Civil Engineering and Development Department

Contract No. ST/2013/01

Sha Tin New Town Stage II

Road T3 and Associated Roadworks – Remaining Works, Phase III

Monthly EM&A Report

(Version 1.0)
September 2014

Certified By

(Environmental Team Leader)

REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties

CINOTECH CONSULTANTS LTD
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong
Tel: (852) 2151 2083 Fax: (852) 3107 1388
Email: info@cinotech.com.hk

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EXECUTIVE SUMMARY

Introduction

1. This is the 4th monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for CEDD Contract No. ST/2013/01 "Sha Tin New Town Stage II, Road T3 and Associated Roadworks – Remaining Works, Phase III" (hereinafter referred to as 'the Project'). This report documents the findings of EM&A Works conducted in September 2014.

2. The major site activities undertaken in the reporting month included:

- Formwork erection/removal and reinforcement fixing (bay 2)
- Concreting/Soil backfilling (bay 2)

Environmental Monitoring and Audit Works

3. Environmental monitoring and audit works for the Project were performed regularly and the results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

4. Summary of the non-compliance of the reporting month is tabulated in **Table I**.

Table I Summary Table for Events Recorded in the Reporting Month

Parameter	No. of Exceedance		No. of Exceedance Due to this Project	Action Taken
	Action Level	Limit Level		
Noise	0	0	0	N/A

Construction Noise

5. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Environmental Licenses and Permits

6. Environmental related licenses/permits granted to the Project include the Environmental Permit (EP) for the Project and the Water Discharge Licence.

Key Information in the Reporting Month

7. Summary of key information in this reporting month is tabulated in **Table II**. The key information in the EIA Report is summarized in the Table III below. According to the EIA Report, air quality and noise would be the key environmental issues during the construction of the Project. Details of the implementation of mitigation measures are provided in the Appendix H.

Table II Summary Table for Key Information in the Reporting Month

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	0	---	N/A	N/A	---
Changes to the assumptions and key construction / operation activities recorded	0	---	N/A	N/A	---
Status of submissions under EP	1	Monthly EM&A Report for (August 2014)	Submitted to EPD on 18th September 2014.	N/A	---
Notifications of any summons & prosecutions	0	---	N/A	N/A	---

Future Key Issues

Major site activities for the coming month will include:

- Sheet piling erection (Bay 6, 7)
- Formwork erection/removal and reinforcement fixing
- Concreting/Soil backfill (Bay 6, 7)

The anticipated major environmental issues will be mainly on silty surface runoff, blocking of drainage system and ponding water during rainy season; and dust and noise nuisance due to roadwork activities.

Table III Key Information in the EIA Report and the Status of EMIS

	Issues	Assumptions and Assessment	Recommended Mitigation Measures	Status of Implementation of Mitigation Measures
Construction Phase	Air	With the implementation of dust suppression mitigation measures, the level of construction dust would comply with the relevant AQO.	Watering the work area at least twice a day. Environmental pollution control measures for minimizing construction dust impact as stipulated in the APCO.	During the audit sessions, it was observed that: • Watering the work site was provided.
	Noise	Noise level at most of NSRs would exceed the noise criteria without mitigation measures.	Good site practices, adoption of quiet construction plant, reduction of on-time operation of plant, movable noise barrier, avoid simultaneous noisy activities.	During the audit sessions, it was observed that: • Simultaneous noisy activities were avoided. • Materials for movable noise barrier were provided on site and the movable noise barrier will be installed and ready for use if necessary.
	Water	The potential impact rose from the construction of flyovers spanning to the upper Shing Mun River Channel.	Construction works spanning the upper Shing Mun River should be undertaken in the dry season All storm runoff should be routed through oil/grit separators and/or sediment basins/traps before being allowed to be discharged into the nearby receiving waters. All stockpiled areas should be covered. All sediment removable facilities should be maintained and the deposited sediments should be removed regularly.	The construction of flyovers spanning to the upper Shing Mun River Channel was completed under Sha Tin New Town – Stage II, Trunk Road T3 Project in 2009

1 INTRODUCTION

Background

1.1 'Road T3 and Associated Roadworks – Remaining Works, Phase III' Project (hereinafter referred to as "the Project") is the remaining works of the Project 'Sha Tin New Town – Stage II, Trunk Road T3 (Tai Wai)' which is a Schedule 2 Designated Project under the Environmental Impact Assessment Ordinance (Cap. 449). A study of environmental impact assessment (EIA) was undertaken for the 'Sha Tin New Town – Stage II, Trunk Road T3 (Tai Wai)' to consider the key issues of to provide information on nature and extent of environmental impacts arising from the construction and operation of Road T3, and identify possible mitigation measures associated with the works. An EIA Report was approved by the Environmental Protection Department (EPD) on March 1998.

1.2 The Project includes the construction of an outstanding 1-lane slip road in the original Road T3 Scheme under the Environmental Permit EP-135/2002/J (EP) issued for Schedule 2 Project 'Sha Tin New Town, Stage II - Road T3 and associated roadworks' on 6 February 2014. The construction period of the Contract is tentatively 16 months. The commencement date of major construction works of the Project was scheduled to 19th June 2014.

1.3 Cinotech Consultants Limited was commissioned by the CEDD to undertake the Environmental Monitoring and Audit (EM&A) works for the Project.

1.4 The site layout plan and the location of noise monitoring station are shown in **Figure 1.**

1.5 According to the Baseline Environmental Monitoring Plan submitted to EPD on 21 February 2014, there is one noise monitoring station under the Project for monitoring the impact construction noise. No comment was received from EPD.

1.6 This is the 4th monthly EM&A report summarizing the EM&A works conducted for the Projects in September 2014.

Project Organizations

1.7 Different parties with different levels of involvement in the project organization include:

- Project Proponent - Civil Engineering and Development Department (CEDD)
- Engineer's Representative (ER) – AECOM
- Environmental Team (ET) – Cinotech Consultants Ltd.
- Independent Environmental Checker (IEC) – ANEWR Consulting Limited
- Contractor – Sheen Billion Development Ltd.

1.8 The key contacts of the Project are shown in **Table 1.1**, and the organization chart of ET is shown in **Figure 2**.

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.	Fax No.
CEDD	Project Proponent	Mr. Bryan YUEN	Engineer	2301 1398	/
		Mr. T.M. KONG	Engineer	2762 5392	2714 5174
AECOM	Engineer's Representative	Mr. Daniel KO	Resident Engineer	2607 7805	2687 2322
Cinotech	Environmental Team Leader	Dr. Priscilla CHOY	Director	2151 2089	3107 1388
ANEWR	Independent Environmental Checker	Mr. James CHOI	Director	2869 6018	3007 8556
Sheen Billion Development Ltd.	Contractor	Mr. Walance LI	Project Manager	9609 1908	3427 9289
		Mr. Ryan CHAN	Site Engineer / Environmental Officer	9708 7539	

Construction Programme

1.9 The site activities undertaken in the reporting month were:

- Formwork erection/removal and reinforcement fixing (bay 2)
- Concreting/Soil backfilling (bay 2)

Summary of EM&A Requirements

1.10 The EM&A programme requires construction phase noise monitoring as well as environmental site audits. The EM&A requirements are described in the following sections, including:

- All monitoring parameters;
- Action and Limit levels for all environmental parameters;
- Event / Action Plans;
- Environmental mitigation measures, as recommended in the project EIA study final report; and
- Environmental requirements in contract documents.

1.11 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 3 of this report.

1.12 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely noise as well as audit works for the Project in the reporting month.

2 NOISE MONITORING

Monitoring Requirements

2.1 One noise monitoring station, namely N6 was approved for impact monitoring. **Appendix A** shows the established Action and Limit Level for the environmental monitoring works.

Monitoring Locations

2.2 Noise monitoring was conducted at one designated monitoring station as presented in **Table 2.1**. **Figure 1** shows the location of the monitoring station.

Table 2.1 Location of Noise Monitoring Station

Monitoring Station	Description	Location of Measurement
N6	Scenery Court	Block 1 of Scenery Court

Monitoring Equipment

2.3 **Table 2.2** summarizes the noise monitoring equipment model being used.

