

Highways Department

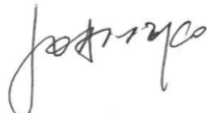

Agreement No. CE 20/2009 (EP)

Environmental Team for the Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling

(Stage 1) Between Island House Interchange and Tai Hang - Investigation

Quarterly EM&A Summary Report for May 2014 to July 2014

[08/2014]

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21 August 2014
By Fax (2805 5028) and Post

Attn.: Mr. James Penny

Dear Sir,

**Widening of Tolo Highway between
Island House Interchange and Tai Hang
Environmental Permit No.: EP-324/2008/B
Submission of Quarterly EM&A Summary Report for May to July 2014 (Stage 1)**

We refer to the Quarterly EM&A Summary Report for May to July 2014 for the captioned Project submitted by ET via email on 20 and 21 August 2014. We confirm we have no comment.

Yours faithfully
for MOTT MACDONALD HONG KONG LIMITED

Terence Kong
Independent Environmental Checker

c.c. HyD – Mr. Raymond T W Kong / Mr. Dennis Wong (Fax: 2714 5198)
ETL, AECOM – Mr. Y T Tang (Fax: 2317 7609)

TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
1 INTRODUCTION	3
2 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS	7
3 AIR QUALITY MONITORING	8
4 CONSTRUCTION NOISE MONITORING	9
5 ENVIRONMENTAL SITE INSPECTION AND AUDIT	10
6 ADVICE ON THE SOLID AND LIQUID WASTE MANAGEMENT STATUS	11
7 SUMMARY OF NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY	12
8 ENVIRONMENTAL COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS	12
9 COMMENTS, RECOMMENDATIONS AND CONCLUSIONS	15

List of Tables

Table 1.1	Contact Information of Key Personnel
Table 3.1	Summary of Number of Monitoring Events for 1-hr & 24-hr TSP Concentration
Table 3.2	Summary of Number of Exceedances for 1-hr & 24-hr TSP Monitoring
Table 4.1	Summary of Number of Monitoring Events for Construction Noise
Table 4.2	Summary of Number of Monitoring Exceedances for Construction Noise

Figures

Figure 1.1	General Project Layout Plan
Figure 2.1	EM&A Monitoring Locations

List of Appendices

Appendix A	Project Organization Structure
Appendix B	Construction Programmes
Appendix C	Implementation Schedule of Environmental Mitigation Measures (EMIS)
Appendix D	Summary of Action and Limit Levels
Appendix E	Graphical Presentation of Impact Air Quality Monitoring Results
Appendix F	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results
Appendix G	Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

EXECUTIVE SUMMARY

The proposed widening of Tolo Highway and Fanling Highway between Island House Interchange and Fanling (the Project) is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is governed by an Environmental Permit (EP-324/2008)(EP) issued by EPD on 23 December 2008. Subsequently, EPD issued a Variation of Environmental Permit (EP-324/2008/A) (VEP) on 31 January 2012. The VEP (EP-324/2008/B) was subsequently granted on 17 March 2014 which superseded the previous EP (EP-324/2008/A). The most recent variation of the EP does not cover Stage 1 (between Island House Interchange and Tai Hang) of the Project.

The Project aims to widen Tolo Highway and Fanling Highway to dual 4-lane carriageway in order to alleviate the current traffic congestion problems and to cope with the increasing transport demands to and from the urban areas and also cross boundary traffic.

The construction works for this Project will be delivered in 2 stages i.e. Stage 1 (between Island House Interchange and Tai Hang) and Stage 2 (between Tai Hang and Wo Hop Shek Interchange). The construction works of Stage 1 commenced on 23 November 2009 and will tentatively be completed in September 2014. This report focuses on Stage 1 of the Project only.

The construction phase of Stage 1 under the EPs and the Environmental Monitoring and Audit (EM&A) programme for Stage 1 of the Project commenced on 23 November 2009. The impact environmental monitoring and audit includes air quality and noise monitoring.

This report documents the findings of EM&A works conducted in the period between 1 May 2014 to 31 July 2014. As informed by the Contract 1 Contractor (CSHK), construction activities in the reporting period were:-

- Temporary shoring, sheetpiling and excavation;
- Retaining wall construction;
- Noise barrier footing construction;
- Noise barrier panels installation;
- Asphalt laying;
- Installation of Drainage Pipes; and
- Landscaping Softworks.

The construction works carried out by the Contract 2 Contractor (GCL) in the reporting period were:-

- Setting up the temporary traffic arrangement;
- Slope outstanding and remedial works;
- Noise barrier outstanding and remedial works;
- Entrusted watermains works;
- Sewer Installation;
- Road and drainage outstanding and remedial works; and
- Landscaping works.

Environmental Monitoring Works

A summary of monitoring and audit activities conducted in the reporting quarter is listed below:-

24-hour TSP monitoring	16 sessions
1-hour TSP monitoring	48 sessions
Daytime Noise monitoring	12 regular sessions
Environmental Site inspection	10 sessions (Contract 1) / 13 sessions (Contract 2)

Breaches of Action and Limit Levels for Air Quality

No exceedance of Action and Limit Level was recorded for 1-hour TSP monitoring in the reporting quarter.

No exceedance of Action and Limit Level was recorded for 24-hour TSP monitoring in the reporting quarter.

Breaches of Action and Limit Levels for Noise

No exceedance of Limit and Action Levels was recorded for noise monitoring in the reporting quarter.

Complaint, Notification of Summons and Successful Prosecution

One (1) water-related complaint was received on 23 June 2014 and followed up by the Environmental Team in the reporting quarter.

Investigations were carried out. Findings and proposed mitigation measures of the complaints were submitted to all relevant parties.

No notifications of summons and successful prosecutions was received in the reporting quarter.

1 INTRODUCTION

Background

- 1.1. Tolo Highway and Fanling Highway are expressways in the North East New Territories connecting Sha Tin, Tai Po and Fanling. These highways form a vital part of the strategic Route 9, which links Hong Kong Island to Shenzhen. At present, this section of Route 9 is dual 3-lane carriageway. However, at several major interchanges along this section of Route 9, the highway is only dual-2 lane. Severe congestion is a frequent occurrence during peak periods, particularly in the Kowloon bound direction.
- 1.2. The objective of the Project “Widening of Tolo Highway / Fanling Highway between Island House Interchange and Fanling” is to widen Tolo Highway and Fanling Highway to dual 4-lane carriageway in order to alleviate the current traffic congestion problems and to cope with the increasing transport demands to and from the urban areas and also cross boundary traffic.
- 1.3. The proposed widening of Tolo Highway and Fanling Highway between Island House Interchange and Fanling (the Project) is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO) and is governed by an Environmental Permit (EP-324/2008)(EP) issued by EPD on 23 December 2008. Subsequently, EPD issued a Variation of Environmental Permit (EP-324/2008/A) (VEP) on 31 January 2012. The VEP (EP-324/2008/B) was subsequently granted on 17 March 2014 which superseded the previous EP (EP-324/2008/A). The most recent variation of the EP does not cover Stage 1 (between Island House Interchange and Tai Hang) of the Project.
- 1.4. The scope of the Project comprises mainly:
 - (i) Widening of a 5.7 km section of Tolo Highway and 3.0 km section of Fanling Highway between Island House Interchange and Wo Hop Shek Interchange from the existing dual 3-lane to dual 4-lane, including construction of new vehicular bridges;
 - (ii) Widening of interchange sections at Island House Interchange, Tai Po North Interchange, and Lam Kam Road Interchange from dual 2-lane to dual 3-lane, except Sha Tin bound carriageway at Tai Po North Interchange, which is widened from 3-lane to 4-lane, including realignment of various slip roads;
 - (iii) Modification and reconstruction of highways, vehicular bridges, underpasses and footbridges.
- 1.5. The construction works for this Project will be delivered in 2 stages i.e. Stage 1 (between Island House Interchange and Tai Hang) and Stage 2 (between Tai Hang and Wo Hop Shek Interchange). The construction works of Stage 1 commenced on 23 November 2009 and will tentatively be completed in September 2014. This report focuses on Stage 1 of the Project only.
- 1.6. The construction works for Stage 1 of the Project will be implemented under 2 works contracts (Contract 1 and Contract 2). Contract 1 covers the section of Tolo Highway between Island House Interchange and Ma Wo, Contract 2 covers the section of Tolo Highway between Ma Wo and Tai Hang.
- 1.7. Hyder-Arup-Black and Veatch Joint Venture (HABVJV) are appointed by Highways Department (HyD) as the consultants for the design and construction assignment for the Tolo project under Agreement No. CE 58/2000 Supplementary Agreement No. 3 (SA3) (i.e. the Engineer for the Contracts).
- 1.8. China State Construction Engineering (Hong Kong) Ltd. (CSHK) was commissioned as the Contractor of Contract 1 of Stage 1 of the Project, while Gammon Construction Limited (GCL) was commissioned as the Contractor of Contract 2 of Stage 1 of the Project.
- 1.9. AECOM Asia Co. Ltd. was employed by Highways Department as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) works for Stage 1 of the Project and Mott MacDonald Hong Kong Ltd. acts as the Independent Environmental Checker (IEC) for the Contracts.
- 1.10. The construction phase of Stage 1 under the EPs commenced on 23 November 2009.

- 1.11. According to the updated EM&A Manual of Stage 1 of the Project, there is a need of an EM&A programme including air quality and noise monitoring. The EM&A programme for Stage 1 of the Project commenced on 23 November 2009.

Scope of Report

- 1.12. This is the nineteenth Quarterly EM&A Summary Report under the Agreement No. CE 20/2009 (EP) - Widening of Tolo Highway between Island House Interchange and Tai Hang – Investigation. This report presents a summary of the environmental monitoring and audit works, list of activities and mitigation measures proposed by the ET for Stage 1 of the Project between 1 May 2014 and 31 July 2014.

Project Organization

- 1.13. The project organization structure is shown in Appendix A. The key personnel contact names and numbers are summarized in Table 1.1.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
ER of Stage 1, Contract 1 (Hyder-Arup-Black & Veatch Joint Venture)	Chief Resident Engineer /TOLO1	James Tsang	9038 8797	2667 4000
ER of Stage 1, Contract 2 (Hyder-Arup-Black & Veatch Joint Venture)	Chief Resident Engineer /TOLO2	Paul Appleton	9097 5833	2653 2348
IEC of Stage 1 (Mott MacDonald Hong Kong Limited)	Independent Environmental Checker	Terence Kong	2828 5919	2827 1823
Contractor of Stage 1, Contract 1 (China State Construction Engineering (Hong Kong) Limited)	Site Agent	Eddie Tang	9863 7686	2667 5666
	Environmental Officer	Michael Tsang	9277 4956	2667 5666
Contractor of Stage 1, Contract 2 (Gammon Construction Limited)	Site Agent	John Chan	3126 1202	2559 3410
	Environmental Officer	Thomson Chang	9213 6569	2559 3410
		Crispin Ao	9223 8773	2559 3410
ET of Stage 1 (AECOM Asia Company Limited)	ET Leader	Y T Tang	3922 9393	3922 9797

Summary of Construction Works

- 1.14. The construction phase of Stage 1 under the EPs commenced on 23 November 2009. Details of the construction works carried out by the Contract 1 Contractor (CSHK) in this reporting period are listed below:-
- Temporary shoring, sheetpiling and excavation;
 - Retaining wall construction;
 - Noise barrier footing construction;
 - Noise barrier panels installation;
 - Asphalt laying;
 - Installation of Drainage Pipes; and
 - Landscaping Softworks.
- 1.15. The construction works carried out by the Contract 2 Contractor (GCL) in the reporting period were:-
- Setting up the temporary traffic arrangement;
 - Slope outstanding and remedial works;
 - Noise barrier outstanding and remedial works;
 - Entrusted watermains works;
 - Sewer Installation;
 - Road and drainage outstanding and remedial works; and
 - Landscaping works.
- 1.16. The Construction Programmes are shown in Appendix B.
- 1.17. The general layout plan of the Project site showing the contract areas is shown in Figure 1.1.
- 1.18. The environmental mitigation measures implementation schedule are presented in Appendix C.

2 ENVIRONMENTAL MONITORING AND AUDIT REQUIREMENTS

Monitoring Parameters

- 2.1. The updated EM&A Manual designated 4 air quality monitoring stations and 7 noise monitoring stations to monitor environmental impacts on air quality and noise due to Stage 1 of the Project.
- 2.2. For air quality, monitoring locations AM2 (Shan Tong New Village) and AM3 (Riverain Bayside) were set up at the proposed locations in accordance with updated EM&A Manual. However, for monitoring locations: Dynasty View and Tai Po Garden, proposed in the updated EM&A Manual, as approval could not be obtained from the owner's corporation of the premises, impact air quality monitoring was conducted at alternative monitoring locations: AM1 (Ha Wun Yiu) and AM4 (Tai Kwong Secondary School). The monitoring station at 13 Ha Wun Yiu (AM1) was relocated to Fan Sin Temple, 3 Sheung Wun Yiu (AM1A) in February 2010.
- 2.3. For noise, monitoring stations NM3 (Wong Shiu Chi Middle School), NM6 (PLK Tin Ka Ping Primary School) and NM7 (Riverain Bayside) were set up at the proposed locations in accordance with updated EM&A Manual. However, for monitoring locations: Tai Po Garden, Dynasty View, Hong Kong Teachers' Association Lee Heng Kwei Secondary School and Grand Palisades, proposed in the updated EM&A Manual, as approval of access could not be obtained from the owner's corporation of the premises or the principal of the education institutes, impact noise monitoring was conducted at alternative monitoring locations: NM1 (Tai Kwong Secondary School), NM2 (Ha Wun Yiu), NM4 (Uptown Plaza) and NM5 (The Paragon).
- 2.4. As Tai Kwong Secondary School was closed down with effect from 1 September 2011, air quality (AM4) and noise (NM1) monitoring stations were relocated to 168 Shek Kwu Lung Village, naming AM4A and NM1A respectively, starting from 1 September 2011. The same air quality Action and Limit of AM4 were adopted for AM4A. For the measured construction noise level, the same noise Action Level of NM1 was adopted for NM1A, whereas Limit Level for residential noise sensitive receiver was adopted for NM1A.
- 2.5. The monitoring locations used during the reporting period are depicted in Figure 2.1.
- 2.6. The updated EM&A Manual also required environmental site inspections for air quality, noise, water quality, chemical, waste management, ecology and landscape and visual impact.

Environmental Quality Performance Limits (Action/Limit Levels)

- 2.7. The environmental quality performance limits (i.e. Action/Limit Levels) of air quality monitoring were derived from the baseline air quality monitoring results at the respective monitoring stations (AM1, AM2, AM3 and AM4), while the environmental quality performance limits of noise monitoring were defined in the EM&A Manual.
- 2.8. The environmental quality performance limits of air quality and noise monitoring and are given in Appendix D.

Environmental Mitigation Measures

- 2.9. Relevant environmental mitigation measures were stipulated in the Particular Specification and EPs (EP-324/2008, EP-324/2008/A and EP-324/2008/B) for the Contractor to adopt. A list of environmental mitigation measures and their implementation statuses are given in Appendix C.

3 AIR QUALITY MONITORING

- 3.1. Air quality monitoring, including 1-hour and 24-hour TSP, was scheduled at least 3 times every 6 days and at least once every 6 days respectively at the 4 monitoring stations (AM1A, AM2, AM3 and AM4A), in accordance with the updated EM&A Manual.
- 3.2. The weather was mostly sunny, with several fine, cloudy and rainy days in the reporting quarter. The major dust source in the reporting period included construction activities from Stage 1 of the Project, as well as nearby traffic emissions.
- 3.3. The number of monitoring events and exceedances recorded in each month of the reporting quarter are presented in Table 3.1 and Table 3.2 respectively.

Table 3.1 Summary of Number of Monitoring Events for 1-hr & 24-hr TSP Concentration

Monitoring Parameter	Location	No. of monitoring events		
		May 14	Jun 14	Jul 14
1-hr TSP	AM1A	18	15	9
	AM2	18	15	9
	AM3	18	15	9
	AM4A	18	15	15
24-hr TSP	AM1A	6	5	3
	AM2	6	5	3
	AM3	6	5	3
	AM4A	6	5	5

- 3.4. Construction Phase EM&A Programme for Contract 1 of the Project was completed on 15 July 2014. No monitoring has been carried out at AM1A, AM2 and AM3 beyond 15 July 2014.

Table 3.2 Summary of Number of Exceedances for 1-hr & 24-hr TSP Monitoring

Monitoring Parameter	Location	Level of Exceedance	Level of Exceedance		
			May 14	Jun 14	Jul 14
1-hr TSP	AM1A	Action	0	0	0
		Limit	0	0	0
	AM2	Action	0	0	0
		Limit	0	0	0
	AM3	Action	0	0	0
		Limit	0	0	0
	AM4A	Action	0	0	0
		Limit	0	0	0
	Total	0	0	0	
24-hr TSP	AM1A	Action	0	0	0
		Limit	0	0	0
	AM2	Action	0	0	0
		Limit	0	0	0
	AM3	Action	0	0	0
		Limit	0	0	0
	AM4A	Action	0	0	0
		Limit	0	0	0
		Total	0	0	0

- 3.5. All 1-hour TSP and 24-hour TSP results were below the Action and Limit Level at all monitoring locations in the reporting quarter.
- 3.6. The graphical plots of the impact air quality monitoring results are provided in Appendix E.

4 CONSTRUCTION NOISE MONITORING

- 4.1. Construction noise monitoring was scheduled at the 7 monitoring stations (NM1A, NM2, NM3, NM4, NM5, NM6 and NM7) for at least once per week during 07:00 – 19:00 in the reporting quarter.
- 4.2. The major noise sources during the noise monitoring included construction activities of Stage 1 of the Project and nearby traffic noise. In addition, for NM3 and NM6, general school activities are also a major noise source during the noise monitoring.
- 4.3. The number of construction noise monitoring events and exceedances are summarized in Table 4.1 and Table 4.2 respectively.

Table 4.1 Summary of Number of Monitoring Events for Construction Noise

Monitoring Parameter	Location	No. of monitoring events		
		May 14	Jun 14	Jul 14
	NM1A	4	4	4
	NM2	4	4	3
	NM3	4	4	3
	NM4	4	4	3
	NM5	4	4	3
	NM6	4	4	3
	NM7	4	4	3

- 4.4. Construction Phase EM&A Programme for Contract 1 of the Project was completed on 15 July 2014. No monitoring has been carried out at NM 2, NM3, NM4, NM5, NM6 and NM7 beyond 15 July 2014.

Table 4.2 Summary of Number of Monitoring Exceedances for Construction Noise

Monitoring Parameter	Location	Level of Exceedance	Level of Exceedance		
			May 14	Jun 14	Jul 14
	NM1A		0	0	0
	NM2		0	0	0
	NM3		0	0	0
	NM4		0	0	0
	NM5		0	0	0
	NM6		0	0	0
	NM7		0	0	0
		Total	0	0	0

- 4.5. All measured construction noise levels were below the Limit level and the graphical plots of the trends of the monitoring results are provided in Appendix F. No Limit and Action level exceedance of construction noise monitoring was recorded in the reporting quarter.

5 ENVIRONMENTAL SITE INSPECTION AND AUDIT

5.1. Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental pollution control and mitigation measures for Stage 1 of the Project. In the reporting quarter, 10 site inspections were carried out for Contract 1 and 13 site inspections were carried out for Contract 2 of the Project.

5.2. Particular observations and reminder during the site inspections for Contract 1 are described below:-

Air Quality

5.1.1 Open stockpiles were observed at the top of NB9. The Contractor was reminded to cover them with tarpaulin sheets, especially during rainstorm.

Noise

5.2.1. No adverse observation was identified in the reporting quarter.

Water Quality

5.2.2. No adverse observation was identified in the reporting quarter.

Chemical and Waste Management

5.2.3. Waste batteries were observed on the ground. The Contractor should collect and dispose of the unwanted batteries properly.

Landscape and Visual Impact

5.2.4. No adverse observation was identified in the reporting quarter.

Miscellaneous

5.2.5. No adverse observation was identified in the reporting quarter.

5.3. Particular observations during the site inspections for Contract 2 are described below:-

Air Quality

5.3.1. Stockpiles of dusty materials were not covered entirely by impervious sheets on Tai Wo Service Road West. The Contractor was reminded to cover them with tarpaulin sheets entirely.

5.3.2. Open stockpile at W74 was not covered with tarpaulin sheets. The Contractor was reminded to cover the stockpile with tarpaulin sheets entirely.

5.3.3. Exposed slopes were observed without dust suppression measures. The Contractor was reminded to cover the slopes after work for rainstorm protection. (Reminder)

5.3.4. Exposed slope was observed. The Contractor should cover the exposed slope for rainstorm protection by impervious sheeting.

5.3.5. Open stockpiles were observed without dust suppression measures. The Contractor should cover the stockpiles with tarpaulin sheets or carry out equivalent dust suppression measures.

Noise

5.3.6. No adverse observation was identified in the reporting quarter.

Water Quality

- 5.3.7. Muddy water and sand were observed near the drainage system in road. The Contractor should clear the muddy water and sand, and prevent muddy water from entering the drainage system by arranging sandbags or equivalent measures.
- 5.3.8. Silt and grit were observed in the drains and the U-channel was observed to be obstructed. The Contractor should remove the deposited materials in the U-channel regularly.
- 5.3.9. Mud was observed on the public road outside Gate 30. The Contractor should clear the mud regularly and ensure vehicles have their wheels washed before they leave the site.
- 5.3.10. Mud was observed on the footpath. The Contractor should clear the mud regularly.
- 5.3.11. A water hose was disconnected and water spilled on the footpath. The Contractor should clear the mud washed onto the footpath.
- 5.3.12. Mud was observed on the footpath. The Contractor should clear the mud regularly.

Chemical and Waste Management

- 5.3.13. Construction waste was observed near Gate 11. The Contractor was reminded to clear the waste to maintain site tidiness.
- 5.3.14. General refuse was observed. The Contractor should clear the refuse to maintain site tidiness.
- 5.3.15. Chemicals were observed on bar ground without drip trays. The Contractor should provide drip tray to chemicals.
- 5.3.16. Stagnant water and general refuse were observed on Bridge 18A. The Contractor should clear the stagnant water to prevent mosquito breeding and clear the refuse to maintain site cleanliness.
- 5.3.17. General refuse was observed. The Contractor should clear the general refuse to maintain site tidiness.

Landscape and Visual Impact

- 5.3.18. No adverse observation was identified in the reporting quarter.

Miscellaneous

- 5.3.19. Water was observed in plastic containers. The Contractor should clear the water to prevent mosquito breeding.
- 5.3.20. Stagnant water and general refuse were observed on Bridge 18A. The Contractor should clear the stagnant water to prevent mosquito breeding and clear the refuse to maintain site cleanliness.

