

Issue No. : 1
Issue Date : March 2013
Project No. : 800.4350

**EMSD HONG KONG WORKSHOP
AT SHEUNG ON STREET,
CHAI WAN**

**MONTHLY ENVIRONMENTAL
MONITORING AND AUDIT
REPORT
(FEBRUARY 2013)**

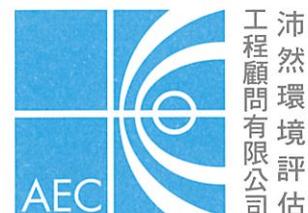
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ALLIED ENVIRONMENTAL CONSULTANTS LTD.

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Electrical and Mechanical Services Department

Architectural Services Department

**EMSD Hong Kong Workshop
at Sheung On Street, Chai Wan**

Monthly Environmental Monitoring & Audit Report

(Feb 2013)

Verified by: Fredrick Leong



Position: Independent Environmental Checker

Date: _____

14 March 2013

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Certified by:


Grace M. H. Kwok
Environmental Team Leader

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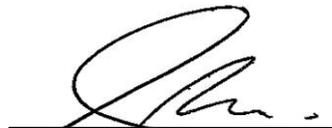
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EXECUTIVE SUMMARY

Allied Environmental Consultants Limited (AEC) has been appointed to conduct an environmental monitoring and audit (EM&A) program for the proposed Electrical and Mechanical Services Department (EMSD) Hong Kong (HK) Workshop at Sheung On Street, Chai Wan. The site clearance and tree felling works were undertaken during the period from 15th October 2012 to 1st November 2012. The construction works were commenced on 5th November 2012. This report is the fourth monthly EM&A report, which detailed the environmental monitoring and audit results recorded during the period from 1st February 2013 to 28th February 2013.

In accordance with Section 8.3.2 of the EM&A Manual of the Project and Section 3.2 of the approved Environmental Permit (EP-442/2012), impact environmental monitoring for the EMSD Hong Kong Workshops at Sheung On Street of Chai Wan has been carried out from 1st February 2013 to 28th February 2013 at Tsui Shou House Tsui Wan Estate (NSR2) and the Hong Kong Institute of Vocational Education (Chai Wan) (NSR4). Impact noise monitoring was conducted within the period of 0700-1900 hours.

Mitigation measures had been implemented to minimize the environmental impacts due to the construction of the EMSD HK Workshop. The recommended mitigation measures in the EIA process and the EM&A programme were effective in protecting the environment. As such, the environmental performance during the construction phase was considered satisfactory.

The corrected minimum and maximum noise level measured in a single 30-min period at Tsui Shou House, Tsui Wan Estate(NSR2) was 71.7dB(A) $L_{eq(30min)}$ and 72.7dB(A) $L_{eq(30min)}$ respectively with an average of 72.0dB(A) $L_{eq(30min)}$. The corrected minimum and maximum noise level measured in a single 30-min period at the Hong Kong Institute of Vocational Education(Chai Wan)(NSR4) was 67.7dB(A) $L_{eq(30min)}$ and 68.7dB(A) $L_{eq(30min)}$ respectively with an average of 68.2dB(A) $L_{eq(30min)}$.

Excavation works to fence wall and surface channel were undertaken on-site and it was identified as the major influencing factors affecting the monitoring results.

Based on the monitoring results, the construction noise level complied with the environmental requirements in EM&A Manual and there were no breaches of the action and limit levels. There were no environmental complaints received in the reporting month. No notification of summons or prosecution was received.

In the reporting period, no non-compliance, complaint, inspection notice, notification of summons or prosecution was received.

In the reporting month, a total of 96.85 tonnes of inert C&D materials were generated and disposed of to the public filling facility. No non-inert C&D waste was disposed of.

Construction activities to be undertaken in the next three months include excavation to footing, steel bar fixing, concreting and formwork erection, wall construction, underground

drainage works, construction of steel frame and B.S. installation works. Potential environmental impacts include dust generation from excavation to footing, material transfer, demolition works, vehicular movement and stockpile of excavated materials; noise from excavation works, steel bar fixing, concreting and formwork erection, wall construction and construction of steel frame; wastewater generated from spraying water and underground drainage works; and generation of various wastes including C&D and chemical wastes. The Contractor should properly implement environmental mitigation measures as per the implementation schedule in the EM&A manual to ensure no adverse environmental impacts to be arisen from the construction works. The Contractor is also reminded to maintain good housekeeping at the site.

1. INTRODUCTION

Allied Environmental Consultants Limited (AEC) has been appointed to conduct an environmental monitoring and audit (EM&A) program for the proposed Electrical and Mechanical Services Department (EMSD) Hong Kong (HK) Workshop at Sheung On Street, Chai Wan. The site clearance and tree felling works were undertaken during the period from 15th October 2012 to 1st November 2012. The construction works were commenced on 5th November 2012 and all EM&A works were undertaken in accordance with the EM&A Manual and the requirements under the environmental permit EP-442/2012. This report is the fourth monthly EM&A report, which detailed the environmental monitoring and audit results recorded during the period from 1st February 2013 to 28th February 2013.

2. PROJECT INFORMATION

The Project Proponent is the Electrical and Mechanical Services Department (EMSD) and the Works Agent is the Architectural Services Department (ArchSD). This Project is to construct and operate a temporary vehicle workshop facility for around 5 years to replace the existing EMSD Hong Kong Workshop in Causeway Bay. The proposed EMSD Hong Kong Workshop will be a single storey building comprising various facilities for vehicle repair and maintenance operation as well as parking of vehicles when not in operation. The EMSD Hong Kong Workshops is categorised as a designated project under the Environmental Impact Assessment Ordinance (EIAO) and therefore a detailed Environmental Impact Assessment (EIA-202/2012) has been conducted in year 2012 and an Environmental Permit (EP-442/2012) was issued by Environmental Protection Department on August 2012.

The subject site is located at Sheung On Street, Chai Wan given in **Figure 1**. The subject site is bounded to the north by Sheung On Street, to the east by a car park, to the south by Wing Tai Road and to the west by a car park (proposed as post-secondary college). Tsui Shou House of Tsui Wan Estate and Hong Kong Institute of Vocational Education (Chai Wan), being the nearest residential and institutional establishment, are located at around 58m and 225m from the site boundary respectively.

Key personnel and contact particulars are summarized in **Table 1**.

Table 1 Contact Details of Key Personnel

Role	Department / Company	Names	Contact Number
Project Proponent	Electrical and Mechanical Services Department	Ms. Emily Ho	2808 3688
Works Agent	Architectural Services Department	Mr. T. M. Ma	2773 2426
Main Contractor	Able Engineering Company Ltd.	Mr. Y. C. Lee	9400 2830
Environmental Team Leader	Allied Environmental Consultants Ltd.	Ms. Grace Kwok	2815 7028
Independent Environmental Checker	Meinhardt Infrastructure & Environment Ltd.	Mr. Fredrick Leong	2859 1739

The construction programme is referred to **Appendix A** and the management structure is given in **Appendix B**.

The major works undertaken and/or completed during the reporting month are listed below:

- Excavation works to fence wall and surface channel.

3. ENVIRONMENTAL STATUS

3.1. Status of the Statutory Environmental Compliance

The EM&A Works follow the EP conditions under the Environmental Impact Assessment Ordinance (EIAO) and a summary of the submissions under the EP for this project up to the reporting month is presented in **Table 2** below:

Table 2 Summary of the Submissions under the EP

EP-442/2012 Clause No.	Document Title
1.12	Notification of commencement date of construction on 10 th October 2012
3.3	Baseline monitoring report submitted on 24 th September 2012
3.4	The copies of impact EM&A report (November – December 2012) were submitted within 10 working days after the end of each reporting month
4.2	Notification of set up of dedicated web site and upload of environmental monitoring and project data on 21 st November 2012
4.3	Set up of dedicated web site on 21 st November 2012

3.2. Mitigation Measures for Construction Works

According to the basic project information, the major construction works undertaken during the reporting month is listed and **Table 3** shows the interrelationship between construction activities and environmental mitigation measures for the reporting month. In order to indicate the location of works, an illustrative drawing is provided in **Figure 2** to demonstrate the location of works, the project area, environmental sensitive receivers and locations of the monitoring and control stations.

Table 3 Interrelationship between Construction Activities and Mitigation Measures

Construction Works	Major Environmental Impact	Mitigation Measures
Excavation works to fence wall and surface channel	Construction dust, construction noise and waste management	<ol style="list-style-type: none"> 1. Watering and imperious sheeting was provided to dusty materials; 2. Water spraying should be provided to haul road and excavation works; 3. Well-maintained and quiet plants were used; 4. Proper waste storage and sorting was applied; and 5. Trip record was maintained properly.

4. SUMMARY OF EM&A REQUIREMENTS

According to the environmental findings detailed in the Environmental Impact Assessment (EIA) report and the EM&A Manual of the EMSD Hong Kong Workshop Project, the EM&A requirements of the noise, air quality, water quality, waste management, landscape and visual and environmental audit are summarized as follows:

4.1. Noise

The construction noise level should be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). The $L_{eq(30min)}$ should be used as the monitoring parameter for the time period from 0700-1900 hours on normal weekdays. The supplementary information for data auditing and statistical results, e.g. L_{10} and L_{90} , should be obtained for reference.