Table 2.2 Noise Monitoring Equipment

Equipment	Model and Make	Quantity
Integrating Sound Level Meter	SVANTEK - SVAN 955 and SVAN 957	3
Calibrator	SVANTEK - SV30A	4

Monitoring Parameters, Frequency and Duration

2.4 **Table 2.3** summarizes the monitoring parameters, frequency and total duration of monitoring.

Table 2.3 Noise Monitoring Parameters, Frequency and Duration

Station	Parameter	Period	Frequency	Measurement
N6	L_{10}(30 min.) dB(A) L_{90}(30 min.) dB(A) L_{eq}(30 min.) dB(A)	0700-1900 hrs. on normal weekdays	Once a week	Façade

Monitoring Methodology and QA/QC Procedures

Field Monitoring

2.5 The monitoring procedures are as follows:

- The microphone head of the sound level meter was positioned 1m exterior of the noise sensitive facade and lowered sufficiently so that the building's external wall acts as a reflecting surface.
- The battery condition was checked to ensure good functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

  - frequency weighting : A
  - time weighting : Fast
  - measurement time : 30 minutes

- Prior to and after noise measurement, the meter was calibrated using the calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement is more than 1.0 dB, the measurement was considered invalid and repeat of noise measurement was required after re-calibration or repair of the equipment.
- The wind speed at the monitoring station was checked with the portable wind meter. Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.
- Noise measurement was paused during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.
- At the end of the monitoring period, the L_{eq}, L_{10} and L_{90} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.

Maintenance and Calibration

2.6 Maintenance and Calibration procedures were as follows:

- The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
- The sound level meter and calibrator were checked and calibrated at yearly intervals. Copies of calibration certificates are attached in **Appendix B**.

Results and Observations

2.7 In the reporting month, noise monitoring was conducted as scheduled at the designated location. The noise monitoring schedule is provided in **Appendix C**.

2.8 All the Construction Noise Levels (CNLs) reported in this report were adjusted with the corresponding baseline level (i.e. Measured Leq – Baseline Leq = Measured CNL), in order to facilitate the interpretation of the noise exceedance. The baseline noise level and the allowed CNL at the designated noise monitoring station are presented at Table

2.4.

Table 2.4 Baseline Noise Level and Allowed Construction Noise Level for Monitoring Station

Station	Baseline Noise Level, dB (A)	Allowed CNL, dB (A)
N6 – Scenery Court	66.7	75.0

2.9 The details of the monitoring results and graphical presentations are shown in **Appendix D**. The weather during the monitoring session was sunny and cloudy. In accordance with Condition 6.2 of the EP, all environmental monitoring data was made available to the public via internet access at the website: http://www.st201301.com/test/ .

2.10 No Action/Limit Level exceedance for construction noise monitoring was recorded in the reporting month. The Action/Limit Level and the noise monitoring result are summarized at Table 2.5.

Table 2.5 Summary Table of Noise Monitoring Results during the Reporting Month

Parameter	Date	CNLs L_{eq}(30min) dB (A)	Action Level	Limit Level
N6	2 September 2014	61.3	When one documented complaint is received	75dB(A)
	11 September 2014	66.9		
	16 September 2014	64.4		
	25 September 2014	68.8		

2.11 According to our field observations, the major noise sources identified at the designated monitoring station are as follows:

Station	Major Noise Sources
N6 – Scenery Court	Road Traffic

3 ENVIRONMENTAL AUDIT

Site Audits

3.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix F**.

3.2 Site audits were conducted on 4th, 11th, 18th 26th and 30th September 2014 by ET. A joint site audit with the representative with IEC, ER, the Contractor and the ET was carried out on 26th September 2014. No site inspection was conducted by EPD during the reporting month. The details of observations during site audit can refer to **Table 3.3**.

Review of Environmental Monitoring Procedures

3.3 The monitoring works conducted by the monitoring team were inspected regularly. The following observations have been recorded for the monitoring works:

Noise Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- Major noise sources were identified and recorded. Other intrusive noise attributing to the result was trimmed off by pausing the monitoring temporarily.

Status of Environmental Licensing and Permitting

3.4 All permits/licenses obtained for the Project are summarized in **Table 3.1**.

Table 3.1 Summary of Environmental Licensing and Permit Status

Permit / License No.	Valid Period		Status
	From	To	
Environmental Permit (EP)			
EP-135/2002/J	6/2/2014	N/A	Valid
Billing Account for Construction Waste Disposal			
RS01172	19/2/2014	N/A	Valid
Registration of Chemical Waste Producer			
WPN5213-758-S3797-01	4/2/2014	N/A	Valid
Effluent Discharge License under Water Pollution Control Ordinance			
WT00019462-2014	8/7/2014	N/A	Valid

Status of Waste Management

3.5 There was 60 m^3 of inert Construction and Demolition (C&D) materials generated in this reporting month. The table summarizing the quantities of waste generated in this reporting month is presented in **Appendix I**.

Implementation Status of Environmental Mitigation Measures

3.6 The key information in the EIA Report is summarized in **Table 3.2**. With referring to the EIA Report, air quality and noise would be the key issues during the construction of the Project. Details of the implementation of mitigation measures are provided in the **Appendix H**.

Table 3.2 Key Information in the EIA Report and the Status of EMIS

	Issues	Assumptions and Assessment	Recommended Mitigation Measures	Status of Implementation of Mitigation Measures
Construction Phase	Air	With the implementation of dust suppression mitigation measures, the level of construction dust would comply with the relevant AQO.	Watering the work area at least twice a day. Environmental pollution control measures for minimizing construction dust impact as stipulated in the APCO.	During the audit sessions, it was observed that: • Watering the work site was provided.
	Noise	Noise level at most of NSRs would exceed the noise criteria without mitigation measures.	Good site practices, adoption of quiet construction plant, reduction of on-time operation of plant, movable noise barrier, avoid simultaneous noisy activities.	During the audit sessions, it was observed that: • Simultaneous noisy activities were avoided. • Materials for movable noise barrier were provided on site and the movable noise barrier will be installed and ready for use if necessary.
	Water	The potential impact rose from the construction of flyovers spanning to the upper Shing Mun River Channel.	Construction works spanning the upper Shing Mun River should be undertaken in the dry season All storm runoff should be routed through oil/grit separators and/or sediment basins/traps before being allowed to be discharged into the nearby receiving waters. All stockpiled areas should be covered. All sediment removable facilities should be maintained and the deposited sediments should be removed regularly.	The construction of flyovers spanning to the upper Shing Mun River Channel was completed under Sha Tin New Town – Stage II, Trunk Road T3 Project in 2009

3.7 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarized in **Table 3.3**.

Table 3.3 Observations and Recommendations of Site Audit

Parameters	Date	Observations	Remedial Actions
Water Quality	11 September 2014 18 September 2014 26 September 2014	Proper mitigation measure should be provided for the slope near hoarding to prevent muddy surface runoff from leaking offsite under raining.	The observation was observed to be improved/rectified by the Contractor during the audit session on 30 September 2014.
	26 September 2014	Damaged sand bags surrounding the gullies should be replaced.	The observation was observed to be improved/rectified by the Contractor during the audit session on 30 September 2014.
	26 September 2014	Sand bags should be provided at the water barriers to prevent sands from leaking offsite to the road.	The observation was observed to be improved/rectified by the Contractor during the audit session on 30 September 2014.
Air Quality	4 September 2014	Haul road was observed accumulated with sands. Contractor was reminded to clear them.	The observation was observed to be improved/rectified by the Contractor during the audit session on 11 September 2014.
Noise	10 July 2014 17 July 2014	Noise barrier should be provided for the operation of pile driver to prevent noise generated from affecting the NSR.	
	25 July 2014 31 July 2014 7 August 2014	Movable noise barrier should be provided on site.	The observation was observed to be improved/rectified by the Contractor during the audit session on 4 September 2014.
	14 August 2014 22 August 2014 28 August 2014	While no suspected noisy activities were observed on site, Contractor was reminded to provide proper movable noise barrier on site for related PMEs as soon as possible.	
Waste / Chemical Management	22 August 2014 28 August 2014 4 September 2014 11 September 2014 18 September 2014	Drip trays should be provided for the chemical containers	The observation was observed to be improved/rectified by the Contractor during the audit session on 26 September 2014.
	4 September 2014	Oil was observed leaked under the excavator on the ground. Contractor	The observation was observed to be improved/rectified by the

Parameters	Date	Observations	Remedial Actions
		was reminded to clear it as chemical waste.	Contractor during the audit session on 11 September 2014.
	11 September 2014	Breaker should be put on tarpaulin sheet to prevent oil spillage.	The observation was observed to be improved/rectified by the Contractor during the audit session on 18 September 2014.
	26 September 2014 30 September 2014	Oil stains on the paved ground should be clear, and excavator should be maintained properly to prevent oil leakage.	Follow-up action will be reported during the next reporting period.
Permit/ Licenses	N/A	N/A	N/A

Summary of Exceedance

3.8 No exceedance of monitoring results was recorded in the reporting month. Summary of exceedance is provided in **Appendix E**.