6 ADVICE ON THE SOLID AND LIQUID WASTE MANAGEMENT STATUS

- 6.1. The Contract 1 Contractor (CSHK) and the Contract 2 Contractor (GCL) are registered as chemical waste producers for Stage 1 of the Project. C&D material sorting was carried out on site. Sufficient numbers of receptacles were available for general refuse collection.
- 6.2. As advised by the Contract 1 Contractor (CSHK), 404m³ of inert C&D material was disposed as public fill to Tuen Mun 38 (of which 0m³ was broken concrete), while 404m³ of general refuse were disposed at NENT landfill. 0kg of metal, 199kg of paper/cardboard and 7,190kg of plastic were collected by recycling contractor in the reporting quarter. 1,146m³ and 360m³ of inert C&D materials were reused on site and in NENT for backfilling respectively. 800kg of chemical waste was collected by licensed contractor in the reporting period.
- 6.3. As advised by the Contract 2 Contractor (GCL), 48m³ of inert C&D material were disposed to Tuen Mun 38 and 595m³ of general refuse was disposed to NENT landfill in the reporting period. 0m³ of paper/cardboard packaging was collected by the recycling contractor in the reporting period. 0kg of plastics and 0kg of metals were collected by the recycling contractor in the reporting period. No inert

C&D materials was reused on site. 4,705m³ of inert C&D materials was reused in other projects. No chemical waste was collected by the licensed contractor in the reporting period.

- 6.4. The Contract 1 Contractor (CSHK) and the Contract 2 Contractor (GCL) are advised to maintain on site waste sorting and recording system and maximize reuse / recycle of C&D wastes.

7 SUMMARY OF NON-COMPLIANCE (EXCEEDANCES) OF THE ENVIRONMENTAL QUALITY

- 7.1. All 1-hour TSP monitoring results complied with the Action / Limit Levels in the reporting period.
- 7.2. All 24-hour TSP monitoring results complied with the Action / Limit Levels in the reporting period.
- 7.3. No Limit and Action Level exceedance of construction noise monitoring was recorded in the reporting period.

8 ENVIRONMENTAL COMPLAINTS, NOTIFICATION OF SUMMONS AND SUCCESSFUL PROSECUTIONS

- 8.1. A 24-hour complaint hotline at 6628 8366 has been established for Stage 1 (both Contract 1 and Contract 2) of the Project. Also a 24-hour hotline at 8201 6669 is established for Contract 1 of the Project. The hotline numbers are displayed at the site entrances, fencings and project signboards, as well as printed on publications for the public, such as newsletters.
- 8.2. No notifications of summons and prosecutions was received in the reporting quarter.
- 8.3. One (1) water-related complaint was received on 23 June 2014 and followed up by the Environmental Team in the reporting quarter.
- 8.4. The investigation details are given below:

Environmental Enquiry No.: EC-39 (23 June 2014)

- 8.4.1 EPD referred a complaint concerning a construction site of the Widening of Tolo Highway Project (Stage 1) near Wan Tau Tong Estate, opposite to Hong Kong Teachers' Association Lee Heng Kwei Secondary School, on 23 June 2014.
- 8.4.2 The complaint is regarding muddy water discharged from the construction site into Tai Po River on 20 June 2014.
- 8.4.3 According to the information provided by the Contractor (China State Construction Engineering (HK) Ltd.) and confirmed by the Engineer of the Project, no construction works were carried out on 20 June 2014 due to rainfall. The muddy water was likely caused by the surface runoff from rainwater which flowed across exposed slopes before discharging to Tai Po River.
- 8.4.4 On the day of complaint (20 June 2014), there were scattered heavy rainstorms in Tai Po area. Within 20 June 2014 from around 10a.m. to 11:30a.m., the highest rainfall rate reached 10-15mm/h. It is believed that the surface runoff owing to the heavy rainfall might have led to the complaint.
- 8.4.5 During wet seasons, the Contractor was urged to pay special attention to the covering of exposed slopes and open stockpiles. Following the receipt of the complaint, the Contractor covered the remaining part of exposed slope opposite to Lee Heng Kwei Secondary School to prevent soil erosion by rainfall on 24 June 2014 morning. Sand bags have been laid in the U-channel to form silt traps to improve the quality of surface runoff. The Contractor will also clear the blockage of the U-channel after rainfall to prevent the overflowing of muddy runoff to Tai Po River, preventing the contamination of river water.
- 8.4.6 Upon investigation, although the mud had likely been washed into Tai Po River by heavy rainfall, the muddy water mentioned in the complaint was considered project related. Therefore, the Contractor was reminded to carry out the mitigation measures as stated in "Recommended Mitigation Measures".
- 8.4.7 Recommended Mitigation Measures:
- 1) Rectify the muddy water overflowing and propose preventive measures for muddy runoff;
 - 2) Maintain the frequency of environmental supervision (by the Contractor) to regularly review the adequacy and effectiveness of muddy water control to suit the construction progress;
 - 3) Foster better public relations with the sensitive receivers and complainants nearby; and
 - 4) Maintain properly all drainage faculties on site and keep the drains clear of silt and debris.

- 8.4.8 A follow-up site visit was made on 25 June 2014 to audit the condition of the complained construction site and check the implementation status of rectification measures.
- 8.4.9 During the follow-up visit on 25 June 2014 morning, no works were observed under W10 and Bridge 11A (opposite to Hong Kong Teachers' Association Lee Heng Kwei Secondary School). Several rectification measures were implemented:
- Slopes were covered to prevent soil erosion by rainfall;
 - Sand bags were laid in the U-channel to form silt traps to improve the quality of surface runoff;
 - Sand bags were laid at low-lying areas where muddy water easily deposits to prevent muddy water from flowing out from the site area to Tai Po River and nearby areas;
- 8.4.10 On the day of the follow-up site visit, it was raining. The Contractor was reminded to clear the blockage of the U-channel right after the rain as a remedial action.
- 8.4.11 The Contractor was further reminded to clear the deposited mud upstream of the sand bags, both placed in the U-channel and at low-lying areas, regularly.
- 8.4.12 During the visit, conditions of Tai Po River, upstream and downstream of the outfall opposite to Lee Heng Kwei Secondary School, were observed. It was observed that the colours of river water upstream and downstream were similar.
- 8.4.13 With the implementation of muddy water control measures under W10 and Bridge 11A, no muddy water was observed from the complained outfall on the day of follow-up site visit.
- 8.4.14 A follow-up site visit was further made on 9 July 2014 to confirm that the deposited mud upstream of the sand bags has been cleared, audit the condition of the complained construction site and check the implementation status of rectification measures.
- 8.4.15 During the follow-up visit on 9 July 2014 morning, no works were observed under W10 and Bridge 11A (opposite to Hong Kong Teachers' Association Lee Heng Kwei Secondary School). Several rectification measures were implemented:
- Water pumps were used to pump water in the catch pits to sedimentation tanks, with one especially placed in the catch pit which leads to the complained outfall;
 - The slope along the U-channel was reinforced with concrete to prevent eroded soil from washing into the U-channel;
 - The mud in the U-channel was constantly cleared to prevent the overflowing of muddy runoff; and
 - The deposited mud upstream of the sand bags was cleared.
- 8.4.16 With the implementation of muddy water control measures under W10 and Bridge 11A, no muddy water was observed from the complained outfall.
- 8.5. Cumulative statistics on complaints, notifications of summons and successful prosecutions are summarized in Appendix G.

9 COMMENTS, RECOMMENDATIONS AND CONCLUSIONS

Comments on Mitigation Measures

9.1. According to the environmental site inspections performed in the reporting quarter, the following recommendations were provided:-

Air Quality Impact

- All plants on site should be properly maintained to avoid dark smoke emission.
- All vehicles should be washed to remove any dusty materials before leaving the site.
- Haul roads should be sufficiently dampened to minimize fugitive dust generation.
- Wheel washing facilities should be properly maintained to ensure properly functioning.
- Temporary exposed slopes and open stockpiles should be properly covered.
- Enclosure should be erected for cement mixing operations.
- Provide water spraying to suppress fugitive dust for any dusty construction activity.
- Exposed cemented bags should be covered.

Construction Noise Impact

- Properly erect the temporary noise barriers in accordance with the Environmental Permit requirement.
- Noise barriers should be closely packed and properly aligned to ensure effective noise reduction.
- Noisy operations should be oriented to a direction away from sensitive receivers as far as possible.
- Sound insulation materials shall be wrapped at the breaker tip for concrete breaking works.
- Noise Emission Label (NEL) shall be affixed to the air compressor and hand-held breaker operating within works area.
- Better scheduling of construction works to minimize noise nuisance.

Water Quality Impact

- Silt, debris and leaves accumulated at public drains, wheel washing bays and perimeter u-channels and desilting facilities should be cleaned up regularly.
- Silty effluent should be treated / desilted before discharged. Untreated effluent should be prevented from entering public drain channel.
- Proper drainage channels/bunds should be provided at the site boundaries to collect/intercept the surface run-off from works areas.
- Exposed slopes and stockpiles should be covered up properly during rainstorm.
- Stagnant water accumulated within works area should be removed.

Chemical and Waste Management

- C&D materials and wastes should be sorted, recycled/treated and removed timely.
- All chemical containers and oil drums should be properly stored.
- All plants and vehicles on site should be properly maintained to prevent oil leakage.

- All drain holes of the drip trays utilized within works areas should be properly plugged to avoid any oil leakage.
- Oil stains on soil surface and empty chemical containers should be cleared and disposed of as chemical waste.
- Only the recycling materials should be dumped into the recycling bins.
- Refuse should not be placed near the retained trees.

Landscape and Visual Impact

- All retained trees should be properly fenced off at the works area.

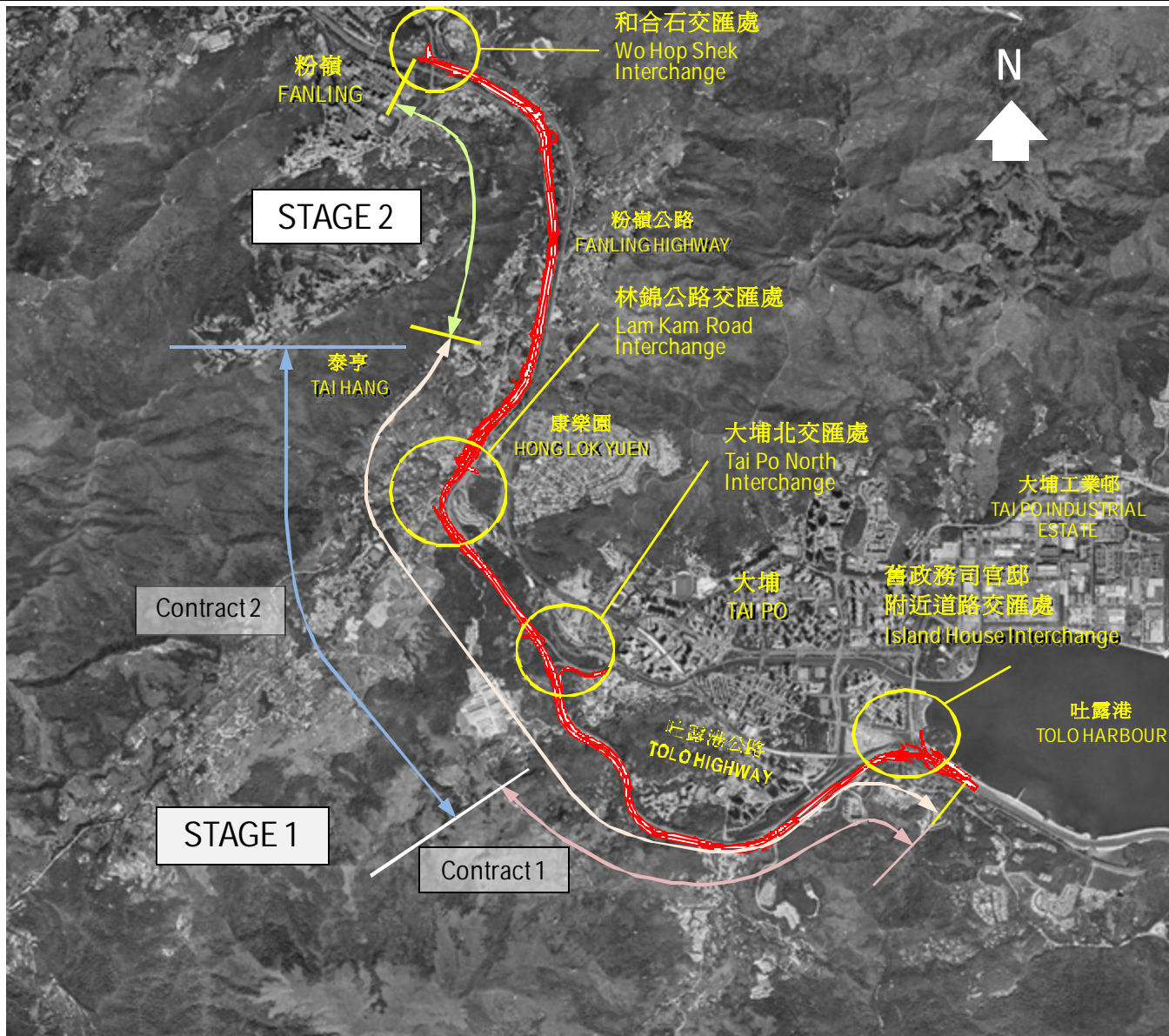
Recommendations on EM&A Programme

- 9.2. The impact air quality and noise monitoring programme ensured that any deterioration in environmental condition was readily detected and timely actions taken to rectify any non-compliance. Assessment and analysis of monitoring results collected demonstrated the environmental acceptability of Stage 1 of the Project. The weekly environmental site inspections ensured that all the environmental mitigation measures recommended in the ERR were effectively implemented.
- 9.3. The EM&A programme effectively monitored the environmental impacts from the construction activities and no particular recommendation was advised for the improvement of the programme.

Conclusions

- 9.4. Air quality and noise monitoring, weekly site inspections were carried out in the reporting quarter, in accordance with the updated EM&A manual. Construction Phase EM&A Programme for Contract 1 of the Project was completed on 15 July 2014. No monitoring has been carried out at AM1A, AM2 and AM3, and NM 2, NM3, NM4, NM5, NM6 and NM7 beyond 15 July 2014.
- 9.5. All 1-hour TSP monitoring results complied with the Action / Limit Level in the reporting quarter.
- 9.6. All 24-hour TSP monitoring results complied with the Action / Limit Level in the reporting quarter.
- 9.7. No Action and Limit Level exceedance of construction noise monitoring was recorded in the reporting period.
- 9.8. There was one (1) complaint (including one (1) water-related complaint) followed up by the Environmental Team (ET) in the reporting quarter.
- 9.9. Investigations were carried out. Findings and proposed mitigation measures of the complaints were submitted to all relevant parties.
- 9.10. No notifications of summons and successful prosecutions was received in the reporting quarter.

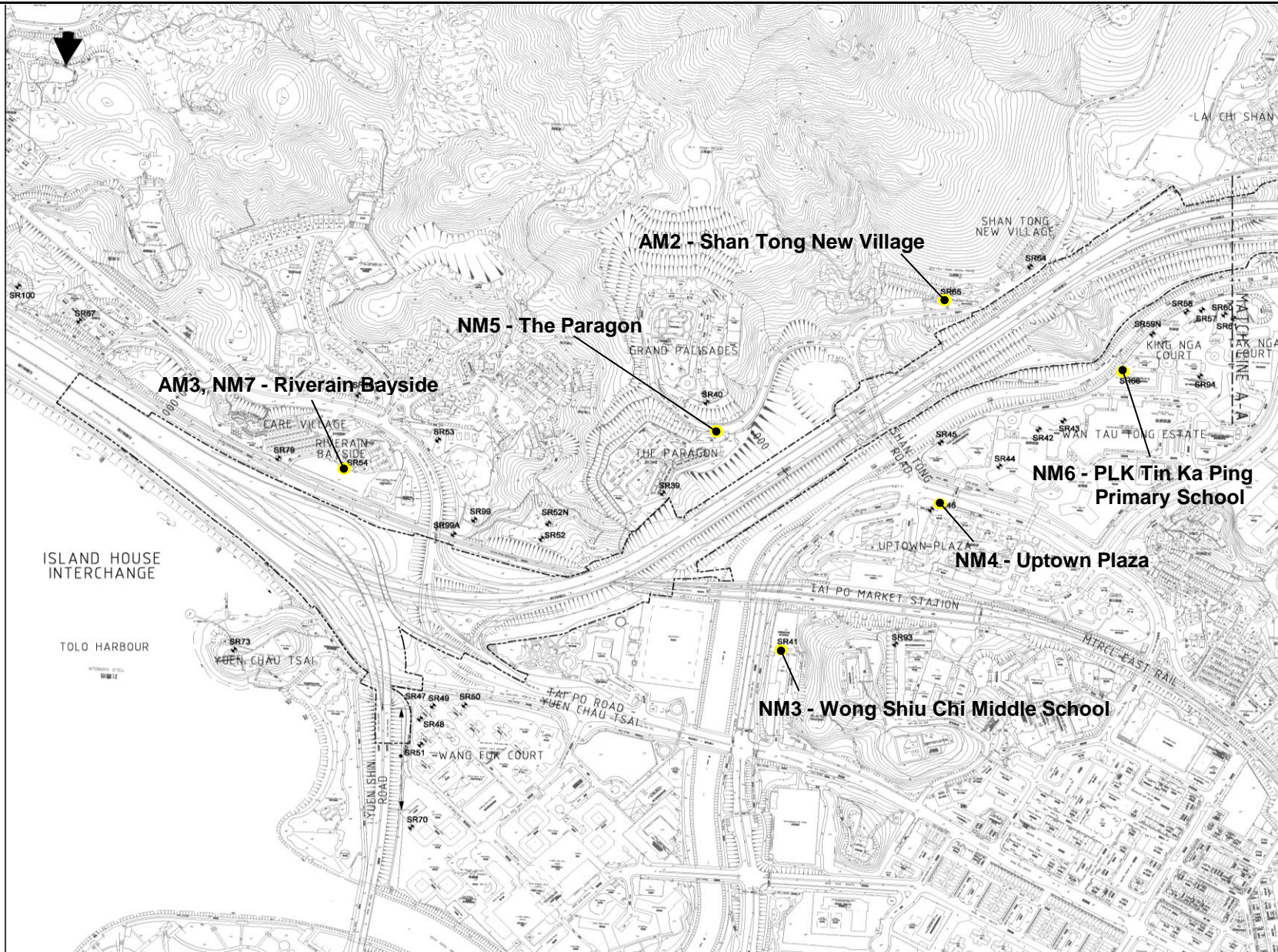
FIGURES



Environmental Team for the Widening of Tolo Highway between
Island House Interchange and Tai Hang - Investigation

General Project Layout Plan

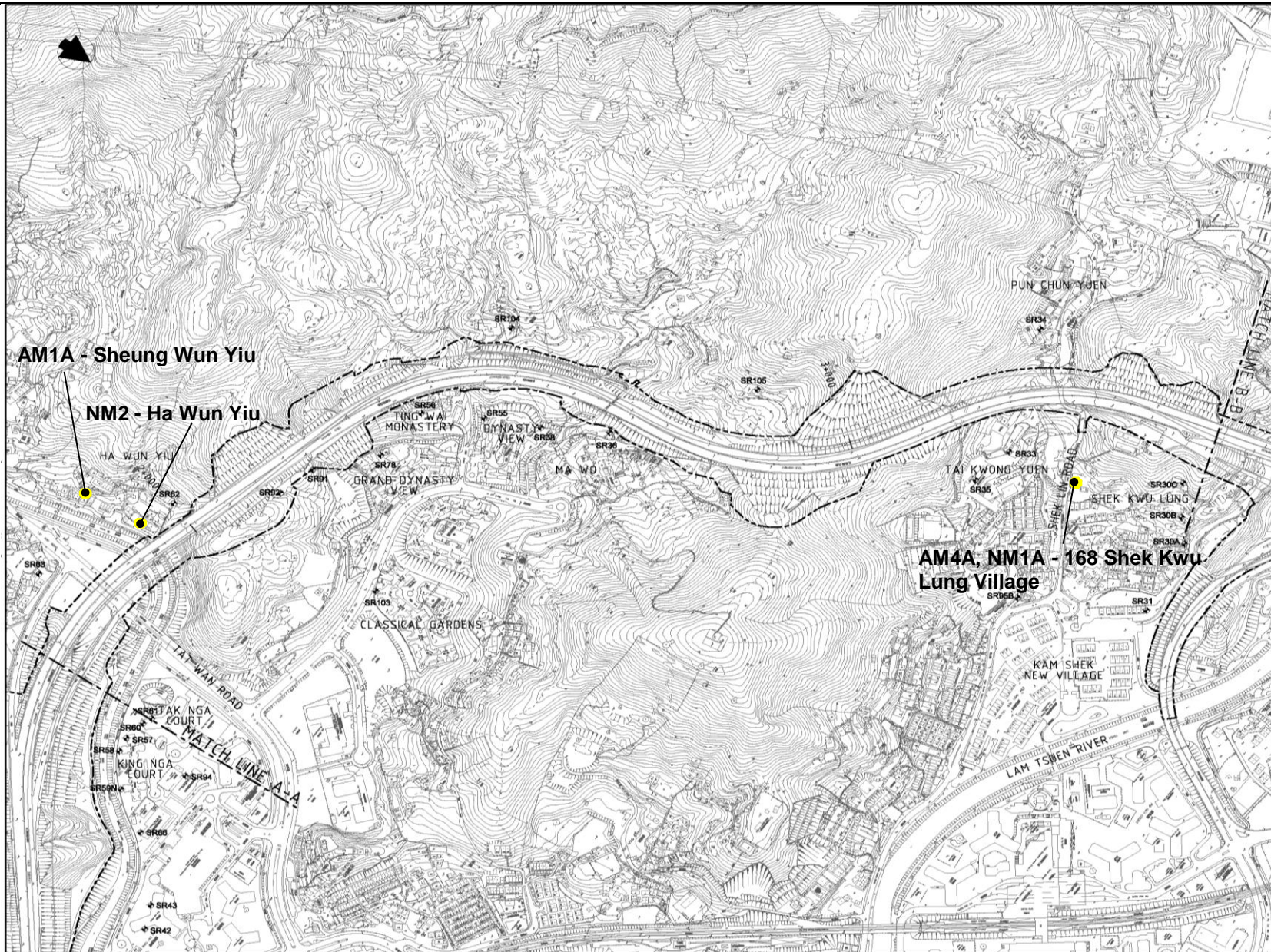
SCALE	N.T.S.	DATE	Dec-09	
CHECK	ENFL	DRAWN	RWHW	
JOB NO.	60102979	FIGURE NO.	1.1	Rev 0



**Environmental Team for the Widening of Tolo Highway between
Island House Interchange and Tai Hang - Investigation**

EM&A Monitoring Locations (Sheet 1 of 2)