4.2. Environmental Audit

Site inspections should be conducted regularly to ensure that appropriate environmental protection and pollution control mitigation measures for noise, air quality, water quality, waste management and landscape and visual aspects are properly implemented for the construction works activities associated with the EMSD Hong Kong Workshop Project, as they are one of the most effective tools to enforce the environmental protection requirements at the works sites and works areas.

Regular site inspections should be carried out and led by the Engineer and attended by the Contractor and ET at least once every week. The areas of inspection should not be limited to the environmental conditions and pollution control and mitigation measures within the works sites and works areas. Instead, it should also review the environmental conditions of locations that are beyond the boundary of the works sites and works areas likely to be affected directly or indirectly by the construction site activities. During the inspection, the following information should be referred to:

- The EIA and EM&A recommendations on the environmental protection and pollution control mitigation measures;
- Ongoing results of the EM&A programme;
- The works progress and programme;
- Proposals of individual works methodologies (which should include the proposal of the associated pollution control measures);
- Contract specifications on environmental protection and pollution prevention control;
- The relevant environmental protection and pollution control legislation; and
- Previous site inspection findings undertaken by the ET and/or others.

The Contractor should keep the Engineer and ET updated with all the relevant environmental related information on the construction contract to carry out the site inspections. The inspection findings and associated recommendations for improvements to the environmental protection and pollution control and outcome of the improvement should be recorded and followed up by the Contractor in an agreed time-frame.

The Engineer, ET and Contractor should also carry out ad hoc site inspections if significant environmental problems are identified. Inspections may also be required subsequent to the receipt of environmental complaints, or as part of the investigation work, as specified in the Event and Action Plans for the EM&A programme.

4.3. Action and Limit Level

According to the EM&A requirements, only noise impact of the construction stage requires impact monitoring. Corresponding action and limit level is set up to provide an appropriate framework for the interpretation of monitoring results. The noise impact monitoring data shall be checked against the Action and Limit Levels as listed in **Table 4**. A correction of +3dB(A) shall be made if the free-field measurements are employed.

Table 4 Action and Limit Levels for Construction Noising Monitoring

Time Period	Action Level	Limit Level, $L_{eq\ 30mins}$, dB(A)
0700 – 1900 hours on normal weekdays	When one documented complaint is received	75 dB(A) for residential premises
		70 dB(A) for school and 65dB(A) during examination period

4.4. Event and Action Plans

In case of non-compliances with the construction noise criteria, the contractor shall undertake corresponding actions in accordance with the Event and Action Plan given in EM&A Manual and shown in **Table 5**.

Table 5 *Event and Action Plan for Construction Noise Monitoring*

EVENT	ACTION			
	ET ⁽¹⁾	IEC ⁽¹⁾	Engineer	Contractor
Action Level	<ol style="list-style-type: none"> 1. Notify the IEC and Contractor. 2. Carry out investigation. 3. Report the results of investigation to the IEC and Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation effectiveness. 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET. 2. Review the proposed remedial measures by the Contractor and advise the Engineer accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to the IEC. 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 1. Notify the IEC, Engineer, EPD and Contractor. 2. Identify sources. 3. Repeat measurements to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform the IEC, Engineer and EPD the causes and action taken for the exceedances. 7. Assess the effectiveness of the Contractor's remedial action and keep the IEC, EPD and Engineer informed of the results. 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss amongst the Engineer, ET and Contractor on the potential remedial action. 2. Review the Contractor's remedial action whenever necessary to assure their effectiveness and advise the Engineer accordingly. 3. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of works until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial action to the IEC within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problems still not under control. 5. Stop the relevant portion works as determined by the Engineer until the exceedance is abated.

Note (1): ET – Environmental Team, IEC – Independent Environmental Checker; (2) Each step of action should be undertaken within 1 working day unless otherwise specified.

5. IMPLEMENTATION STATUS OF ENVIRONMENTAL MITIGATION MEASURES

The relevant parties have implemented mitigation measures which include, but not limited to the following:

- Watering and imperious sheeting was provided to dusty materials;
- Water spraying was provided to haul road and excavation works;
- Well-maintained and quiet plants were used;
- Proper waste storage and sorting was applied;
- Idling plant was shut down when not in use;
- Tree retaining followed the statutory requirements;
- Waste was regularly collected, sorted and properly disposed of; and
- The site and surrounding were kept tidy and litter free.

A total of 4 site inspections were conducted by the Environmental Team (ET) in this reporting period. Major observations by the ET, actions by the Contractor and outcome are summarized in the *Table 6*.

Table 6 Summary of Site Inspections

Date	Observations / Reminders / Recommendations	Action taken by Contractor	Outcome
1 st February 2013	The hoarding at some sections of the site boundary was not erected.	The Contractor found the erection of hoarding not feasible and surface channel was provided.	Keep in view.
	Only a water jet was provided for wheel washing.	Wheel washing bay was constructed.	The situation was rectified by photo record on 8 th February 2013.
	The Contractor was reminded to apply the effluent discharge license before any waste water discharge.	The Contractor shall apply the license when the site provision is ready.	Keep in view.
	The Contractor was reminded to keep a copy of trip tickets on-site.	Copies of trip tickets were kept on-site.	The situation was rectified as observed on 19 th February 2013.
	The Contractor was reminded to label the two retained trees.	The Contractor shall provide labels as soon as possible.	Keep in view.
8 th February 2013	The hoarding at some sections of the site boundary was not erected.	The Contractor found the erection of hoarding not feasible and surface channel was provided.	Keep in view.
	The Contractor was reminded to apply the effluent discharge license before any waste water discharge.	The Contractor shall apply the license when the site provision is ready.	Keep in view.

Date	Observations / Reminders / Recommendations	Action taken by Contractor	Outcome
	The Contractor was reminded to keep a copy of trip tickets on-site.	Copies of trip tickets were kept on-site.	The situation was rectified as observed on 19 th February 2013.
	The Contractor was reminded to label the two retained trees.	The Contractor shall provide labels as soon as possible.	Keep in view.
15 th February 2013	The hoarding at some sections of the site boundary was not erected.	The Contractor found the erection of hoarding not feasible and surface channel was provided.	Keep in view.
	The Contractor was reminded to apply the effluent discharge license before any waste water discharge.	The Contractor shall apply the license when the site provision is ready.	Keep in view.
	The Contractor was reminded to keep a copy of trip tickets on-site.	Copies of trip tickets were kept on-site.	The situation was rectified as observed on 19 th February 2013.
	The Contractor was reminded to label the two retained trees.	The Contractor shall provide labels as soon as possible.	Keep in view.
19 th February 2013	The hoarding at some sections of the site boundary was not erected.	The Contractor found the erection of hoarding not feasible and surface channel was provided.	Keep in view.
	A car was found leaving the site without washing the wheels although there is hard paving at the trafficked area.	Wheel washing was provided for each vehicle leaving the site.	The situation was rectified as observed on 1 st March 2013.
	The overall site tidiness should be improved and the debris of felled trees behind the hoarding near the footbridge of Wing Tai Road was not removed.	The overall site tidiness was improved and the debris of felled trees was removed.	The situation was rectified as observed on 1 st March 2013.
	The Contractor was reminded to apply the effluent discharge license before any waste water discharge.	The Contractor shall apply the license when the site provision is ready.	Keep in view.
	The Contractor was reminded to label the two retained trees.	The Contractor shall provide labels as soon as possible.	Keep in view.

During site inspections in the reporting month, no non-conformance of implementation of environmental mitigation measures was identified. The implementation of environmental mitigation measures for construction stages stated in approved EIA Report, EM&A Manual and Environmental Permit were carried out properly as shown in **Appendix C**.

6. MONITORING METHODOLOGY

6.1. Monitoring Parameter

Impact noise monitoring was conducted at the designated noise monitoring location between 0700-1900 hours using a sound level meter which complies with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1).

Monitoring of $L_{eq(30min)}$ should be carried out at each station at 0700-1900 hours on normal weekdays at a frequency of once a week when construction activities are underway. The L_{eq} , L_{10} and L_{90} should be recorded at the specified intervals simultaneously. The meter shall be mounted on a tripod at a height of 1.2m above ground with the microphone positioned at G/F adjacent to the NSRs facing the works area.

Noise measurements shall not be made in the presence of fog, rain, and wind with a steady speed exceeding 5m/s or wind with gusts exceeding 10m/s. The wind speed will be checked with a portable anemometer capable of measuring the wind speed in m/s. Noise measurements shall be made when construction activities are underway.

6.2. Calibration and Maintenance

The calibration of the sound level meter and their respective calibrators shall be carried out according to the manufacturer's requirements. The sound level meter and the calibrator shall be calibrated at an accredited laboratory to ensure their performance and accuracy meet manufacturer's specifications.

Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using the acoustic calibrator. Measurements shall be valid only if the calibration level, before and after the noise measurement, agree to within 1.0 dB.

