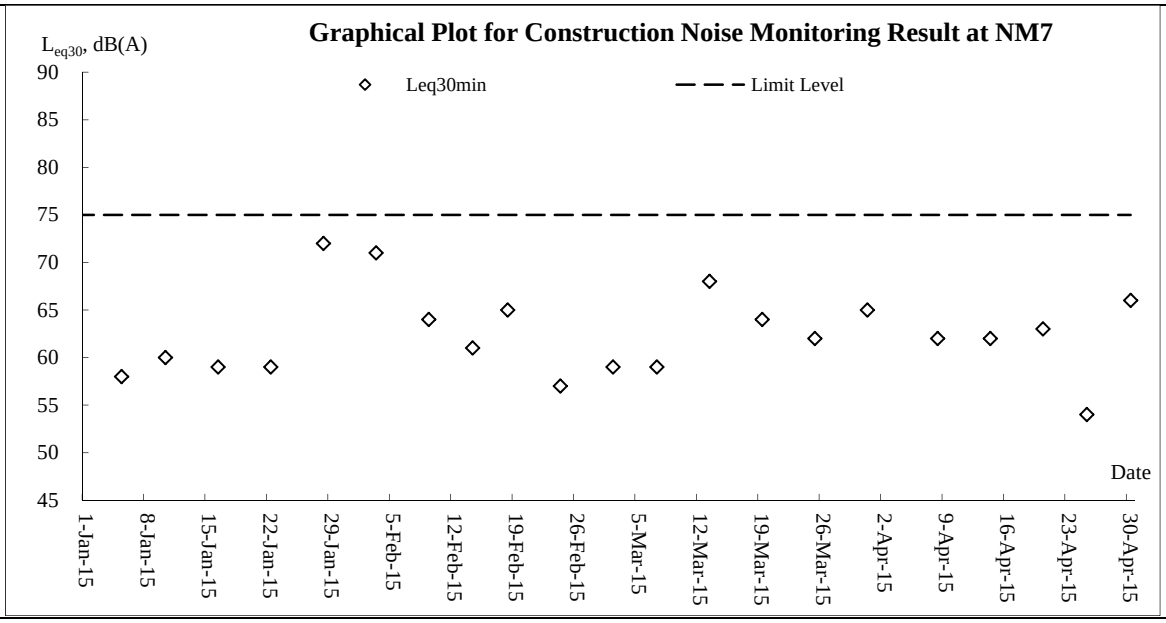
Graphical Plot for Construction Noise Monitoring Result at NM7
L_{eq30}, dB(A)
Leq30min
Limit Level
90
85
80
75
70
65
60
55
50
45
Date
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
12-Feb-15
19-Feb-15
26-Feb-15
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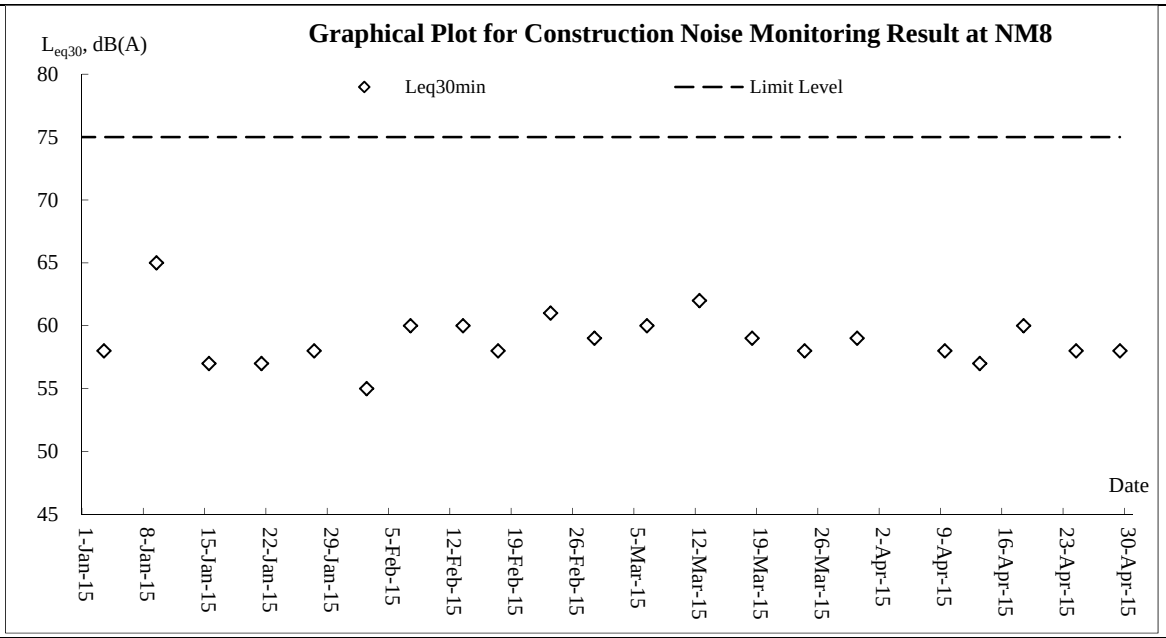
Graphical Plot for Construction Noise Monitoring Result at NM8
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
45
Date
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