SCALE	N.T.S.	DATE	Mar-10
CHECK	ENFL	DRAWN	RWHW
JOB NO.	60102979	FIGURE NO.	2.1
			Rev 0

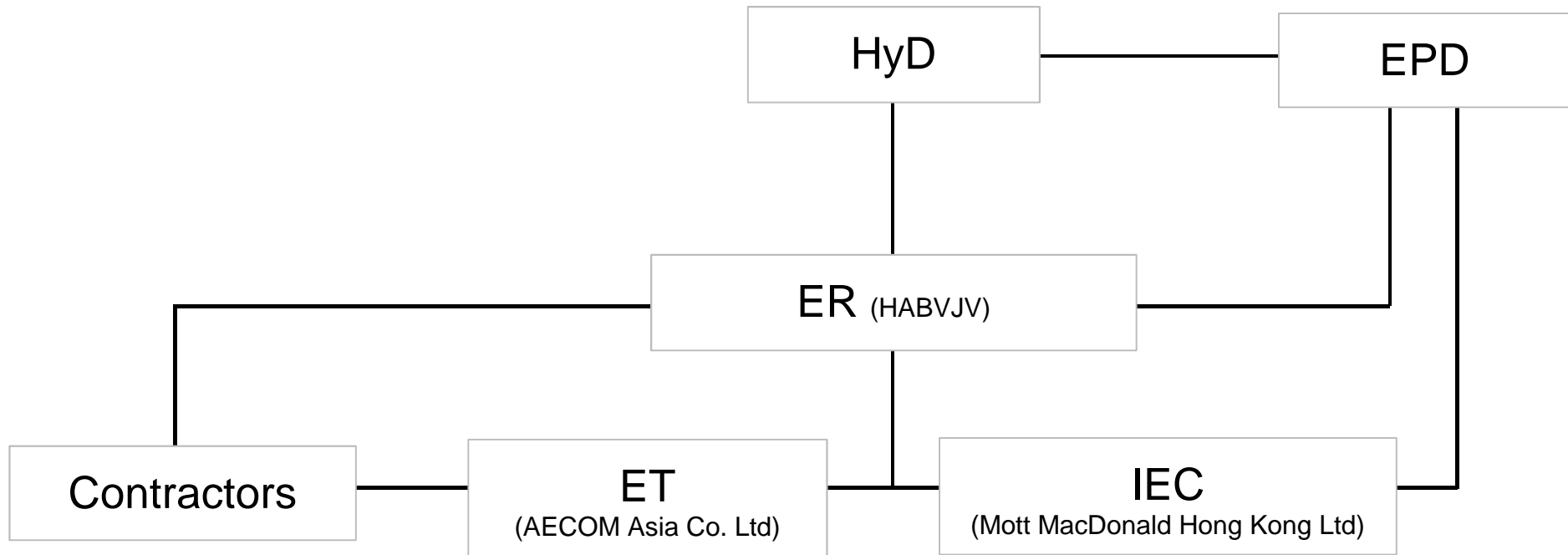


**Environmental Team for the Widening of Tolo Highway between
Island House Interchange and Tai Hang - Investigation**

EM&A Monitoring Locations (Sheet 2 of 2)

SCALE	N.T.S.	DATE	Sep-11
CHECK	ENFL	DRAWN	LCHC
JOB NO.	60102979	FIGURE NO.	2.1
		Rev	0

**APPENDIX A
PROJECT ORGANIZATION STRUCTURE**



**Environmental Team for the Widening of Tolo Highway between
Island House Interchange and Tai Hang - Investigation**

Project Organization Structure

SCALE	N.T.S.	DATE	2009
CHECK	ENFL	DRAWN	RWHW
JOB NO.	60102979	APPENDIX	Rev
		A	-

**APPENDIX B
CONSTRUCTION PROGRAMMES**

Activity ID	Activity Name	Original Durat...	Start	Finish	2014													
					May					June				July				August
					20	27	04	11	18	25	01	08	15	22	29	06	13	20
KEY DATES																		
Section Completion																		
Section Completion Date																		
Key Date																		
KD-300900	KD9 Section 9 Area SA1, 3 to 9A Road Maintenance (1580)	0		23-May-14*	◆ KD9 Section 9 Area SA1, 3 to 9A Road Maintenance													
KD-300200	KD2 Section 2 Areas SA8,SA9 + SA9A Work (1052d)	0		24-Jun-14*	◆ KD2 Section 2 Areas SA8,SA9 +													
KD-300100	KD1 Section 1 Area SA1 Work, Except LS + EW (1311d)	0		30-Jun-14*	◆ KD1 Section 1: Area SA1 Wor													
KD-300500	KD5 Section 5 Area SA1 Landscape Softwork (1337d)	0		30-Jul-14*	◆ KD5: Sectio													
KD-300600	KD6 Section 6 Remainder Landscape Softwork (1355d)	0		30-Jul-14*	◆ KD6: Sectio													
KD-300400	KD4 Section 4 Remainder of the Work (1328d)	0		16-Aug-14*	◆													
SOFT LANDSCAPE IN SA1: SECT. 5 WORKS																		
Landscaping Works																		
Landscape Works																		
S5-212800	Areas SA1 Irrigation + Landscape Soft Works	30	01-Jul-14	30-Jul-14	Areas SA1													
REMAINDER OF SOFT LANDSCAPE: SECT. 6 WORKS																		
Landscaping Works																		
Landscape Works																		
S6-212800	Remainder Irrigation + Landscape Soft Works	30	01-Jul-14	30-Jul-14	Remainder													
ESTABLISHMENT WORKS AT SA1: SECT. 7 WORKS																		
Establishment Works																		
Landscape and Establishment Works																		
S7-211800	Area SA1 Establishment Works	365	31-Jul-14	30-Jul-15														
REMAINDER OF ESTABLISHMENT WORKS: SECT. 8 WORKS																		
Establishment Works																		
Landscape and Establishment Works																		
S8-214800	Remainder - Establishment Works	365	31-Jul-14	30-Jul-15														
ROUTINE MAINTENANCE: SECT. 9 WORKS																		
Road Maintenance																		
Routine Maintenance of Road Network																		
S9-100000	Road Maintenance of Road Network	1401	22-Feb-10 A	23-May-14*	Road Maintenance of Road Network													
Z1: CH 0 to CH 500: SECT. 1 WORKS																		
Noise Barrier at Kwong Fuk West																		
Noise Barrier at Kwong Fuk West Viaduct																		
Noise Barrier Foundation Works																		
S1-180700A	KFWV structural steel, (bay 1-5)	18	08-Apr-14 A	14-Jun-14	KFWV structural steel, (bay 1-5)													
S1-180810	KFWV structural steel, (bay 5-7)	26	08-Apr-14 A	14-Jun-14	KFWV structural steel, (bay 5-7)													
S1-180820	KFWV Panel Installation, (bay 5-7)	24	03-Jun-14*	30-Jun-14	KFWV Panel Installation, (bay													
S1-180800	KFWV Panel Installation, (bay 1-5)	24	03-Jun-14*	30-Jun-14	KFWV Panel Installation, (bay													
S1-180900	Completion of NB Kwong Fuk West Viaduct	0		30-Jun-14	◆ Completion of NB Kwong Fuk													
TCSS Works/Other Utilities																		
S1-180905	Civil prov. works (CPW)- TCSS Pillar Box B	18	22-Apr-14 A	13-May-14 A	Civil prov. works (CPW)- TCSS Pillar Box B													
TCSS Works																		
TCSS E&M Works & Handover																		
S1-700080	T&C - power supply system to TCSS	20	05-May-14 A	19-May-14 A	T&C - power supply system to TCSS													
S1-700090	Handover to TCSS Contractor	0		20-May-14 A	◆ Handover to TCSS Contractor													
S1-700075	T&C - Lighting	20	17-Jun-14	09-Jul-14	T&C - Lighting													
Southbound Work- Ret. Wall, Noise B, Rd NB6, and Slope S4																		
Noise Barrier NB6																		
S1-208060	NB6 NB Panels	8	22-Apr-14 A	23-May-14 A	NB6 NB Panels													
Road Lighting/ or High Mast																		
S1-700050	Cabling works for utilities/Lighting	20	20-Feb-14 A	16-Jun-14	Cabling works for utilities/Lighting													
S1-700070	Pillar Box + MCB Board installation	18	15-Mar-14 A	20-May-14 A	Pillar Box + MCB Board installation													
Cut Slope S4																		
S1-031060B	Cut Slope S4 - drainage/ u channels	20	15-Oct-13 A	16-Jun-14	Cut Slope S4 - drainage/ u channels													
SB Road & Drain, Ch 0-300, after NB3																		
TCSS Works/Other Utilities																		
S1-035045	TCSS P57 - footing	14	20-Nov-13 A	30-Apr-14 A	TCSS P57 - footing													
Road Lighting/ or High Mast																		
S1-051215A	Public Lighting - cabling works	8	22-Apr-14 A	16-Jun-14	Public Lighting - cabling works													
S1-051215B	Public Lighting - power supply connection & test	8	22-Apr-14 A	16-Jun-14	Public Lighting - power supply connect													
NB6 and Slope S4A, after TB1 demolition																		
Noise Barrier NB6 (remaining 1 bay after TB1 removal)																		
S1-208135	NB6 NB Panels	6	22-Mar-14 A	23-May-14 A	NB6 NB Panels													

Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway
Between Island House Interchange and Fanling
(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme
for the Period of 21 May 2014 to 20 Aug 2014

Activity ID	Activity Name	Original Durat...	Start	Finish	2014													
					May					June				July			August	
					20	27	04	11	18	25	01	08	15	22	29	06	13	20
Cut Slope S4A																		
S1-208140B	Cut Slope S4A - u channels	20	22-Apr-14 A	15-May-14 A	Cut Slope S4A - u channels													
NB11, Slope S4B & F124, after TB2 dem.																		
Noise Barrier NB11																		
S1-208110	NB11 NB Panels	10	28-Mar-14 A	23-May-14 A	NB11 NB Panels													
Cut Slope S4B, S4C																		
S1-031040A	Cut Slope S4B, S4C - excavation	21	04-Mar-14 A	30-May-14	Cut Slope S4B, S4C - excavation													
S1-031040B	Cut Slope S4B, S4C - drainage/ channels	48	20-Mar-14 A	16-Jun-14	Cut Slope S4B, S4C - drainage/ chann													
South Bound Road and Drain, Ch 300-500																		
Firemain																		
S1-051305	Firemain- excav, pipe install + pit/new hydrants	14	01-Mar-14 A	16-Jun-14	Firemain- excav, pipe install + pit/new													
Road Lighting/ or High Mast																		
S1-051350	Public Lighting - Lamp Pole + Lamps	18	26-Nov-13 A	16-Jun-14	Public Lighting - Lamp Pole + Lamps													
S1-051350A	Public Lighting - cabling works	18	17-Mar-14 A	16-Jun-14	Public Lighting - cabling works													
S1-051350B	Public Lighting - power supply connection & test	18	17-Mar-14 A	16-Jun-14	Public Lighting - power supply connect													
Central Median Work- Noise Barrier + Road/Drain																		
Noise Barrier NB3 CH0-357																		
Road Lighting/ or High Mast																		
S1-208040	Public Lighting - Lamp Pole + Lamps	18	22-Aug-13 A	16-Jun-14	Public Lighting - Lamp Pole + Lamps													
S1-208040A	Public Lighting - cabling works	18	22-Aug-13 A	16-Jun-14	Public Lighting - cabling works													
S1-208040B	Public Lighting - power supply connection & test	23	20-May-14*	16-Jun-14	Public Lighting - power supply connect													
Northbound Work- Ret. Wall, Noise B, Rd																		
RW W1+ NB1+S1, NB2 Ch200-300																		
Noise Barrier NB1																		
S1-208015	Northbound work Complete	0	20-May-14		◆ Northbound work Complete													
Cut Slope S1																		
S1-031015020	Fill Slope S1- drainage	26	18-Oct-13 A	21-May-14 A	Fill Slope S1- drainage													
S1-031015015	Fill Slope S1- backfilling (remaining 50% after relocation of HM7)	57	20-Nov-13 A	21-May-14 A	Fill Slope S1- backfilling (remaining 50% after relocati													
Slip Rd A after Banyan West Completion																		
Slip Rd A																		
S1-051155	Slip Road A - drainage + road reconstruction	175	20-Oct-12 A	21-May-14 A	Slip Road A - drainage + road reconstruction													
NB2 & Slope S2, after TB1 demolition																		
Cut Slope S2																		
S1-031025B	Cut Slope S2- channel (Pending for Slope Profile design)	24	01-Apr-14 A	30-Jun-14	Cut Slope S2- channel (Pend													
NB9, Slope F121, S5, (after TB2 demolition)																		
Cut Slope S5																		
S1-200140	Slope F121 + S5 (Pending for Slope Profile design)	24	01-Apr-14 A	30-Jun-14	Slope F121 + S5 (Pending for													
North Bound Road and Drain, Ch 300-500																		
Firemain																		
S1-200170	Firemain- excav, pipe install + pit/new hydrants	10	22-Apr-14 A	16-Jun-14	Firemain- excav, pipe install + pit/new													
TCSS Works/Other Utilities																		
S1-200180	Utilities & TCSS buried ducts	15	10-Jan-14 A	20-May-14 A	Utilities & TCSS buried ducts													
Road Lighting/ or High Mast																		
S1-200205	Public Lighting - Lamp Pole + Lamps	15	10-Dec-13 A	16-Jun-14	Public Lighting - Lamp Pole + Lamps													
S1-200175	Public Lighting - buried ducts	20	22-Apr-14 A	20-May-14 A	Public Lighting - buried ducts													
Roadworks																		
S1-200215	complete	0	16-Jun-14		◆ complete													
Z2: CH 500 to CH 1100: SECT. 4 WORKS																		
Zone 2: CH500 to Ch1100 (Section 4 Works)																		
VO No.28 (VO 211) - Diversion of Existing Stormwater Drain in Kwong Fuk Park																		
VO28-1085	Town Gas installation works (from main to complete connection to ...	50	05-Dec-13 A	31-Jul-14	Town Gas													
VO28-1090	Backfill Topsoil Manhole Z to P	14	01-Aug-14	16-Aug-14														
VO28-1150	Completion of VO28	0		16-Aug-14	◆													
WM Test+Drain CCTV+ E&M Works																		
TCSS E&M Works & Handover																		
S4-208355	Cabling works for Utilities/TCSS/Lighting	22	20-Sep-13 A	31-May-14	Cabling works for Utilities/TCSS/Lighting													
S4-208370	T&C - power supply system to TCSS/Lighting	6	26-May-14	31-May-14	T&C - power supply system to TCSS/Lighting													
Section Completion																		
Section Completion Date																		
KD-300400A	ZONE 2 COMPLETE - KD4 Section 4	0		16-Aug-14	◆													
Stage 1: Southbound Work- Ret. Wall, Noise B, Rd																		
NLKR - Bridge Deck + Noise Barrier																		
Bridge Deck																		
S4-N01385	Noise barrier panel	8	22-Apr-14 A	30-Apr-14 A	Noise barrier panel													
RW W4-W7+Slope S7+NB15, NB12+Slip Rd L																		
Noise Barrier NB12																		
S4-208270	NB12 (bay 1-3) NB Panel	8	22-Apr-14 A	30-Apr-14 A	NB12 (bay 1-3) NB Panel													
Cut Slope S6 and Slip Rd L																		
S1-203065A	Cut slope S6 - excavation	403	01-Feb-12 A	15-May-14 A	Cut slope S6 - excavation													

Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway
Between Island House Interchange and Fanling
(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme
for the Period of 21 May 2014 to 20 Aug 2014

Activity ID	Activity Name	Original Durat...	Start	Finish	2014													
					May					June				July				August
					20	27	04	11	18	25	01	08	15	22	29	06	13	20
S1-203065B	Cut slope S6 - drainage/U-channels	20	22-Apr-14 A	30-Jun-14	Cut slope S6 - drainage/U-channels													
Fill Slope S7																		
S4-031070B	Fill Slope S7- backfilling to road level	1016	20-Jul-10 A	30-Apr-14 A	Fill Slope S7- backfilling to road level													
S4-031070C	Fill Slope S7- u channels	20	22-Apr-14 A	30-Jun-14	Fill Slope S7- u channels													
S4-031070D	Fill Slope S7- metal works + hand rails etc.	15	13-Jun-14	30-Jun-14	Fill Slope S7- metal works + h													
SB: CH500-1100, Road&Drain+Utilities																		
TCSS Works/Other Utilities																		
S4-512850	Civil prov. works (CPW)- TCSS Pillar Box C	20	20-Sep-13 A	30-Apr-14 A	Civil prov. works (CPW)- TCSS Pillar Box C													
S4-512880	Utilities+ TCSS + CPW- SC 63/S63	14	16-Oct-13 A	30-Apr-14 A	Utilities+ TCSS + CPW- SC 63/S63													
S4-031160	Power supply cable ducts	31	20-Nov-13 A	30-Apr-14 A	Power supply cable ducts													
Road Lighting/ or High Mast																		
S4-031178	Public lighting - Lamp Pole + Lamps	12	18-Oct-13 A	16-Jun-14	Public lighting- Lamp Pole + Lamps													
S4-031178A	Public Lighting - cabling works	6	18-Oct-13 A	16-Jun-14	Public Lighting - cabling works													
S4-031178A10	Public Lighting - cabling works	23	20-May-14	16-Jun-14	Public Lighting - cabling works													
S4-031178B10	Public Lighting - power supply connection & test	8	07-Jun-14	16-Jun-14	Public Lighting - power supply connect													
S4-512930	Public lighting - Lamp Pole + Lamps	8	07-Jun-14	16-Jun-14	Public lighting- Lamp Pole + Lamps													
S4-031178B	Public Lighting - power supply connection & test	4	12-Jun-14	16-Jun-14	Public Lighting - power supply connect													
Stage 2: Northbound Work- Ret. Wall, Noise B, Rd																		
Mod. Existing Lam Kam Railway Br. +Noise B.																		
S4-193900	LKRB NB plinth at slow lane (besides W4A)	75	13-Jan-14 A	16-May-14 A	LKRB NB plinth at slow lane (besides W4A)													
S4-193910	NB steel post installation	8	05-May-14 A	22-May-14 A	NB steel post installation													
S4-193920	NB panel installation	5	21-May-14	30-May-14	NB panel installation													
Noise Barrier NB16																		
Noise Barrier Foundation Works																		
S4-513145	NB16 - (5-7) bay Remaining Wall Stem & plinth	42	06-Dec-13 A	30-May-14	NB16 - (5-7) bay Remaining Wall Stem & plinth													
S4-513150	NB16 - Drainage work	26	16-Dec-13 A	16-Jun-14	NB16 - Drainage work													
S4-513160	NB16 - Backfilling	12	18-Mar-14 A	16-Jun-14	NB16 - Backfilling													
Noise Barrier Structural Steel & Panels																		
S4-207160	NB16 Structural Steel	10	17-Jun-14	27-Jun-14	NB16 Structural Steel													
S4-208160	NB16 NB Panels	10	17-Jun-14	27-Jun-14	NB16 NB Panels													
Retaining Wall W4A & NB13 & Slip Rd M																		
Retaining Wall W4A																		
S4-03504A040	RW W4A (last 4 bays) excavation + base slab+wall thickening	30	06-Jan-14 A	07-Jun-14	RW W4A (last 4 bays) excavation + base slab													
S4-03504A070	VO164 - L3 Containment barrier	31	22-Apr-14 A	10-Jul-14	VO164 - L3 Containment barrier													
S4-03504A050	RW W4A (last 4 bays), wall stem	12	09-Jun-14	21-Jun-14	RW W4A (last 4 bays), wall stem													
S4-03504A055	RW W4A, Backfill (last 4 bays)-1st 3m	7	21-Jun-14	30-Jun-14	RW W4A, Backfill (last 4 bays)													
S4-03504A060	RW W4A, Backfill (last 4 bays)	8	02-Jul-14	10-Jul-14	RW W4A, Backfill (last													
Noise Barrier NB13																		
S4-208140	NB13 Structural Steel (last 2 bays)	5	11-Jul-14	16-Jul-14	NB13 Structural Steel													
S4-208170	NB13 NB Panels (last 2 bays)	8	17-Jul-14	25-Jul-14	NB13 NB Panels													
NB: CH500-1100, Road&Drain+Utilities																		
Road Drainage																		
S4-031210	Road Drainage - pipelaying + manhole	44	02-Jul-13 A	16-Jun-14	Road Drainage - pipelaying + manhol													
Firemain																		
S4-031220	Firemain- excav, pipe install + pit/new hydrants	36	25-Jul-13 A	16-Jun-14	Firemain- excav, pipe install + pit/new													
TCSS Works/Other Utilities																		
S4-031225	Utilities + TCSS + CPW- SC 20/S20	36	17-Jul-13 A	20-May-14 A	Utilities + TCSS + CPW- SC 20/S20													
S4-031230	Power supply cable ducts	36	20-Jul-13 A	20-May-14 A	Power supply cable ducts													
Road Lighting/ or High Mast																		
S4-031250A	Public Lighting - cabling works	18	04-Oct-13 A	16-Jun-14	Public Lighting - cabling works													
S4-031250	Public lighting - Lamp Pole + Lamps	24	20-Dec-13 A	16-Jun-14	Public lighting- Lamp Pole + Lamps													
S4-031250B	Public Lighting - power supply connection & test	18	26-May-14	16-Jun-14	Public Lighting - power supply connect													
Roadworks																		
A1170	NB16 - Road Re-construction for (HS)	27	29-May-14	30-Jun-14	NB16 - Road Re-construction													
S4-031260	Northbound road substantial completed in Zone 2	0	17-Jun-14		◆ Northbound road substantial complete													
A1210	Road Work for Slip Road M (HS)	22	28-Jun-14	23-Jul-14	Road Work for													
A1220	Complete	0		23-Jul-14	◆ Complete													
Z3: CH 1100 to CH 2000: SECT. 4 WORKS																		
Section Completion																		
Section Completion Date																		
KD-300400B	ZONE 3 COMPLETE - KD4 Section 4	0		28-Jun-14	◆ ZONE 3 COMPLETE - KD4 Section 4													
TCSS Works																		
TCSS E&M Works & Handover																		
S4-0512765	Cabling works for Utilities/TCSS/Lighting	24	20-Sep-13 A	28-Jun-14	Cabling works for Utilities/TCSS													
S4-0512780	T&C - power supply system to TCSS/Lighting	36	20-Sep-13 A	28-Jun-14	T&C - power supply system to													
S4-0512785	Handover to TCSS Contractor	0		28-Jun-14	◆ Handover to TCSS Contractor													
Stage 3: Central Median - Ret. Wall, Noise B, Rd																		
W20A + Slope S20																		
Cut Slope S20A																		

Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway
Between Island House Interchange and Fanling
(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme
for the Period of 21 May 2014 to 20 Aug 2014