The equipment shall be stored properly and well-maintained with regard to the manufacturer's recommendations. Noise instrumentation details are given in **Table 7** and the Calibration Certificates for the sound level meter and calibrator are given in **Appendix D**.

Table 7 Noise Monitoring Equipment

Manufacturer	Type/Model No.	Equipment	Quantity
Casella	CEL-633A	Sound Level Meter	1
Casella	CEL-120	Sound Level Calibrator	1

6.3. Monitoring Locations

The designated locations for the construction noise monitoring are listed in **Table 8** and shown in **Figure 2**.

Table 8 Representative Noise Sensitive Receivers Identified for Construction

NSRs*	Monitoring Location
NSR2	Tsui Shou House, Tsui Wan Estate
NSR4	Hong Kong Institute of Vocational Education (Chai Wan)

*NSRs = Noise Sensitive Receivers

The monitoring location NSR2 is located at the garden area nearby the Tsui Shou House while the monitoring location NSR4 is located at the pedestrian path nearby the Hong Kong Institute of Vocational Education (Chai Wan) facing to work area. The monitoring taken at both monitoring locations was in a free-field measurement condition.

7. MONITORING RESULTS

Impact noise monitoring was conducted at Tsui Shou House Tsui Wan Estate (NSR2) and the Hong Kong Institute of Vocational Education (Chai Wan) (NSR4) on 5th, 16th, 19th and 26th February 2013.

Noise monitoring results in terms of $L_{eq(30min)}$, $L_{10(30min)}$ and $L_{90(30min)}$ measured at Tsui Shou House Tsui Wan Estate (NSR2) and the Hong Kong Institute of Vocational Education (Chai Wan) (NSR4) are summarized in **Tables 9** and **10** respectively and the corresponding graphical plot and field record sheets are given in **Appendix E** and **Appendix F**. The field record sheets record the measured noise levels according to free-field measurements and a correction of +3dB(A) has been made to the measured noise levels. L_{10} and L_{90} represent sound levels that are exceeded 10% and 90% of the time respectively. Normally, L_{10} measurements can be considered as the average peak levels, whilst L_{90} levels can be considered as the average background noise levels.

Table 9 Noise Monitoring Results at NSR 2

NSR2		Tsui Shou House, Tsui Wan Estate			
Date	Weather Condition	Corrected Noise Level according to free-field measurements			
		Wind Speed (ms^{-1})	$L_{90(30-min)}$ (dB(A))	$L_{10(30-min)}$ (dB(A))	$L_{eq(30-min)}$ (dB(A))
5 th February 2013	Cloudy	0.3	64.9	74.8	71.7
16 th February 2013	Cloudy	0.2	63.3	75.4	71.8
19 th February 2013	Sunny	0.4	66.5	75.6	72.7
26 th February 2013	Fine	0.3	65.9	74.8	71.8
Average $L_{eq(30-min)}$			72.0		

Table 10 Noise Monitoring Results at NSR 4

NSR4		Hong Kong Institute of Vocational Education (Chai Wan)			
Date	Weather Condition	Corrected Noise Level according to free-field measurements			
		Wind Speed (ms^{-1})	$L_{90(30-min)}$ (dB(A))	$L_{10(30-min)}$ (dB(A))	$L_{eq(30-min)}$ (dB(A))
5 th February 2013	Cloudy	0.3	64.1	70.7	68.0
16 th February 2013	Cloudy	0.2	63.2	69.9	67.7
19 th February 2013	Sunny	0.3	64.8	71.2	68.5
26 th February 2013	Fine	0.3	64.9	71.3	68.7
Average $L_{eq(30-min)}$			68.2		

The corrected minimum and maximum noise level measured in a single 30-min period at Tsui Shou House, Tsui Wan Estate (NSR2) was 71.7dB(A) $L_{eq(30min)}$ and 72.7dB(A) $L_{eq(30min)}$

respectively with an average of 72.0dB(A) $L_{eq(30min)}$. The corrected minimum and maximum noise level measured in a single 30-min period at the Hong Kong Institute of Vocational Education (Chai Wan) (NSR4) was 67.7dB(A) $L_{eq(30min)}$ and 68.7dB(A) $L_{eq(30min)}$ respectively with an average of 68.2dB(A) $L_{eq(30min)}$.

Excavation works to fence wall and surface channel were undertaken on-site and it was identified as the major influencing factors affecting the monitoring results.

8. NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND STATUS OF PROSECUTIONS

In the reporting period, no non-compliance, complaint, inspection notice, notification of summons or prosecution was received.

9. FORECAST OF WORKS PROGRAMME AND FUTURE KEY ISSUES

Construction activities to be undertaken in the next three months include excavation to footing, steel bar fixing, concreting and formwork erection, wall construction, underground drainage works, construction of steel frame and B.S. installation works. Potential environmental impacts include dust generation from excavation to footing, material transfer, demolition works, vehicular movement and stockpile of excavated materials; noise from excavation works, steel bar fixing, concreting and formwork erection, wall construction and construction of steel frame; wastewater generated from spraying water and underground drainage works; and generation of various wastes including C&D and chemical wastes. The Contractor should properly implement environmental mitigation measures as per the implementation schedule in the EM&A manual to ensure no adverse environmental impacts to be arisen from the construction works. The Contractor is also reminded to maintain good housekeeping at the site.

The tentative monitoring schedule is appended in *Appendix G*.

10. SOLID AND LIQUID WASTE MANAGEMENT STATUS

In the reporting month, a total of 96.85 tonnes of inert C&D materials were generated and disposed of to the public filling facility. No non-inert C&D waste was disposed of.

11. COMMENTS, RECOMMENDATIONS AND CONCLUSIONS

Impact environmental monitoring had been carried out for the EMSD Hong Kong Workshop at Sheung On Street, Chai Wan, Hong Kong.

Mitigation measures had been implemented to minimize the environmental impacts due to the construction of the EMSD HK Workshop. The recommended mitigation measures in the EIA process and the EM&A programme were effective in protecting the environment. As such, the environmental performance during the construction phase was considered satisfactory.

Impact noise monitoring was conducted at Tsui Shou House Tsui Wan Estate (NSR2) and the Hong Kong Institute of Vocational Education (Chai Wan) (NSR4) on 5th, 16th, 19th and 26th February 2013.

The corrected minimum and maximum noise level measured in a single 30-min period at Tsui Shou House, Tsui Wan Estate(NSR2) was 71.7dB(A) $L_{eq(30min)}$ and 72.7dB(A) $L_{eq(30min)}$ respectively with an average of 72.0dB(A) $L_{eq(30min)}$. The corrected minimum and maximum noise level measured in a single 30-min period at the Hong Kong Institute of Vocational Education(Chai Wan)(NSR4) was 67.7dB(A) $L_{eq(30min)}$ and 68.7dB(A) $L_{eq(30min)}$ respectively with an average of 68.2dB(A) $L_{eq(30min)}$.

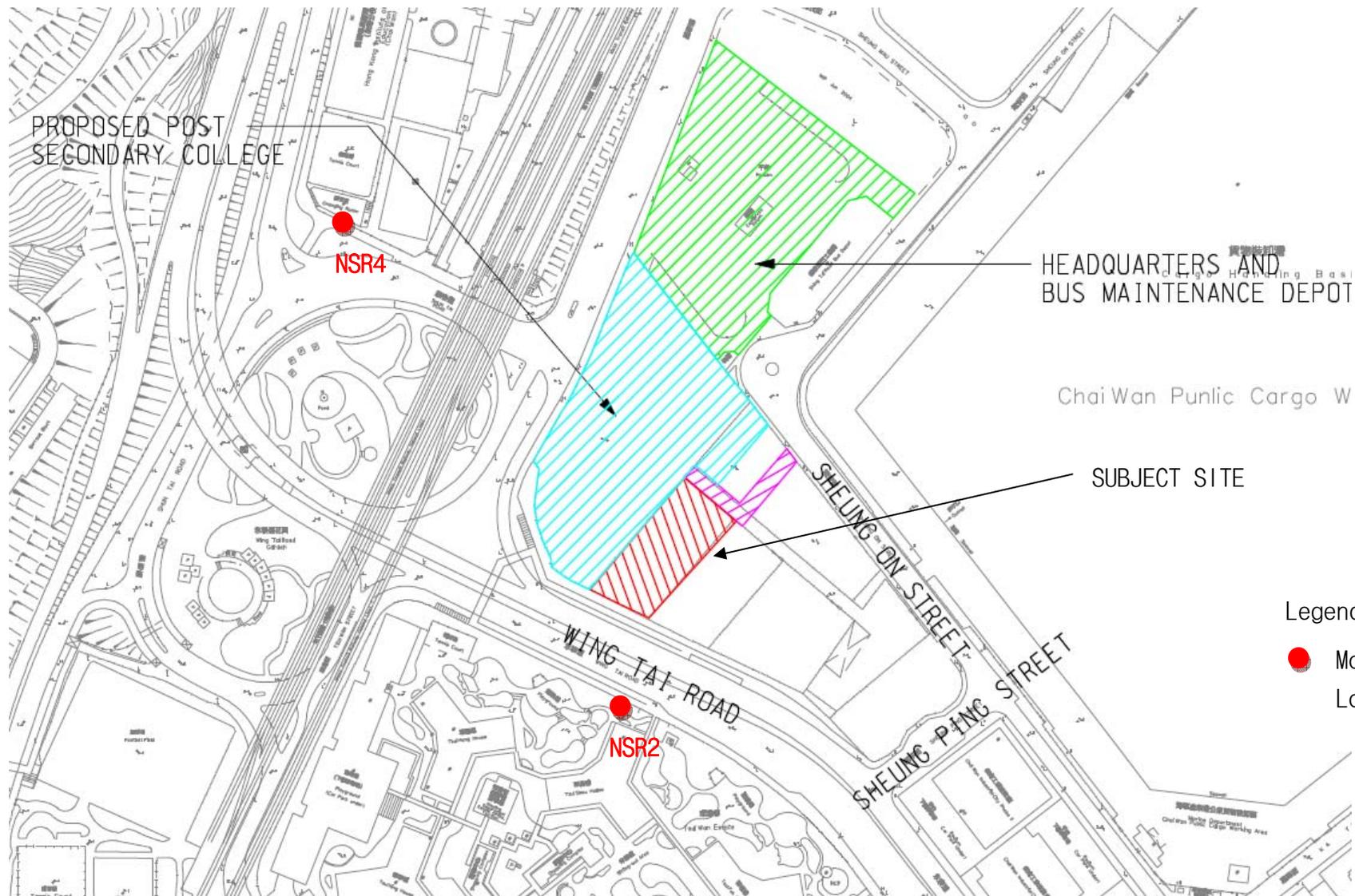
Excavation works to fence wall and surface channel were undertaken on-site and it was identified as the major influencing factors affecting the monitoring results.