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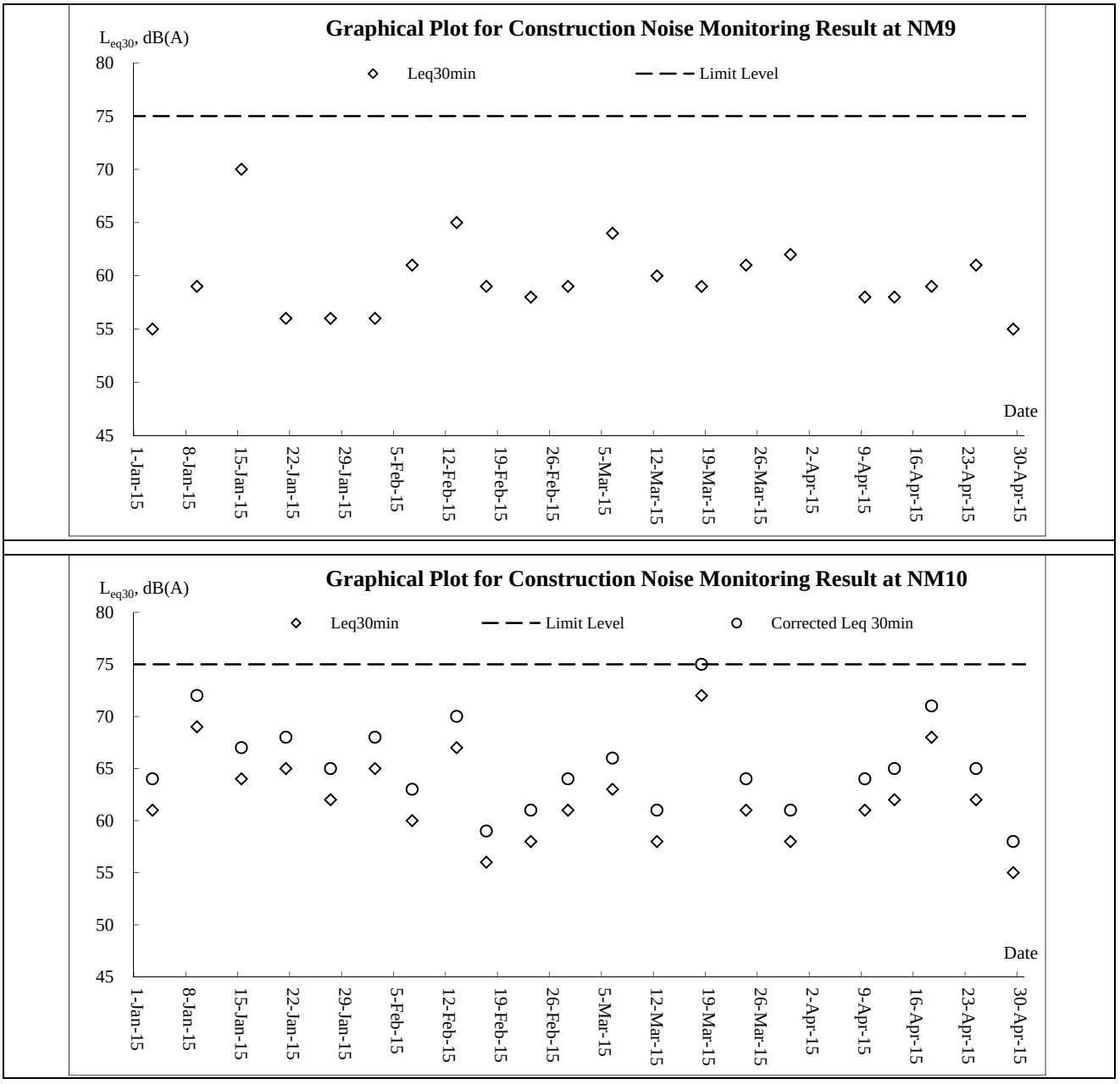
Graphical Plot for Construction Noise Monitoring Result at NM9
L_{eq30}, dB(A)
Leq30min
Limit Level
80
75
70
65
60
55
50
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Date
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8-Jan-15
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22-Jan-15
29-Jan-15
5-Feb-15
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5-Mar-15
12-Mar-15
19-Mar-15
26-Mar-15
2-Apr-15
9-Apr-15
16-Apr-15