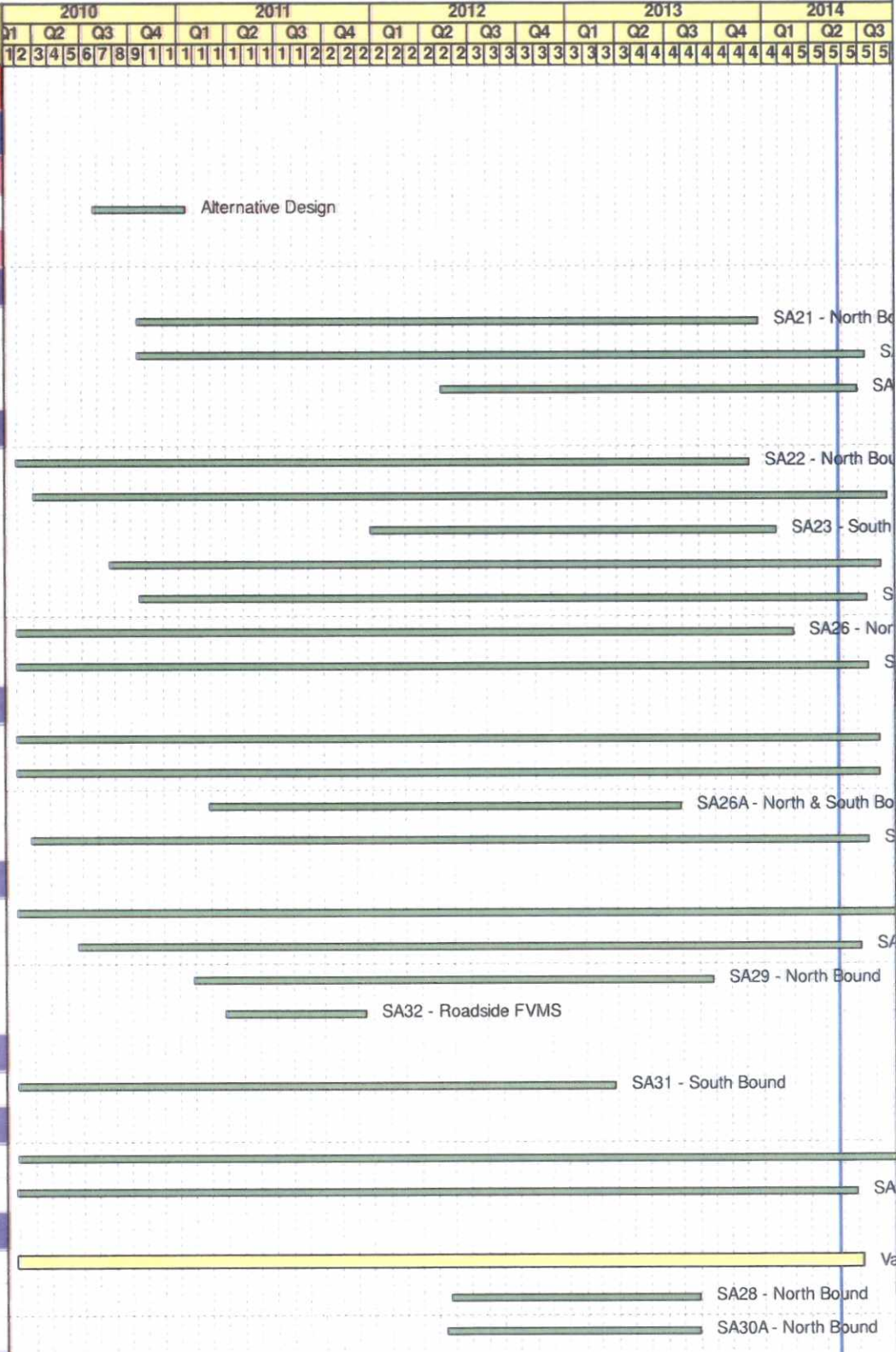
Activity ID	Activity Name	Original Durat...	Start	Finish	2014															
					May				June				July				August			
					20	27	04	11	18	25	01	08	15	22	29	06	13	20	27	03
S4-03120AA	Cut Slope S20A - excavation	30	20-Jan-14 A	30-Jun-14	[Gantt bar: 20-Jan-14 to 30-Jun-14]															
S4-03120AB	Cut Slope S20A - drainage/channels	30	26-May-14	30-Jun-14	[Gantt bar: 26-May-14 to 30-Jun-14]															
Stage 2: Northbound Work- Ret. Wall, Noise B, Rd																				
Modification of Existing Bridge No. 10 + Noise B																				
Bridge Roadworks & Furnitures																				
S4-194899	Road Surfacing & Furnitures	18	18-Apr-14 A	20-Apr-14 A	[Gantt bar: 18-Apr-14 to 20-Apr-14]															
S4-194990	Bridge No. 10 Modification Completion	0		20-Apr-14 A	[Gantt bar: 20-Apr-14]															
Modification of Existing Bridge No.11 + Noise B																				
Bridge Roadworks & Furnitures																				
S4-195910	Install Noise barrier panel	30	22-Mar-14 A	25-Apr-14 A	[Gantt bar: 22-Mar-14 to 25-Apr-14]															
S4-195900	Bridge No. 11 Modification Completion	0		25-Apr-14 A	[Gantt bar: 25-Apr-14]															
RW W9, Slope S9, & Noise Barrier NB19, NB22																				
Noise Barrier NB19																				
S4-207190	NB19 Structural Steel, 10 bays	35	01-Apr-14 A	17-May-14 A	[Gantt bar: 01-Apr-14 to 17-May-14]															
S4-207190A	NB19 Structural Steel, 21 bays	35	01-Apr-14 A	17-May-14 A	[Gantt bar: 01-Apr-14 to 17-May-14]															
S4-208190	NB19 NB Panels, 10 bays	10	01-Apr-14 A	17-May-14 A	[Gantt bar: 01-Apr-14 to 17-May-14]															
S4-208190A	NB19 NB Panels, 21 bays	10	01-Apr-14 A	30-May-14	[Gantt bar: 01-Apr-14 to 30-May-14]															
Fill Slope S9																				
S4-031095A	Fill Slope S9- backfilling	24	01-Apr-14 A	31-May-14	[Gantt bar: 01-Apr-14 to 31-May-14]															
S4-031095B	Fill Slope S9 - drainage	12	01-Apr-14 A	31-May-14	[Gantt bar: 01-Apr-14 to 31-May-14]															
NB: CH1260-1750, L=410m, Road&Drain+Utilities																				
Firemain																				
S4-0512630	Firemain- excav, pipe install+pit/new hydrants	24	17-Sep-13 A	16-Jun-14	[Gantt bar: 17-Sep-13 to 16-Jun-14]															
TCSS Works/Other Utilities																				
S4-0512635	Utilities +TCSS buried ducts + civil prov. works	36	21-Oct-13 A	30-Apr-14 A	[Gantt bar: 21-Oct-13 to 30-Apr-14]															
S4-0512640	Power supply cable ducts	34	20-May-14*	28-Jun-14	[Gantt bar: 20-May-14 to 28-Jun-14]															
Road Lighting/ or High Mast																				
S4-0512660	Public lighting - Lamp Pole + Lamps	36	21-Oct-13 A	12-Jun-14	[Gantt bar: 21-Oct-13 to 12-Jun-14]															
S4-051266A	Public Lighting - cabling works	36	21-Oct-13 A	12-Jun-14	[Gantt bar: 21-Oct-13 to 12-Jun-14]															
S4-051266B	Public Lighting - power supply connection & test	12	29-May-14	12-Jun-14	[Gantt bar: 29-May-14 to 12-Jun-14]															
Roadworks																				
S4-0512645	Roadworks +Slip Road N- Resurfacing	26	18-Oct-13 A	12-Jun-14	[Gantt bar: 18-Oct-13 to 12-Jun-14]															
S4-0512655	Roadworks +Slip Road N- road marking + furnitures	6	06-Jun-14	12-Jun-14	[Gantt bar: 06-Jun-14 to 12-Jun-14]															
Z4: CH 2000 to CH 2400: SECT. 2 WORKS																				
Stage 1A: Southbound - S14-, RW21-28, TP7,Rd/Dr																				
SB Road & Drain, Ch 2000-2200, L=200m																				
TCSS Works/Other Utilities																				
S2-031295	Power supply cable ducts	277	25-Jul-12 A	30-Apr-14 A	[Gantt bar: 25-Jul-12 to 30-Apr-14]															
Cut Slope S14																				
S2-031140E10	Slope S14 - Soil nail & remaining drainage work (VO343-additional ...	61	10-Jun-13 A	16-Jun-14	[Gantt bar: 10-Jun-13 to 16-Jun-14]															
Stage 1B: Northbound- S15-S19, RW31-33, Rd/Dr																				
Retaining Wall W30, W31, W32(Piled), W33																				
Retaining Wall W31,32, 33																				
S2-GCL036	Northbound - GCL interfacing work completion for Lane 1,2,3 open	0		20-May-14*	[Gantt bar: 20-May-14]															
S2-GCL046	Completion of works subject to GCL works completion	30	20-May-14	24-Jun-14	[Gantt bar: 20-May-14 to 24-Jun-14]															
Stage 2A: Southbound- S17, RW 29-34, NB27-29																				
Noise Barrier NB27, NB29																				
Noise Barrier NB29																				
S2-035350	NB29 NB Panels	7	16-Oct-13 A	16-Jun-14	[Gantt bar: 16-Oct-13 to 16-Jun-14]															
Retaining Wall, W29 & NB27(@W29)																				
Retaining Wall W29A																				
S2-03529AB	RW W29A facing panel structure (bay 1)	34	22-Apr-14 A	16-Jun-14	[Gantt bar: 22-Apr-14 to 16-Jun-14]															
SB: CH2200-2400, L=200m, Road&Drain+Utilities																				
Road Drainage																				
S2-031250	W29A bay 1 road drainage after GCL TTA stage 6A	20	29-May-14	21-Jun-14	[Gantt bar: 29-May-14 to 21-Jun-14]															
TCSS Works/Other Utilities																				
S2-031287	TCSS S160 (VDS) - footing	23	14-Sep-13 A	30-Apr-14 A	[Gantt bar: 14-Sep-13 to 30-Apr-14]															
Roadworks																				
S2-031255	W29A bay 1 road work after GCL TTA stage 6A	20	29-May-14	21-Jun-14	[Gantt bar: 29-May-14 to 21-Jun-14]															
S2-031265	Remaining roadwork to final pavement level after GCL TTA stage 6A	6	23-Jun-14	28-Jun-14	[Gantt bar: 23-Jun-14 to 28-Jun-14]															
Stage 3: Central Median- NB26, NB29 +Road&Drain																				
CM: NB26 & NB28 L=400m & Road&Drain+Utilities																				
Noise Barrier Structural Steel & Panels																				
S2-208395	Implement TTA- divert traffic to new SB, NB & CM	0	20-May-14		[Gantt bar: 20-May-14]															
TCSS Works																				
TCSS E&M Works & Handover																				
S2-208420	Lighting & T&C	24	15-Oct-13 A	30-Apr-14 A	[Gantt bar: 15-Oct-13 to 30-Apr-14]															
S2-208450	T&C - power supply system to TCSS	8	22-Apr-14 A	30-Apr-14 A	[Gantt bar: 22-Apr-14 to 30-Apr-14]															
S2-208425	Handover to TCSS Contractor	0		30-Apr-14 A	[Gantt bar: 30-Apr-14]															

Contract: HY/2008/09

Widening of Tolo Highway / Fanling Highway
Between Island House Interchange and Fanling
(Stage 1 - Between Island House Interchange and Ma Wo)

Three Months Rolling Programme
for the Period of 21 May 2014 to 20 Aug 2014

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2010				2011				2012				2013				2014		
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
HY/2009/08 TOLO HIGHWAY WIDENING, Based on UWP Jan 14, upto Feb progress																									
EXECUTIVE SUMMARY																									
Design																									
A1330	Alternative Design		100%	292	26-Jul-10 A	14-Jan-11 A																			
Construction																									
Section 1																									
A1000	SA21 - North Bound		100%	959	15-Oct-10 A	25-Dec-13 A																			
A1010	SA21 - South Bound	-155	95.68%	814	15-Oct-10 A	12-Jul-14																			
A1020	SA21 - Middle Lane	-122	99.13%	275	08-May-12 A	26-Jun-14																			
Section 2																									
A1030	SA22 - North Bound		100%	1016	26-Feb-10 A	07-Dec-13 A																			
A1040	SA22 - South Bound	-122	94.41%	1037	01-Apr-10 A	21-Aug-14																			
A1060	SA23 - South Bound		100%	388	28-Dec-11 A	25-Jan-14 A																			
A1070	SA24 - North Bound	-112	93.9%	787	25-Aug-10 A	12-Aug-14																			
A1080	SA25 - South Bound	-92	97.68%	777	20-Oct-10 A	14-Jul-14																			
A1090	SA26 - North Bound		100%	1216	26-Feb-10 A	28-Feb-14 A																			
A1100	SA26 - South Bound	-119	95.52%	1216	26-Feb-10 A	17-Jul-14																			
Section 3																									
A1110	SA26A - North Bound	-131	96.24%	1191	26-Feb-10 A	08-Aug-14																			
A1120	SA26A - South Bound	-131	94.91%	879	26-Feb-10 A	08-Aug-14																			
A1130	SA26A - North & South Bound		100%	612	26-Feb-11 A	30-Jul-13 A																			
A1140	SA27 - South Bound	-121	95.72%	826	27-Mar-10 A	19-Jul-14																			
Section 4																									
A1150	SA28 - North Bound	-191	88.36%	1216	26-Feb-10 A	11-Oct-14																			
A1160	SA28 - South Bound	-72	97.95%	1099	23-Jun-10 A	04-Jul-14																			
A1170	SA29 - North Bound		100%	909	26-Jan-11 A	26-Sep-13 A																			
A1180	SA32 - Roadside FVMS		100%	265	26-Mar-11 A	15-Dec-11 A																			
Section 5																									
A1190	SA31 - South Bound		100%	884	26-Feb-10 A	28-Mar-13 A																			
Section 7																									
A1200	SA41 - Site Office	75	85.77%	1581	26-Feb-10 A	05-Feb-15																			
A1210	SA42 - Temporary Contractor's Works Area	0	98.04%	1582	25-Feb-10 A	26-Jun-14																			
Section 17 (Subject to Excision, Engineer may instruct within 819 days)																									
A1300	Validity Period	290	98.6%	819	25-Feb-10 A	07-Jul-14																			
A1310	SA28 - North Bound		100%	34	24-May-12 A	31-Aug-13 A																			
A1320	SA30A - North Bound		100%	155	14-May-12 A	31-Aug-13 A																			



Project ID: J3318-UPDATE 2014FEB
 Project Name: HY/2009/08 TOLO HIGHWAY WIDENING...
 Print Date: 03-Jul-14
 Data Date: 26-May-14
 Page 1 of 46

- Current Bar
- Level of Effort
- Critical
- Milestone

Highways Department - Contract No. HY/2009/08

Widening of Tolo Highway/ Fanling Highway
Stage 1 - Between Ma Wo and Tai Hang

Updated Works Programme, 24 May 2014

UWP Revision			
Date	Revision	Checked	Approved
27-Jan-14	UWP January, 2014	WY	JC

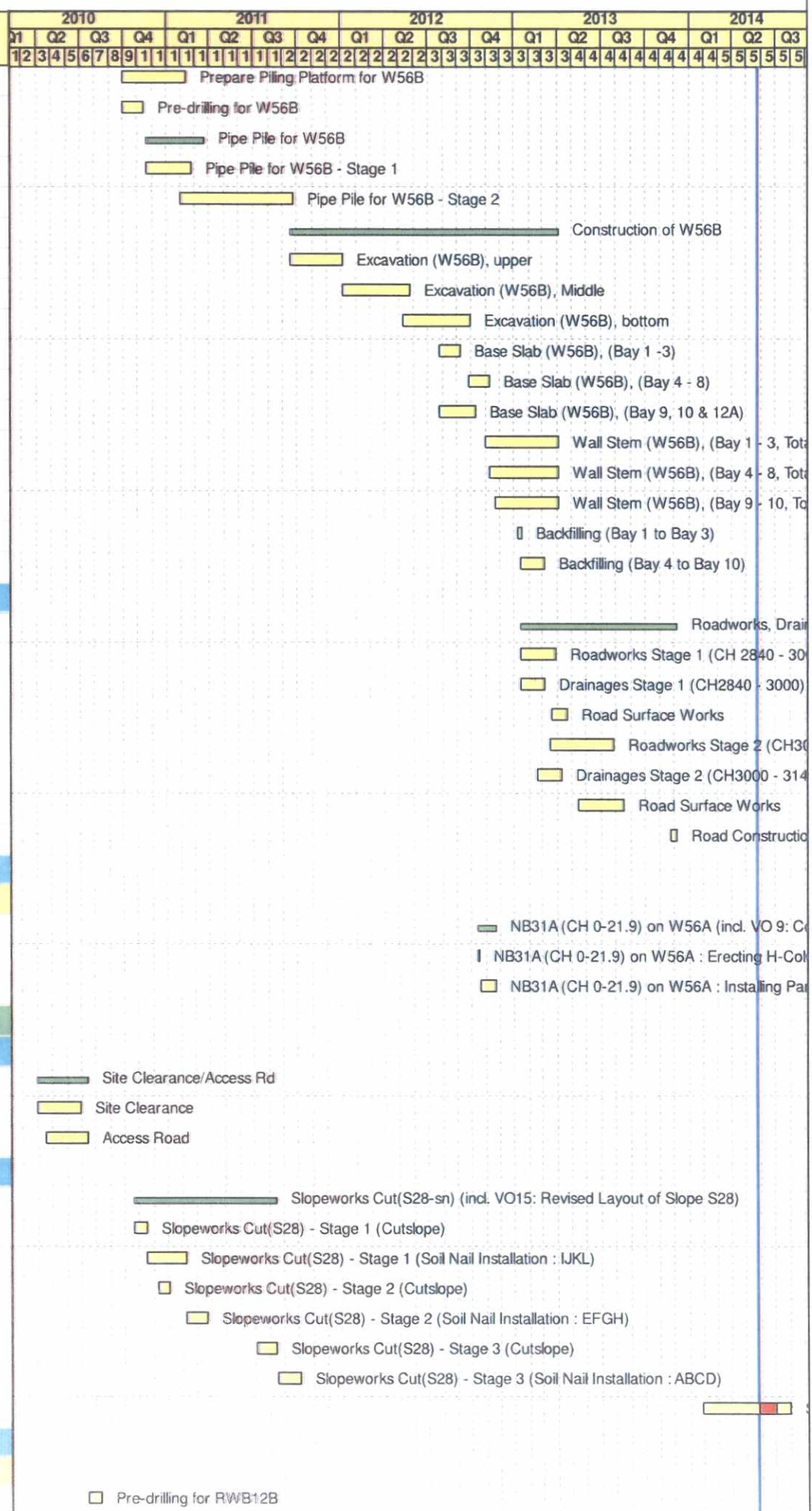
UWP Revision			
Date	Revision	Checked	Approved
27-Jan-14	UWP January, 2014	WY	JC

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2010												2011				2012				2013				2014		
							Q1			Q2			Q3			Q4			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3				
							1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
PR001246	Issurance of Excavation Permit form Hyd		100%	7	26-Feb-10 A	03-Mar-10 A	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
PR001256	Complete All General Submission		100%	0		30-May-10 A																											
Technical Submission																																	
PR001250	Submit Draft Traffic Management Contingency		100%	45	26-Feb-10 A	10-Apr-10 A																											
PR001260	Submit Sch of Const Seq/TTA in Prin Agreement		100%	14	26-Feb-10 A	10-Mar-10 A																											
PR001270	Submit TIA/TTA to ER, TD, HKPF etc for Approval		100%	60	26-Feb-10 A	25-Apr-10 A																											
PR001280	Prepare/Submit Sch of Util Arrangement		100%	60	26-Feb-10 A	25-Apr-10 A																											
PR001290	Prepare/Submit Conc Mix Design and Trial Test		100%	70	26-Feb-10 A	05-May-10 A																											
PR001300	Perform Slope / Topographic Survey		100%	95	26-Feb-10 A	30-May-10 A																											
PR001310	Perform Natural Terrain Survey		100%	200	01-Jan-11 A	19-Jul-11 A																											
PR001320	Perform Tree Survey		100%	125	26-Feb-10 A	29-Jun-10 A																											
PR001330	Perform Existing Structural Survey		100%	95	26-Feb-10 A	30-May-10 A																											
PR001340	Install Geotechnical Instrumentation		100%	90	26-Feb-10 A	25-May-10 A																											
PR001350	Design for Temporary Noise Barrier		100%	120	26-Feb-10 A	24-Jun-10 A																											
PR001360	Approval for Temporary Noise Barrier		100%	30	26-Jun-10 A	24-Jul-10 A																											
PR001370	Design for Irrigation System		100%	150	26-Feb-10 A	24-Jul-10 A																											
PR001380	Approval for Irrigation System		100%	24	26-Feb-11 A	21-Mar-11 A																											
PR001385	Detail review of the natural terrain hazard assessment by GEO		100%	90	26-Oct-11 A	23-Jan-12 A																											
PR001390	Design for Permanent Debris Catch Fence		100%	90	26-Oct-11 A	23-Jan-12 A																											
PR001400	Approval for Debris Catch Fence System Design		100%	30	24-Jan-12 A	22-Feb-12 A																											
PR001410	Temporary Works Design		100%	200	26-Feb-10 A	12-Sep-10 A																											
PR001420	Complete All Technical Submission		100%	0		22-Feb-12 A																											
Specialist Consultants																																	
PR001220	Nominate/Submit Horticulturist for Approval		100%	45	26-Feb-10 A	10-Apr-10 A																											
PR001230	Nominate/Submit IIC (Highway Structures)		100%	45	26-Feb-10 A	10-Apr-10 A																											
PR001240	Nominate/Submit Traffic Consultant for Approval		100%	7	26-Feb-10 A	03-Mar-10 A																											
PR001440	Complete Engagement of Specialist Consultants		100%	0		10-Apr-10 A																											
QSHE Submission																																	
PR001120	Prepare/Submit Quality Plan		100%	28	26-Feb-10 A	24-Mar-10 A																											
PR001130	Prepare/Submit Draft Health & Safety Plan		100%	14	26-Feb-10 A	10-Mar-10 A																											
PR001140	Prepare/Submit Final Health & Safety Plan		100%	35	26-Feb-10 A	31-Mar-10 A																											
PR001150	Prepare/Submit Draft Env Management Plan		100%	21	26-Feb-10 A	17-Mar-10 A																											
PR001160	Prepare/Submit Final Env Management Plan		100%	45	26-Feb-10 A	10-Apr-10 A																											
PR001180	Submit Site Management Plan for Trip Ticket Sys		100%	45	26-Feb-10 A	10-Apr-10 A																											
PR001430	Complete All QSHE Submission		100%	0		10-Apr-10 A																											
Variation Orders																																	
VO000010	VO. 1: Revised layout of Piles, NLKP5		100%	0	17-Jun-10 A																												
VO000020	VO. 2: Fencing Details Along Site Boundaries of SA29		100%	0	20-Aug-10 A																												
VO000030	VO. 3: Existing Bridge 12 Pilecap Concrete Testing (P5/6/8)		100%	0	17-Sep-10 A																												
VO000040	VO. 4: Revised Setting Out Plan of Slip Road W in SA28 & SA31		100%	0	15-Sep-10 A																												
VO000050	VO. 5: Revised Setting Out Plan of Slip Road W in Site Area SA30		100%	0	15-Sep-10 A																												
VO000060	VO. 6: Bridge 15A Pilecap Sleeving Details		100%	0	19-Oct-10 A																												
VO000070	VO. 7: Modification of Noise Barrier Footing for NB42 & NB44		100%	0	14-Dec-10 A																												
VO000080	VO. 8: Revised Layout of Southen Trunk Sewer		100%	0	15-Dec-10 A																												
VO000090	VO. 9: Relocation and Deletion of Access Door at Noise Barrier		100%	0	04-Jan-11 A																												
VO000100	VO. 10: Fencing details along Site Boundaries of Section subject to Excision		100%	0	04-Jan-11 A																												
VO000110	VO. 11: Fencing details along Site Boundaries of Section subject to Excision		100%	0	04-Jan-11 A																												