Implementation Status of Event Action Plans

3.9 The Event Action Plan for construction noise is presented in **Appendix G**. No exceedance was recorded and thus no action was required to be implemented.

Summary of Complaint and Prosecution

3.10 No environmental related complaint, prosecution or notification of summons was received in the reporting month.

3.11 There was no environmental complaint, prosecution or notification of summon received since the Project commencement. The Complaint Log is attached in **Appendix J.**

4 FUTURE KEY ISSUES

4.1 Key issues to be considered in the coming month include:

- Effluent discharge generated from surface runoff;
- Dust generation from excavation works, concrete breaking works and stockpile of dusty materials;
- Noise generation from the operation of PMEs
- Accumulation of stagnant water in the site areas; and
- Accumulation of C&D waste on site.

Monitoring Schedule for the Next Month

4.2 The tentative environmental monitoring schedule for the next month is shown in **Appendix C**.

Construction Program for the Next Month

4.3 A tentative construction programme is provided in **Appendix K**. The major construction activities in the coming month will include:

- Sheet piling erection (Bay 6, 7)
- Formwork erection/removal and reinforcement fixing
- Concreting/Soil backfill (Bay 6, 7)

5 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

5.1 Environmental monitoring and audit works were conducted in the reporting month. Site inspections were conducted on a weekly basis. The results were reviewed and checked.

5.2 All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

5.3 There was no environmental complaint, prosecution or notification of summons received.

Recommendations

5.4 According to the environmental audit performed in the reporting month, the following recommendations were made:

Water Quality

- Provide mitigation measures to prevent muddy surface runoff from leaking offsite under raining.

Air Quality

- Regularly clear the sand on haul road and water the haul road to prevent dust generation

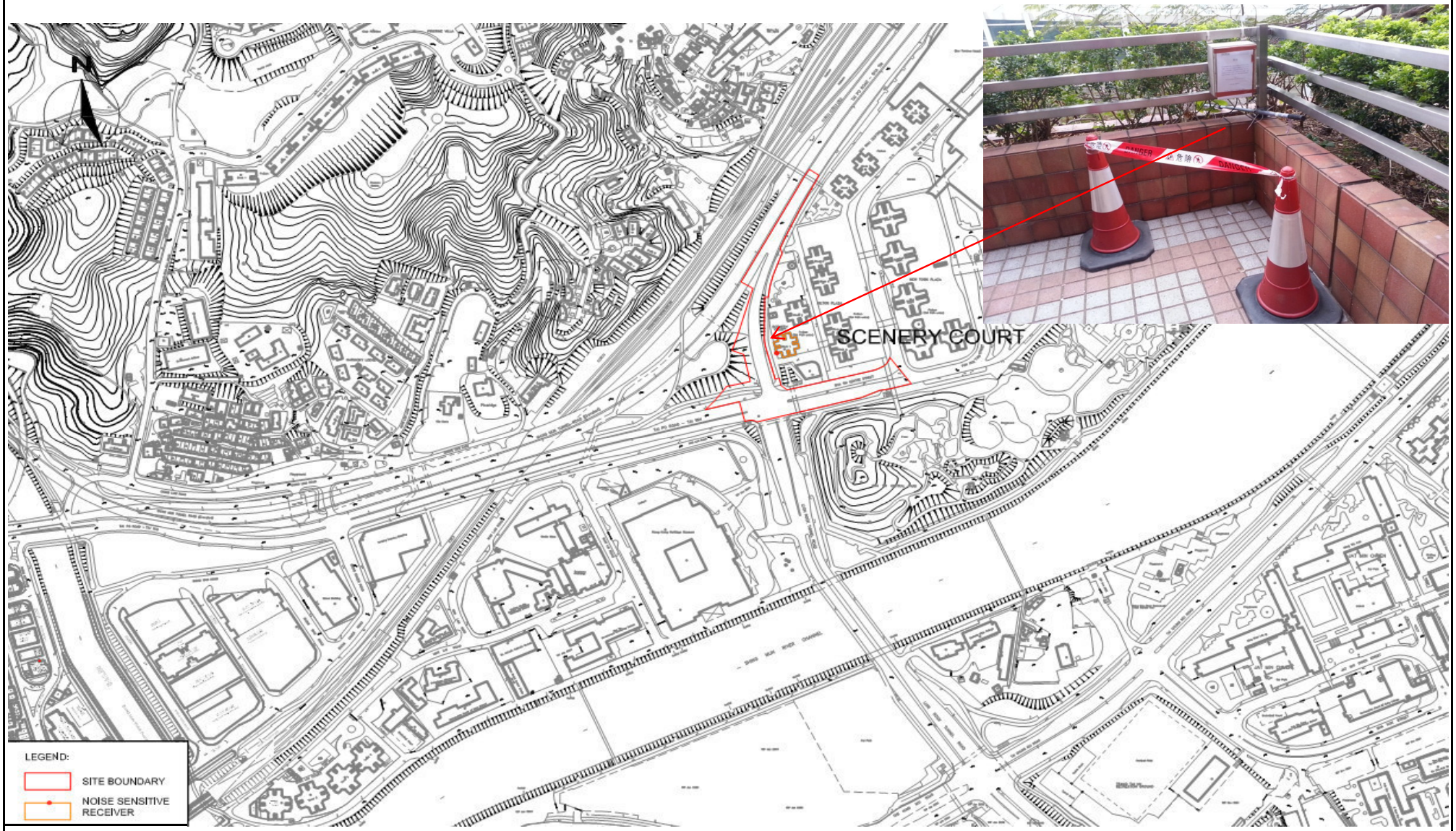
Construction Noise

- Provide proper mitigation measure to minimize the noise of operating PMEs from affecting the nearby NSR(s)