23-Apr-15
30-Apr-15
Graphical Plot for Construction Noise Monitoring Result at NM10
L_{eq30}, dB(A)
Leq30min
Limit Level
Corrected Leq 30min
80
75
70
65
60
55
50
45
Date
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
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26-Feb-15
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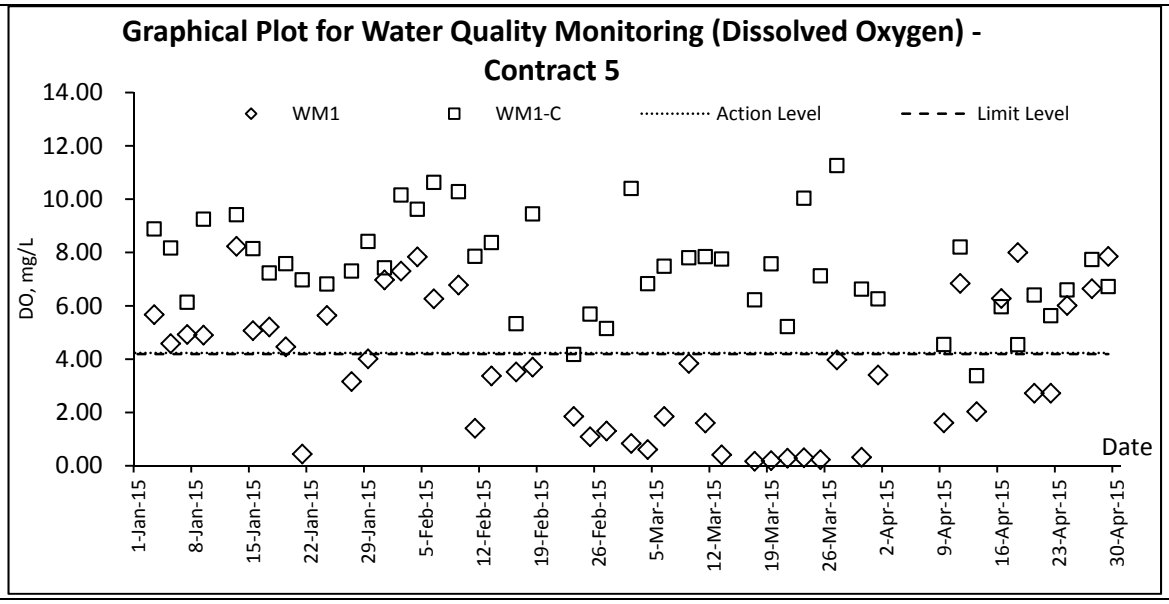
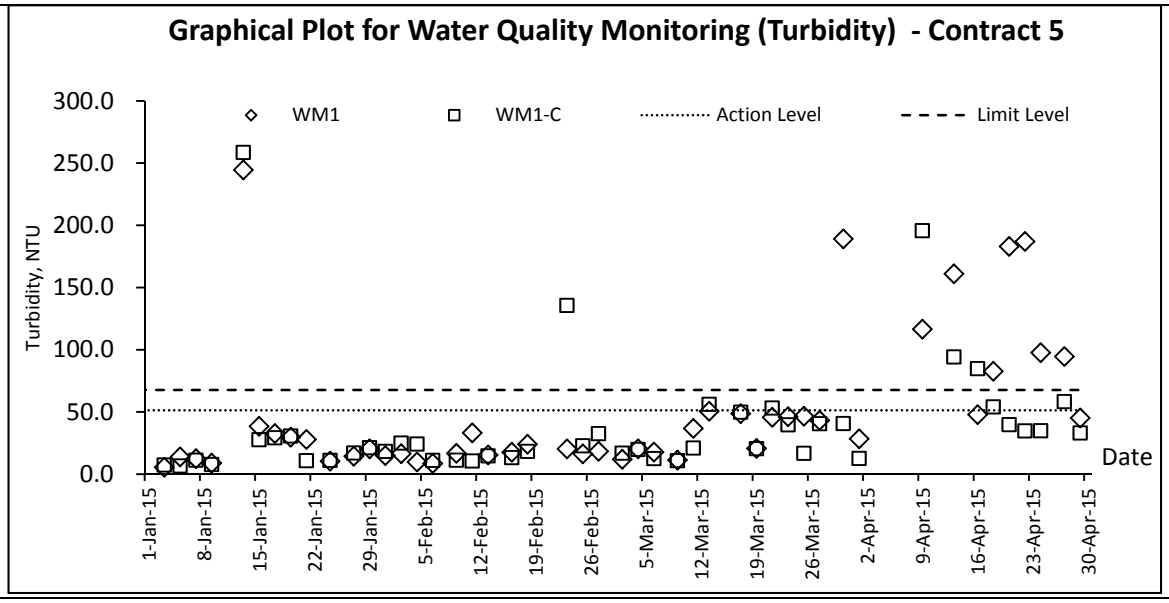
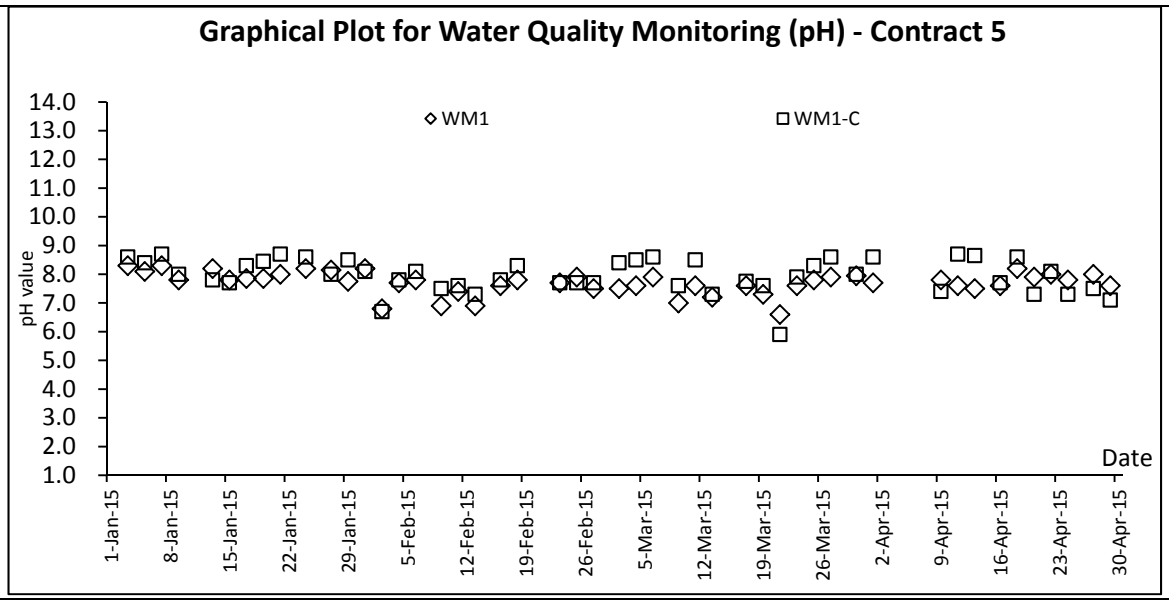
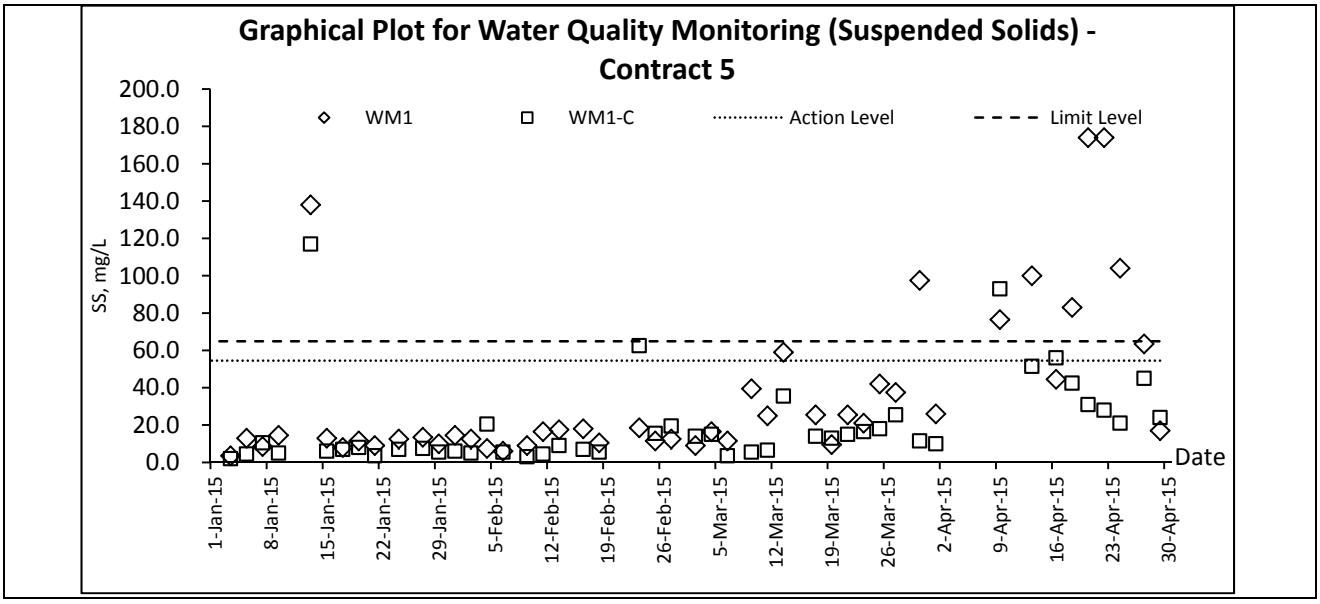
Water Quality - Contract 5