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2010												2011				2012				2013				2014																
							Q1			Q2			Q3			Q4			Q1		Q2		Q3		Q4		Q1		Q2		Q3																
							1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Road Re-Construction Works, Roadworks & Drainage							<ul style="list-style-type: none"> Road works Slow Lane (Ch2400 ~ 2650) Road works Slow Lane (Ch2650 ~ 2840) Roadworks, Drainages & Utilities (CH 2400 - 2840) Removal of existing paving Drainages (incl. VO 33 : Drainage details at W48) Utilities (incl. VO 26: Permanent Diversion of existing DN80 WSD Watermain at Ma WO Subway T Road Surface (Stage 1: CH2400 - CH2520) Road Surface (Stage 2: CH2520 - CH2840) Road Construction Works (CH2600 - CH3000) for traffic diversion stage 4B-1 Road Construction Works (Fast Lane) for C1/ C2 Interface stage 6B Road Construction Works (Mid Lane) for C1/ C2 Interface stage 7B Road Construction Works (Slow Lane) for C1/ C2 Interface stage 8B Road Construction Works for C1/ C2 Interface Final stage Shift lane for C1/ C2 Interface (Stage 1) Shift lane for C1/ C2 interface (Stage 2: North Bound along W38 to W46) Shift lane for (CH2600 - CH3000) stage 4B-1 Shift lane for C1/ C2 Interface stage 6B Shift lane for C1/ C2 Interface stage 7B Shift lane for C1/ C2 Interface stage 8B Shift lane for C1/ C2 interface Final stage 																																								
Noise Barriers & Road Barriers							<ul style="list-style-type: none"> NB31 (CH 0-183.6, W39 - W49) NB31 : Excavation and Footing (Bay 1-4) NB31 : Excavation and Footing (Bay 5 - 7) NB31 : Erecting H-Column NB31 (CH 90-183.6) : Installation Panel Remaining NB31 Installation of Panel 																																								
Traffic Control & Surveillance System							<ul style="list-style-type: none"> TCSS (incl. VO73 Revised Sign Gantry Details) TCSS G23A Gantry Footing TCSS G23A gantry mounting TCSS G23A E&M installation 																																								
Landscaping							<ul style="list-style-type: none"> Landscaping Works 																																								
South Bound Preliminaries							<ul style="list-style-type: none"> Site Clearance/Access Rd Site Clearance Access Road 																																								
Slopeworks							<ul style="list-style-type: none"> Slopeworks Fill(S26) Slopeworks Fill(S26) - Lower +50mPD Slopeworks Fill(S26) - Upper +55mPD Slopeworks Fill(S27) Slopeworks Fill(S27) - Lower +50mPD Slopeworks Fill(S27) - Lower +55mPD 																																								

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2010												2011				2012				2013				2014		
							Q1			Q2			Q3			Q4			Q1		Q2		Q3		Q4		Q1		Q2		Q3		
							1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	1	2	3	4	5	6	7	8	9
Extension of Culverts																																	
S21S1100	Extension of Box Culvert (TP9), Downstream		100%	60	20-Dec-12 A	06-Feb-13 A																											
S21S5130	Temporary Water Diversion		100%	12	20-Dec-12 A	28-Dec-12 A																											
S21S5140	Construction of Base Slab, Wall & Top Slab		100%	48	29-Dec-12 A	06-Feb-13 A																											
Construction of Retaining Wall																																	
Retaining Wall W50																																	
S21S2000	Sheet Pile/Excavate & Construct W50 (w/SP)		100%	215	21-May-12 A	23-Apr-13 A																											
S21S2010	Sheet Pile & ELS Works		100%	24	21-May-12 A	07-Sep-12 A																											
S21S2020	Construction of W50 Structure		100%	75	02-Jan-13 A	19-Mar-13 A																											
S21S2030	Backfilling		100%	50	20-Mar-13 A	23-Apr-13 A																											
Retaining Wall W51-56 (CSD 3)																																	
S21S2100	Sheet Pile / Excavate & Construct W51-56 (w/SP)		100%	216	25-Feb-11 A	27-Dec-12 A																											
S21S2110	Sheet Pile & ELS Works (W51)		100%	24	25-Feb-11 A	11-May-11 A																											
S21S2120	Construction of W51 Structure		100%	42	19-Apr-11 A	14-Jun-11 A																											
S21S2130	Sheet Pile & ELS Works (W52 & W53)		100%	24	28-Jul-11 A	16-Sep-11 A																											
S21S2140	Construction of W52 & W53 Structure		100%	42	17-Oct-11 A	05-Dec-11 A																											
S21S2150	Backfilling of W51, W52 & W53		100%	24	17-Jan-12 A	27-Dec-12 A																											
S21S2160	Sheet Pile & ELS Works (W54, 55 & 56)		100%	24	17-Feb-12 A	03-Mar-12 A																											
S21S2170	Construction of W54, 55 & 56 Structure		100%	75	15-Feb-12 A	06-Jul-12 A																											
S21S2180	Backfilling of W54, 55 & 56		100%	30	02-Aug-12 A	27-Dec-12 A																											
S21S2190	Backfilling behind W51 to W56 and drainage works		100%	70	04-Mar-13 A	25-Nov-13 A																											
Retaining Wall W51A (CSD 3)																																	
S21S2163	Excavate to cut-off level		100%	8	17-Jan-11 A	25-Jan-11 A																											
S21S2164	Capping/Walling for W51A		100%	18	12-Jul-11 A	01-Aug-11 A																											
S21S2165	Backfilling		100%	30	28-Dec-11 A	04-Feb-12 A																											
Retaining Wall W35A, (CSD 2)																																	
S21S2211	Construction of W35A (w/MP)		100%	198	13-Apr-12 A	05-Dec-12 A																											
S21S2212	Removal of existing concrete structure at W35A		100%	35	13-Apr-12 A	03-Jul-12 A																											
S21S2218	Mini Piles for W35A (8 nos.)		100%	30	25-Jul-12 A	14-Aug-12 A																											
S21S2230	Excavation and tie back installation		100%	25	15-Aug-12 A	09-Oct-12 A																											
S21S2240	Capping/Walling for W35A		100%	40	10-Oct-12 A	24-Nov-12 A																											
S21S2250	Backfilling		100%	6	29-Nov-12 A	05-Dec-12 A																											
Road Re-construction Works, Roadworks & Drainage																																	
S21S3895	Roadwork (South Bound slow lane along W35A)		100%	6	06-Dec-12 A	09-Dec-12 A																											
S21S3896	Roadwork (South Bound slow lane along W50 - W56)		100%	30	01-Feb-13 A	29-Apr-13 A																											
S21S3900	Roadworks, Drainages & Utilities (CH 2400 - 2840)	-94	99.7%	150	25-Jan-13 A	26-Jun-14																											
S21S4001	Removal of Existing Paving		100%	40	25-Jan-13 A	25-Jan-14 A																											
S21S4002	Drainages (incl. VO33: Drainage details at W48)	-95	99%	30	14-Sep-13 A	26-Jun-14																											
S21S4003	Utilities (incl. VO 26 & VO69)	-95	99%	30	27-Jul-13 A	26-Jun-14																											
S21S4010	Road Surface (CH2400 - CH2840)	-94	99%	65	04-Mar-13 A	26-Jun-14																											
S21S4011	Road Construction Works (Fast Lane) for C1/ C2 Interface stage 4A		100%	40	21-Jan-13 A	13-Apr-13 A																											
S21S4012	Road Construction Works (Mid Lane) for C1/ C2 Interface stage 5A		100%	27	15-Apr-13 A	25-May-13 A																											
S21S4013	Road Construction Works (Slow Lane) for C1/ C2 Interface stage 6A		100%	39	27-May-13 A	30-Jun-13 A																											
S21S4014	Road Construction Works for C1/ C2 Interface Final stage	-94	99%	45	02-Jul-13 A	26-Jun-14																											
S21S4030	Shift lane for C1/ C2 interface (South Bound along W35A)		100%	0	09-Dec-12 A																												
S21S4031	Shift lane for C1/ C2 Interface stage 4A		100%	0	14-Apr-13 A																												
S21S4032	Shift lane for C1/ C2 Interface stage 5A		100%	0	26-May-13 A																												
S21S4033	Shift lane for C1/ C2 Interface stage 6A		100%	0	30-Jun-13 A																												

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2010				2011				2012				2013				2014				
							Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
S22N2210	Prepare Piling Platform for W56B		100%	37	02-Oct-10 A	11-Feb-11 A																					
S22N2220	Pre-drilling for W56B		100%	37	02-Oct-10 A	15-Nov-10 A																					
S22N2240	Pipe Pile for W56B		100%	98	20-Nov-10 A	21-Mar-11 A																					
S22N2241	Pipe Pile for W56B - Stage 1		100%	75	20-Nov-10 A	23-Feb-11 A																					
S22N2242	Pipe Pile for W56B - Stage 2		100%	75	31-Jan-11 A	23-Sep-11 A																					
S22N2250	Construction of W56B		100%	276	17-Sep-11 A	06-Apr-13 A																					
S22N2251	Excavation (W56B), upper		100%	75	17-Sep-11 A	05-Jan-12 A																					
S22N2252	Excavation (W56B), Middle		100%	60	06-Jan-12 A	26-May-12 A																					
S22N2254	Excavation (W56B), bottom		100%	60	11-May-12 A	29-Sep-12 A																					
S22N2260	Base Slab (W56B), (Bay 1 -3)		100%	25	27-Jul-12 A	10-Sep-12 A																					
S22N2262	Base Slab (W56B), (Bay 4 - 8)		100%	60	27-Sep-12 A	10-Nov-12 A																					
S22N2264	Base Slab (W56B), (Bay 9, 10 & 12A)		100%	35	27-Jul-12 A	13-Oct-12 A																					
S22N2270	Wall Stem (W56B), (Bay 1 - 3, Total 18 pours)		100%	75	01-Nov-12 A	06-Apr-13 A																					
S22N2274	Wall Stem (W56B), (Bay 4 - 8, Total 30 pours)		100%	75	12-Nov-12 A	06-Apr-13 A																					
S22N2276	Wall Stem (W56B), (Bay 9 - 10, Total 12 pours)		100%	75	24-Nov-12 A	06-Apr-13 A																					
S22N2290	Backfilling (Bay 1 to Bay 3)		100%	15	10-Jan-13 A	19-Jan-13 A																					
S22N2292	Backfilling (Bay 4 to Bay 10)		100%	30	14-Jan-13 A	05-Mar-13 A																					
Roadworks & Drainage																											
S22N4000	Roadworks, Drainages & Utilities (CH 2840 - 3140)		100%	129	15-Jan-13 A	07-Dec-13 A																					
S22N4010	Roadworks Stage 1 (CH 2840 - 3000)		100%	30	15-Jan-13 A	29-Mar-13 A																					
S22N4030	Drainages Stage 1 (CH2840 - 3000)		100%	30	15-Jan-13 A	05-Mar-13 A																					
S22N4040	Road Surface Works		100%	30	21-Mar-13 A	23-Apr-13 A																					
S22N4042	Roadworks Stage 2 (CH3000 - 3140)		100%	30	18-Mar-13 A	30-Jul-13 A																					
S22N4044	Drainages Stage 2 (CH3000 - 3140)		100%	30	20-Feb-13 A	11-Apr-13 A																					
S22N4046	Road Surface Works		100%	30	17-May-13 A	18-Aug-13 A																					
S22N4048	Road Construction Works Remain Fast Lane (along CH2840 - 3140)		100%	50	25-Nov-13 A	07-Dec-13 A																					
Noise Barriers																											
Noise Barrier NB31A																											
S22N3020	NB31A (CH 0-21.9) on W56A (incl. VO 9: Construction of double leaf access door for noise barrier)		100%	74	15-Oct-12 A	22-Nov-12 A																					
S22N3021	NB31A (CH 0-21.9) on W56A : Erecting H-Column		100%	38	15-Oct-12 A	19-Oct-12 A																					
S22N3022	NB31A (CH 0-21.9) on W56A : Installing Panel		100%	36	22-Oct-12 A	22-Nov-12 A																					
South Bound																											
Preliminaries																											
S22S0000	Site Clearance/Access Rd		100%	84	01-Apr-10 A	16-Jul-10 A																					
S22S0010	Site Clearance		100%	72	01-Apr-10 A	02-Jul-10 A																					
S22S0020	Access Road		100%	72	20-Apr-10 A	16-Jul-10 A																					
Slopeworks																											
S22S5000	Slopeworks Cut(S28-sn) (incl. VO15: Revised Layout of Slope S28)		100%	198	21-Oct-10 A	17-Aug-11 A																					
S22S5010	Slopeworks Cut(S28) - Stage 1 (Cutslope)		100%	23	21-Oct-10 A	16-Nov-10 A																					
S22S5030	Slopeworks Cut(S28) - Stage 1 (Soil Nail Installation : IJKL)		100%	23	17-Nov-10 A	08-Feb-11 A																					
S22S5040	Slopeworks Cut(S28) - Stage 2 (Cutslope)		100%	37	11-Dec-10 A	03-Jan-11 A																					
S22S5060	Slopeworks Cut(S28) - Stage 2 (Soil Nail Installation : EFGH)		100%	37	08-Feb-11 A	23-Mar-11 A																					
S22S5070	Slopeworks Cut(S28) - Stage 3 (Cutslope)		100%	36	06-Jul-11 A	17-Aug-11 A																					
S22S5090	Slopeworks Cut(S28) - Stage 3 (Soil Nail Installation : ABCD)		100%	36	20-Aug-11 A	04-Oct-11 A																					
S22S5100	Slope Reinstatement Works (Bridge 12B)	-97	25%	40	27-Jan-14 A	31-Jul-14																					
Construction of Retaining Wall																											
Retaining Wall RWB12B																											
S22S2110	Pre-drilling for RWB12B		100%	24	16-Jul-10 A	12-Aug-10 A																					



Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2010												2011												2012												2013												2014																							
							Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4			Q1			Q2			Q3			Q4																										
							1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12												
S26S1680	Pier-P3		100%	96	26-Sep-11 A	20-Jan-12 A	Pier-P3																																																																							
S26S1920	Pier-P3 Pierhead		100%	48	19-Apr-12 A	31-Jul-12 A	Pier-P3 Pierhead																																																																							
Decking and Finishing																																																																														
S26S1808	Decking (Bearings, drainage & MJ included) (incl. VO 45: Details of Drainage Arrangement of LB1		100%	110	01-Jun-12 A	01-Mar-13 A	Decking (Bearings, drainage & MJ inc																																																																							
S26S1810	Balanced Cantilever deck at P1		100%	0	01-Jun-12 A	20-Jul-12 A	Balanced Cantilever deck at P1																																																																							
S26S1811	Preparing of Travelling Form		100%	12	01-Jun-12 A	25-Sep-12 A	Preparing of Travelling Form																																																																							
S26S1812	Construction of Cantilever Deck at P1		100%	55	15-Jun-12 A	04-Aug-12 A	Construction of Cantilever Deck at P1																																																																							
S26S1816	South End Span (South abutment-P1)		100%	197	13-Aug-12 A	09-Nov-12 A	South End Span (South abutment-P1)																																																																							
S26S1818	South End Span		100%	50	13-Aug-12 A	10-Nov-12 A	South End Span																																																																							
S26S1830	Balanced Cantilever deck at P2 & Stitching (P1-P2)		100%	78	19-Nov-12 A	14-Jan-13 A	Balanced Cantilever deck at P2 & Stitching																																																																							
S26S1831	Preparing of Travelling Form		100%	12	19-Nov-12 A	08-Dec-12 A	Preparing of Travelling Form																																																																							
S26S1832	Balanced Cantilever deck at P2		100%	50	10-Dec-12 A	05-Jan-13 A	Balanced Cantilever deck at P2																																																																							
S26S1833	Stitching (P1-P2)		100%	18	11-Jan-13 A	14-Jan-13 A	Stitching (P1-P2)																																																																							
S26S1840	Balanced Cantilever deck at P3 & Stitching (P2-P3)		100%	73	20-Aug-12 A	17-Jan-13 A	Balanced Cantilever deck at P3 & Stitching																																																																							
S26S1841	Preparing of Travelling Form		100%	12	20-Aug-12 A	05-Sep-12 A	Preparing of Travelling Form																																																																							
S26S1842	Balanced Cantilever deck at P3		100%	43	06-Sep-12 A	05-Nov-12 A	Balanced Cantilever deck at P3																																																																							
S26S1843	Stitching (P2-P3)		100%	18	15-Jan-13 A	17-Jan-13 A	Stitching (P2-P3)																																																																							
S26S1850	North End Span & Stitching (Nouth Abutment-P3)		100%	96	29-Oct-12 A	01-Mar-13 A	North End Span & Stitching (Nouth Ab																																																																							
S26S1851	End Spans for B13A		100%	29	29-Oct-12 A	01-Feb-13 A	End Spans for B13A																																																																							
S26S1852	Post Tentioning Works		100%	18	18-Feb-13 A	01-Mar-13 A	Post Tentioning Works																																																																							
S26S1860	Parapet (id, precast concrete skin)		100%	24	19-Mar-13 A	25-May-13 A	Parapet (id, precast concrete s																																																																							
S26S1863	Erection of Short Column and Barrier		100%	12	03-May-13 A	15-Jun-13 A	Erection of Short Column and																																																																							
S26S1873	Noise Barrier (Erection of H-Column and Panel)		100%	12	03-May-13 A	11-Jun-13 A	Noise Barrier (Erection of H-C																																																																							
S26S1875	Lighting		100%	12	25-May-13 A	11-Jun-13 A	Lighting																																																																							
S26S1880	Surfacing		100%	12	25-May-13 A	21-Jun-13 A	Surfacing																																																																							
S26S1900	Handover Inspection of Bridge 13A		100%	3	21-Jun-13 A	22-Jun-13 A	Handover Inspection of Bridg																																																																							
Ready For Pre-Handover Retaining Wall of Section 2																																																																														
HRW0020	Ready For Pre-Handover Retaining Wall W56A, W56B, W57A, W57B, W57C, W59 and RWB12/	-56	0%	7	26-Jun-14	04-Jul-14																																																																								
HRW0021	Ready For Pre-Handover Retaining Wall W58, W60, W61A, RWTW1, RWTW2, RWTW3, RWT1	-56	0%	7	26-Jun-14	04-Jul-14																																																																								
Section 3																																																																														
Site Area SA26A																																																																														
PHSA26A2	Possession of SA26A (Day0)		100%	0	26-Feb-10 A		◇ Possession of SA26A (Day0)																																																																							
SA26A000	Site Area SA26A Works Period	-88	99.81%	1215	26-Feb-10 A	28-Jun-14	Site																																																																							
SA26A010	Site Area SA26A Works Completion	-88	0%	0		28-Jun-14	◇ Site																																																																							
SA26A020	Temporary Traffic Arrangement (Detail shall refer to supplementary information)	-70	99.77%	983	26-Feb-10 A	28-Jun-14	Te																																																																							
SA26A030	Overall Utilities Diversion (Detail shall refer to supplementary information)	-70	99.77%	983	26-Feb-10 A	28-Jun-14	Ov																																																																							
North Bound																																																																														
Preliminaries																																																																														
S26AN000	Site Clearance/Access Rd		100%	75	26-Feb-10 A	18-Jun-10 A	Site Clearance/Access Rd																																																																							
S26AN010	Site Clearance		100%	60	26-Feb-10 A	12-May-10 A	Site Clearance																																																																							
S26AN020	Access Rd		100%	60	07-Apr-10 A	18-Jun-10 A	Access Rd																																																																							
Slopeworks																																																																														
S26AN502	Cut Slope (S37A)		100%	48	26-Apr-12 A	03-Jul-12 A	Cut Slope (S37A)																																																																							
S26AN506	Cut Slope (S40-sn, Including removal of existing retaining wall)		100%	168	19-Jun-10 A	08-Jan-11 A	Cut Slope (S40-sn, Including removal of existing retaining wall)																																																																							
S26AN508	Slopeworks Cut(S40) - Stage 1 (Cut Slope and Erect Scaffolding)		100%	11	19-Jun-10 A	16-Jul-10 A	Slopeworks Cut(S40) - Stage 1 (Cut Slope and Erect Scaffolding)																																																																							
S26AN510	Slopeworks Cut(S40) - Stage 1 (Soil Nail Installation : QRST)		100%	11	19-Jul-10 A	18-Aug-10 A	Slopeworks Cut(S40) - Stage 1 (Soil Nail Installation : QRST)																																																																							
S26AN514	Slopeworks Cut(S40) - Stage 2 (Cut Slope and Erect Scaffolding)		100%	14	19-Aug-10 A	17-Sep-10 A	Slopeworks Cut(S40) - Stage 2 (Cut Slope and Erect Scaffolding)																																																																							