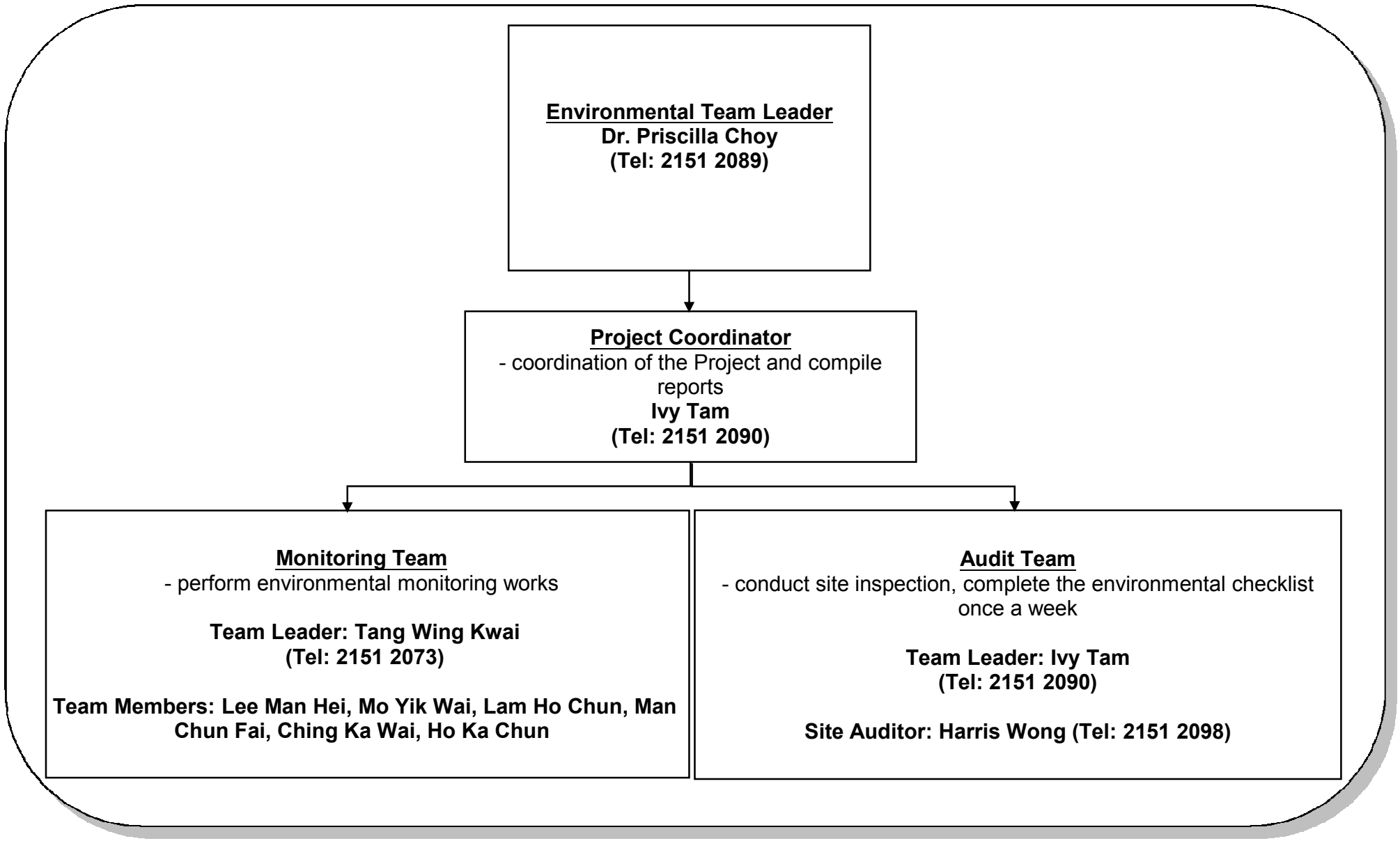
Waste / Chemical Management

- Provide mitigation measure to prevent oil spillage/leakage from construction equipments
- Provide drip trays for chemical container

FIGURE(S)



Title: Contract No. ST/2013/01 - Sha Tin New Town Stage II - Road T3 and Associated Roadworks – Remaining Works, Phase III Location of Noise Monitoring Station at Scenery Court	Scale: N.T.S	Project No.: MA13058	CINOTECH
	Date: Feb-14	Figure: 1	



Title: Contract No. ST 2013/01 Sha Tin New Town, Stage II Environmental Team for Road T3 & Associated Roadworks - Remaining Works, Phase III ET's Organization Chart	Scale: N.T.S	Project No.: MA13058	CINOTECH
	Date: Jun-14	Figure: 2	

APPENDIX A
ACTION AND LIMIT LEVEL

APPENDIX A – Action and Limit Level

Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A)
0700-2300 hrs on holidays; and 1900-2300 hrs on all other days		70* dB(A)
2300-0700 hrs of next day		55* dB(A)

Notes:
Notes: If works are to be carried during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.
(*) reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

APPENDIX B
COPIES OF CALIBRATION CERTIFCATES

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/140104
Date of Issue:	2014-01-05
Date Received:	2014-01-04
Date Tested:	2014-01-04
Date Completed:	2014-01-05
Next Due Date:	2015-01-04

ATTN: **Mr. W. K. Tang**

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Certificate of Calibration

Item for calibration:

Description	: 'SVANTEK' Integrating Sound Level Meter
Manufacturer	: SVANTEK
Model No.	: SVAN 955
Serial No.	: 14303
Microphone No.	: 35222
Equipment No.	: N-08-05

Test conditions:

Room Temperatre	: 19 degree Celsius
Relative Humidity	: 52%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

Remark: 1)This report supersedes the one dated 2012/01/21 with certificate number C/N/120120/1.

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. W.K. Tang**

Test Report No.:	C/N/140822/1
Date of Issue:	2014-08-25
Date Received:	2014-08-22
Date Tested:	2014-08-22
Date Completed:	2014-08-25
Next Due Date:	2015-08-24
Page:	1 of 1

Certificate of Calibration

Item for calibration:

Description	: 'SVANTEK' Integrating Sound Level Meter
Manufacturer	: SVANTEK
Model No.	: SVAN 957
Serial No.	: 21460
Microphone No.	: 43679
Equipment No.	: N-08-09

Test conditions:

Room Temperatre	: 22 degree Celsius
Relative Humidity	: 55%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/131129/1
Date of Issue:	2013-11-30
Date Received:	2013-11-29
Date Tested:	2013-11-29
Date Completed:	2013-11-30
Next Due Date:	2014-11-29

ATTN: **Mr. W.K. Tang** Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: 'SVANTEK' Integrating Sound Level Meter
Manufacturer	: SVANTEK
Model No.	: SVAN 957
Serial No.	: 23853
Microphone No.	: 48530
Equipment No.	: N-08-10

Test conditions:

Room Temperatre	: 19 degree Celsius
Relative Humidity	: 57%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse

PATRICK TSE
Laboratory Manager

WELLAB 匯力 Testing & Research

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/130919/3
Date of Issue:	2013-09-21
Date Received:	2013-09-19
Date Tested:	2013-09-21
Date Completed:	2013-09-21
Next Due Date:	2014-09-20
Page:	1 of 1

ATTN: **Mr. W.K. Tang**

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 10929
Equipment No.	: N-09-01

Test conditions:

Room Temperatre	: 22 degree Celsius
Relative Humidity	: 57%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

Patrick Tse
PATRICK TSE
Laboratory Manager

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/140919/4
Date of Issue:	2014-09-21
Date Received:	2014-09-19
Date Tested:	2014-09-21
Date Completed:	2014-09-21
Next Due Date:	2015-09-20

ATTN: **Mr. W.K. Tang**

Page: 1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 10929
Equipment No.	: N-09-01

Test conditions:

Room Temperatre	: 23 degree Celsius
Relative Humidity	: 55%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

ATTN: **Mr. W.K. Tang**

Test Report No.:	C/N/131004/1
Date of Issue:	2013-10-05
Date Received:	2013-10-04
Date Tested:	2013-10-04
Date Completed:	2013-10-05
Next Due Date:	2014-10-04
Page:	1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24803
Equipment No.	: N-09-03

Test conditions:

Room Temperatre	: 21 degree Celsius
Relative Humidity	: 57%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

WELLAB 匯力 Testing & Research

WELLAB LIMITED
Rms 816, 1516 & 1701, Technology Park,
18 On Lai Street, Shatin, N.T, Hong Kong.
Tel: 2898 7388 Fax: 2898 7076
Website: www.wellab.com.hk

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

Test Report No.:	C/N/131004/3
Date of Issue:	2013-10-05
Date Received:	2013-10-04
Date Tested:	2013-10-04
Date Completed:	2013-10-05
Next Due Date:	2014-10-04

ATTN: **Mr. W.K. Tang**

Page: 1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: SVANTEK
Model No.	: SV30A
Serial No.	: 24780
Equipment No.	: N-09-05

Test conditions:

Room Temperatre	: 21 degree Celsius
Relative Humidity	: 57%

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**

PATRICK TSE
Laboratory Manager

APPENDIX C
ENVIRONMENTAL MONITORING SCHEDULES

Contract No. ST/2013/01 Sha Tin New Town Stage II Road T3 and Associated Roadworks – Remaining Works, Phase III
Noise Monitoring Schedule in September 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep
		Noise				
7-Sep	8-Sep	**9-Sep**	10-Sep	11-Sep	12-Sep	13-Sep
				Noise		
14-Sep	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep
		Noise				
21-Sep	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep
				Noise		
28-Sep	29-Sep	30-Sep				