The monitoring results and statistics of non-compliance indicated that the EIA process with its recommended mitigation and EM&A programme were effective for protection of the environment and there was no unacceptable environmental impact posed by the Project.

In the reporting period, no non-compliance, complaint, inspection notice, notification of summons or prosecution was received.

In the reporting month, a total of 96.85 tonnes of inert C&D materials were generated and disposed of to the public filling facility. No non-inert C&D waste was disposed of.

Construction activities to be undertaken in the next three months include excavation to footing, steel bar fixing, concreting and formwork erection, wall construction, underground drainage works, construction of steel frame and B.S. installation works. Potential environmental impacts include dust generation from excavation to footing, material transfer, demolition works, vehicular movement and stockpile of excavated materials; noise from excavation works, steel bar fixing, concreting and formwork erection, wall construction and construction of steel frame; wastewater generated from spraying water and underground drainage works; and generation of various wastes including C&D and chemical wastes. The Contractor should properly implement environmental mitigation measures as per the implementation schedule in the EM&A manual to ensure no adverse environmental impacts to be arisen from the construction works. The Contractor is also reminded to maintain good housekeeping at the site.



EMSD HONG KONG WORKSHOP

SITE LOCATION PLAN AND MONITORING LOCATIONS OF NOISE MONITORING

Figure No.

1

Rev.:

0

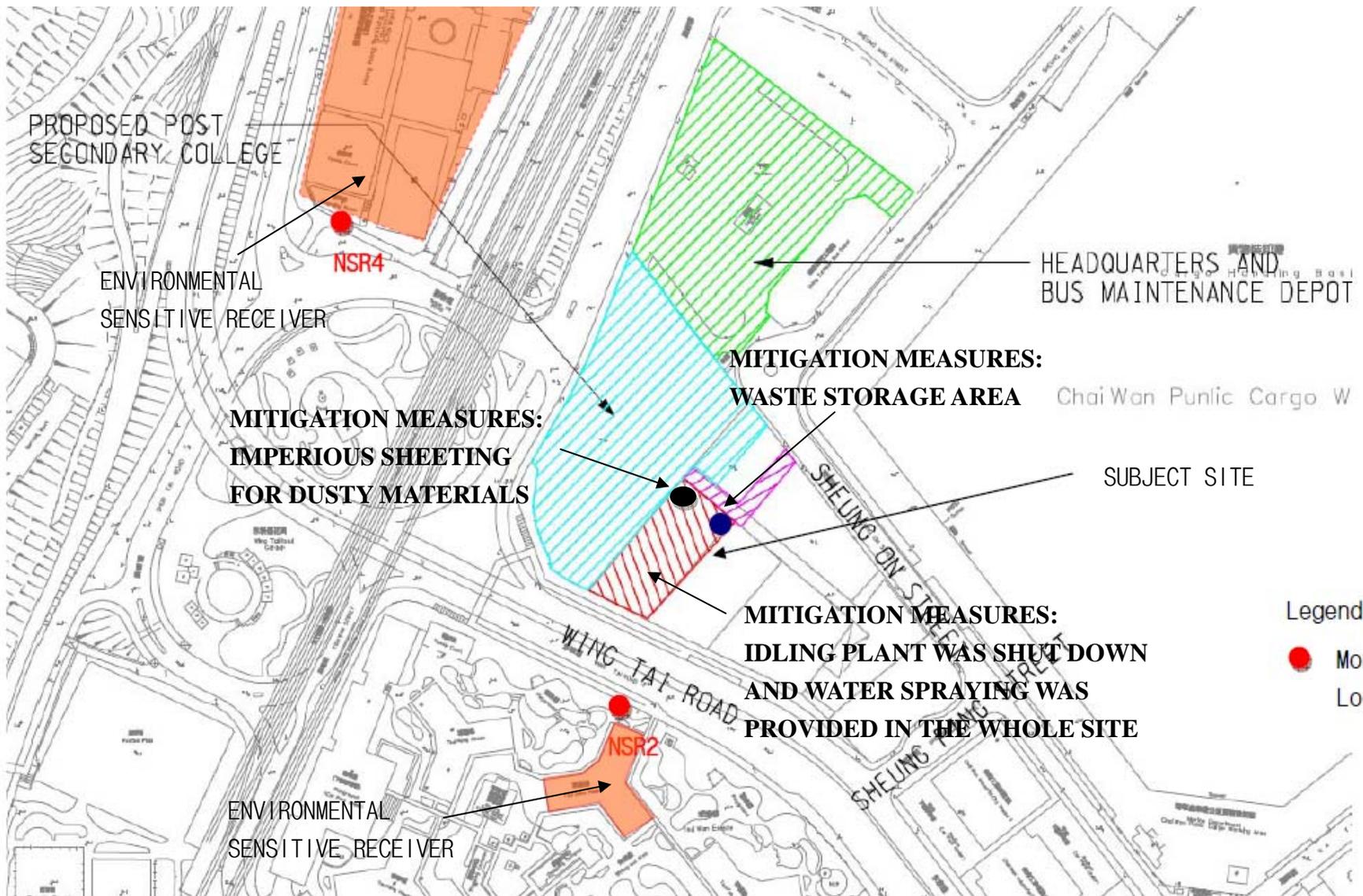
Scale

NTS

Date

12/12





EMSD HONG KONG WORKSHOP
ILLUSTRATIVE DRAWING FOR MITIGATION MEASURES

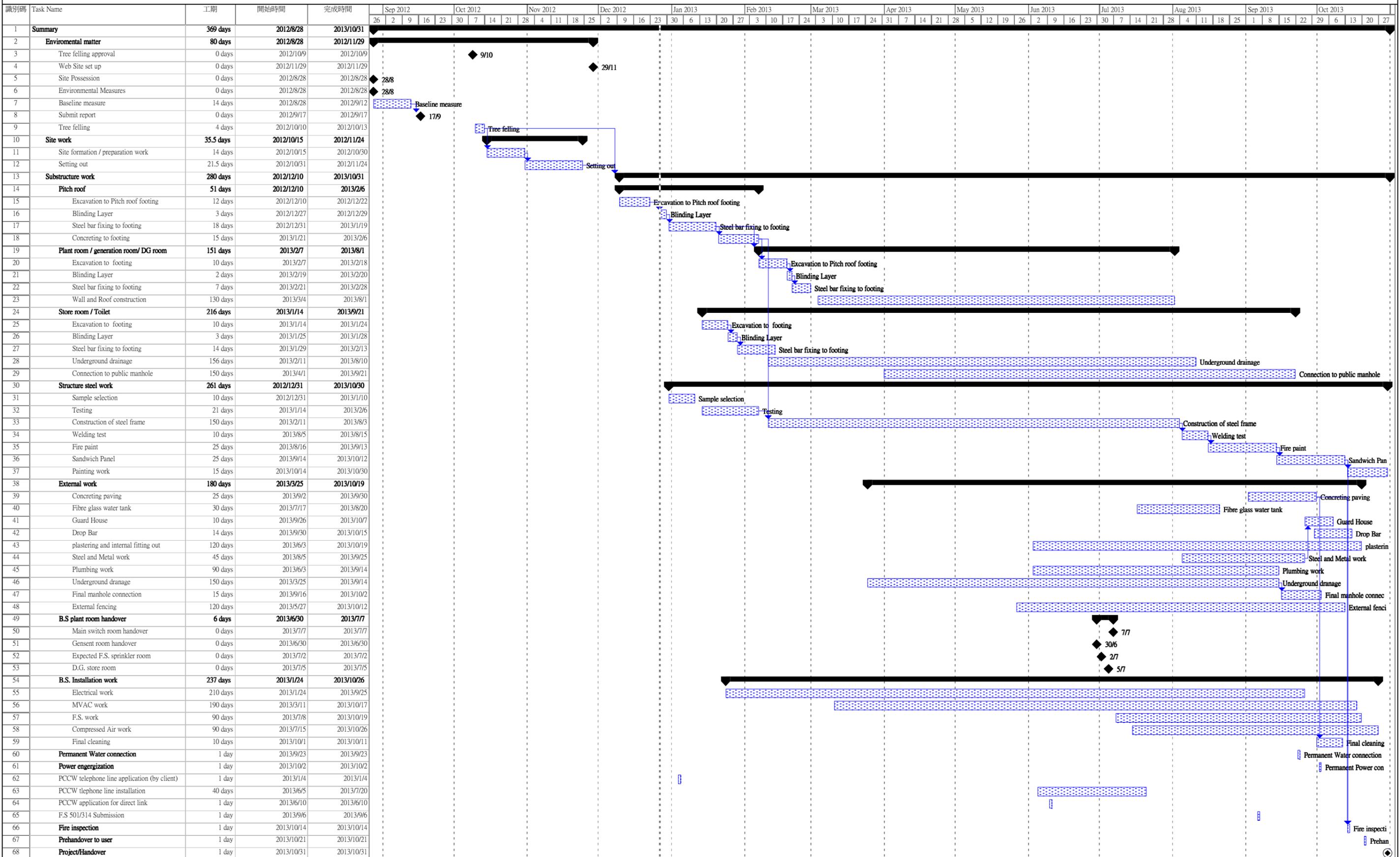
Figure No.	Rev.:
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NTS	12/12