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2010												2011				2012				2013				2014																												
							Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2		Q3		Q4		Q1		Q2	Q3																									
							1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5
Retaining Wall W69																																																											
S26AN149	Excavate and Tension Piles W69		100%	110	26-Mar-11 A	11-Aug-11 A	Excavate and Tension Piles W69																																																				
S26AN150	Excavation and Installation of Tension Piles - Stage 1 (south)		100%	55	26-Mar-11 A	04-Jun-11 A	Excavation and Installation of Tension Piles - Stage 1 (south)																																																				
S26AN151	Excavation and Installation of Tension Piles - Stage 2 (north)		100%	55	13-Jun-11 A	16-Aug-11 A	Excavation and Installation of Tension Piles - Stage 2 (north)																																																				
S26AN152	Retaining Wall & Drainage W69		100%	120	26-Aug-11 A	19-Jan-12 A	Retaining Wall & Drainage W69																																																				
S26AN153	Construction of Structure W69		100%	75	26-Aug-11 A	24-Nov-11 A	Construction of Structure W69																																																				
S26AN154	Drainage		100%	40	06-Feb-12 A	15-Mar-13 A	Drainage																																																				
S26AN155	Backfilling		100%	75	01-Jun-12 A	16-Jul-12 A	Backfilling																																																				
Retaining Wall W70																																																											
S26AN170	Sheet Pile/Excavate & Construct W70 (w/SP)		100%	165	03-Dec-10 A	15-Mar-13 A	Sheet Pile/Excavate & Construct W70																																																				
S26AN171	Sheet Pile and Excavation		100%	18	03-Dec-10 A	14-Dec-10 A	Sheet Pile and Excavation																																																				
S26AN172	Construction of Structure W70 (w/SP)		100%	75	18-Jul-11 A	15-Oct-11 A	Construction of Structure W70 (w/SP)																																																				
S26AN173	Drainage & Backfilling		100%	54	18-Feb-13 A	28-Jun-13 A	Drainage & Backfilling																																																				
S26AN174	Backfilling behind W68 to W70 and drainage works		100%	60	18-Mar-13 A	25-Nov-13 A	Backfilling behind W68 to W70 and drainage works																																																				
S26AN184	Erect Scaffolding & Soil Nail Installation		100%	35	04-Oct-13 A	25-Nov-13 A	Erect Scaffolding & Soil Nail Installation																																																				
Retaining Wall W72A (w/SP)																																																											
S26AN190	Sheet Pile/Excavate & Construct W72A (w/SP)		100%	92	30-Oct-10 A	21-Nov-11 A	Sheet Pile/Excavate & Construct W72A (w/SP)																																																				
S26AN191	Sheet Pile and Excavation		100%	34	30-Oct-10 A	31-Jan-11 A	Sheet Pile and Excavation																																																				
S26AN192	Construction of Structure W72A (w/SP)		100%	46	03-Jan-11 A	24-Mar-11 A	Construction of Structure W72A (w/SP)																																																				
S26AN193	Drainage & Backfilling		100%	68	01-Jun-11 A	21-Nov-11 A	Drainage & Backfilling																																																				
Road Re-Construction Works, Roadworks & Drainage																																																											
S26AN430	Slip Road R (From W72A to W73) Stage 1 (incl. VO 36: Slip Road R & Drainage detail.)		100%	15	30-Jan-12 A	25-Jul-12 A	Slip Road R (From W72A to W73) Stage 1 (incl. VO 36: Slip Road R & Drainage detail.)																																																				
S26AN431	Slip Road R (From W70 to B18A) Stage 1.1 formation		100%	15	26-May-12 A	13-Jun-12 A	Slip Road R (From W70 to B18A) Stage 1.1 formation																																																				
S26AN432	Slip Road R (From W70 to B18A) Stage 1.1 Drainage & utilities		100%	15	14-Jun-12 A	03-Jul-12 A	Slip Road R (From W70 to B18A) Stage 1.1 Drainage & utilities																																																				
S26AN433	Slip Road R (From W70 to B18A) Stage 1.1 pavement & roadworks		100%	15	04-Jul-12 A	26-Jul-12 A	Slip Road R (From W70 to B18A) Stage 1.1 pavement & roadworks																																																				
S26AN435	Slip Road R (From W70 to B18A) Stage 2		100%	93	18-May-12 A	14-Sep-13 A	Slip Road R (From W70 to B18A) Stage 2																																																				
S26AN436	Slip Road R (From W70 to B18A) Stage 2, formation (Remaining)		100%	30	18-May-12 A	06-Aug-13 A	Slip Road R (From W70 to B18A) Stage 2, formation (Remaining)																																																				
S26AN437	Slip Road R (From W70 to B18A) Stage 2, Drainage & utilities (Remaining)		100%	30	27-Jun-12 A	14-Sep-13 A	Slip Road R (From W70 to B18A) Stage 2, Drainage & utilities (Remaining)																																																				
S26AN438	Slip Road R (From W70 to B18A) Stage 2, pavement & roadworks (Remaining)		100%	50	14-Jul-12 A	14-Sep-13 A	Slip Road R (From W70 to B18A) Stage 2, pavement & roadworks (Remaining)																																																				
S26AN447	Construction Slip Road J (Under Bridge 15A)	-91	50%	45	27-Aug-13 A	23-Jul-14	Construction Slip Road J (Under Bridge 15A)																																																				
S26AN448	Construction Slip Road Q (At W65C)	-91	50%	45	27-Dec-13 A	23-Jul-14	Construction Slip Road Q (At W65C)																																																				
S26AN451	Road and Drainage Works (CH 3720 - 4550)		100%	168	24-Jun-13 A	20-Dec-13 A	Road and Drainage Works (CH 3720 - 4550)																																																				
S26AN452	Removal of existing central barrier and forming temporary road (CH3720-4100)		100%	12	24-Jun-13 A	20-Jul-13 A	Removal of existing central barrier and forming temporary road (CH3720-4100)																																																				
S26AN4525	TTA - Stage 4B-2		100%	0		21-Jul-13 A	TTA - Stage 4B-2																																																				
S26AN453	Road and Drainage Works for Slow and Mid Lane (CH3720 - 3850)	-84	95%	20	08-Jul-13 A	26-Jun-14	Road and Drainage Works for Slow and Mid Lane (CH3720 - 3850)																																																				
S26AN454	Road Surface Works for Slow and Mid Lane (CH3720 - 3850)	-70	95%	10	26-Oct-13 A	27-Jun-14	Road Surface Works for Slow and Mid Lane (CH3720 - 3850)																																																				
S26AN455	Removal of existing central barrier (CH4100-4550)		100%	8	26-Jul-13 A	09-Aug-13 A	Removal of existing central barrier (CH4100-4550)																																																				
S26AN456	Road Works for Fast and Mid Lane (CH3850 - CH4550)		100%	20	10-Aug-13 A	25-Nov-13 A	Road Works for Fast and Mid Lane (CH3850 - CH4550)																																																				
S26AN457	Road Surface Works for Fast and Mid Lane (CH3850 - 4550)		100%	10	27-Aug-13 A	25-Nov-13 A	Road Surface Works for Fast and Mid Lane (CH3850 - 4550)																																																				
S26AN458	Road Works for Fast Lane (CH3720 - 3850)		100%	20	26-Oct-13 A	25-Nov-13 A	Road Works for Fast Lane (CH3720 - 3850)																																																				
S26AN459	Road Surface Works for Fast Lane (CH3720 - 3850)		100%	10	26-Oct-13 A	25-Nov-13 A	Road Surface Works for Fast Lane (CH3720 - 3850)																																																				
S26AN460	Road and Drainage Works for Slow Lane (CH4250 - 4550)	-91	95%	35	05-Oct-13 A	27-Jun-14	Road and Drainage Works for Slow Lane (CH4250 - 4550)																																																				
S26AN461	Road Surface Works for Slow Lane (CH4250 - 4550)	-70	95%	10	26-Oct-13 A	28-Jun-14	Road Surface Works for Slow Lane (CH4250 - 4550)																																																				
S26AN462	Road Construction and Remaining Works (along CH 3720 - 4550)		100%	35	05-Oct-13 A	20-Dec-13 A	Road Construction and Remaining Works (along CH 3720 - 4550)																																																				
S26AN470	Road and Drainage Works (CH 4550 - 4720)	-70	97.44%	88	26-Oct-13 A	28-Jun-14	Road and Drainage Works (CH 4550 - 4720)																																																				
S26AN471	Road and Drainage Works for Fast Lane (CH 4550 - 4720)		100%	35	26-Oct-13 A	25-Nov-13 A	Road and Drainage Works for Fast Lane (CH 4550 - 4720)																																																				
S26AN472	Road Surface Works for Fast Lane (CH4550 - 4720)		100%	8	26-Oct-13 A	25-Nov-13 A	Road Surface Works for Fast Lane (CH4550 - 4720)																																																				
S26AN482	Road Construction and Remaining Works (along CH 4550 - 4720)	-70	95%	45	05-Oct-13 A	28-Jun-14	Road Construction and Remaining Works (along CH 4550 - 4720)																																																				

Traffic Control & Surveillance System

Activity ID	Activity Name	Total Float	Activity % Complete	Original Duration	Start	Finish	2010												2011				2012				2013				2014					
							Q1			Q2			Q3			Q4			Q1		Q2		Q3		Q4		Q1		Q2		Q3					
							1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
S28N2115	Utilities Diversion		100%	60	07-Jun-10 A	17-Aug-10 A																														
S28N2120	Temporary road and pedestrian diversion		100%	60	18-Aug-10 A	29-Oct-10 A																														
S28N2125	Pre-drilling for Piles		100%	15	21-Oct-10 A	19-Nov-10 A																														
S28N2130	Confirmation of Founding Level		100%	19	26-Mar-11 A	18-Apr-11 A																														
S28N2134	Falsework removal beteew NLK deck P7 -P8		100%	26	07-Jan-13 A	01-Feb-13 A																														
S28N2135	Piling work for W74 (Stage 1: Bay1 - 3)		100%	75	21-Feb-13 A	22-Apr-13 A																														
S28N2140	Temporary Work for Excavation (Stage 1: Bay1 - 3)		100%	20	27-Jun-12 A	31-Jul-12 A																														
S28N2145	Excavation and Tie Back to Formation Level (Stage 1: Bay1 - 3)		100%	18	18-Jul-12 A	31-Jul-12 A																														
S28N2150	Pile Head Trimming and bearing plate (Stage 1: Bay1 - 3)		100%	14	27-May-13 A	11-Jun-13 A																														
S28N2155	Retaining Wall Construction (Stage 1: Bay1 - 3)		100%	45	11-Jun-13 A	07-Oct-13 A																														
S28N2156	Base Slab (W74) (Bay 1- 3)		100%	30	25-May-13 A	27-Jul-13 A																														
S28N2158	Wall Stem (W74) (Bay 1- 3)		100%	30	23-Jul-13 A	07-Oct-13 A																														
S28N2160	Retaining Wall Construction (Stage 2: Bay 4 - 9)	0	98.14%	202	23-Apr-13 A	29-Mar-14																														
S28N2161	Falsework removal bewteen NLK deck P8 - P9		100%	26	23-Apr-13 A	20-Jul-13 A																														
S28N2162	Piling work for W74 (Stage 2: Bay 4 - 9)		100%	50	24-Jun-13 A	22-Oct-13 A																														
S28N2164	Temporary Work for Excavation (Stage 2: Bay 4 - 9)		100%	18	27-Jun-12 A	17-Jul-12 A																														
S28N2165	Excavation and Tie Back to Formation Level (Stage 2: Bay 4 - 9)		100%	19	18-Jul-12 A	31-Jul-12 A																														
S28N2167	Base Slab (W74) (Bay 4 - 9)		100%	25	07-Sep-13 A	25-Jan-14 A																														
S28N2168	Wall Stem (W74) (Bay 4 - 9)		100%	30	05-Oct-13 A	25-Jan-14 A																														
S28N2190	Backfilling		100%	25	12-Oct-13 A	29-May-14 A																														
Noise Barrier NB43 (AD5)																																				
S28N2500	Utilities Diversion		100%	127	01-Jun-10 A	10-Feb-11 A																														
S28N2510	Temporary Noise Barrier Installation		100%	46	16-Nov-10 A	26-Dec-10 A																														
S28N2520	Noise Barrier Construction Stage 1 (Bay 1 - 3)		100%	72	03-Feb-12 A	14-Aug-12 A																														
S28N2525	Noise Barrier Construction Stage 2 (Bay 4 - 9)		100%	75	09-Jan-13 A	18-Jun-13 A																														
S28N2526	Noise Barrier Construction Stage 3 remaining (Bay 4 - 7) Wall		100%	30	28-Oct-13 A	09-Jan-14 A																														
S28N2530	Erection of Steel Post & Panel (Bay 1 - 3)		100%	75	29-Dec-12 A	31-Jan-13 A																														
S28N2531	Erection of Steel Post & Panel (Bay 4 - 9)		100%	10	20-Jan-14 A	25-Jan-14 A																														
Road Re-Construction Works, Roadworks, Drainage & Utilities																																				
S28N3890	VO 25: Construction of Cross road Ducts & traffic signal Drawpits at proposed crossing point of tai		100%	10	27-Apr-11 A	12-Sep-12 A																														
S28N3900	CLP & Gasmian Diversion, Tear Drop/Slip Road T (incl. VO 19: Protection for existing HKCG HP60)		100%	75	15-Oct-11 A	12-Jun-12 A																														
S28N3902	DN400 landfill gasmain at NB41-stage 1		100%	25	21-Nov-12 A	28-Nov-12 A																														
S28N3904	DN400 landfill gasmain at NB41-stage 2		100%	25	17-Dec-12 A	02-Mar-13 A																														
S28N3906	New Joint Box construction for CLP 132kV		100%	50	24-Dec-12 A	14-May-13 A																														
S28N3910	Watermain, traffic light, road drains & gully, Tear Drop/Slip Road T (incl. VO52)		100%	75	15-Aug-11 A	11-Mar-13 A																														
S28N3920	COD: TTA Case 50 Stage 1 & 2 (Epron ordered: 16-12-11, expected delivery date: 23-1-13, actual		100%	24	16-Dec-11 A	21-Apr-12 A																														
S28N3970	Pavement at Tear Drop Area, Slip Road T & Traffic diversion		100%	30	18-May-12 A	11-Mar-13 A																														
S28N4002	Roadworks, Drainages & Utilities, TWSRW Road from NB41-bay 6 to NB42-bay12 (incl. VO42 & \		100%	150	18-May-12 A	23-Mar-13 A																														
S28N4004	Drainage, Utilities & Removal of existing paving (incl.TTA & VO 77 Provision of cable duct for power		100%	75	18-May-12 A	11-Mar-13 A																														
S28N4006	Road surfacing, Tai Wo Service Road West from NB41-bay 6 to NB42-bay12 (incl. VO 81 mainter		100%	60	22-Jan-13 A	23-Mar-13 A																														
S28N4010	Roadworks to NKL Flyover and Ramps		100%	175	30-Jan-13 A	16-Aug-13 A																														
S28N4012	Roadworks to NKL Flyover and Ramp - South Ramp to SA		100%	50	30-Jan-13 A	24-Jul-13 A																														
S28N4014	Roadworks to NKL Flyover and Ramp - North Ramp to NA		100%	20	13-Jun-13 A	22-Aug-13 A																														
S28N4020	Road Marking of New Lam Kam Bridge and Final Diversion of South Bound Traffic from NLK Bridg		100%	10	23-Jul-13 A	16-Aug-13 A																														
S28N4024	Road and Drainage Works (along W74 and NB38)	-81	35%	20	08-Jan-14 A	08-Jul-14																														
S28N4030	300d, 1200d watermain (chA9.00-ch182.00) & Firemains	236	96.69%	362	06-Aug-10 A	10-Jul-14																														
S28N4040	Cable Detection and Trial Pit Excavation		100%	72	06-Aug-10 A	19-Sep-10 A																														
S28N4050	Sheet Pile & ELS		100%	72	20-Sep-10 A	15-Feb-11 A																														

**APPENDIX C
IMPLEMENTATION SCHEDULE OF
ENVIRONMENTAL MITIGATION MEASURES
(EMIS)**

Appendix C - Implementation Schedule of Environmental Mitigation Measures (EMIS)

Air Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status		
			May 14	Jun 14	Jul 14
Air Quality during Construction	<ul style="list-style-type: none"> Restricting heights from which materials are dropped, as far as practicable to minimize the fugitive dust arising from unloading/loading. 	During construction	V	V	V
	<ul style="list-style-type: none"> All stockpiles of excavated materials or spoil of more than 50m³ shall be enclosed, covered or dampened during dry or windy conditions. 		@	V	@
	<ul style="list-style-type: none"> Effective water sprays shall be used to control potential dust emission sources such as unpaved haul roads and active construction areas. 		V	V	@
	<ul style="list-style-type: none"> All spraying of materials and surfaces shall avoid excessive water usage. 		V	V	V
	<ul style="list-style-type: none"> Vehicles that have the potential to create dust while transporting materials shall be covered, with the cover properly secured and extended over the edges of the side and tail boards. 		V	V	V
	<ul style="list-style-type: none"> Materials shall be dampened, if necessary, before transportation. 		V	V	V
	<ul style="list-style-type: none"> Travelling speeds shall be controlled to reduce traffic induced dust dispersion and resuspension within the site from the operating haul trucks. 		V	V	V
	<ul style="list-style-type: none"> Vehicle washing facilities shall be provided to minimize the quantity of material deposited on public roads. 		V	V	V

Noise - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status		
			May 14	Jun 14	Jul 14
Noise during Construction	<ul style="list-style-type: none"> Use of silenced plant or plant equipped with mufflers or dampers in substitute of ordinary plant. 	During construction	V	V	V
	<ul style="list-style-type: none"> Reduce the number of equipment and their percentage on-time. 		V	V	V
	<ul style="list-style-type: none"> 3.5 m and 5.5 m high temporary noise barrier at culvert construction work area (Figure 2a of the Environmental Permit). 		V	V	V
	<ul style="list-style-type: none"> 3 m high temporary noise barrier along the northern edge of Bridge 12 at ground level (Figure 2b of the Environmental Permit). 		V	V	V
	<ul style="list-style-type: none"> 2 m high temporary noise barrier along the northern edge of Bridge 12 at bridge level (Figure 2b of the Environmental Permit). 		In progress	In progress	In progress
	<ul style="list-style-type: none"> 2.5 m high temporary noise barrier along Tai Wo Service Road West (Figure 2c of the Environmental Permit). 		V	V	V
	<ul style="list-style-type: none"> 3.5m high temporary noise barrier along Tai Wo Services Road West near Tai Hang (Figure2c of the Environmental Permit). 		In progress	In progress	In progress

Water Quality - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status		
			May 14	Jun 14	Jul 14
Water quality during Construction	Demolition and reconstruction of bridges	During construction			
	<ul style="list-style-type: none"> Prevent off-site migration through use of sheet piles. 		V	V	V
	<ul style="list-style-type: none"> Minimize duration of works as far as practical. 		V	V	V
	<ul style="list-style-type: none"> All sewer and drainage connections should be sealed to prevent debris, soil, sand, etc, from entering public sewers/drains. 		V	@	V
	<ul style="list-style-type: none"> Site surface runoff should be settled to remove sand/silt before it is discharged into the existing storm drains. 		@	@	V
	River training works				
	<ul style="list-style-type: none"> Inspection and testing of water quality in the nullah on the Tai Po River. 		N/A	N/A	N/A
	Road Widening Works and Earthworks				
	<ul style="list-style-type: none"> Wastewater generated from any concrete batching washdown of equipment or similar activities should be discharged into foul sewers, after the removal of settleable solids, and pH adjustment as necessary. All sewage discharges from the study area should meet the TM standards and approval from EPD through the licensing process is required. 		V	V	V
	<ul style="list-style-type: none"> Sand traps, oil interceptors and other pollution prevention installations should be provided, properly cleaned and maintained. 		V	V	V
	<ul style="list-style-type: none"> Runoff from exposed working areas, unfinished slopes and from unlined temporary channels should be directed to stilling basins and/or silt traps before discharging to the drainage outfalls. 		V	@	V
	<ul style="list-style-type: none"> Regular inspections of stilling basins and/or silt traps are required to ensure that sediment is not conveyed into the existing drainage system. 		V	V	V
	<ul style="list-style-type: none"> Open stockpiles should be covered with a tarpaulin cover. 		@	V	@
	<ul style="list-style-type: none"> During the wet season, any exposed top soils should be covered with a tarpaulin, shotcreted or hydroseeded. 		@	V	V
	<ul style="list-style-type: none"> Sand and silt from wash-water from vehicle washing should be settled out before discharging into storm drains. 		V	V	V
<ul style="list-style-type: none"> Fuels should be stored in bunded areas such that spillage can be easily collected. 	V	V	V		

Waste - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status		
			May 14	Jun 14	Jul 14
Waste Management during Construction	General Waste	During construction			
	<ul style="list-style-type: none"> Transport of wastes off site as soon as possible. 		@	V	@
	<ul style="list-style-type: none"> Maintenance of accurate waste records 		V	V	V
	<ul style="list-style-type: none"> Minimization of waste generation for disposal (via reduction/recycling/re-use). 		V	V	V
	<ul style="list-style-type: none"> No on-site burning will be permitted. 		V	V	V
	<ul style="list-style-type: none"> Use of re-useable metal hoardings/signboards. 		V	V	V
	Vegetation from site clearance				
	<ul style="list-style-type: none"> Segregation of materials to facilitate disposal. 		V	V	V
	<ul style="list-style-type: none"> Mulching to reduce bulk and where possible review opportunities for the possible beneficial use within landscaping areas. 		V	V	V

	Demolition Wastes			
	• Segregation of materials to facilitate disposal.		V	V
	• Appropriate stockpile management.		V	V
	Excavated Materials			
	• Segregation of materials to facilitate disposal / reuse.		V	V
	• Appropriate stockpile management.		V	V
	• Re-use of excavated material on or off site (where possible).		V	V
	• Special handling and disposal procedures in the event that contaminated materials are excavated.		N/A	N/A
	Construction Wastes			
	• Segregation of materials to facilitate recycling/reuse (within designated area in appropriate containers/stockpiles).		V	V
	• Appropriate stockpile management.		V	V
	• Planning to reduce over ordering and waste generation.		V	V
	• Recycling and re-use of materials where possible (e.g. metal, wood from formwork)		V	V
	• For material which cannot be re-used/recycled, collection should be carried out by an approved waste contractor for landfill disposal.		@	V
	Bentonite Slurries			
	• Bentonite slurries should be reused as far as possible.		N/A	N/A
	• Disposal in accordance with <i>Practice Note For Professional Persons ProPECC PN 1/94</i> .		N/A	N/A
	Chemical Wastes			
	• Storage within locked, covered and bunded area.		V	V
	• The storage area shall not be located adjacent to sensitive receivers e.g. drains.		V	V
	• Minimize waste production and recycle oils/solvents where possible.		V	V
	• A spill response procedure shall be in place and absorption material available for minor spillages.		@	V
	• Use appropriate and labelled containers.		V	V
	• Educate site workers on site cleanliness/waste management procedures.		V	V
	• If chemical wastes are to be generated, the contractor must register with EPD as a Chemical Waste Producer.		V	V
	• The chemical wastes shall be collected by a licensed chemical waste collector.		V	@
	Municipal Wastes			
	• Waste shall be stored within a temporary refuse collection facility, in appropriate containers prior to collection and disposal.		V	V
	• Regular, daily collections are required by an approved waste collector.		V	V

Ecology - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status		
			May 14	Jun 14	Jul 14
Ecology during Construction	Accurate Delineation of Works Area	During construction			
	• Boundaries of proposed works areas shall be clearly identified and Decarated from external areas by a physical barrier to prevent encroachment of adjacent habitats.		V	V	V
	• Individual trees which fall within the works areas but which work plans show do not require removal are to be retained and fenced off to maximize protection.		V	V	V
	Vegetation Clearance				

	• No fires shall be lit within the works area for the purpose of burning cleared vegetation.		V	V	V
	• The Contractor shall give consideration to mulching the cleared vegetation for recycling within the works area / adjacent land.		V	V	V
	Dust generation				
	• Vehicle washing facilities to be provided at every discernible or designated vehicle exit point;		V	V	V
	• All temporary site access roads shall be sprayed with water to suppress dust as necessary;		V	V	V
	• All dusty materials should be sprayed with water immediately prior to any handling; and		V	V	V
	• All debris should be covered entirely by impervious sheeting or stored in a sheltered debris collection area.		V	V	V
	Surface Run-off				
	• Bund and cover stock piles to avoid run-off;		V	V	V
	• Channel any run-off through a system of oil, grease and sediment / silt traps and reuse water on site where ever practical;		V	V	V
	• All vehicle maintenance to be undertaken within a bunded area; and		N/A	N/A	N/A
	• Maximize vegetation retention on-site to maximize absorption (minimize transport).		V	V	V

Landscape and Visual Impact - Schedule of Recommended Mitigation Measures

Impact	Mitigation Measures	Timing	Implementation Status		
			May 14	Jun 14	Jul 14
Landscape and Visual during Construction	Preservation of Existing Vegetation	During construction			
	• Trees identified for retention within the project limit would be protected during the works		V	V	V
	• The tree transplanting and planting works shall be implemented by approved Landscape Contractors		V	V	V
	Temporary Works Areas				
	• Where feasible the works areas would be screened using hoarding and existing vegetation would be retained where possible to reduce the landscape and visual impacts arising from the construction activity. The landscape of these works areas would be restored following the completion of the construction phase.		V	V	V
	Hoarding				
	• A hoarding would be erected where practicable in the most visually sensitive locations to screen the temporary construction works from the local VSR's.		V	V	V
	Top Soils				
	• The works will result in disturbance to extensive areas of topsoil. Topsoil worthy of retention should be stockpiled for use following completion of the civil engineering works. It should either be temporarily vegetated with hydroseeded grass or turned over on a regular basis.		N/A	N/A	N/A
	Protection of Important Landscape Features				
• Important features such as temples, Island House and kilns within the study area, although remote from the proposed works retained and adequately protected.	V	V	V		

Legend: V = implemented;
x = not implemented;
@ = partially implemented;
N/A = not applicable – No such work was undertaken or no such material was used on site.