Noise Monitoring Stations
N6 - Scenery Court

Contract No. ST/2013/01 Sha Tin New Town Stage II Road T3 and Associated Roadworks – Remaining Works, Phase III
Tentative Noise Monitoring Schedule in October 2014

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1-Oct	**2-Oct**	3-Oct	4-Oct
					Noise	
5-Oct	6-Oct	7-Oct	8-Oct	9-Oct	10-Oct	11-Oct
				Noise		
12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct
		Noise				
19-Oct	20-Oct	21-Oct	22-Oct	23-Oct	24-Oct	25-Oct
		Noise				
26-Oct	27-Oct	28-Oct	29-Oct	30-Oct	31-Oct	
			Noise			

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Noise Monitoring Stations

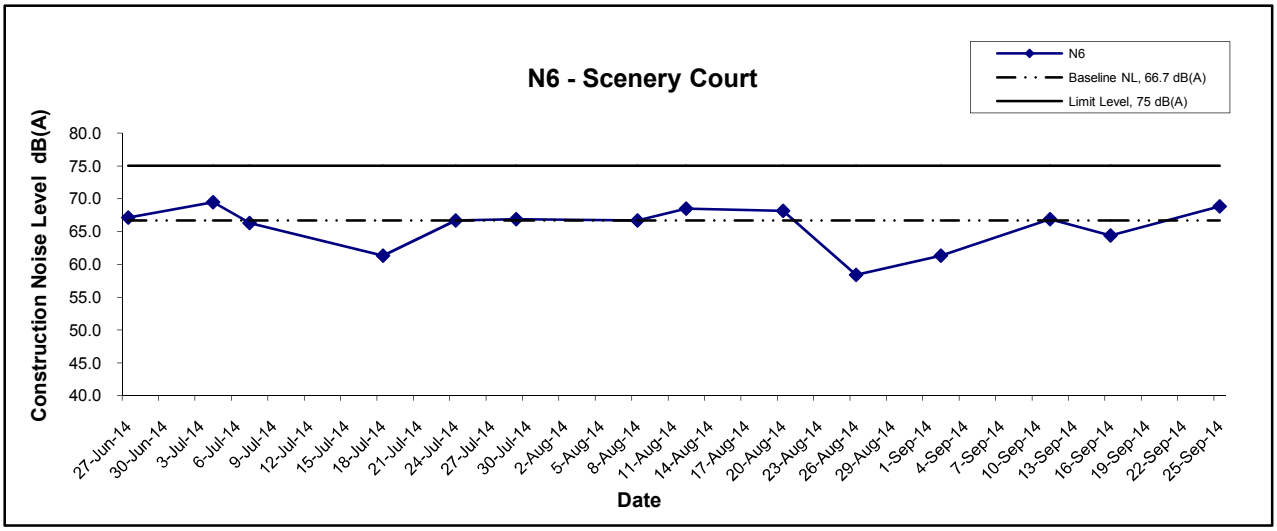
N6 - Scenery Court

APPENDIX D
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

App D - Noise Monitoring Results

Location N6 - Scenery Court							
Date	Time	Weather	Unit: dB (A) (30-min)				
			Measured Noise Level			Baseline Level	Construction Noise Level
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}
2-Sep-14	14:30	Sunny	67.8	71.1	64.2	66.7	61.3
11-Sep-14	10:30	Sunny	69.8	73.4	64.9		66.9
16-Sep-14	15:00	Cloudy	68.7	72.8	65.2		64.4
25-Sep-14	16:30	Sunny	70.9	72.1	68.7		68.8

Noise Levels



Title	Sha Tin New Town Stage II Road T3 and Associated Road Works- Remaning Works, Phase III Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. MA13058	CINOTECH
		Date Sep 14	Appendix D	

APPENDIX E
SUMMARY OF EXCEEDANCE

APPENIDX E – SUMMARY OF EXCEEDANCE

Reporting Month: September 2014

a) Exceedance Report for Construction Noise (NIL)

APPENDIX F
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140904
Date	4 September 2014 (Thursday)
Time	14:00-15:00

Ref. No.	Non-Compliance	Related Item No.
	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Air Quality	
140904-R01	• Haul road was observed accumulated with sands. Contractor was reminded to clear them.	C5
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
140904-R02	• Oil was observed leaked under the excavator on the ground. Contractor was reminded to clear it as chemical waste.	E7
140904-R03	• Drip trays should be provided for the chemical containers.	E8
	E. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	F. Others	
	• Follow-up on previous site audit session (Ref. No. 140828), follow-up actions is required for the item 140828-R02, which is renamed as 140904-R03.	

	Name	Signature	Date
Recorded by	Harris Wong		4 September 2014
Checked by	Dr. Priscilla Choy		4 September 2014

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140911
Date	11 September 2014 (Thursday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	A. Water Quality	
140911-R01	• Mitigation measure should be provided to prevent muddy surface runoff from leaking offsite.	B2, B10
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
140911-R01	• Drip trays should be provided for the chemical containers.	E8
140911-R03	• Breaker should be put on tarpaulin sheet to prevent oil spillage.	E7
	E. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	F. Others	
	• Follow-up on previous site audit session (Ref. No. 140904), items 140904-R01 and R02 were observed improved/rectified by Contractor during site inspection. Follow-up actions is required for the item 140904-R03, which is renamed as 140911-R01.	

	Name	Signature	Date
Recorded by	Harris Wong		11 September 2014
Checked by	Dr. Priscilla Choy		11 September 2014

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	140918
Date	18 September 2014 (Thursday)
Time	14:00-15:30

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	A. Water Quality	
140918-R02	• Mitigation measure should be provided for the slope near the hoarding to prevent muddy surface runoff from leaking offsite.	B2, B10
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
140918-R01	• Drip trays should be provided for the chemical containers.	E8
	E. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	F. Others	
	• Follow-up on previous site audit session (Ref. No. 140911), item 140911-R03 was observed improved/rectified by Contractor during site inspection. Follow-up actions are required for the items 140911-R01 and R02, which were renamed as 140918-R01 and R02 respectively.	

	Name	Signature	Date
Recorded by	Harris Wong		18 September 2014
Checked by	Dr. Priscilla Choy		18 September 2014

Weekly Site Inspection Record Summary
Inspection Information

Checklist Reference Number	140926
Date	26 September 2014 (Friday)
Time	10:00-11:00

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	A. Water Quality	
140926-R01	• Proper mitigation measure should be provided for the slope near hoarding to prevent muddy surface runoff from leaking offsite under raining.	B2, B10
140926-R03	• Damaged sand bags surrounding the gullies should be replaced.	B2
140926-R04	• Sand bags should be provided at the water barriers to prevent sands from leaking offsite to the road.	B2
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
140926-R02	• Oil stains on the paved ground should be clear, and excavator should be maintained properly to prevent oil leakage.	E7
	E. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	F. Others	
	• Follow-up on previous site audit session (Ref. No. 140918), item 140918-R01 was observed improved/rectified by Contractor during site inspection. Follow-up action is required for the item 140918- R02, which was renamed as 140926-R01.	

	Name	Signature	Date
Recorded by	Harris Wong		26 September 2014
Checked by	Dr. Priscilla Choy		26 September 2014

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	140930
Date	30 September 2014 (Tuesday)
Time	16:00-17:00

Ref. No.	Non-Compliance	Related Item No.
	None identified	-
Ref. No.	**Remarks/Observations**	**Related Item No.**
	A. Water Quality	
	No environmental deficiency was identified during site inspection.	
	B. Air Quality	
	No environmental deficiency was identified during site inspection.	
	C. Noise	
	No environmental deficiency was identified during site inspection.	
	D. Waste/Chemical Management	
140930-R01	• Oil spillage on the ground should be cleared, and the excavator should be maintained to prevent oil leakage.	E7
	E. Permits/Licences	
	No environmental deficiency was identified during site inspection.	
	F. Others	
	• Follow-up on previous site audit session (Ref. No. 140926), item 140926-R01 and item 140926-R03 were observed improved/rectified by Contractor during site inspection. Follow-up action is required for the item 140926- R02, which was renamed as 140930-R01.	