Appendix A

Construction Programme

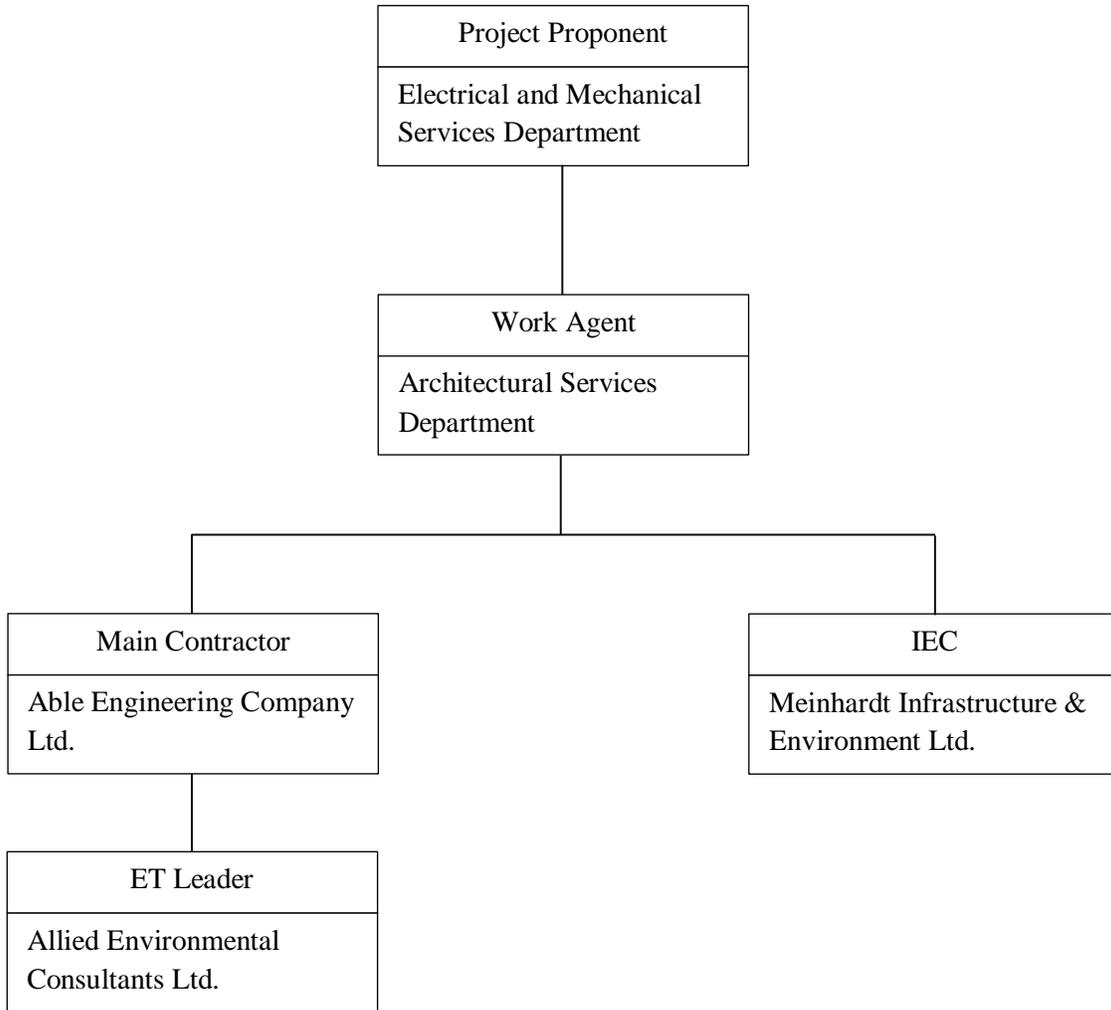
Contract No: P2320391
 Construction of New EMSD Chai Wan Depot, Sheung On Street, Chai Wan.



Appendix B

Management Structure

Management Structure



Appendix C

*Implementation of Environmental
Mitigation Measures*

Appendix C Implementation of Environmental Mitigation Measures

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Status			
			<u>1/2</u>	<u>8/2</u>	<u>15/2</u>	<u>19/2</u>
Noise						
4.8.2.2	2.4.1.1	The use of quieter plant (QPME) is specified for the list of equipment: <ul style="list-style-type: none"> ▪ Concrete lorry mixer ▪ Concrete pump ▪ Dump truck ▪ Tracked excavator ▪ Tracked mobile crane (132kW, 55t) 	N/A N/A N/A ^ N/A	N/A N/A N/A ^ N/A	N/A N/A N/A ^ N/A	N/A N/A N/A ^ N/A
4.8.2.2	2.4.1.1	The use of noise barrier / enclosure / fabric are specified for the list of equipment: <ul style="list-style-type: none"> ▪ Drill rig, rotary type (diesel) – Acoustic Fabric ▪ Concrete pump – Noise Barrier / Enclosure ▪ Tracked excavator – Temporary Noise Barrier 	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A	N/A N/A N/A
4.8.3.5	2.4.1.1	Implementation of further good site practices: <ul style="list-style-type: none"> ▪ Only well-maintained plant should be operated on site and the plant shall be regularly serviced during the construction works; ▪ Mobile plant, if any, should be sited away from NSRs as possible; ▪ Plant known to emit noise strongly in one direction should, wherever possible, be properly oriented so that the noise is directed away from nearby NSRs; ▪ Use of site hoarding as noise barrier to screen noise at low level NSRs; ▪ Machines and plant that may be in intermittent use should be shut down between works period or throttled down to a minimum; and ▪ Any material stockpiles and other structures should be effectively utilized, to screen the noise from on-site construction activities. 	^ ^ ^ ^ ^ N/A	^ ^ ^ ^ ^ N/A	^ ^ ^ ^ ^ N/A	^ ^ ^ ^ ^ N/A

Remarks: ^ Implement mitigation measure in the reporting month; X Non-compliance of mitigation measure;
 N/A Not Applicable or Not Observed in the reporting month; * Not satisfactory but rectified by the contractor.

Appendix C Implementation of Environmental Mitigation Measures

EIA Ref.	EM&A Manual Ref.	Recommended Mitigation Measures	Status			
			<u>1/2</u>	<u>8/2</u>	<u>15/2</u>	<u>19/2</u>
<u>Air Quality</u>						
5.6.1.1	3.2.1.1	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices: <ul style="list-style-type: none"> ▪ Use of regular watering, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly dry weather; ▪ Use of frequent watering for particularly dusty construction areas and areas close to ASRs ▪ Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable, watering should be applied to aggregate fines; ▪ Open temporary stockpiles should be avoided or covered. Prevent placing dusty material storage piles near ASRs; ▪ Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations; ▪ Establishment and use of vehicle wheel and body washing facilities at the exit points of the site; ▪ Imposition of speed controls for vehicles on unpaved site roads. 8km per hour is the recommended limit; ▪ Routing of vehicles and positioning of construction plant at the maximum possible distance from ASRs; ▪ Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides; and ▪ Loading, unloading, transfer, handling or storage of large amount of cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust fitted with an effective fabric filter or equivalent air pollution control system. 	^ ^ ^ ^ N/A ^ ^ ^ N/A N/A	^ ^ ^ ^ N/A ^ ^ ^ N/A N/A	^ ^ ^ ^ N/A ^ ^ ^ N/A N/A	^ ^ ^ ^ N/A ^ ^ ^ N/A N/A

Remarks: ^ Implement mitigation measure in the reporting month; X Non-compliance of mitigation measure;
 N/A Not Applicable or Not Observed in the reporting month; * Not satisfactory but rectified by the contractor.