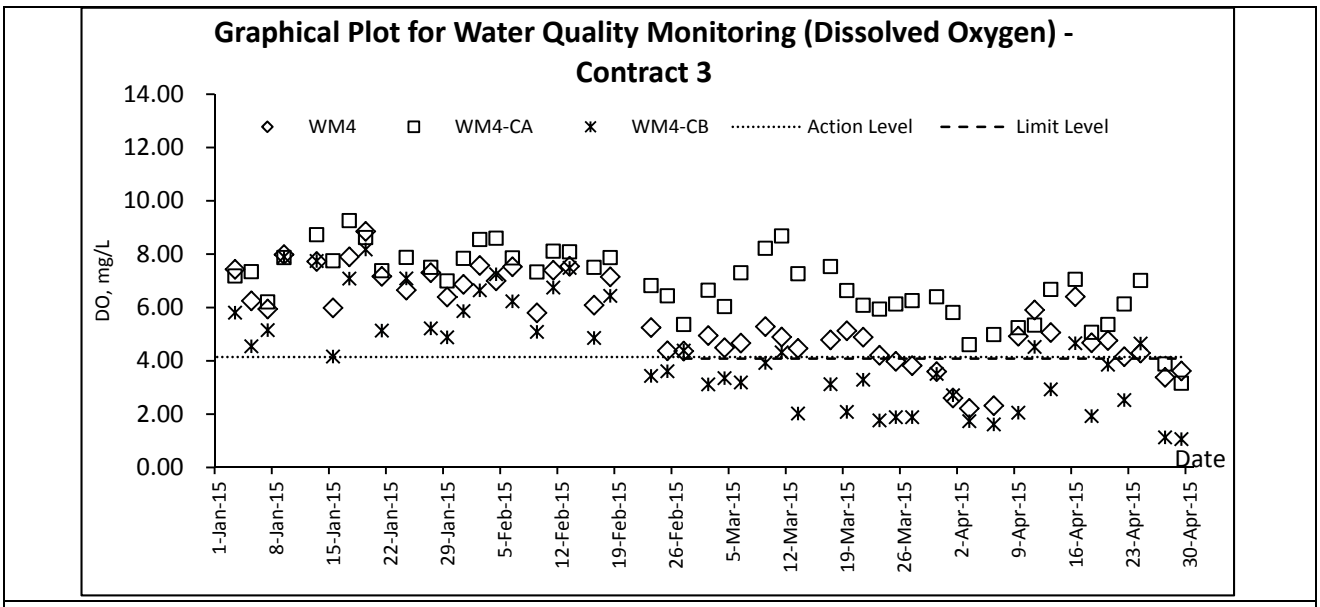


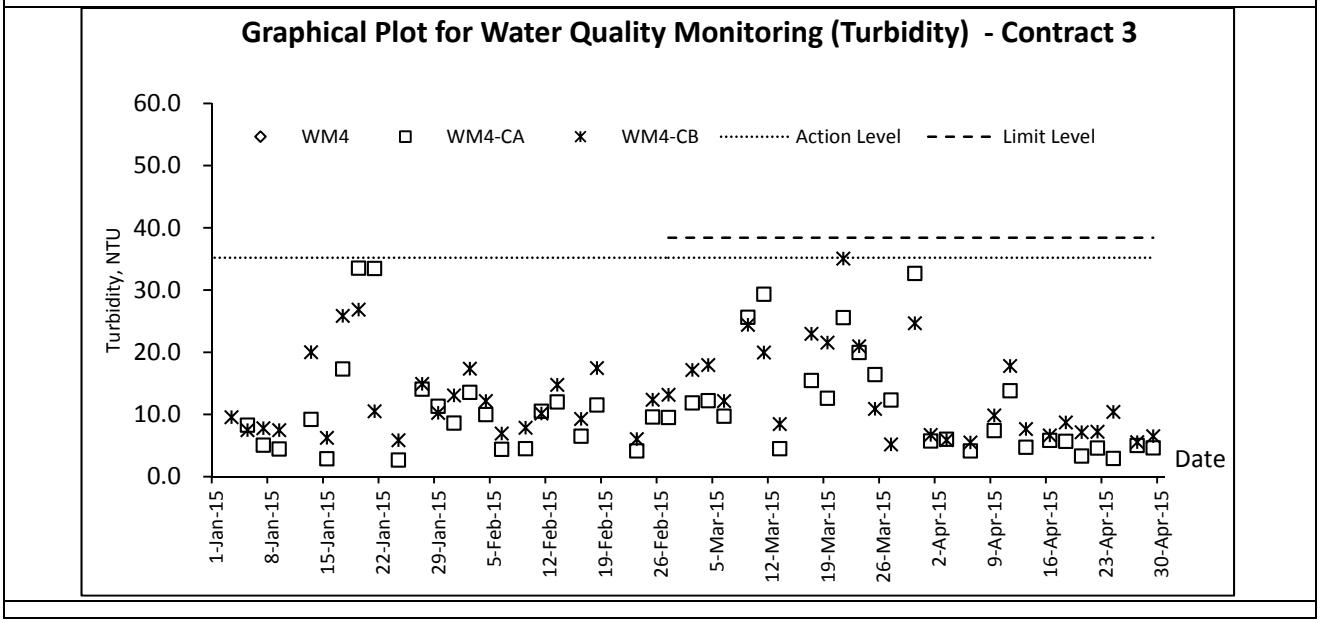


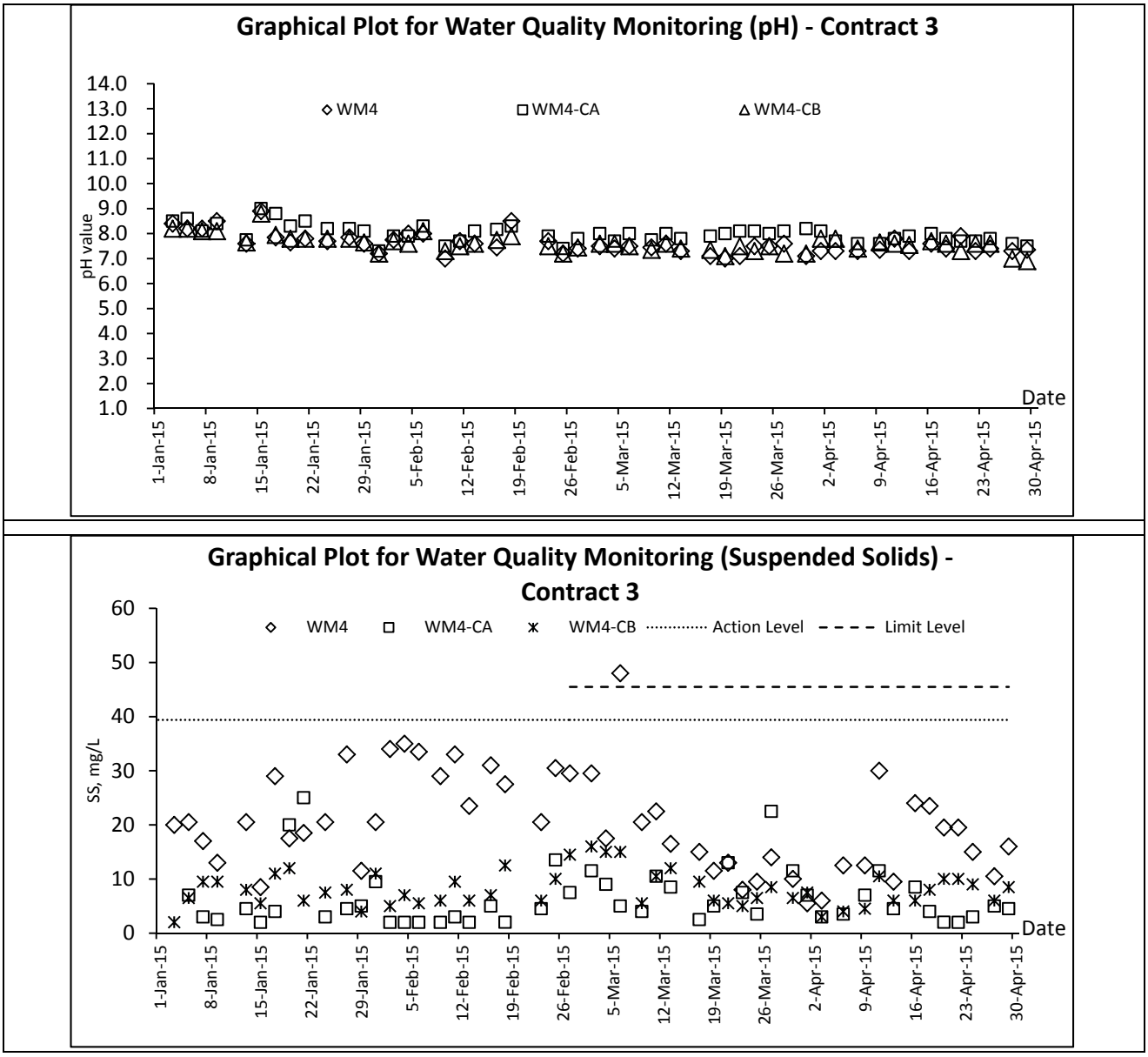




Water Quality - Contract 3






Graphical Plot for Water Quality Monitoring (pH) - Contract 3
WM4
WM4-CA
WM4-CB
pH value
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
Date
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
12-Feb-15
19-Feb-15
26-Feb-15
5-Mar-15
12-Mar-15
19-Mar-15
26-Mar-15
2-Apr-15
9-Apr-15
16-Apr-15
23-Apr-15
30-Apr-15
Graphical Plot for Water Quality Monitoring (Suspended Solids) - Contract 3
WM4
WM4-CA
WM4-CB
Action Level
Limit Level
SS, mg/L
60
50
40
30
20
10
0
Date
1-Jan-15
8-Jan-15
15-Jan-15
22-Jan-15
29-Jan-15
5-Feb-15
12-Feb-15
19-Feb-15
26-Feb-15
5-Mar-15
12-Mar-15
19-Mar-15
26-Mar-15
2-Apr-15
9-Apr-15
16-Apr-15
23-Apr-15
30-Apr-15