	Name	Signature	Date
Recorded by	Harris Wong		30 September 2014
Checked by	Dr. Priscilla Choy		30 September 2014

APPENDIX G
EVENT ACTION PLAN

Appendix G Event/Action Plan

Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
ACTION LEVEL				
	1. Undertake measurement to establish validity of complaint 2. Identify the source(s) of the complaint 3. Inform ER & IEC in writing. Discuss remedial actions required with ER & IEC 4. Increase monitoring frequency to assess efficacy of remedial measures 5. If exceedance continues, meet with ER&IEC to review implementation of appropriate mitigation measures 6. If exceedance stops, cease additional monitoring	1. Review the analyzed results submitted by the ET 2. Review the proposed remedial measures by the Contractor and advise the ER & ET accordingly 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of complaint and notify Contractor if proven 2. Check monitoring data trends and Contractor's working methods. 3. Remind the Contractor of his Contractual obligations and discuss with ET, IEC and Contractor on proposed remedial actions. 4. Assess the efficacy of remedial actions and keep the Contractor informed 5. Inform complainant of actions taken	1. Submit proposals for remedial actions to ER within three working days of notification 2. Amend proposals if required by the Engineer 3. Implement the remedial actions immediately upon instruction 4. Liaise with the ER to optimise the effectiveness of the agreed mitigation 5. Amend proposal if appropriate
LIMIT LEVEL				
	1. Repeat measurement to confirm findings 2. Identify the source(s) of impact 3. Inform ER&IEC and EPD in writing 4. Discuss remedial actions required with ER&IEC 5. Increase monitoring frequency to assess efficacy of remedial measures 6. If exceedance continues, meet with ER&IEC to identify appropriate mitigation measures 7. If exceedance stops, cease additional monitoring	1. Check monitoring data submitted by ET 2. Review Contractor's remedial actions to assure their effectiveness and advise the ER &ET accordingly 3. Supervise the implementation of the remedial measures	1. Confirm receipt of notification of exceedance and notify Contractor 2. Check monitoring data trends and Contractor's working methods 3. Discuss with ET, IC(E) and Contractor on proposed remedial actions to be implemented 4. Assess the efficacy of remedial actions and keep the Contractor informed 5. If exceedance continuous, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is aborted	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to ER within three working days of notification 3. Amend proposals if required by the ER 4. Implement remedial actions immediately upon instruction 5. Liaise with the ER to optimize the effectiveness of the agreed mitigation 6. Resubmit proposals if problem still not under control 7. Stop the relevant portion of works as determined by the ER until the exceedance is aborted.

APPENDIX H
UPDATED ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

Appendix H - Implementation Schedule of Environmental Mitigation Measures

EIA/ ERR Ref. Ref.	Recommended Mitigation Measures	Who to implement the measures?	Location of the measures	When to Implement the measures?
Construction Noise				
2.5.4 / 2.3	- Where available, the Contractor shall use quiet items of PME or model of plants that are quieter than those specified in the EPD's Technical Memorandum (GW-TM) for undertaking construction works. - Where practicable, the Contractor shall use movable noise barriers and avoid simultaneous noisy activities.	Contractor	At active construction locations.	Construction stage
Air Quality				
3.5.3/ 3.4.5	Watering the works area at least twice a day	Contractor	Work site	Construction stage
3.5.4/ 3.4.5	Environmental pollution control measures for minimizing construction dust impact as stipulated in the Air Pollution Control Regulation.	Contractor	Work site	Construction stage
Waste Management				
5.2 – 5.6/4.5	Environmental pollution control measures for minimizing waste arising from the construction works.	Contractor	Within the works boundary	Construction stage
Water Quality				
4.5.1/5.5.1	Environmental pollution control measures for minimizing impacts on water quality.	Contractor	All construction sites	Construction stage
Landscape and Visual				
-/Table 6-1	Storage of materials and plant shall be limited to areas less visible to receivers.	Contractor	Project site	Construction stage
-/Table 6-1	Preservation wherever possible of existing trees and transplanting wherever practical of trees affected by the Works.	Contractor	Project site	Construction stage
-/Table 6-1	Stripping, storing and re-use of topsoil.	Contractor	Project site	Construction stage

Note: EIA Ref. refers to Trunk Road T3 (Tai Wai) - Updated Final Environmental Impact Assessment Report, March 1998

APPENDIX I
WASTE GENERATION IN THE REPORTING MONTH

Civil Engineering and Development Department

Contract No. ST/2013/01
Sha Tin New Town Stage II
Road T3 and Associated Roadworks – Remaining Works, Phase III

Monthly Summary Waste Flow Table for 2014 (year)

Month	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of C&D Wastes Generated Monthly				
	Total Quantity Generated	Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics	Chemical Waste	Others, e.g. general refuse
	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m^3)
June	**0.228**	**0.000**	**0.000**	**0.000**	**0.228**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
July	**0.542**	**0.005**	**0.000**	**0.000**	**0.537**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Aug	**0.391**	**0.000**	**0.000**	**0.000**	**0.391**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Sept	**0.060**	**0.000**	**0.000**	**0.000**	**0.060**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
Oct	-	-	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-	-	-
G.Total	**1.211**	**0.005**	**0.000**	**0.000**	**1.216**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