Appendix C Implementation of Environmental Mitigation Measures

Waste Management Implication and Land Contamination			1/2	8/2	15/2	19/2
7.3.4.1	5.2.1.1	<p>The requirements as stipulated in the ETWB TC(W) No.19/2005 Environmental Management on Construction Sites and the other relevant guidelines should be included in the Particular Specification for the Contractor as appropriate.</p> <p>The Contractor should be requested to submit a Waste Management Plan (WMP) prior to the commencement of construction work, in accordance with the ETWB TC(W) No.19/2005 so as to provide an overall framework of waste management and reduction. The WMP should include:</p> <ul style="list-style-type: none"> ▪ Waste management policy; ▪ Record of generated waste; ▪ Waste reduction target; ▪ Waste reduction programme; ▪ Role and responsibility of waste management team; ▪ Benefit of waste management; ▪ Analysis of waste materials; ▪ Reuse, recycling and disposal plans; ▪ Transportation process of waste products; and ▪ Monitoring and action plan. <p>The waste management hierarchy below should be strictly followed. This hierarchy should be adopted to evaluate the waste management options in order to maximise the extent of waste reduction and cost reduction. The records of quantities of waste generated, recycled and disposed (locations) should be properly documented.</p>	N/A	N/A	N/A	N/A
7.3.4.1	5.2.1.1	<p>Standard formwork or pre-fabrication should be used as far as practicable so as to minimise the C&D materials arising.</p> <p>The use of more durable formwork or plastic facing for construction works should also be considered.</p> <p>The use of wooden hoardings should be avoided and metal boarding should be used to facilitate recycling. Purchasing of construction materials should be carefully planned in order to avoid over-ordering and wastage.</p> <p>The Contractor should recycle as many C&D materials as possible on-site. The public fill and C&D waste should be segregated and stored in separate containers or skips to facilitate the reuse or recycling of materials and proper disposal. Where practicable, the concrete and masonry should be crushed and used as fill materials. Steel reinforcement bar should be collected for use by scrap steel mills. Different areas of the sites should be considered for segregation and storage activities.</p>	^ ^ ^	^ ^ ^	^ ^ ^	^ ^ ^
7.3.4.1	5.2.1.1	<p>A trip-ticket system should be established in accordance with DevB TC(W) No. 6/2010 and Waste Disposal (Charges for Disposal of Construction Waste) Regulation to monitor the disposal of public fill and solid wastes at public filling facilities and landfills, and to control fly-tipping. A trip-ticket system would be included as one of the contractual requirements for the Contractor to strictly implement. The Engineer would also regularly audit the effectiveness of the system.</p> <p>A recording system for the amount of waste generated, recycled and disposed (locations) should be established. The future Contractor should provide proper trainings to workers regarding the appropriate concepts of site cleanliness and waste management procedures, e.g. waste reduction, reuse and recycling all the time.</p> <p>The CEDD should be timely notified of the estimated volumes of excavated materials to be generated and the Public Fill Committee should be notified and agreement sort on the disposal of surplus inert C&D materials. Wherever practicable, C&D waste should be segregated from other waste to avoid contamination and to ensure acceptability at public filling areas or reclamation sites.</p>	^	^	^	^

Remarks: ^ Implement mitigation measure in the reporting month; X Non-compliance of mitigation measure;
 N/A Not Applicable or Not Observed in the reporting month; * Not satisfactory but rectified by the contractor.

Appendix C Implementation of Environmental Mitigation Measures

7.3.4.1	5.2.1.1	<p>Recommendations for good site practices:</p> <ul style="list-style-type: none"> ▪ All waste containers shall be in a secure area on hardstanding; ▪ Training of site personnel in, site cleanliness, proper waste management and chemical handling procedures; ▪ Provision of sufficient waste disposal points and regular collection of waste; ▪ Appropriate measures to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers; ▪ Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; ▪ Separation of chemical wastes for special handling and appropriate treatment; ▪ The site and surroundings shall be kept tidy and litter free; ▪ No waste shall be burnt on-site; ▪ Make provisions in contract documents to allow and promote the use of recycled aggregates where appropriate; and ▪ Wheel washing facilities shall be used by all trucks leaving the site to prevent transfer of mud onto public roads. 	^	^	^	^
			^	^	^	^
			^	^	^	^
			^	^	^	^
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			^	^	^	*
			^	^	^	^
			^	^	^	^
			^	^	^	*
7.3.4.1	5.2.1.1	<p>Recommendations for waste reduction measures:</p> <ul style="list-style-type: none"> ▪ Sorting of demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions (i.e. soil, broken concrete, metal etc.); ▪ Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; ▪ Encourage collection of aluminium cans by providing separate labeled bins to enable this waste to be segregated from other general refuse generated by the workforce; ▪ Proper storage and site practices to minimize the potential for damage or contamination of construction materials; and ▪ Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste. 	^	^	^	^
			^	^	^	^
			^	^	^	^
			^	^	^	^
			^	^	^	^
7.3.4.1	5.2.1.1	Waste hauliers must hold a valid permit for the collection of waste as stipulated in their permits. Removal of waste should be done in a timely manner.	^	^	^	^
7.3.4.1	5.2.1.1	<p>Chemical Waste Producer should register with EPD. Chemical waste should be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows:</p> <ul style="list-style-type: none"> ▪ Register as a Chemical Waste Producer to the EPD; ▪ Suitable for the substance to be held, resistant to corrosion, maintained in good conditions and securely closed; ▪ Having a capacity of <450L or unless the specified; ▪ Displaying a label in English and Chinese according to the instructions prescribed in the Schedule 2 of the Regulations; ▪ Clearly labeled and used solely for the storage of chemical wastes; ▪ Enclosed with at least 3 sides; ▪ Impermeable floor and bund with capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is greatest; ▪ Adequate ventilation; ▪ Sufficiently covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and ▪ Incompatible materials are adequately separated. 	N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
			N/A	N/A	N/A	N/A
7.3.4.1	5.2.1.1	Adequate numbers of portable toilets should be provided for on-site workers. Portable toilets should be maintained in reasonable states, which will not deter the workers from utilizing them. Night soil should be regularly collected by licensed collectors.	^	^	^	^

Remarks: ^ Implement mitigation measure in the reporting month; X Non-compliance of mitigation measure;
 N/A Not Applicable or Not Observed in the reporting month; * Not satisfactory but rectified by the contractor.

Appendix D

Calibration Certificates

**Certificate of
Conformance and Calibration for**

CEL-120 Acoustic Calibrator

Applicable Standards :- IEC 60942: 2003 & ANSI S1.40: 2006

CEL-120/1 Class 1

CEL-120/2 Class 2

Serial No: 3421612

Firmware: 1.03

Temperature: 22 °C Pressure: 1008 mb %RH 54

Frequency = 1.00kHz ± 2Hz T.H.D. = < 1%	Calibration Level
SPL @ 114.0dB Setting	<u>114.0</u> dB
SPL @ 94.0dB Setting (CEL-120/1 only)	<u>94.0</u> dB/ N/A

Engineer :-

14

Date :-

28 AUG 2012

R-9.0

Company test equipment and acoustic working standards, used for conformance testing, are subject to periodic calibration, traceable to UK national standards, in accordance with the company's ISO9001 Quality System.

DECLARATION OF CONFORMITY

This certificate confirms that the instrument specified above has been produced and tested to comply with the manufacturer's published specifications and the relevant European Community CE directives.

Casella CEL (U.K.),
Regent House, Wolsley Road, Kempston, Bedford. MK42 7JY
Phone: +44 (0) 1234 844100 Fax: +44 (0) 1234 841490
E-mail: info@casellacel.com
Web: www.casellameasurement.com

Certificate of Conformity and Calibration



Instrument Type:- CEL-633A

Serial Number 3521757
Firmware revision V129-07

Microphone Type:- CEL-251

Serial Number 1950

Preamplifier Type:-

CEL-495

Serial Number

1378

Applicable standards:-

IEC 61672: 2002 / EN 60651 (Electroacoustics - Sound Level Meters)
IEC 60651 1979 (Sound Level Meters), ANSI S1.4: 1983 (Specifications For Sound Level Meters)

Note:- The test sequences performed in this report are in accordance with the current Sound level meter Standard - IEC61672. The combination of tests performed are considered to confirm the products electro-acoustic performance to all applicable standards including superceeded Sound Level Meter Standards - IEC60651 and IEC60804.

Test Conditions:-

24 °C
40 %RH
1012 mBar

Test Engineer:-
Date of Issue:-

Anthony Dye
August 30, 2012

Declaration of conformity:-

This test certificate confirms that the instrument specified above has been successfully tested to comply with the manufacturer's published specifications. Tests are performed using equipment traceable to national standards in accordance with Casella's ISO 9001:2008 quality procedures. This product is certified as being compliant to the requirements of the CE Directive.