**APPENDIX D
SUMMARY OF ACTION AND LIMIT LEVELS**

Appendix D - Summary of Action and Limit Levels

Table 1 – Action and Limit Levels for 1-hour TSP

Location	Action Level	Limit Level
AM1A	302.1 $\mu\text{g}/\text{m}^3$	500 $\mu\text{g}/\text{m}^3$
AM2	301.9 $\mu\text{g}/\text{m}^3$	500 $\mu\text{g}/\text{m}^3$
AM3	301.9 $\mu\text{g}/\text{m}^3$	500 $\mu\text{g}/\text{m}^3$
AM4A	302.3 $\mu\text{g}/\text{m}^3$	500 $\mu\text{g}/\text{m}^3$

Table 2 – Action and Limit Levels for 24-hour TSP

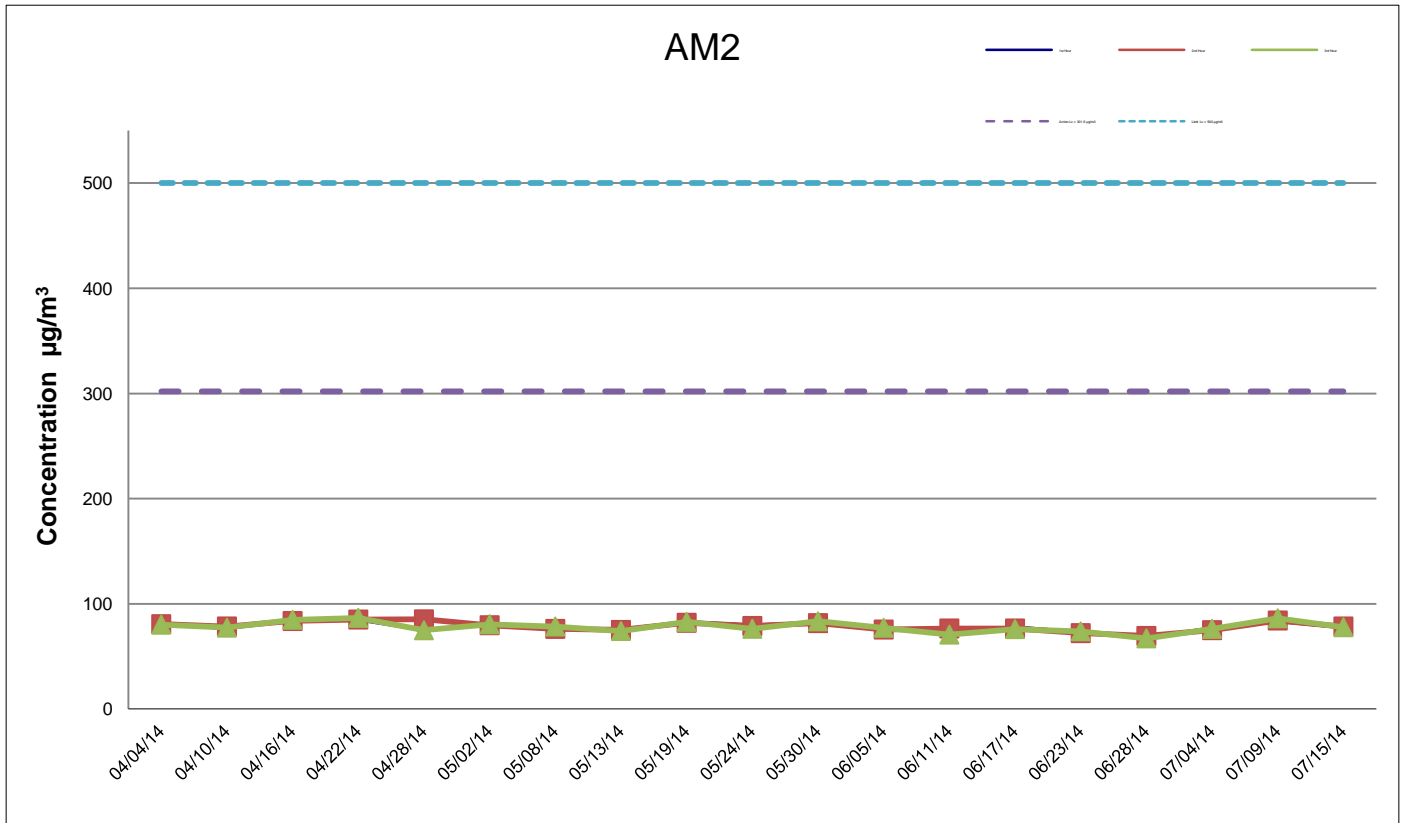
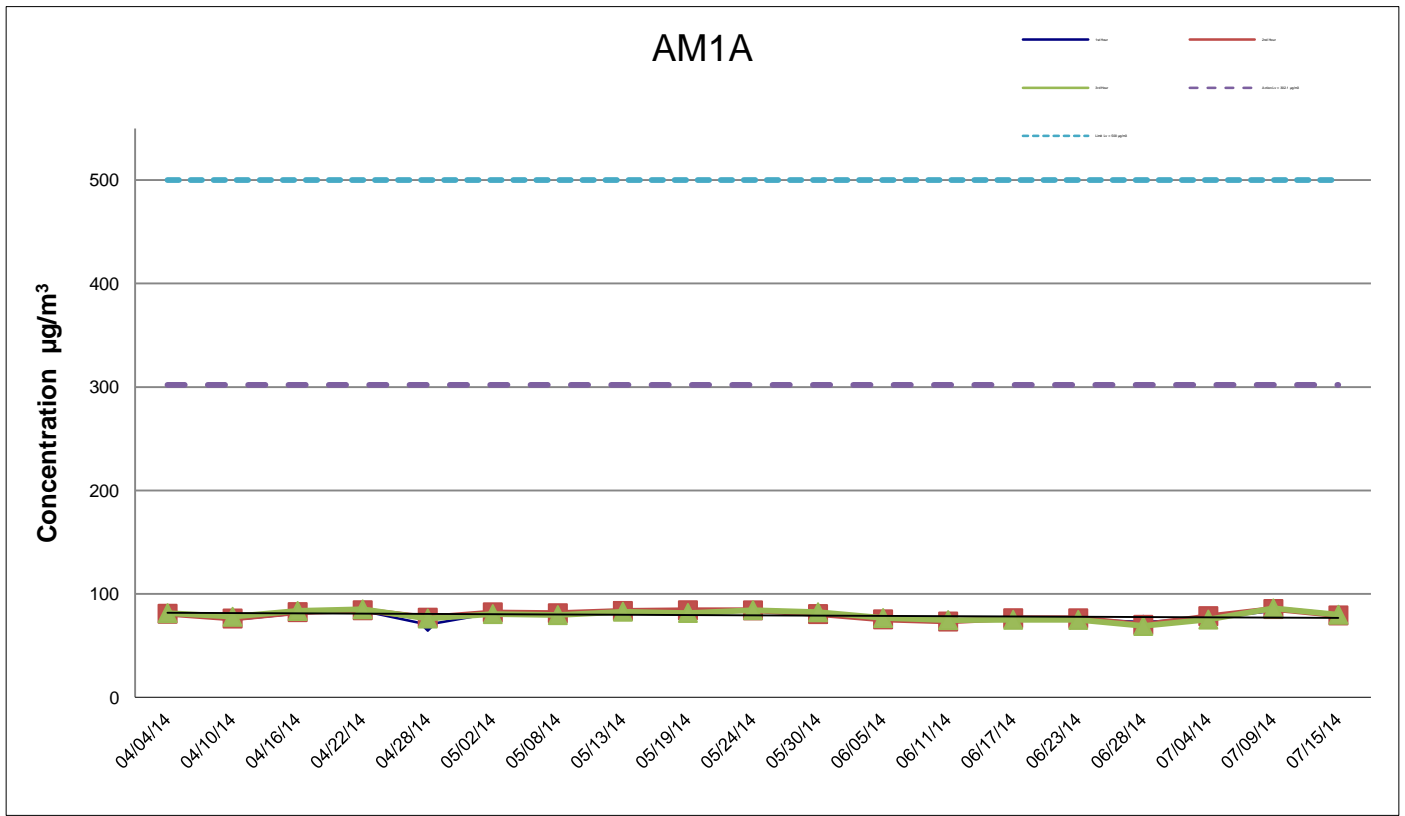
Location	Action Level	Limit Level
AM1A	176.6 $\mu\text{g}/\text{m}^3$	260 $\mu\text{g}/\text{m}^3$
AM2	178.6 $\mu\text{g}/\text{m}^3$	260 $\mu\text{g}/\text{m}^3$
AM3	193.1 $\mu\text{g}/\text{m}^3$	260 $\mu\text{g}/\text{m}^3$
AM4A	198.5 $\mu\text{g}/\text{m}^3$	260 $\mu\text{g}/\text{m}^3$

Table 3 – Action and Limit Levels for Construction Noise (0700-1900 hrs of normal weekdays)

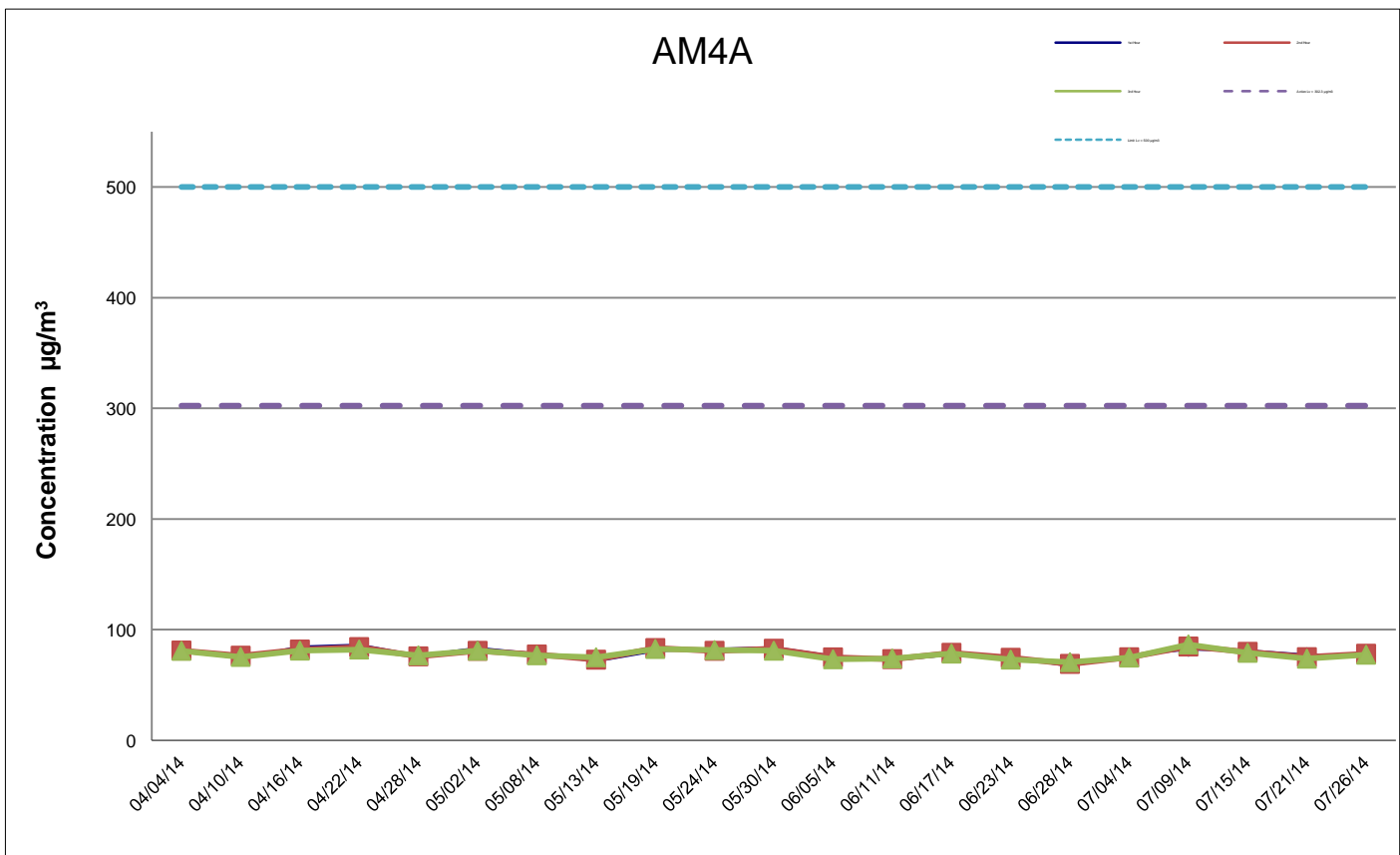
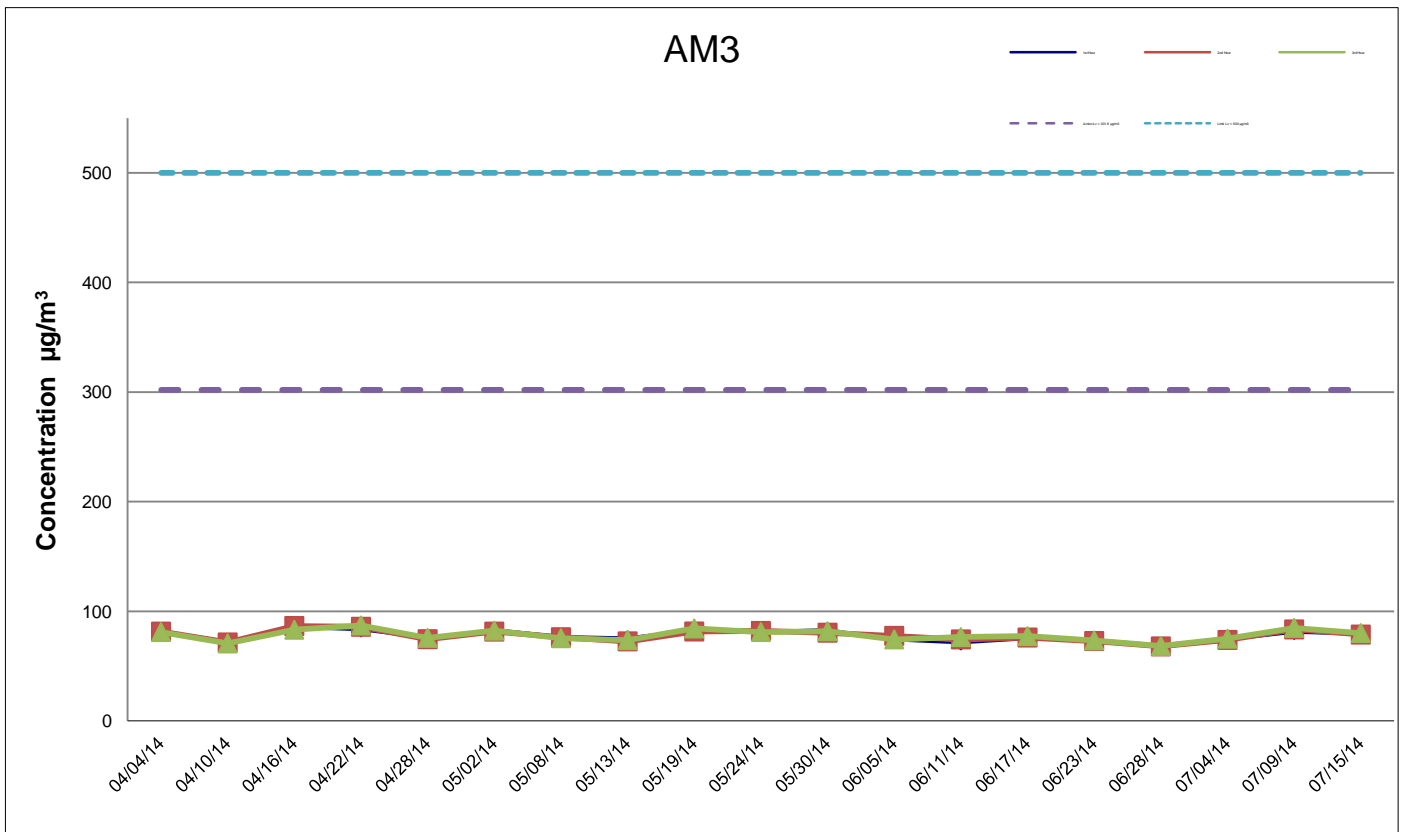
Location	Action Level	Limit Level
NM1A	When one documented complaint, related to 0700 – 1900 hours on normal weekdays, is received from any one of the sensitive receivers	75 dB(A)
NM2		75 dB(A)
NM3		65/70 dB(A)*
NM4		75 dB(A)
NM5		75 dB(A)
NM6		65/70 dB(A)*
NM7		75 dB(A)

*Daytime noise Limit Level of 70 dB(A) applies to education institutions, while 65dB(A) applies during school examination period

**APPENDIX E
GRAPHICAL PRESENTATION OF IMPACT
AIR QUALITY MONITORING RESULTS**



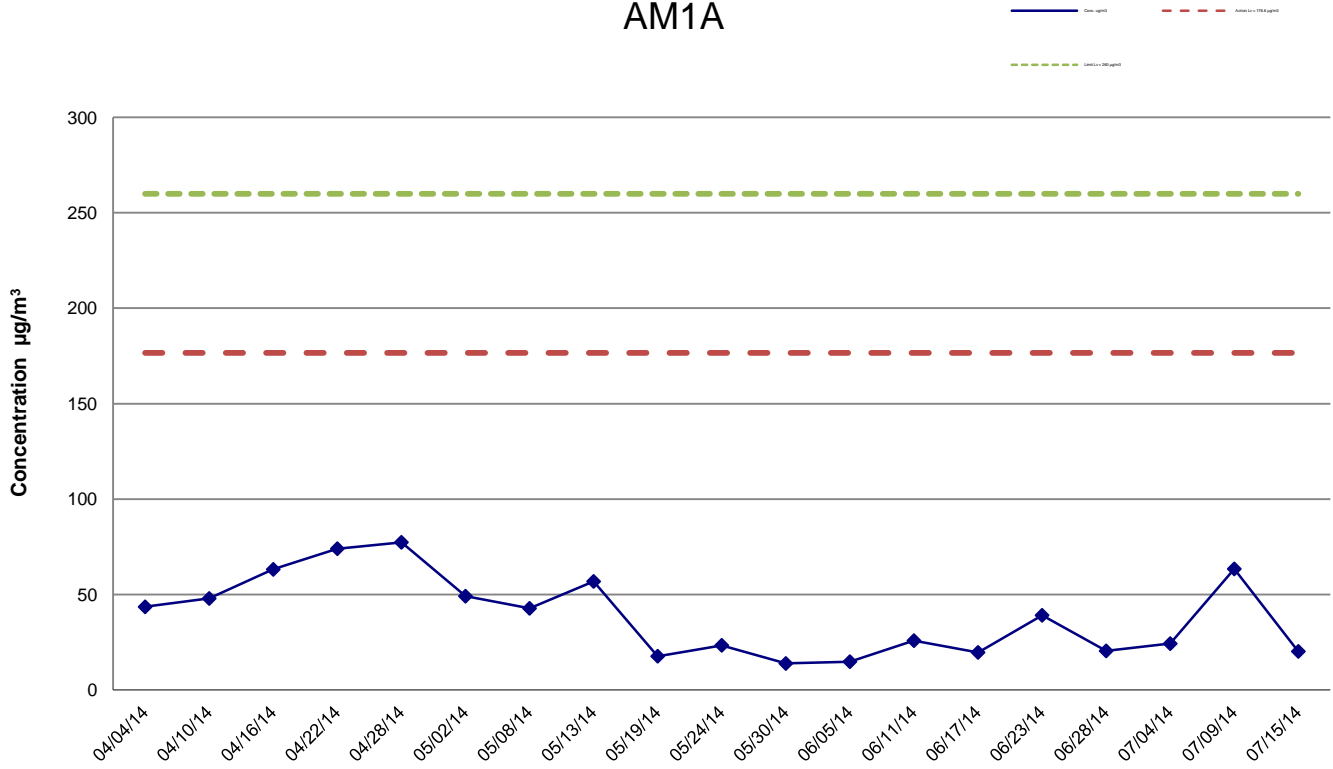
	Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation	SCALE	N.T.S.	DATE	Aug-14
	Graphical Presentation of Impact 1-hour TSP Monitoring Results	CHECK	ENFL	DRAWN	JCYK
		JOB NO.	60102979	APPENDIX No.	E



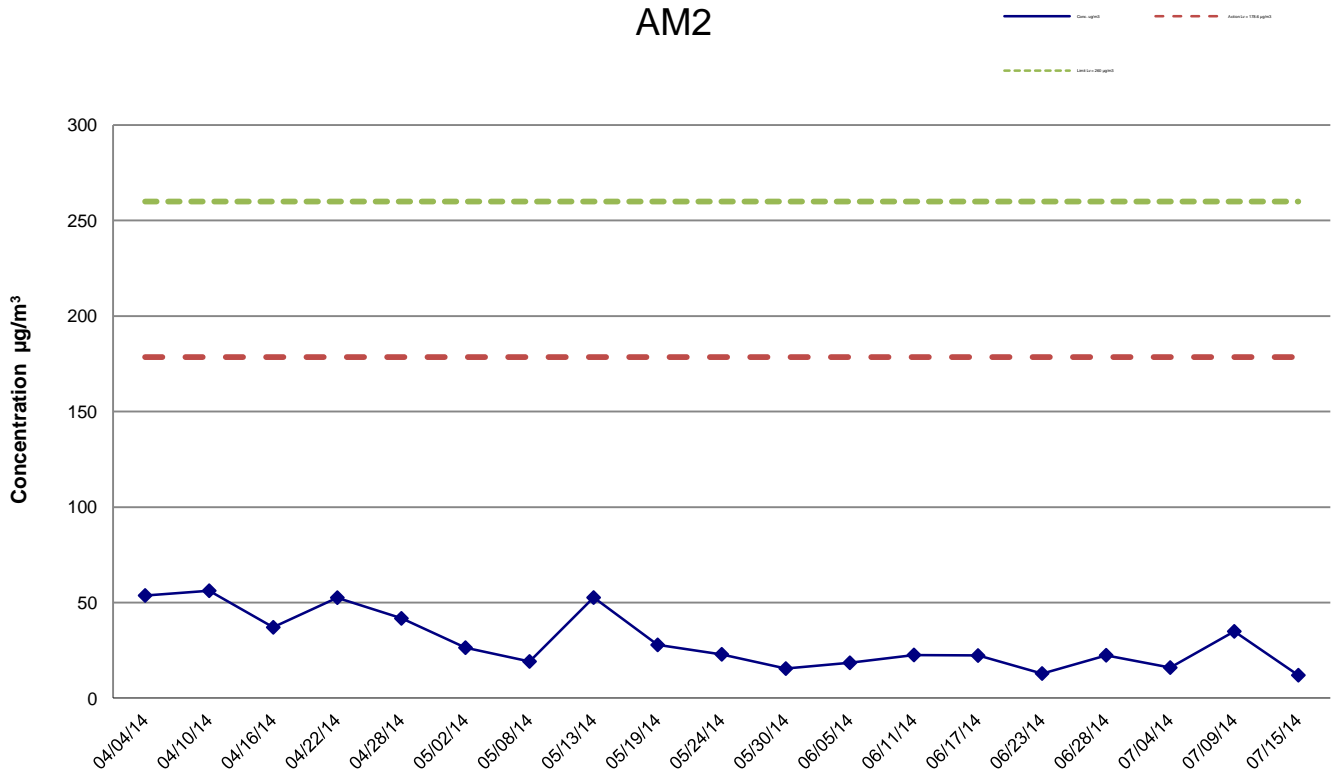
Remark: The monitoring station at Tai Kwong Secondary School (AM4) was relocated to 168 Shek Kwu Lung Village (AM4A) starting from 1 September 2011 due to the mentioned school was closed down.