APPENDIX J
COMPLAINT LOG

APPENDIX J – COMPLAINT LOG

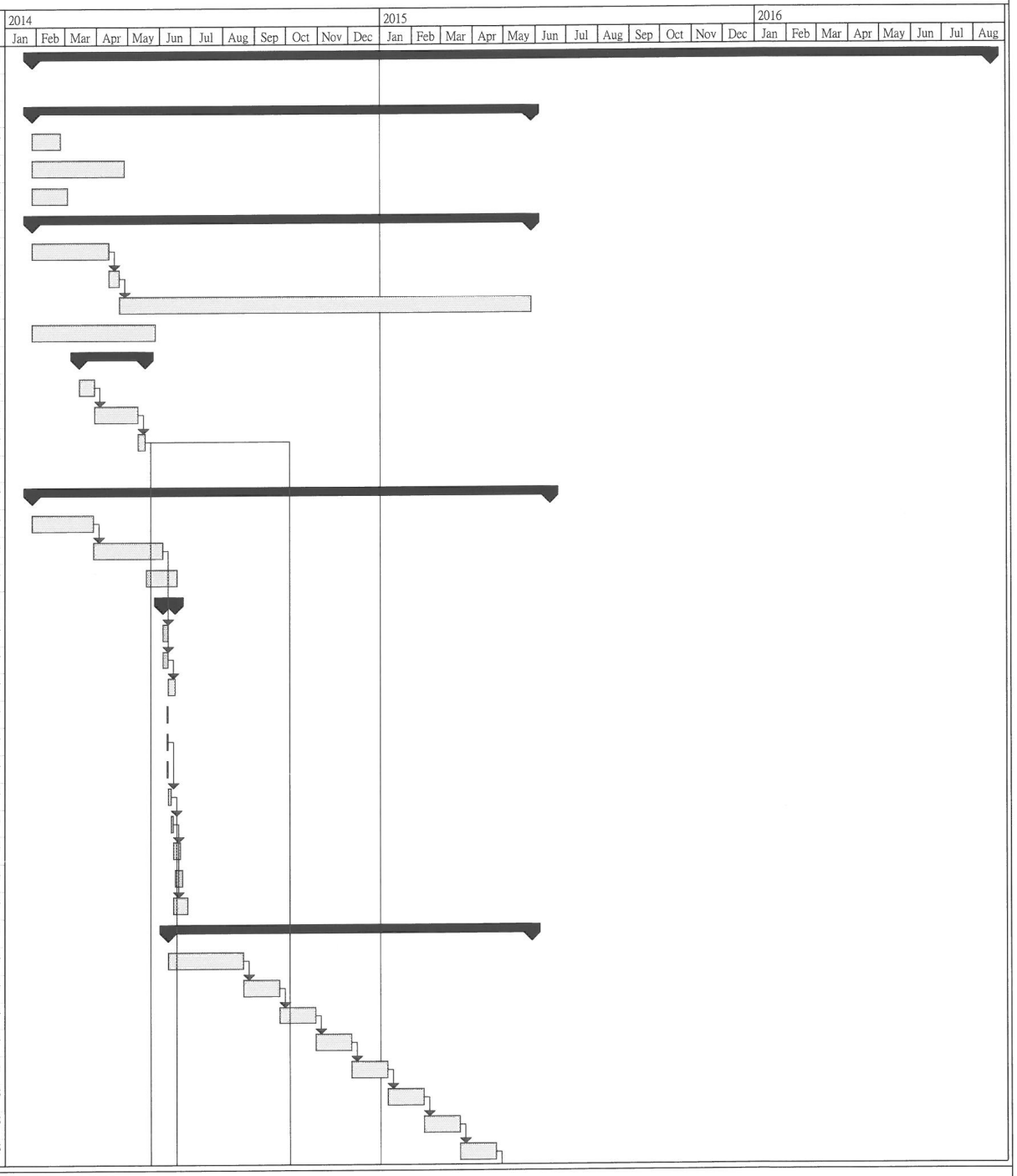
Reporting Month: September 2014

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
N/A	N/A	N/A	N/A	N/A	N/A

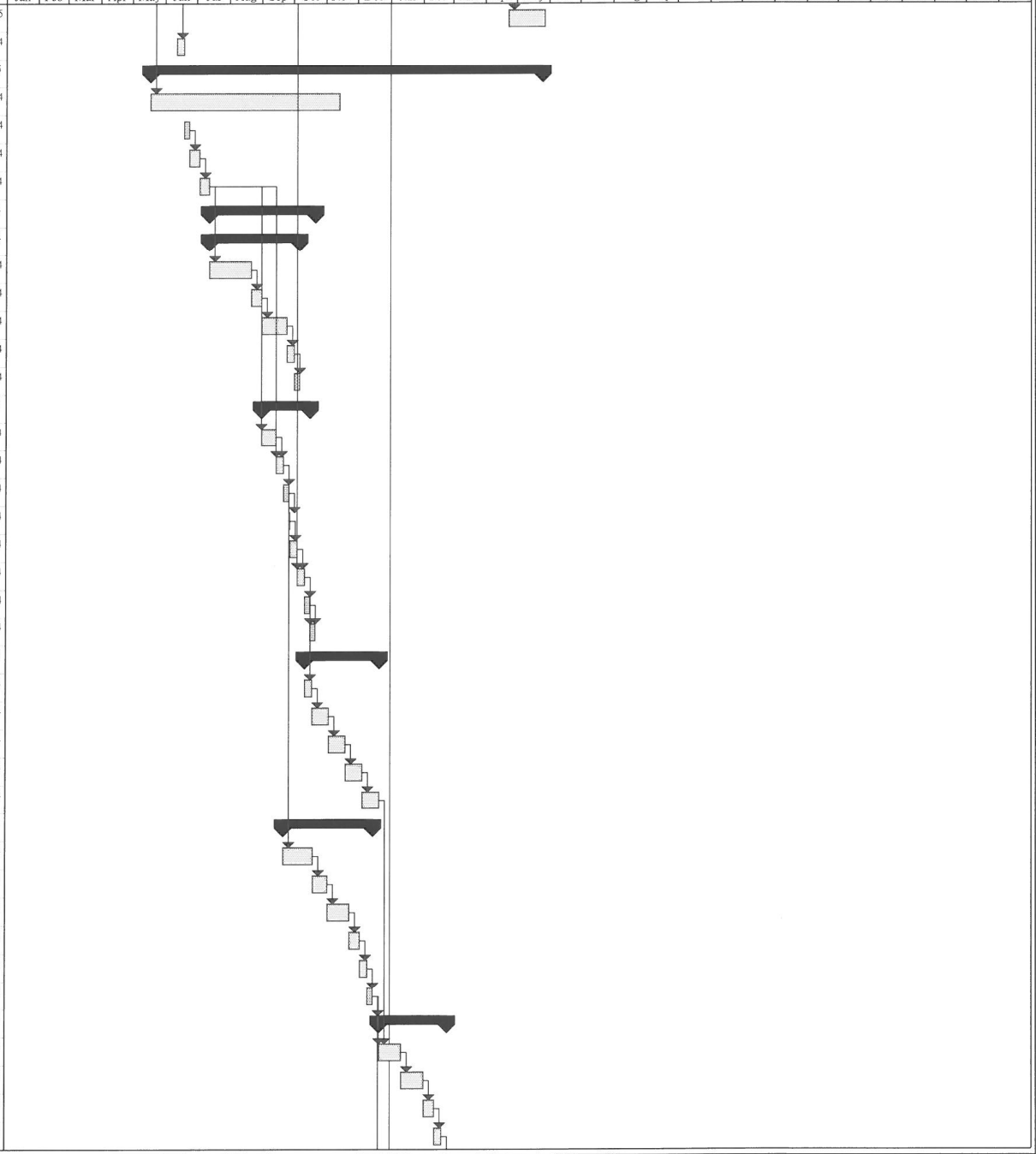
Remarks: No environmental complaint was received in the reporting month.

APPENDIX K
CONSTRUCTION PROGRAMME

ID	Task Name	Duration	Start	Finish
1	**Whole of the works**	**867 days**	**Tue 28/1/14**	**Wed 17/8/16**
2				
3	**Preliminaries**	**485 days**	**Tue 28/1/14**	**Wed 27/5/15**
4	RE office take-over	28 days	Tue 28/1/14	Mon 24/2/14
5	Site Office set up	90 days	Tue 28/1/14	Sun 27/4/14
6	Site setting-out & project signboard erection	35 days	Tue 28/1/14	Mon 3/3/14
7	**Public Relation Plan**	**485 days**	**Tue 28/1/14**	**Wed 27/5/15**
8	Plan Preparation and submission for approval	75 days	Tue 28/1/14	Sat 12/4/14
9	Preparation for 1st CLG meeting	10 days	Sun 13/4/14	Tue 22/4/14
10	Plan implementation	400 days	Wed 23/4/14	Wed 27/5/15
11	Material & Method Statement submission	120 days	Tue 28/1/14	Tue 27/5/14
12	**Noise Barrier System submission**	**64 days**	**Sat 15/3/14**	**Sat 17/5/14**
13	Preparation for material submission and approval	15 days	Sat 15/3/14	Sat 29/3/14
14	Preparation for shop drawing & design calculation submission and approval	42 days	Sun 30/3/14	Sat 10/5/14
15	Design and Check Certificate provision	7 days	Sun 11/5/14	Sat 17/5/14
16				
17	**Section I Works - Noise barrier & roadworks**	**503 days**	**Tue 28/1/14**	**Sun 14/6/15**
18	TTA preparation	60 days	Tue 28/1/14	Fri 28/3/14
19	TTA submission and approval and Gazzette publication	67 days	Sat 29/3/14	Tue 3/6/14
20	CCTV inspection of existing drains/sewer and report submission	30 days	Mon 19/5/14	Tue 17/6/14
21	**Preparation works for T3 slip road closure on 8Jun 2014**	**12 days**	**Wed 4/6/14**	**Sun 15/6/14**
22	RA application	5 days	Wed 4/6/14	Sun 8/6/14
23	Permenant / temp. gantry sign plates replacement	5 days	Wed 4/6/14	Sun 8/6/14
24	Permenant / temp. traffic signs provision	7 days	Mon 9/6/14	Sun 15/6/14
25	TTA set up for slip road lane closure	1 day	Sun 8/6/14	Sun 8/6/14
26	1st stage modification of traffic signal at J/O Sha Tin Centre St & Lion Rock Tunnel Rd	1 day	Sun 8/6/14	Sun 8/6/14
27	Road marking modification works	1 day	Sun 8/6/14	Sun 8/6/14
28	Sit setting out works	3 days	Mon 9/6/14	Wed 11/6/14
29	UU detection and trialpit excavation	2 days	Thu 12/6/14	Fri 13/6/14
30	UU diversion	7 days	Sat 14/6/14	Fri 20/6/14
31	Joint site inspection with LCSD for site pocession at LCSD area & record taking	7 days	Mon 16/6/14	Sun 22/6/14
32	Site setup, Signboard and hoarding erection	14 days	Sat 14/6/14	Fri 27/6/14
33	**Modification works to existing traffic sign plates and posts**	**353 days**	**Mon 9/6/14**	**Wed 27/5/15**
34	TTA submission & RA application	73 days	Mon 9/6/14	Wed 20/8/14
35	TDS 1	35 days	Thu 21/8/14	Wed 24/9/14
36	NTE/ST/SHATINRC-05	35 days	Thu 25/9/14	Wed 29/10/14
37	NTE/ST/TAIPO-37	35 days	Thu 30/10/14	Wed 3/12/14
38	NTE/ST/SHATINRC-06	35 days	Thu 4/12/14	Wed 7/1/15
39	NTE/ST/SHATINRC-03	35 days	Thu 8/1/15	Wed 11/2/15
40	NTE/ST/SHATINRC-01B	35 days	Thu 12/2/15	Wed 18/3/15
41	NTE/ST/TAICHUK-07	35 days	Thu 19/3/15	Wed 22/4/15