Test Summary:-

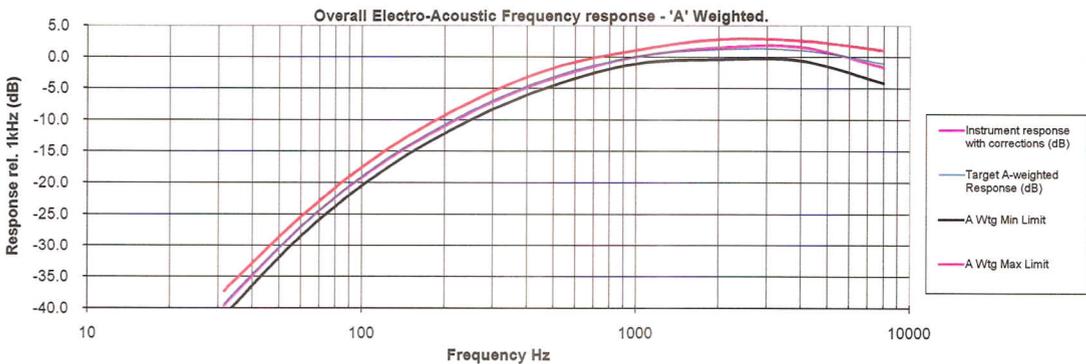
Self Generated Noise Test
Electrical Signal Test Of Frequency Weightings
Frequency & Time Weightings At 1 kHz
Level Linearity On The Reference Level Range
Toneburst Response Test
C-peak Sound Levels
Overload Indication
Acoustic Tests

All Tests Pass
All Tests Pass

Combined Electro-Acoustic Frequency Response - A Weighted

Combined Electro-Acoustic Frequency Response - A Weighted (IEC 61672-3:2006)

The following A-Weighted frequency response graph shows this instruments overall frequency response based upon the application of multi-frequency pressure field calibrations. The microphones Pressure to Free field correction coefficients are applied to pressure response. Reference level taken at 1kHz.



Casella CEL (U.K.)

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Web: www.casellaUSA.com

Casella España S.A.

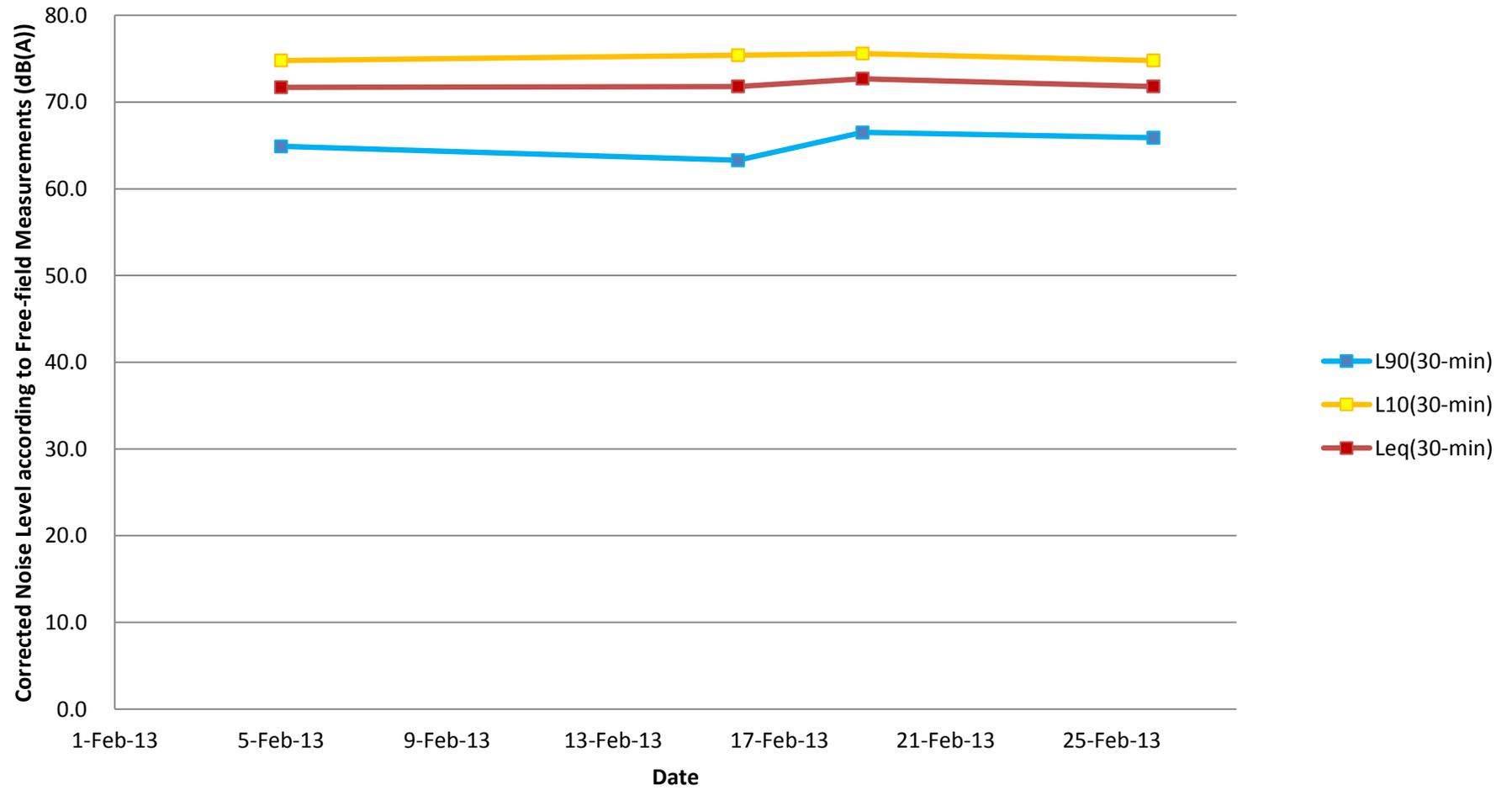
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Fax: + 34 91 636 01 96
E-mail: online@casella-es.com
Web: www.casella-es.com

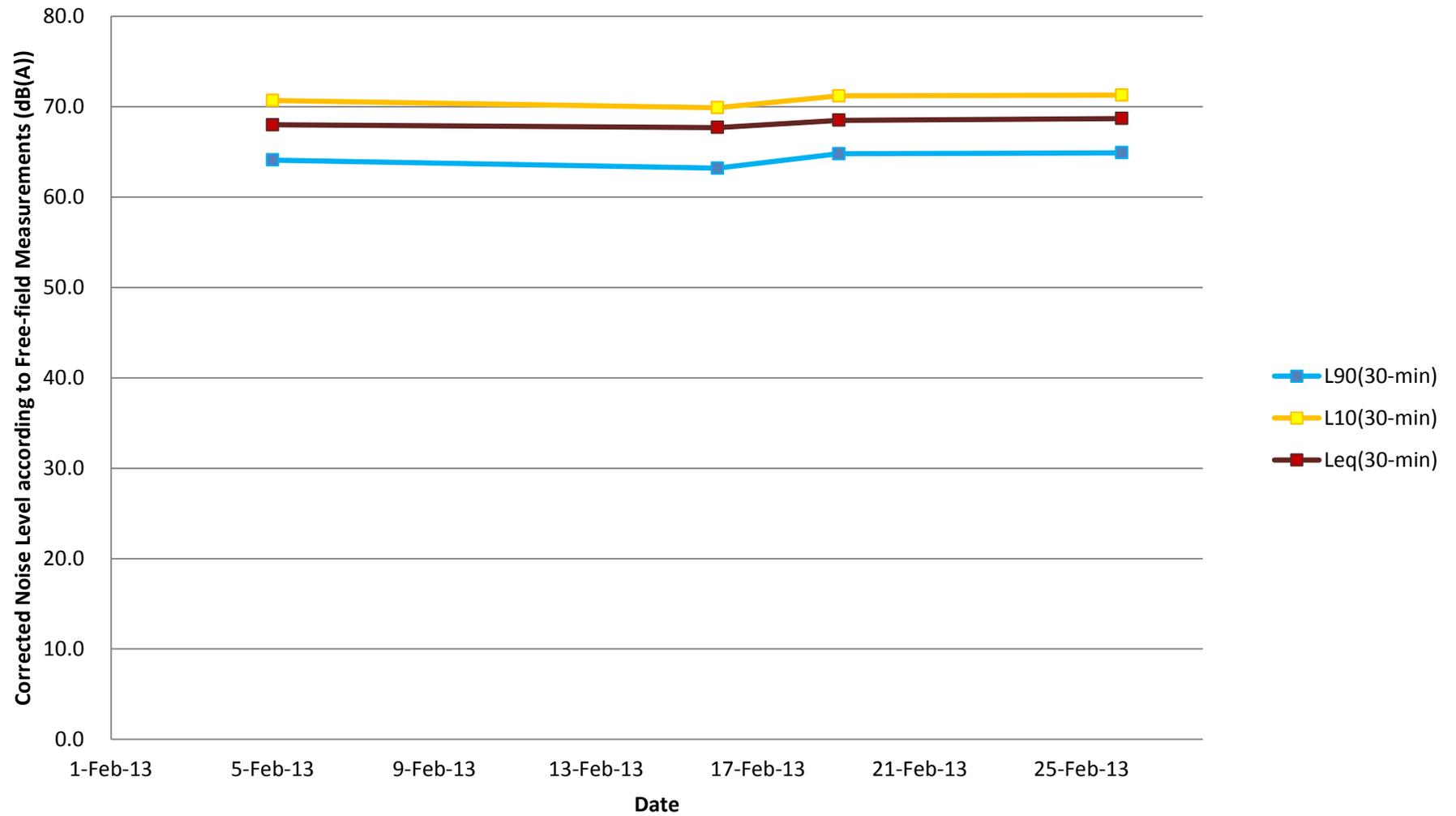
Appendix E

Graphical Plot of Noise Monitoring Results

Tsui Shou House, Tsui Wan Estate



Hong Kong Institute of Vocational Education (Chai Wan)