Appendix H

Weather information

Weather Condition Extracted from HKO

The weather of February 2015

February 2015 was a month of two halves : mostly fine and dry in the first half, and generally cloudy and humid in the second half. Overall, it was warmer than usual with a monthly mean temperature of 17.5 degrees compared to the normal figure of 16.8 degrees. The monthly rainfall was 32.0 millimetres, less than 60 percent of the normal figure of 54.4 millimetres. The accumulated rainfall of 73.7 millimetres in the first two months of the year was about 7 percent below the normal figure of 78.9 millimetres for the same period.

The weather of March 2015

With a maritime airstream dominating over the coast of Guangdong during the latter half of the month, the weather of Hong Kong in March 2015 was warmer than usual. The monthly mean temperature was 19.9 degrees, 0.8 degrees higher than the normal figure of 19.1 degrees. The total rainfall in the month was 28.4 millimetres, only about 35 percent of the normal figure of 82.2 millimetres. The accumulated rainfall of 102.1 millimetres since 1 January was about 37 percent below the normal figure of 161.3 millimetres for the same period.

The weather of April 2015

April 2015 was characterized by sunny, warm and relative dry weather, in particular during the second half of the month. Overall, the total duration of sunshine in April 2015 was 159.2 hours, 57.5 hours above the normal figure of 101.7 hours. The mean temperature of the month was 23.6 degrees, 1.0 degree higher than the normal figure of 22.6 degrees. The monthly mean relative humidity was 77 percent, the third lowest for April since 1961.

Remark: The meteorological data during the Reporting Period is presented in the relevant monthly EM&A report.

Appendix I

Waste Flow Table

Name of Department : CEDD **Contract No./ Work Order No. :** CV/2012/08

Appendix I - Monthly Summary Waste Flow Table for 2015

(All quantities shall be rounded off to 3 decimal places)

Month	Actual Quantities of Inert C&D Materials Generated / Imported (in '000 m3)						Actual Quantities of Other C&D Materials / Wastes Generated				
	Total Quantities Generated [a+b+c+d]	Broken Concrete (including rock for recycling into aggregates) (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported C&D Material	Metal (in '000kg)	Paper/ Cardboard Packaging (in '000kg)	Plastic (bottles/containers, plastic sheets/ foams from package material) (in '000kg)	Chemical Waste (in '000kg)	Others (e.g. General Refuse etc.) (in '000m3)
January	66.2666	0.0000	0.0670	65.6529	0.5467	0.1150	0.0000	0.2500	0.0000	0.0000	0.0617
February	57.9980	0.0000	0.0000	57.3858	0.6121	0.3505	3.3200	0.3900	0.0000	0.5280	0.0908
March	66.0198	0.0000	0.3614	65.3359	0.3225	0.0729	0.0000	0.2920	0.0000	0.7040	0.1293
April	49.2330	0.0000	0.2770	48.7494	0.2066	0.1928	0.0000	0.2300	0.0000	0.0000	0.2278
May	0.0000										
June	0.0000										
Half-year total	239.5173	0.0000	0.7055	237.1240	1.6879	0.7312	3.3200	1.1620	0.0000	1.2320	0.5095
July	0.0000										
August	0.0000										
September	0.0000										
October	0.0000										
November	0.0000										
December	0.0000										
Yearly Total	239.5173	0.0000	0.7055	237.1240	1.6879	0.7312	3.3200	1.1620	0.0000	1.2320	0.5095

(All quantities shall be rounded off to 3 decimal places)

Year	Actual Quantities of Inert C&D Materials Generated / Imported (in '000 m3)						Actual Quantities of Other C&D Materials / Wastes Generated				
	Total Quantities Generated [a+b+c+d]	Broken Concrete (including rock for recycling into aggregates) (a)	Reused in the Contract (b)	Reused in Other Projects (c)	Disposed as Public Fill (d)	Imported C&D Material	Metal (in '000kg)	Paper/ Cardboard Packaging (in '000kg)	Plastic (bottles/containers, plastic sheets/ foams from package material) (in '000kg)	Chemical Waste (in '000kg)	Others (e.g. General Refuse etc.) (in '000m3)
2013	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2014	425.4406	0.0000	2.7362	376.3945	46.3099	5.6245	3.2100	0.4390	0.0070	10.8800	2.2609
2015											
2016											
2017											
2018											
Total	425.4406	0.0000	2.7362	376.3945	46.3099	5.6245	3.2100	0.4390	0.0070	10.8800	2.2609

Remark:

1) Density of C&D material to be 2.2 metric ton/m3
2) Density of General Refuse to be 1.6 metric ton/m3
3) Density of Spent Oil to be 0.88 metric ton/m3

Name of Department: CEDD

Contract No.: CV/2012/09

Monthly Summary Waste Flow Table for 2015 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated (in '000m^3)	Hard Rock and Large Broken Concrete (in '000m^3)	Reused in the Contract (in '000m^3)	Reused in other Projects (in '000m^3)	Disposed as Public Fill (in '000m^3)	Imported Fill (in '000m^3)	Metals (in '000m^3)	Paper/ cardboard packaging (in '000m^3)	Plastics (see Note 3) (in '000m^3)	Chemical Waste (in '000m^3)	Others, e.g. general refuse (in '000m^3)
Jan	3.864	0.105	0.648	0.000	3.216	0.118	0.000	0.000	0.000	0.040	0.080
Feb	2.429	0.049	1.518	0.000	0.911	0.100	0.000	0.000	0.003	0.900	0.070
Mar	3.713	0.029	0.270	0.000	3.443	0.100	0.000	0.000	0.006	0.000	0.080
Apr	3.597	0.115	2.308	0.000	1.289	0.090	2.767	0.000	0.000	0.000	0.065
May											
Jun											
Sub-total	13.603	0.297	4.744	0.000	8.859	0.408	2.767	0.000	0.009	0.940	0.295
Jul											
Aug											
Sep											
Oct											
Nov											
Dec											
Total	13.603	0.297	4.744	0.000	8.859	0.408	2.767	0.000	0.009	0.940	0.295

Note:

1. Assume the density of soil fill is 2 ton/m^3.
2. Assume the density of rock and broken concrete is 2.5 ton/m^3.
3. Assume each truck of C&D wastes is 5m^3.
4. The inert C&D materials except slurry and bentonite are disposed at Tuen Mun 38.
5. The slurry and bentonite are disposed at Tseung Kwun O 137.
6. The non-inert C&D wastes are disposed at NENT.
7. Assume the density of metal is 7,850 kg/m^3.