ID	Task Name	Duration	Start	Finish
42	NTE/ST/MANLAM-01A	35 days	Thu 23/4/15	Wed 27/5/15
43	Site clearance and street furniture removal at slip road	7 days	Thu 12/6/14	Wed 18/6/14
44	**Noise barrier (NB) construction**	**373 days**	**Sun 18/5/14**	**Mon 25/5/15**
45	Material procument and panel delivery	180 days	Sun 18/5/14	Thu 13/11/14
46	Breakup & dispose of extg hard material	5 days	Thu 19/6/14	Mon 23/6/14
47	Tentative EOT Claims due to Claim No.2, 3 and 4	10 days	Tue 24/6/14	Thu 3/7/14
48	Tentative EOT Claims due to Inclement Weather in Jul.14	9 days	Fri 4/7/14	Sat 12/7/14
49	**Bay 1 & 2 (1st Portion) Footing construction**	**101 days**	**Sun 13/7/14**	**Tue 21/10/14**
50	**Bay 1 Footing Construction**	**86 days**	**Sun 13/7/14**	**Mon 6/10/14**
51	ELS system installation & surplus material disposal	40 days	Sun 13/7/14	Thu 21/8/14
52	Tentative EOT Claims due to Inclement Weather in Aug.14	10 days	Fri 22/8/14	Sun 31/8/14
53	Forwork erection & steel reinforcement fixing	24 days	Mon 1/9/14	Wed 24/9/14
54	Concreting & curing	7 days	Thu 25/9/14	Wed 1/10/14
55	Formwork removal & soil backfill	5 days	Thu 2/10/14	Mon 6/10/14
56	**Bay 2 Footing Construction (1st portion of 5m length)**	**46 days**	**Mon 1/9/14**	**Thu 16/10/14**
57	ELS system installation & surplus material disposal	14 days	Mon 1/9/14	Sun 14/9/14
58	Tentative EOTclaims due to conflict with unexpected watermains	7 days	Mon 15/9/14	Sun 21/9/14
59	Forwork erection & steel reinforcement fixing for base slab	5 days	Mon 22/9/14	Fri 26/9/14
60	Concreting	1 day	Sat 27/9/14	Sat 27/9/14
61	Forwork erection & steel reinforcement fixing for wall stem	7 days	Sun 28/9/14	Sat 4/10/14
62	Concreting & curing	7 days	Sun 5/10/14	Sat 11/10/14
63	Formwork removal & soil backfill	5 days	Sun 12/10/14	Thu 16/10/14
64	ELS system removal	5 days	Fri 17/10/14	Tue 21/10/14
65	**Existing boundary wall (Bay 2 ~ Bay 5) demolition**	**71 days**	**Sun 12/10/14**	**Sun 21/12/14**
66	Temporary access reprovision	7 days	Sun 12/10/14	Sat 18/10/14
67	Break up and dispose of extg boundary wall along Bay 2	16 days	Sun 19/10/14	Mon 3/11/14
68	Break up and dispose of extg boundary wall along Bay 3	16 days	Tue 4/11/14	Wed 19/11/14
69	Break up and dispose of extg boundary wall along Bay 4	16 days	Thu 20/11/14	Fri 5/12/14
70	Break up and dispose of extg boundary wall along Bay 5	16 days	Sat 6/12/14	Sun 21/12/14
71	**Bay 6 & 7 Footing construction**	**85 days**	**Mon 22/9/14**	**Mon 15/12/14**
72	Access setup, ELS system installation & surplus material disposal	28 days	Mon 22/9/14	Sun 19/10/14
73	Break up and dispose of extg boundary wall	14 days	Mon 20/10/14	Sun 2/11/14
74	Forwork erection & steel reinforcement fixing	21 days	Mon 3/11/14	Sun 23/11/14
75	Concreting & curing	10 days	Mon 24/11/14	Wed 3/12/14
76	Formwork removal & soil backfill	7 days	Thu 4/12/14	Wed 10/12/14
77	ELS system removal	5 days	Thu 11/12/14	Mon 15/12/14
78	**Bay 4 & 5 Footing construction**	**64 days**	**Mon 22/12/14**	**Mon 23/2/15**
79	ELS system installation & surplus material disposal	21 days	Mon 22/12/14	Sun 11/1/15
80	Forwork erection & steel reinforcement fixing	21 days	Mon 12/1/15	Sun 1/2/15
81	Concreting & curing	10 days	Mon 2/2/15	Wed 11/2/15
82	Formwork removal & soil backfill	7 days	Thu 12/2/15	Wed 18/2/15



ID	Task Name	Duration	Start	Finish
83	ELS system removal	5 days	Thu 19/2/15	Mon 23/2/15
84	**Bay 3 and 2 (2nd portion of 7m length) Footing construction**	**61 days**	**Tue 24/2/15**	**Sat 25/4/15**
85	ELS system installation & surplus material disposal	21 days	Tue 24/2/15	Mon 16/3/15
86	Forwork erection & steel reinforcement fixing	18 days	Tue 17/3/15	Fri 3/4/15
87	Concreting & curing	10 days	Sat 4/4/15	Mon 13/4/15
88	Formwork removal & soil backfill	7 days	Tue 14/4/15	Mon 20/4/15
89	ELS system removal	5 days	Tue 21/4/15	Sat 25/4/15
90	Steelwork Erection	140 days	Tue 16/12/14	Mon 4/5/15
91	Noise Barrier Panel, cladding and gutter fixing	21 days	Tue 5/5/15	Mon 25/5/15
92	**New Sign Gantry construction**	**272 days**	**Mon 1/9/14**	**Sat 30/5/15**
93	Shop drawing and E&M works submission and approval	150 days	Mon 1/9/14	Wed 28/1/15
94	Footing modification	21 days	Sun 26/4/15	Sat 16/5/15
95	Steelwork & sign plate fixing	14 days	Sun 17/5/15	Sat 30/5/15
96	Drainage works	28 days	Sun 26/4/15	Sat 23/5/15
97	Carriageway construction	14 days	Sun 24/5/15	Sat 6/6/15
98	St lighting duct laying and street furniture provision	7 days	Sun 31/5/15	Sat 6/6/15
99	Irrigation system construction	7 days	Sun 7/6/15	Sat 13/6/15
100	Cycletracks & footpath construction	7 days	Sun 7/6/15	Sat 13/6/15
101	2nd stage modification of traffic signal at J/O Sha Tin Centre St & Lion Rock Tunnel Rd	1 day	Sun 14/6/15	Sun 14/6/15
102	Joint site inspection with LCSD for handover posessed site	1 day	Sun 14/6/15	Sun 14/6/15
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