AECOM	Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation	SCALE	N.T.S.	DATE	Aug-14
	Graphical Presentation of Impact 1-hour TSP Monitoring Results	CHECK	ENFL	DRAWN	JCYK
		JOB NO.	60102979	APPENDIX No. E	

AM1A



AM2



Environmental Team for the Widening of Tolo Highway
between Island House Interchange and Tai Hang - Investigation

Graphical Presentation of Impact 24-hour TSP Monitoring
Results

SCALE

N.T.S.

DATE

Aug-14

CHECK

ENFL

DRAWN

JCYK

JOB NO.

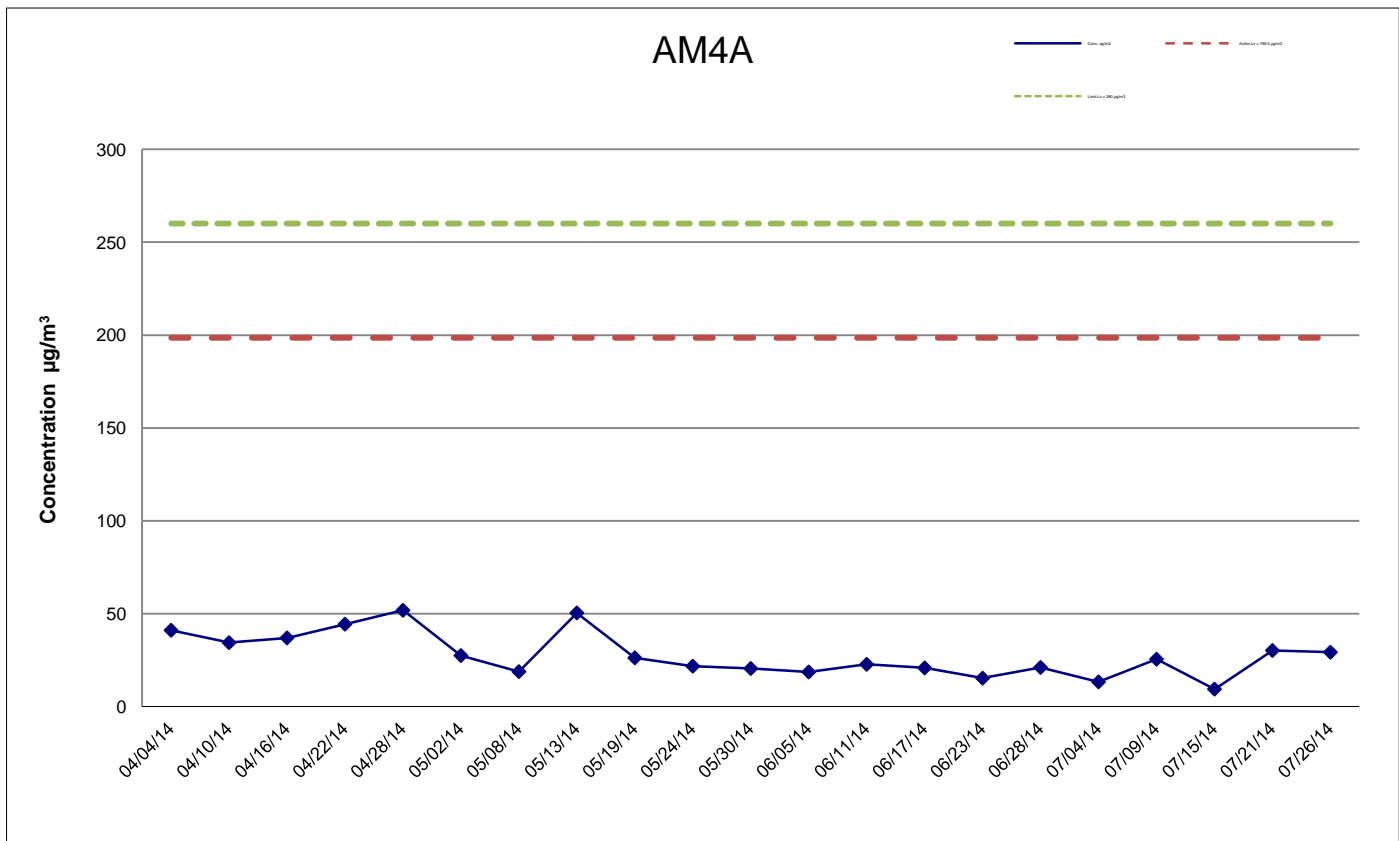
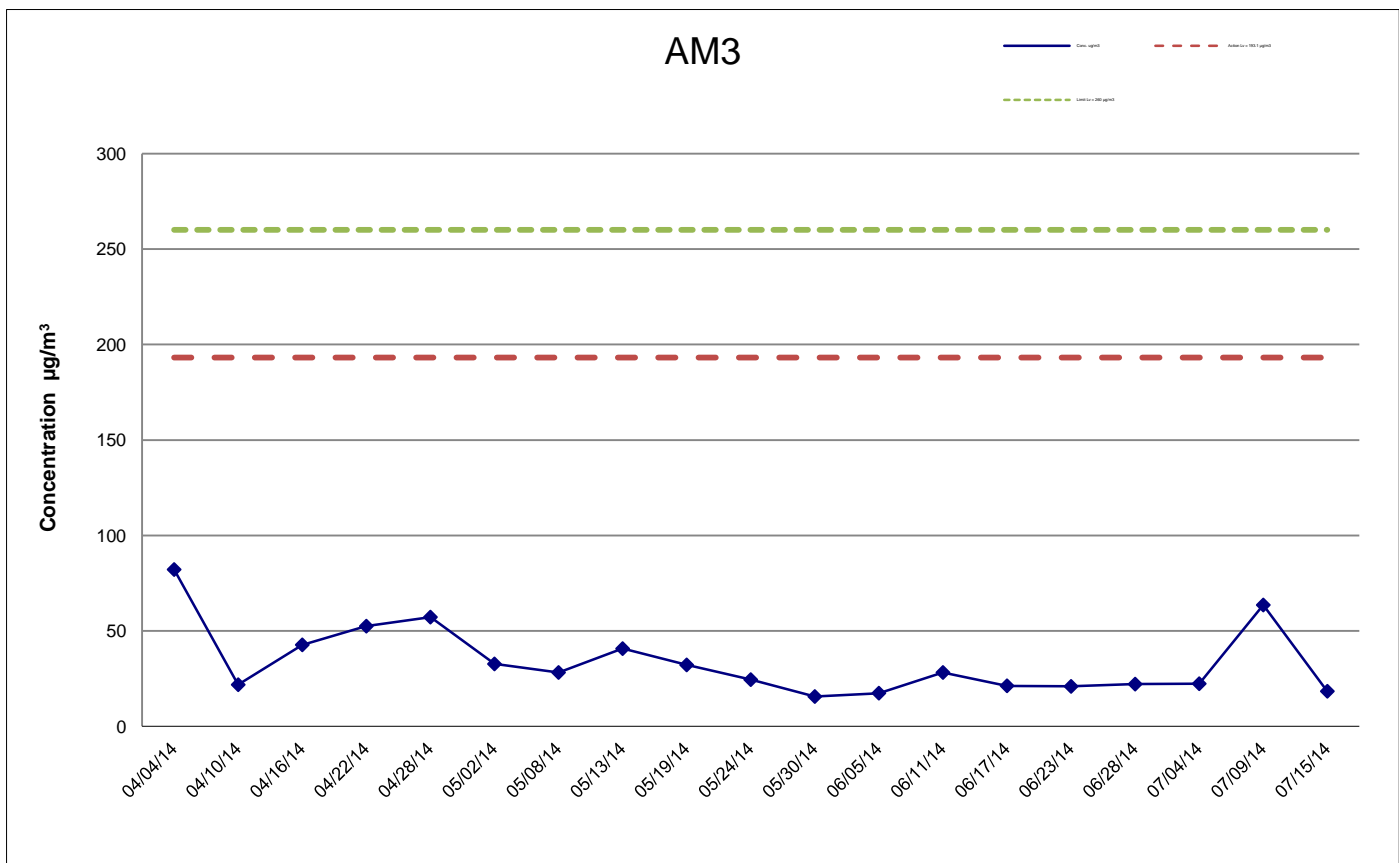
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APPENDIX No.

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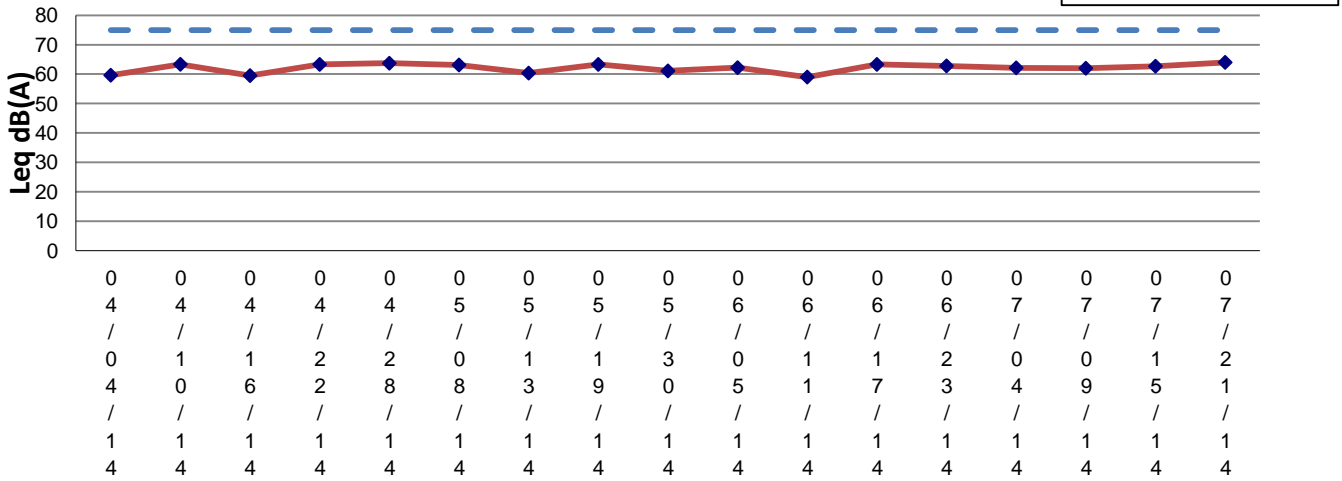


Remark: The monitoring station at Tai Kwong Secondary School (AM4) was relocated to 168 Shek Kwu Lung Village (AM4A) starting from 1 September 2011 due to the mentioned school was closed down.

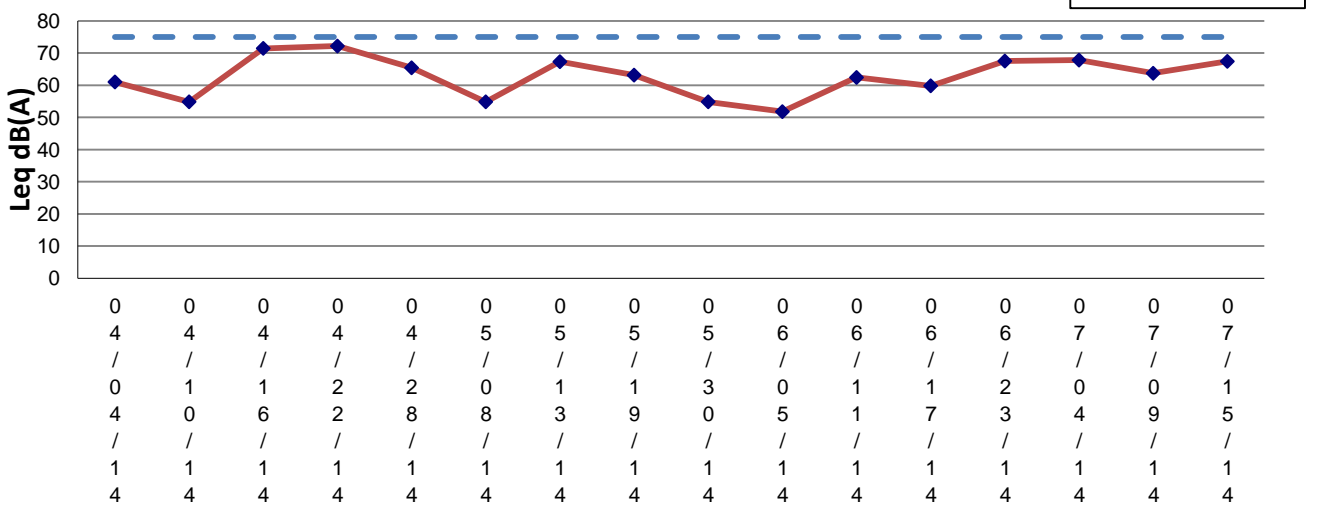
AECOM	Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation	SCALE	N.T.S.	DATE	Aug-14
	Graphical Presentation of Impact 24-hour TSP Monitoring Results	CHECK	ENFL	DRAWN	JCYK
		JOB NO.	60102979	APPENDIX No. E	

**APPENDIX F
GRAPHICAL PRESENTATION OF IMPACT
DAYTIME CONSTRUCTION NOISE
MONITORING RESULTS**

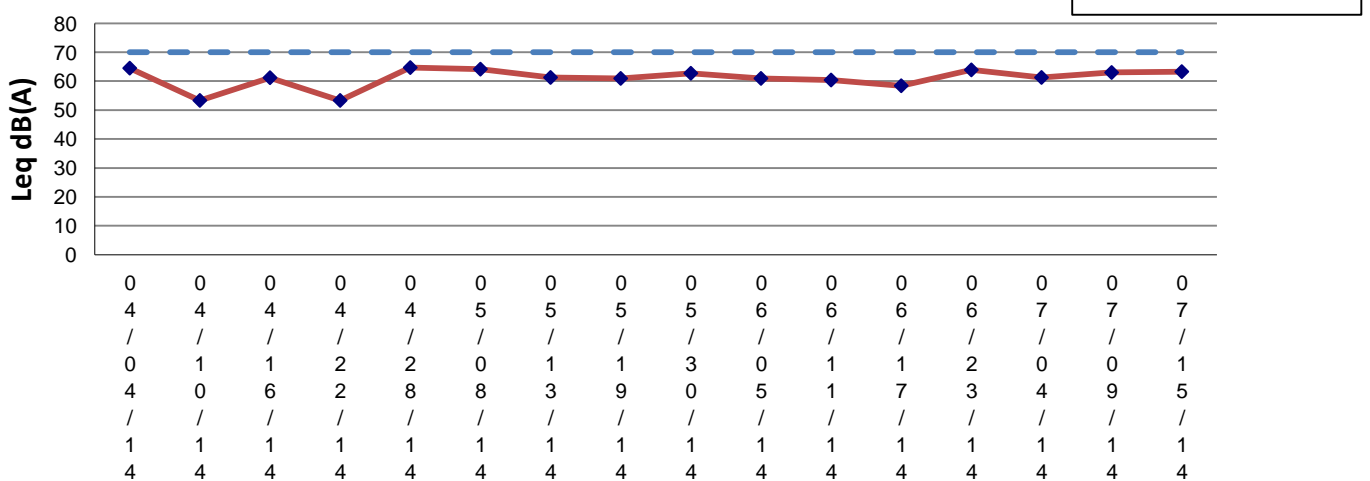
NM1A




NM2



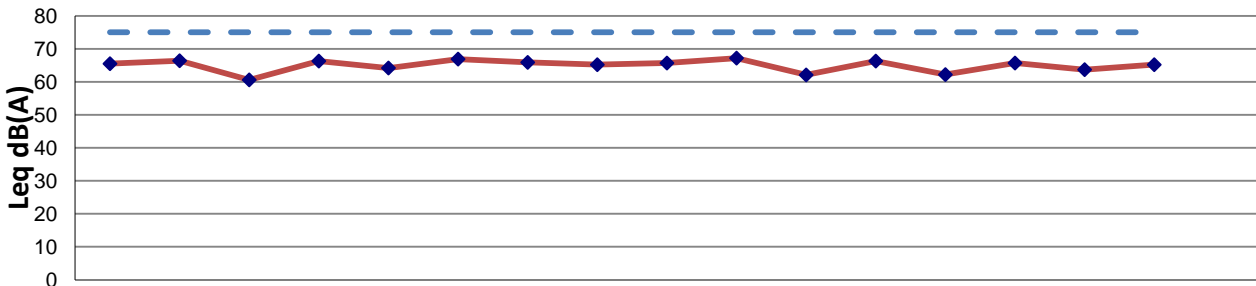
NM3



Remarks: (1) The monitoring station at Tai Kwong Secondary School (NM1) was relocated to 168 Shek Kwu Lung Village (NM1A) starting from 1 September 2011 due to the mentioned school was closed down;
 (2) Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

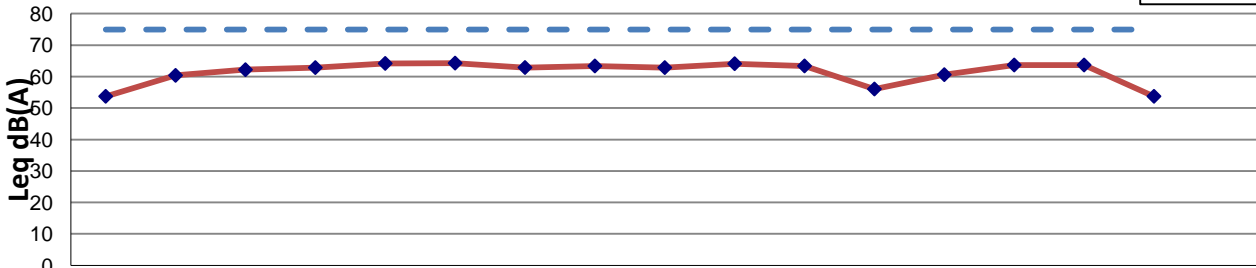
	Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation	SCALE	N.T.S.	DATE	Aug-14	
		CHECK	ENFL	DRAWN	JCYK	
	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results	JOB NO.	60102979	APPENDIX No.	F	Rev.

NM4



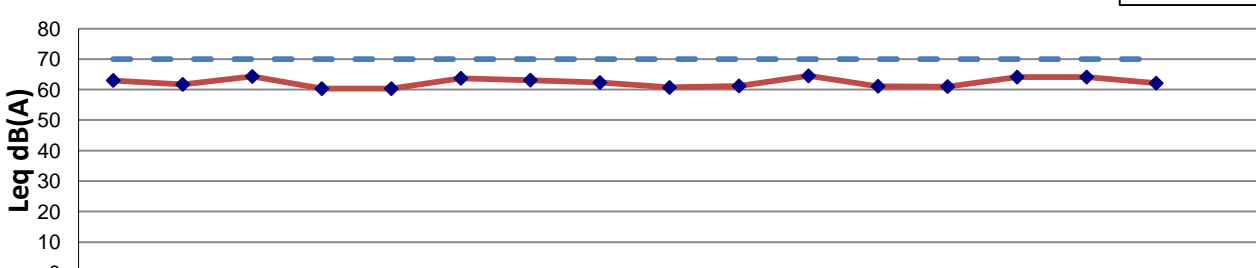
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7
/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
0	1	1	2	2	0	1	1	3	0	1	1	2	0	0	1
4	0	6	2	8	8	3	9	0	5	1	7	3	4	9	5
/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

NM5




0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7
/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
0	1	1	2	2	0	1	1	3	0	1	1	2	0	0	1
4	0	6	2	8	8	3	9	0	5	1	7	3	4	9	5
/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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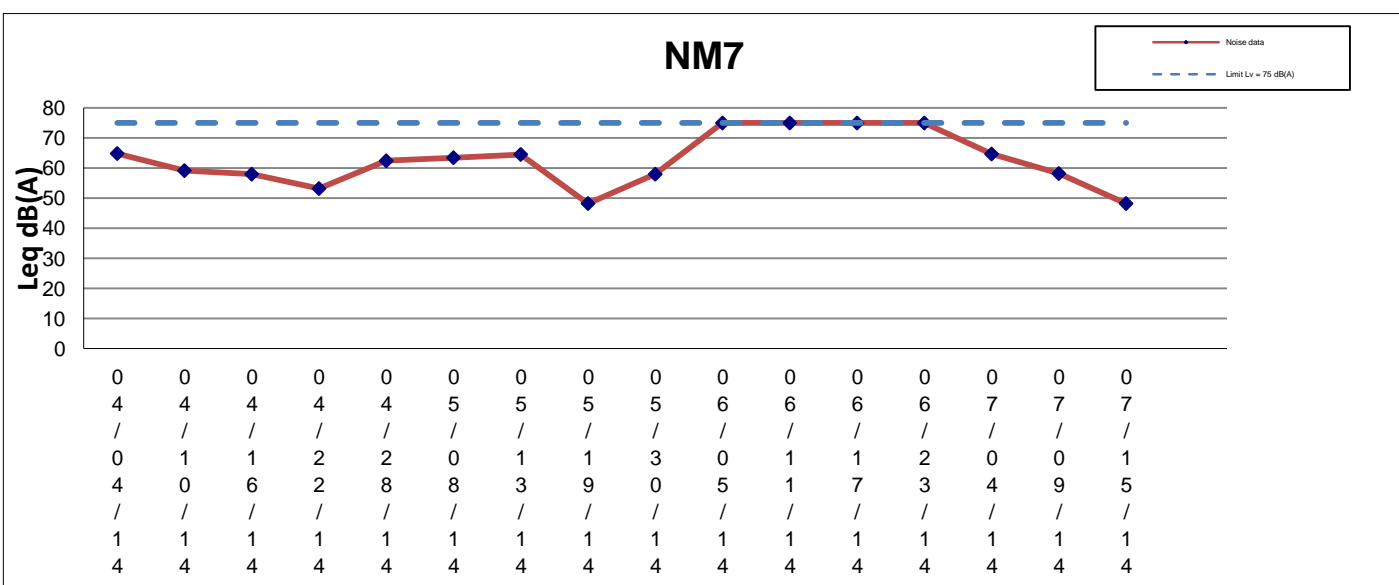
NM6



0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	4	4	4	4	5	5	5	5	6	6	6	6	7	7	7
/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
0	1	1	2	2	0	1	1	3	0	1	1	2	0	0	1
4	0	6	2	8	8	3	9	0	5	1	7	3	4	9	5
/	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4

Remark: Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

	Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation	SCALE	N.T.S.	DATE	Aug-14	
		CHECK	ENFL	DRAWN	JCYK	
	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results	JOB NO.	60102979	APPENDIX No.	F	Rev.



Remark: Measured noise level would be shown if Measured noise level (Leq) <= Baseline noise level

	Environmental Team for the Widening of Tolo Highway between Island House Interchange and Tai Hang - Investigation	SCALE	N.T.S.	DATE	Aug-14
		CHECK	ENFL	DRAWN	JCYK
	Graphical Presentation of Impact Daytime Construction Noise Monitoring Results	JOB NO.	60102979	APPENDIX No.	F
					-

**APPENDIX G
CUMULATIVE STATISTICS ON
COMPLAINTS, NOTIFICATIONS OF
SUMMONS AND SUCCESSFUL
PROSECUTIONS**

Appendix G

Statistics on Complaints, Notifications of Summons and Successful Prosecutions

	Date Received	Subject	Status	Total no. followed up by ET during this period	Total no. followed up by ET since project commencement
Environmental complaints	23 June 2014	EPD referred a complaint concerning a construction site of the Widening of Tolo Highway Project (Stage 1) near Wan Tau Tong Estate, opposite to Hong Kong Teachers' Association Lee Heng Kwei Secondary School, on 23 June 2014.	Closed	1	39
Notification of summons	-	-	-	0	0
Successful Prosecutions	-	-	-	0	0