Name of Department: CEDD

Monthly Summary Waste Flow Table for 2015

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
JAN	0	0	0	0	0	33.3285	4.16	0.24	0	0	0.42
FEB	0	0	0	0	0	11.82	0.99	0	0	0	0.18
MAR	0	0	0	0	0	8.592	0	0	0	0	0.375
APRIL	**0**	**0**	**0**	**0**	**0**	**12.81**	**0**	**0**	**0**	**0**	**0.04**
MAY											
JUN											
Sub Total	0	0	0	0	0	66.5505	5.15	0.24	0	0	1.015
JUL											
AUG											
SEP											
OCT											
NOV											
DEC											
Total	0	0	0	0	0	66.55	5.15	0.24	0	0	1.015

Notes:

Name of Department: CEDD

Forecast of Total Quantities of C&D Materials to be Generated from the Contract (see Note 4)										
Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fill	Imported Fill	Metal	Paper / cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
0	0	0	0	0	350	30	4	2	1	4

Notes:

(1) The performance targets are given in PS clause 6(14) above.

(2) The waste flow table shall also include C&D materials that are specified in the Contractor to be imported for use at the Site.

(3) Plastic refer to plastic bottles/containers, plastic sheets/foam from packaging material.

(4) The Contractor shall also submit the latest forecast of the total amount of C&D materials expected to be generated from the Works, together with a breakdown of the nature

- Hard Rocks and Large Broken Concrete = Cannot be defined at this stage
- Imported Fill = Estimated by the Contractor = 1 loading = 8m 3
- Metal = Estimated by the Contractor
- Paper/cardboard packaging = Estimated by the Contractor
- Plastics = Estimated by the Contractor
- Chemical Waste = Estimated by the Contractor (Spent lubricating oil, assume density 0.9kg/L)
- Other, e.g. general refuse = Estimated by the Contractor

Appendix J

Implementation Schedule for Environmental Mitigation Measures

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
Air Quality Impact (Construction)							
3.6.1.1	2.1	**General Dust Control Measures** The following dust suppression measures should be implemented: ■ Frequent water spraying for active construction areas (4 times per day for active areas in Po Kak Tsai and 8 times per day for all other active areas), including areas with heavy construction and slope cutting activities ■ 80% of stockpile areas should be covered by impervious sheets ■ Speed of trucks within the site should be controlled to about 10 km/hr ■ All haul roads within the site should be paved to avoid dust emission due to vehicular movement	To minimize adverse dust emission generated from various construction activities of the works sites	Contractor	Construction Works Sites	During Construction	EIA Recommendation and Air Pollution Control (Construction Dust) Regulation
3.6.1.2	2.1	**Best Practice for Dust Control** The relevant best practices for dust control as stipulated in the Air Pollution Control (Construction Dust) Regulation should be adopted to further reduce the construction dust impacts of the Project. These best practices include: *Good site management* ■ The Contractor should maintain high standard of housekeeping to prevent emission of fugitive dust. ■ Loading, unloading, handling and storage of raw materials, wastes or by-products should be carried out in a manner so as to minimize the release of visible dust emission. ■ Any piles of materials accumulated on or around the work areas should be cleaned up regularly. ■ Cleaning, repair and maintenance of all plant facilities within the work areas should be carried out in a manner minimizing generation of fugitive dust emissions. ■ The material should be handled properly to prevent fugitive dust emission before cleaning. *Disturbed Parts of the Roads* ■ Each and every main temporary access should be paved with	To minimize adverse dust emission generated from various construction activities of the works sites	Contractor	Construction Works Sites	During Construction	EIA Recommendation and Air Pollution Control (Construction Dust) Regulation

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
		concrete, bituminous hardcore materials or metal plates and kept clear of dusty materials; or ■ Unpaved parts of the road should be sprayed with water or a dust suppression chemical so as to keep the entire road surface wet. *Exposed Earth* ■ Exposed earth should be properly treated by compaction, hydroseeding, vegetation planting or seating with latex, vinyl, bitumen within six months after the last construction activity on the site or part of the site where the exposed earth lies. *Loading, Unloading or Transfer of Dusty Materials* ■ All dusty materials should be sprayed with water immediately prior to any loading or transfer operation so as to keep the dusty material wet. *Debris Handling* ■ Any debris should be covered entirely by impervious sheeting or stored in a debris collection area sheltered on the top and the three sides. ■ Before debris is dumped into a chute, water should be sprayed so that it remains wet when it is dumped. *Transport of Dusty Materials* ■ Vehicle used for transporting dusty materials/spoils should be covered with tarpaulin or similar material. The cover should extend over the edges of the sides and tailboards. *Wheel washing* ■ Vehicle wheel washing facilities should be provided at each construction site exit. Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. *Use of vehicles* ■ Immediately before leaving the construction site, every vehicle should be washed to remove any dusty materials from its body and wheels. ■ Where a vehicle leaving the construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle.				

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
		Site hoarding ■ Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. *Blasting* ■ The areas within 30m from the blasting area should be wetted with water prior to blasting.					
Air Quality Impact (Operation)							
3.5.2.2	2.2	The following odour containment and control measures will be provided for the proposed sewage treatment work at the BCP site: ■ The treatment work will be totally enclosed. Negative pressure ventilation will be provided within the enclosure to avoid any fugitive odorous emission from the treatment work. ■ Further odour containment will be achieved by covering or confining the sewage channels, sewage tanks, and equipment with potential odour emission. ■ Proper mixing will be provided at the equalization and sludge holding tanks to prevent sewage septicity. ■ Chemical or biological deodorisation facilities with a minimum odour removal efficiency of 90% will be provided to treat potential odorous emissions from the treatment plant including sewage channels / tanks, filter press and screening facilities so as to minimize any potential odour impact to the nearby ASRs.	To minimize potential odour impact from operation of the proposed sewage treatment work at BCP	DSD	BCP	Operation Phase	EIA recommendation
Noise Impact (Construction)							
4.4.1.4	3.1	**Adoption of Quieter PME** Use of the recommended quieter PME such as those given in the BS5228: Part 1:2009 and presented in **Table 4.14**, which can be found in Hong Kong.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and Noise Control Ordinance (NCO)

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
4.4.1.4	3.1	**Use of Movable Noise Barrier** The use of movable barrier for certain PME can further alleviate the construction noise impacts. In general, a 5 dB(A) reduction for movable PME and 10 dB(A) for stationary PME can be achieved depending on the actual design of the movable noise barrier. The Contractor shall be responsible for design of the movable noise barrier with due consideration given to the size of the PME and the requirement for intercepting the line of sight between the NSRs and PME. Barrier material with surface mass in excess of 7 kg/m^2 is recommended to achieve the predicted screening effect.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and NCO
4.4.1.4	3.1	**Use of Noise Enclosure/ Acoustic Shed** The use of noise enclosure or acoustic shed is to cover stationary PME such as air compressor and concrete pump. With the adoption of the noise enclosure, the PME could be completely screened, and noise reduction of 15 dB(A) can be achieved according to the GW-TM.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and NCO
4.4.1.4	3.1	**Use of Noise Insulating Fabric** Noise insulating fabric can be adopted for certain PME (e.g. drill rig, pilling auger etc). The insulating fabric should be lapped such that there are no openings or gaps on the joints. Technical data from manufacturers state that by using the Fabric, a noise reduction of over 10 dB(A) can be achieved on noise level.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and NCO