Appendix F

Noise Monitoring Field Record Sheets

Appendix 2.1

Template for Noise Monitoring Field Record Sheet

Monitoring Location:		N1	VTC	Chat wan
Description of Location:		Ground Floor Free field		
Date of Monitoring:		05.02.2013		
Measurement Start Time (hh:mm):		1116-1146		
Measurement Time Length (min.):		30 min		
Noise Meter Model/Identification:		CZL-633A	3521757	
Calibrator Model/Identification:		CZL-120	3421612	
Measurement Results	L ₉₀ (dB(A)):	61.1		
	L ₁₀ (dB(A)):	67.7		
	Leq (dB(A)):	65.6		
Major Construction Noise Source(s) During Monitoring:				
Other Noise Source(s) During Monitoring:				
MTR & Traffic noise				
Remarks: weather = cloudy wind speed = 0.3 m/s				

	<u>Name & Designation</u>	<u>Signature</u>	<u>Date</u>
Recorded By :	<u>Ho Kwan Tat</u>	<u>[Signature]</u>	<u>5/2/2013</u>
Checked By :	<u>[Signature]</u>	<u>[Signature]</u>	<u>6/2/2013</u>

Appendix 2.1

Template for Noise Monitoring Field Record Sheet

Monitoring Location:		N2	Tsui Chau House
Description of Location:		Ground Floor Free Field	
Date of Monitoring:		05.02.2013	
Measurement Start Time (hh:mm):		1035-1105	
Measurement Time Length (min.):		30min	
Noise Meter Model/Identification:		CZL-633A	3521777
Calibrator Model/Identification:		CZL-120	3421612
Measurement Results	L ₉₀ (dB(A)):	61.9	
	L ₁₀ (dB(A)):	71.8	
	Leq (dB(A)):	66.7	
Major Construction Noise Source(s) During Monitoring:			
/			
Other Noise Source(s) During Monitoring:			
Mainly traffic noise			
Remarks: weather: cloudy wind speed: 0-3m/s			

Name & Designation

Signature

Date

Recorded By : Leo Fung CAT

Fung

5/2/2013

Checked By : Leo Fung

Leo Fung

6/2/2013

Appendix 2.1

Template for Noise Monitoring Field Record Sheet

Monitoring Location:		N1 VTC Chai Wan
Description of Location:		Ground Floor Free Field
Date of Monitoring:		16.02.2013
Measurement Start Time (hh:mm):		0948
Measurement Time Length (min.):		30min
Noise Meter Model/Identification:		CZC-637A 3421757
Calibrator Model/Identification:		CZC-120 342162
Measurement Results	L ₉₀ (dB(A)):	60.2
	L ₁₀ (dB(A)):	66.9
	Leq (dB(A)):	64.7
Major Construction Noise Source(s) During Monitoring: /		
Other Noise Source(s) During Monitoring: MTR & traffic noise		
Remarks: weather: cloudy Wind speed: 0.2 m/s		

Name & Designation

Signature

Date

Recorded By : HO PAU FAT

Fat 16/2/2013

Checked By : (Cuz)

mf 16/2/2013

Appendix 2.1

Template for Noise Monitoring Field Record Sheet

Monitoring Location:		N2	Tseri Chan House
Description of Location:		Ground Floor	Free Field
Date of Monitoring:		16.02.2013	
Measurement Start Time (hh:mm):		1028	
Measurement Time Length (min.):		30min	
Noise Meter Model/Identification:		CCL-633A	3521757
Calibrator Model/Identification:		CCL-120	3421612
Measurement Results	L ₉₀ (dB(A)):	60.3	
	L ₁₀ (dB(A)):	72.4	
	Leq (dB(A)):	68.8	
Major Construction Noise Source(s) During Monitoring:			
/			
Other Noise Source(s) During Monitoring:			
Traffic noise			
Remarks: weather: cloudy wind speed: 0.2m/s			

Name & Designation

Signature

Date

Recorded By : H. K. FAT

FAT 16/2/2013

Checked By : WZ

WZ 18/2/2013

Appendix 2.1

Template for Noise Monitoring Field Record Sheet

Monitoring Location:		NI VTC Char Wan	
Description of Location:		Gravel Floor Free Field	
Date of Monitoring:		19.02.2013	
Measurement Start Time (hh:mm):		1116 - 1140	
Measurement Time Length (min.):		30 min	
Noise Meter Model/Identification:		CE-633A 3521757	
Calibrator Model/Identification:		CE-120 7421612	
Measurement Results	L ₉₀ (dB(A)):	61.8	
	L ₁₀ (dB(A)):	68.2	
	Leq (dB(A)):	65.5	
Major Construction Noise Source(s) During Monitoring:			
/			
Other Noise Source(s) During Monitoring:			
MTR & Traffic noise			
Remarks: weather: Sunny Wind Speed: 0.3 m/s			

Name & Designation

Signature

Date

Recorded By : LU KAM TAT

LT 19/2/2013

Checked By : LU ZA

RF 20/2/2013

Appendix 2.1

Template for Noise Monitoring Field Record Sheet

Monitoring Location:		N2 Tsui Chau House	
Description of Location:		Ground Floor Free field	
Date of Monitoring:		19.02.2013	
Measurement Start Time (hh:mm):		1030-1100	
Measurement Time Length (min.):		30 min	
Noise Meter Model/Identification:		CZC-633A	3421757
Calibrator Model/Identification:		CZC-120	3421612
Measurement Results	L ₉₀ (dB(A)):	63.5	
	L ₁₀ (dB(A)):	72.6	
	Leq (dB(A)):	69.7	
Major Construction Noise Source(s) During Monitoring:			
/			
Other Noise Source(s) During Monitoring:			
Traffic noise			
Remarks: weather: sunny - wind speed: 0.4 m/s			

Name & Designation

Signature

Date

Recorded By : HO KAREN FAT

FAT 19/2/2013

Checked By : WU ZHANG

WZ 20/2/2013

Appendix 2.1

Template for Noise Monitoring Field Record Sheet

Monitoring Location:		N1	VTC	Charman
Description of Location:		Ground Floor Free Field		
Date of Monitoring:		26.02.2013		
Measurement Start Time (hh:mm):		0920 - 0950		
Measurement Time Length (min.):		30 min		
Noise Meter Model/Identification:		CZC-633A	3121757	
Calibrator Model/Identification:		CZC-120	3421612	
Measurement Results	L ₉₀ (dB(A)):	61.9		
	L ₁₀ (dB(A)):	63.3		
	Leq (dB(A)):	65.7		
Major Construction Noise Source(s) During Monitoring:				
/				
Other Noise Source(s) During Monitoring:				
MTR & Traffic noise				
Remarks: Weather : Fine Wind Speed : 0.3m/s				

Name & Designation

Signature

Date

Recorded By : HO KAM FAT

Est 26/2/2013

Checked By : (ccc) m

217 27/2/2013

Appendix 2.1

Template for Noise Monitoring Field Record Sheet

Monitoring Location:		N2	Tsui Chau House
Description of Location:		Ground floor Free field	
Date of Monitoring:		26.02.2013	
Measurement Start Time (hh:mm):		1600 - 1630	
Measurement Time Length (min.):		30min	
Noise Meter Model/Identification:		CZL-633A	3521757
Calibrator Model/Identification:		CZL-120	3421612
Measurement Results	L ₉₀ (dB(A)):	62.9	
	L ₁₀ (dB(A)):	71.0	
	Leq (dB(A)):	68.0	
Major Construction Noise Source(s) During Monitoring:			
Other Noise Source(s) During Monitoring:			
Traffic noise			
Remarks: weather: Fine wind speed: 0.3 m/s			

Name & Designation

Signature

Date

Recorded By : Ho Kam Tat

kat 26/2/2013

Checked By : ker fan

ker fan 27/2/2013

Appendix G

Tentative Monitoring Schedule

Schedule for noise monitoring programme of EMSD Hong Kong Workshop at Sheung On Street, Chai Wan

Monitoring schedule for the reporting month

Date
5 th February 2013
16 th February 2013
19 th February 2013
26 th February 2013

Tentative Monitoring schedule of the coming three months

Date
5 th March 2013
14 th March 2013
19 th March 2013
26 th March 2013
2 nd April 2013
9 th April 2013
16 th April 2013
23 rd April 2013
30 th April 2013
7 th May 2013
14 th May 2013
21 st May 2013
28 th May 2013