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
4.4.1.4	3.1	**Good Site Practice** The good site practices listed below should be followed during each phase of construction: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; • Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction programme; • Mobile plant, if any, should be sited as far from NSRs as possible; • Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum; • Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs; and • Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities.	To minimize the construction air-borne noise impact	Contractors	Construction Work Sites	During Construction	EIA recommendation, EIAO and NCO
Noise Impact (Operation)							
		Road Traffic Noise					
Table 4.42 and Figure 4.20.1 to 4.20.4	3.2	Erection of noise barrier/ enclosure along the viaduct section.	To minimize the road traffic noise along the connecting road of BCP	Contractor	Loi Tung and Fanling Highway Interchange	Before Operation	EIAO and NCO
		Fixed Plant Noise					
Table 4.46	3.2	Specification of the maximum allowable sound power levels of the proposed fixed plants during daytime and night-time.	To minimize the fixed plant noise impact	Managing Authority of the buildings / Contractor	BCP, Administration Building and all ventilation buildings	Before Operation	EIA recommendation, EIAO and NCO

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
4.5.2.4	3.2	The following noise reduction measures shall be considered as far as practicable during operation: • Choose quieter plant such as those which have been effectively silenced; • Include noise levels specification when ordering new plant (including chillier and E/M equipment); • Locate fixed plant/louver away from any NSRs as far as practicable; • Locate fixed plant in walled plant rooms or in specially designed enclosures; • Locate noisy machines in a basement or a completely separate building; • Install direct noise mitigation measures including silencers, acoustic louvers and acoustic enclosure where necessary; and • Develop and implement a regularly scheduled plant maintenance programme so that equipment is properly operated and serviced in order to maintain a controlled level of noise.	To minimize the fixed plant noise impact	Managing Authority of the buildings / Contractor	BCP, Administration Building and all ventilation buildings	Before Operation	EIAO and NCO
Water Quality Impact (Construction)							
5.6.1.1	4.1	**Construction site runoff and drainage** The site practices outlined in ProPECC Note PN 1/94 should be followed as far as practicable in order to minimise surface runoff and the chance of erosion. The following measures are recommended to protect water quality and when properly implemented should be sufficient to adequately control site discharges so as to avoid water quality impacts: ▪ At the start of site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system should be undertaken by the Contractor prior to the commencement of construction. ▪ The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas.	To control site runoff and drainage; prevent high sediment loading from reaching the nearby watercourses	Contractor	Construction Works Sites	Construction Phase	Practice Note for Professional Persons on Construction Site Drainage (ProPECC Note PN 1/94)

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
		Temporary ditches should be provided to facilitate the runoff discharge into stormwater drainage system through a sediment/silt trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates, if practical. ▪ Sand/silt removal facilities such as sand/silt traps and sediment basins should be provided to remove sand/silt particles from runoff to meet the requirements of the TM standards under the WPCO. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC Note PN 1/94. Sizes may vary depending upon the flow rate. The detailed design of the sand/silt traps should be undertaken by the Contractor prior to the commencement of construction. ▪ All drainage facilities and erosion and sediment control structures should be regularly inspected and maintained to ensure proper and efficient operation at all times and particularly during rainstorms. Deposited silt and grit should be regularly removed, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. ▪ Measures should be taken to minimize the ingress of site drainage into excavations. If excavation of trenches in wet periods is necessary, they should be dug and backfilled in short sections wherever practicable. Water pumped out from foundation excavations should be discharged into storm drains via silt removal facilities. ▪ If surface excavation works cannot be avoided during the wet season (April to September), temporarily exposed slope/soil surfaces should be covered by tarpaulin or other means, as far as practicable, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Interception channels should be provided (e.g. along the crest/edge of the excavation) to prevent storm runoff from washing across exposed soil surfaces. Arrangements should always be in place to ensure that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm. Other measures that need to be implemented before, during and after rainstorms are summarized in ProPECC Note PN 1/94. ▪ The overall slope of the site should be kept to a minimum to reduce					

EIA Ref.	EM&A Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measure & Main Concerns to address	Who to implement the measure?	Location of the measure	When to implement the measure?	What requirements or standards for the measure to achieve?
		the erosive potential of surface water flows. ▪ All vehicles and plant should be cleaned before leaving a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facility should be provided at construction site exit where practicable. Wash-water should have sand and silt settled out and removed regularly to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and silty water to public roads and drains. ▪ Open stockpiles of construction materials or construction wastes on-site should be covered with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system. ▪ Manholes (including newly constructed ones) should be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and stormwater runoff being directed into foul sewers. ▪ Precautions should be taken at any time of the year when rainstorms are likely. Actions should be taken when a rainstorm is imminent or forecasted and actions to be taken during or after rainstorms are summarized in Appendix A2 of ProPECC Note PN 1/94. Particular attention should be paid to the control of silty surface runoff during storm events, especially for areas located near steep slopes. ▪ Bentonite slurries used in piling or slurry walling should be reconditioned and reused wherever practicable. Temporary enclosed storage locations should be provided on-site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC Note PN 1/94 should be adhered to in the handling and disposal of bentonite slurries.					
5.6.1.1	4.1	**Good site practices for works within water gathering grounds** The following conditions should be complied, if there is any works to be carried out within the water gathering grounds:	To minimize water quality impacts to the water gathering grounds	Contractor	Construction Works Sites within the water gathering	Construction Phase	ProPECC Note PN 1/94

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		▪ Adequate measures should be implemented to ensure no pollution or siltation occurs to the catchwaters and catchments. ▪ No earth, building materials, oil or fuel, soil, toxic materials or any materials that may possibly cause contamination to water gathering grounds are allowed to be stockpiled on site. ▪ All surplus spoil should be removed from water gathering grounds as soon as possible. ▪ Temporary drains with silt traps should be constructed at the site boundary before the commencement of any earthworks. ▪ Regular cleaning of silt traps should be carried out to ensure proper operation at all time. ▪ All excavated or filled surfaces which have the risk of erosion should always be protected form erosion. ▪ Facilities for washing the wheels of vehicles before leaving the site should be provided. ▪ Any construction plant which causes pollution to catchwaters or catchments due to the leakage of oil or fuel should be removed off site immediately. ▪ No maintenance activities which may generate chemical wastes should be undertaken in the water gathering grounds. Vehicle maintenance should be confined to designated paved areas only and any spillages should be cleared up immediately using absorbents and waste oils should be collected in designated tanks prior to disposal off site. All storm water run-off from these areas should be discharged via oil/petrol separators and sand/silt removal traps. ▪ Any soil contaminated with fuel leaked from plant should be removed off site and the voids arising from removal of contaminated soil should be replaced by suitable material approved by the Director of Water Supplies. ▪ Provision of temporary toilet facilities and use of chemicals or insecticide of any kind are subject to the approval of the Director of Water Supplies. ▪ Drainage plans should be submitted for approval by the Director of			grounds		

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		Water Supplies. ▪ An unimpeded access through the waterworks access road should always be maintained. ▪ Earthworks near catchwaters or streamcourses should only be carried out in dry season between October and March, ▪ Advance notice must be given before the commencement of works on site quoting WSD's approval letter reference.					
5.6.1.2	4.1	**Good site practices of general construction activities** Construction solid waste, debris and refuse generated on-site should be collected, handled and disposed of properly to avoid entering any nearby stormwater drain. Stockpiles of cement and other construction materials should be kept covered when not being used. Oils and fuels should only be stored in designated areas which have pollution prevention facilities. To prevent spillage of fuels and solvents to any nearby stormwater drain, all fuel tanks and storage areas should be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. The bund should be drained of rainwater after a rain event.	To minimize water quality impacts	Contractor	All construction works sites	Construction phase	EIA Recommendation
5.6.1.3	4.1	**Sewage effluent from construction workforce** Temporary sanitary facilities, such as portable chemical toilets, should be employed on-site where necessary to handle sewage from the workforce. A licensed contractor should be employed to provide appropriate and adequate portable toilets and be responsible for appropriate disposal and maintenance.	To minimize water quality impacts	Contractor	All construction works sites with on-site sanitary facilities	Construction phase	EIA Recommendation and Water Pollution Control Ordinance (WPCO)
5.6.1.4	4.1	**Hydrogeological Impact** Grout injection works would be conducted before blasting, for sealing a limited area around the tunnel with a grout of a suitable strength for controlling the potential groundwater inflows. The pre-injection grouting method would be supplemented by post-injection grouting where necessary to further enhance the groundwater inflow control. On-site treatment for the groundwater ingress pumped out would be required to remove any contamination by grouting materials before discharge off-site.	To minimize water quality impacts	Contractor	Construction works sites of the drill and blast tunnel	Construction phase	EIA Recommendation and WPCO
Water Quality Impact (Operation)							
		No mitigation measure is required.					

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Sewage and Sewerage Treatment Impact (Construction)							
6.7	5	The sewage generated by the on-site workforce should be collected in chemical toilets and disposed of off-site by a licensed waste collector.	To minimize water quality impacts	Contractor	All construction works sites with on-site sanitary facilities	Construction phase	EIA recommendation and WPCO
Sewage and Sewerage Treatment Impact (Operation)							
6.6.3	5	Sewage generated by the BCP and Chuk Yuen Village Resite will be collected and treated by the proposed on-site sewage treatment facility using Membrane Bioreactor treatment with a portion of the treated wastewater reused for irrigation and flushing within the BCP.	To minimize water quality impacts	DSD	BCP	Operation phase	EIA recommendation and WPCO
6.5.3	5	Sewage generated from the Administration Building will be discharged to the existing local sewerage system.	To minimize water quality impacts	DSD	Administration Building	Operation phase	EIA recommendation and WPCO
Waste Management Implication (Construction)							
7.6.1.1	6	**Good Site Practices** Adverse impacts related to waste management such as potential hazard, air, odour, noise, wastewater discharge and public transport as mentioned in section 3.4.7.2 (ii)(c) of the Study Brief are not expected to arise, provided that good site practices are strictly followed. Recommendations for good site practices during the construction activities include: ▪ Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site ▪ Training of site personnel in proper waste management and chemical handling procedures ▪ Provision of sufficient waste disposal points and regular collection of waste ▪ Dust suppression measures as required under the Air Pollution Control (Construction Dust) Regulation should be followed as far as practicable. Appropriate measures to minimise windblown litter and dust/odour during transportation of waste by covering trucks or in enclosed containers ▪ General refuse shall be removed away immediately for disposal. As	To minimize adverse environmental impact	Contractor	Construction works sites (general)	Construction Phase	EIA recommendation; Waste Disposal Ordinance; Waste Disposal (Chemical Wastes) (General) Regulation; and ETWB TC(W) No. 19/2005, Environmental Management on Construction Site

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		such odour is not anticipated to be an issue to distant sensitive receivers ▪ Provision of wheel washing facilities before the trucks leaving the works area so as to minimise dust introduction from public road ▪ Covers and water spraying system should be provided for the stockpiled C&D material to prevent dust impact or being washed away ▪ Designate different locations for storage of C&D material to enhance reuse ▪ Well planned programme for transportation of C&D material to lessen the off-site traffic impact. Well planned delivery programme for offsite disposal and imported filling material such that adverse noise impact from transporting of C&D material is not anticipated ▪ Site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be adopted as far as practicable, such as cleaning and maintenance of drainage systems regularly ▪ Provision of cover for the stockpile material, sand bag or earth bund as barrier to prevent material from washing away and entering the drains					
7.6.1.2	6	**Waste Reduction Measures** Good management and control can prevent the generation of a significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include: ▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal ▪ Encourage collection of aluminium cans by providing separate labelled bins to enable this waste to be segregated from other general refuse generated by the work force ▪ Proper storage and site practices to minimise the potential for damage or contamination of construction materials ▪ Plan and stock construction materials carefully to minimise amount	To reduce the quantity of wastes	Contractor	Construction works sites (General)	Construction Phase	EIA recommendation and Waste Disposal Ordinance

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		of waste generated and avoid unnecessary generation of waste ▪ In addition to the above measures, specific mitigation measures are recommended below for the identified waste arising to minimise environmental impacts during handling, transportation and disposal of these wastes.					
7.6.1.3	6	**C&D Materials** In order to minimise impacts resulting from collection and transportation of C&D material for off-site disposal, the excavated materials should be reused on-site as backfilling material as far as practicable. The surplus rock and other inert C&D material would be disposed of at the Government's Public Fill Reception Facilities (PFRFs) at Tuen Mun Area 38 for beneficial use by other projects in the HKSAR as the last resort. C&D waste generated from general site clearance and tree felling works would require disposal to the designated landfill site. Other mitigation requirements are listed below: ▪ A Waste Management Plan should be prepared and implemented in accordance with ETWB TC(W) No. 19/2005 Environmental Management on Construction Site; and ▪ In order to monitor the disposal of C&D material and solid wastes at public filling facilities and landfills, and to control fly-tipping, a trip-ticket system (e.g. ETWB TCW No. 31/2004) should be included.	To minimize impacts resulting from C&D material	Contractor	Construction Works Sites (General)	Construction Phase	EIA recommendation; Waste Disposal Ordinance; and ETWB TCW No. 31/2004
7.6.1.4	6	**General refuse** General refuse should be stored in enclosed bins or compaction units separated from other C&D material. A reputable waste collector is to be employed by the Contractor to remove general refuse from the site separately. Preferably an enclosed and covered area should be provided to reduce the occurrence of 'wind blown' litter.	To minimize impacts resulting from collection and transportation of general refuse for off-site disposal	Contractor	Construction works sites (General)	Construction phase	Waste Disposal Ordinance and Public Health and Municipal Services Ordinance - Public Cleansing and Prevention of Nuisances Regulation
7.6.1.5	6	**Chemical waste** If chemical wastes are produced at the construction site, the Contractor will be required to register with the EPD as a chemical waste producer and to follow the guidelines stated in the *Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes*. Good quality containers compatible with the chemical wastes should be used, and incompatible chemicals should be stored separately. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical	To minimize impacts resulting from collection and transportation of chemical waste for off-site disposal	Contractor	Construction works sites (General)	Construction phase	Waste Disposal (Chemical Waste) (General) Regulation and Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes