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**Development at Former Marine Police
Headquarters KIL 11161
Environmental Monitoring & Audit Report
for July 2006**

(Ref No. 3.12/003/2004)

August 2006

**Report Certified by
the Environmental
Team Leader:**

**Report Verified by the
Independent
Environmental
Checker:**

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EXECUTIVE SUMMARY

This is the twenty-sixth Environmental Monitoring & Audit report prepared by Nature & Technologies (HK) Ltd. for the development of the former Marine Police Headquarter. Weekly site audit inspections were performed by the Environmental Team on 7, 14, 20 and 26 of July 2006. This report therefore documents the impact environmental monitoring and audit work for the former Marine Police Headquarter development for July 2006.

Air and noise monitoring have been carried out in accordance with the EM&A Manual. Monument settlement measurement data and tree photographic survey are also provided.

Excavation, welding and metal work activities were mainly carried out within the project site in the reporting month. No Action/Limit level exceedance on air and noise limits was found in the reporting month.

No wastewater sample was collected due to lack of piling and wastewater discharged in February – July 2006. To cater for possible discharge of surface runoff due to rainy weather, it is recommended to conduct sampling when there is discharge of surface runoff water irrespective if there is piling on site.

One air compressor was found without proper noise emission label attached. The noise label was found in site office and subsequently attached onto the compressor.

Renewal of the Construction Noise Permit (Electric Water Pump, Submersible) has been granted on 26 July 2006.

There were no notifications of summons, prosecutions or other non-compliances. The site was generally satisfactory and there were a few improvement measures for further pursuit. These include improvement of noise screening, proper storage of general refuse, continual protection of the preserved monument structure and trees, proper and updated record keeping for waste management and improved environmental management.

1. Introduction

- 1.1. Konwall Construction and Engineering Co. Ltd. ["KCE"] is contracted to carry out the development of the Former Marine Police Headquarters ["FMPHQ"]. KCE in turn has commissioned Nature & Technologies (HK) Ltd. ["N&T"] to conduct the environmental monitoring and audit ["EM&A"] work for the project.
- 1.2. Pursuant to Clauses 2.3 of the Environmental Permit ["EP"] EP-184/2004 of the project, the draft EM&A Manual has been submitted on 29 April 2004. The revised EM&A Manual was approved in end July 2004.
- 1.3. This report documents the EM&A work and its findings for July 2006 and is the twenty-sixth monthly report documenting the EM&A work since the commencement of the construction work.

2. Environmental & Implementation Status

Environmental Status

- 2.1. The location, site layout, historic buildings and structures to be preserved of the Project are shown in Figure 2.1.
- 2.2. The key personnel contact names and telephone numbers with respect to environmental protection works are given in Table 2.1. Environmental Protection Department ["EPD"] is the control authority and may contact any party where necessary for their statutory duties.

Table 2.1 Key Contacts of the Project Team

Party	Company	Contact Person	Phone
Permit Holder	Flying Snow Ltd.	Mr H S Chan	2112 2634
Project Architect ["AR"]	A+T Design Ltd.	Mr Daniel Lin	2858 4778
Contractor	Konwall Construction & Eng. Co., Ltd.	Mr Eric Kwok	2563 1233
Independent Environmental Checker ["IEC"]	CH2M HILL Hong Kong Ltd.	Mr Peter Lee	2872 2929
Environmental Team ["ET"] Leader	Nature & Technologies (HK) Ltd.	Ir Dr Gabriel C K Lam	2877 3122

- 2.3. The construction programme with milestones of environmental protection/mitigation activities annotated is given in Appendix A.
- 2.4. Excavation, welding and metal works were the main activities carried out within the project site in July 2006.

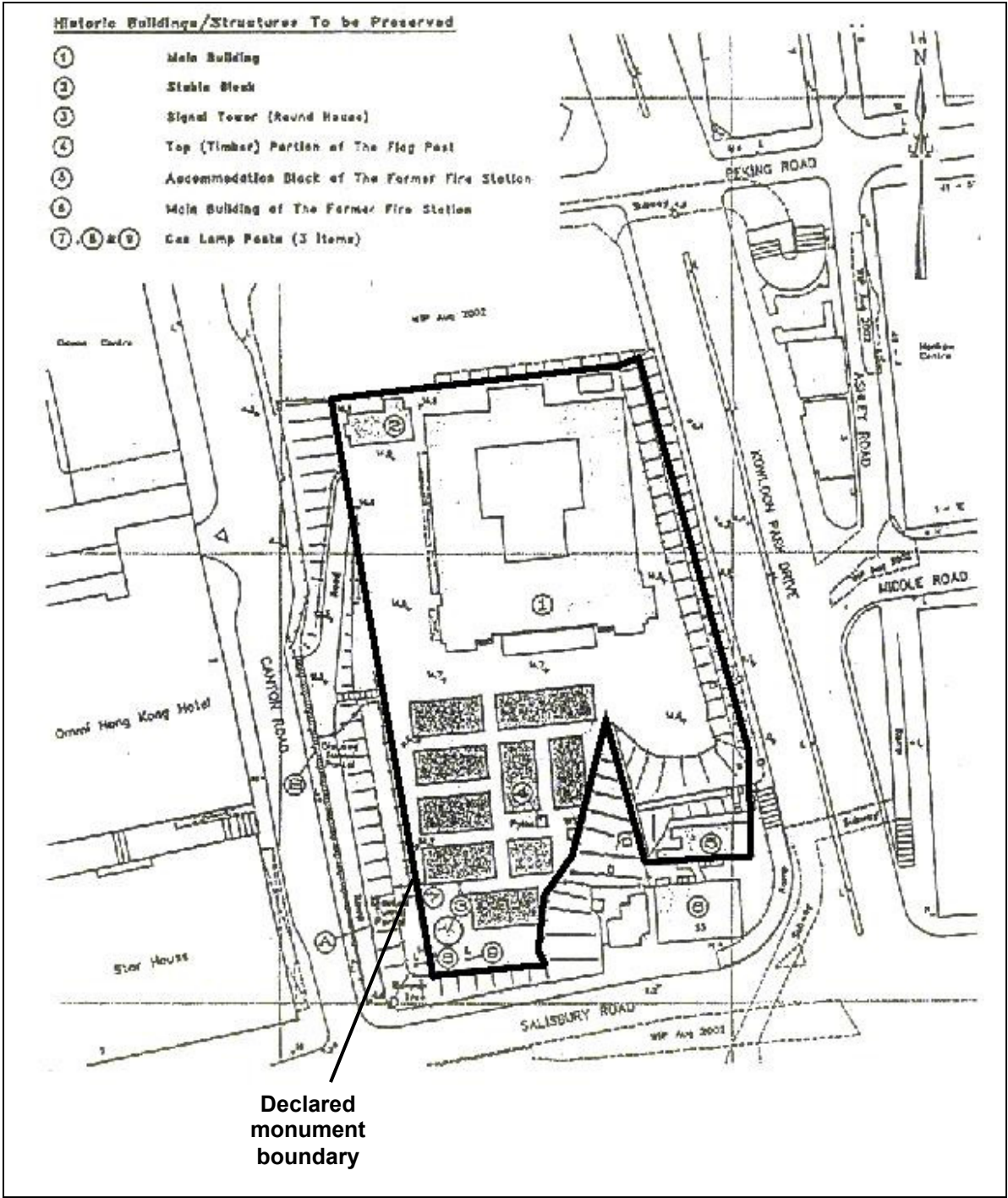


Figure 2.1 Location, site layout, historic buildings and structures to be preserved

Scale: N.T.S

Implementation Status

- 2.5. The construction and operational phase impacts of the project have been assessed and presented in the Project Profile issued in January 2004. The Project Profile also specified the recommended environmental mitigation measures to minimize the potential adverse environmental impacts identified. An implementation schedule of the recommended environmental mitigation measures is prepared as part of the Project Profile is contained in Appendix B.
- 2.6. Prior to the commencement of the operation works, the ET gave a presentation on 2 June 2004 to the construction personnel on the environmental protection requirements on the site. Working personnel not present in the presentation should be briefed separately by the Contractor on the requirements for environmental protection.
- 2.7. Site environmental audits were carried out by ET on a weekly basis and IEC at least once per month to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. In this reporting month, site audits were conducted on 7, 14, 20 and 26 of July 2006. These site audit checklist reports and recommendations are given in Appendix C.
- 2.8. It is noted that the various environmental protection measures have been gradually implemented on site and the conditions of the site were generally satisfactory. The following are noted for July 2006:
- One air compressor found to be without proper noise emission label and this was immediately rectified.
 - Noise mats need to be improved to ensure there is sufficient noise screening along the eastern boundary of the site for compliance with the Project Profile when full construction activities are carried out.
 - Proper record keeping for environmental management have to be enforced. For instance, dust suppression water sprays, updated waste disposal records should be readily made available for close monitoring.
 - Proper storage and cover of refuse should be made. Oil containers should not be placed on bare soil without drip trays.
 - Continual protection of the trees and historical buildings.
- 2.9. The summary status of the submission under the EP is given in Table 2.2.

Table 2.2 Status of submission under EP up to July 2006

Item No.	Description	Submission Date to EPD
1.	Method Statement detailing the protective measures on declared monument buildings	06/2/2004
2.	Landscape Mitigation and Tree Preservation Proposal	06/2/2004
3.	Draft EM&A Manual	29/4/2004
4.	Revised Landscape Mitigation and Tree Preservation Proposal	15/5/2004
5.	Draft Waste Management Plan	14/6/2004
6.	Final Method Statement detailing the protective measures on declared monument buildings which is approved	14/6/2004
7.	Final Landscape Mitigation and Tree Preservation Proposal	21/6/2004
8.	Baseline Monitoring Report	25/6/2004
9.	Monthly EM&A Report for June 2004	21/7/2004
10.	Revised EM&A Manual (Rev. 1) which is approved	26/7/2004
11.	Revised Landscape Mitigation and Tree Preservation Proposal which is approved	26/7/2004
12.	Revised Waste Management Plan which is approved	17/8/2004
13.	Monthly EM&A Report for July 2004	25/8/2004
14.	Revised EM&A Manual (Rev. 2) which is approved	06/9/2004
15.	Monthly EM&A Report for August 2004	21/9/2004
16.	Quarterly EM&A Report for June to August 2004	06/10/2004
17.	Monthly EM&A Report for September 2004	27/10/2004
18.	Monthly EM&A Report for October 2004	15/11/2004
19.	Monthly EM&A Report for November 2004	25/12/2004
20.	Quarterly EM&A Report for September to December 2004	20/1/2005
21.	Monthly EM&A Report for December 2004	28/1/2005
22.	Monthly EM&A Report for January 2005	18/3/2005
23.	Monthly EM&A Report for February 2005	04/4/2005
24.	Monthly EM&A Report for March 2005	10/4/2005
25.	Quarterly EM&A Report for December 2004 to February 2005	13/4/2005
26.	Revised EM&A Manual (April 2005) which is approved	11/5/2005
27.	Revised Waste Management Plan (April 2005) which is approved	11/5/2005
28.	Monthly EM&A Report for April 2005	13/6/2005
29.	Monthly EM&A Report for May 2005	09/7/2005
30.	Quarterly EM&A Report for March to May 2005	29/7/2005
31.	Monthly EM&A Report for June 2005	08/8/2005
32.	Monthly EM&A Report for July 2005	02/9/2005
33.	Monthly EM&A Report for August 2005	14/10/2005
34.	Quarterly EM&A Report for June to August 2005	28/10/2005
35.	Monthly EM&A Report for September 2005	04/11/2005
36.	Monthly EM&A Report for October 2005	21/12/2005
37.	Monthly EM&A Report for November 2005	07/1/2006
38.	Quarterly EM&A Report for September to November 2005	12/1/2006
39.	Monthly EM&A Report for December 2005	09/2/2006
40.	Monthly EM&A Report for January 2006	07/3/2006
41.	Monthly EM&A Report for February 2006	31/3/2006
42.	Quarterly EM&A Report for December 2005 to February 2006	6/4/2006
43.	Monthly EM&A Report for March 2006	11/5/2006
44.	Revised EM&A Manual	11/5/2006
45.	Revised Waste Management Plan (WMP)	11/5/2006
46.	Monthly EM&A Report for April 2006	9/6/2006
47.	Monthly EM&A Report for May 2006	13/7/2006

3. Air Quality

- 3.1. In accordance with the EM&A Manual, 1-hour and 24-hour Total Suspended Particulate ["TSP"] monitoring was conducted to monitor the air quality. For 1-hour TSP monitoring, the sampling frequency was of at least three times in every six-days. For 24-hour TSP monitoring, the sampling frequency was at least once in every six-days.

Action and Limit Levels

- 3.2. The calculation of the Action and Limit ["AL"] Levels was based on the baseline monitoring results. The AL levels for dust are set in Table 3.1 and 3.2.

Table 3.1 AL levels for 1-hour TSP

Location	Action	Limit
A1	382	500
A2a	394	500
A3	389	500
A4	384	500

Table 3.2 AL levels for 24-hour TSP

Location	Action	Limit
A1	191	260
A2a	193	260
A3	182	260
A4	187	260

Event and Action Plan for Construction Phase Air Quality

- 3.3. According to the EM&A Manual, the ET Leader, IEC, AR, and Contractor should undertake relevant actions in accordance with the Action Plan stated in Table 3.3 below should non-compliance of the air quality criteria occurs.

Table 3.3 Event/Action Plan for Air Quality (Dust)

EVENT	ACTION (to be taken as immediate as practicable)			
	ET	IEC	AR	CONTRACTOR
Action Level being exceeded for one sample	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC and AR; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method. 	<ol style="list-style-type: none"> 1. Notify Contractor. 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice; 2. Amend working methods if appropriate.
Action Level being exceeded for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC and AR; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency to daily; 5. Discuss with IEC and Contractor on remedial actions required; 6. If exceedance continues, arrange meeting with IEC and AR; 7. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET; 2. Check Contractor's working method; 3. Discuss with ET and Contractor on possible remedial measures; 4. Advise the AR on the effectiveness of the proposed remedial measures; 5. Supervise implementation of remedial measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Submit proposals for remedial actions to IEC within 3 working days of notification; 2. Implement the agreed proposals; 3. Amend proposal if appropriate.
Limit Level being exceeded for one sample	<ol style="list-style-type: none"> 1. Identify source; 2. Inform IEC, AR and EPD; 3. Repeat measurement to confirm finding; 4. Increase monitoring frequency to daily; 5. Assess effectiveness of Contractor's remedial actions; 6. Keep EPD and AR informed of the results. 	<ol style="list-style-type: none"> 1. Checking monitoring data submitted by ET and Contractor's method; 2. Discuss with Contractor on the possible mitigation measures; 3. Advise AR on the effectiveness of mitigation measures and supervise their implementation. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Check monitoring data and Contractor's working methods; 4. Discuss with IEC, ET and Contractor potential remedial actions; 5. Ensure remedial actions properly implemented. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to AR within 3 working days of notification; 3. Implement the agreed proposals; 4. Amend proposal if appropriate.
Limit Level being exceeded for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source; 2. Inform AR and EPD the causes & actions taken for the exceedances; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency to daily; 5. Investigate the causes of exceedance 6. Arrange meeting with EPD and AR to discuss the remedial actions to be taken; 7. Assess effectiveness of Contractor's remedial actions and keep EPD and AR informed of the results; 8. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> 1. Checking monitoring data submitted by ET and Contractor's method; 2. Discuss with Contractor on the possible mitigation measures; 3. Review the proposed mitigation measures submitted by Contractor and advise the AR accordingly; 4. Supervise the implementation of mitigation measures. 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing; 2. Notify Contractor; 3. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 4. Discuss amongst IEC, ET and the Contractor potential remedial actions; 5. Review Contractor's remedial actions whenever necessary to assure their effectiveness; 6. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance; 2. Submit proposals for remedial actions to AR within 3 working days of notification; 3. Implement the agreed proposals; 4. Resubmit proposals if problem still not resolved; 5. Stop the relevant portion of works as determined by the AR until the exceedance is abated.

Monitoring Locations

3.4. Designated air quality monitoring locations were selected for impact monitoring based on the EM&A Manual Section 3.8. They are shown in Figure 3.1 and briefly described below:

- A1 is located on the rooftop of the Consumer Council office east of the construction site, estimated to be about 11m above ground.
- A2 is at the Cultural Centre Studio Theatre podium level south of the construction site, estimated to be about 5m above ground. Monitoring at this location has not yet commenced at the time of preparation of this report as permission to carry out monitoring there has not been received.
- A2a is at south boundary of the construction site facing the Cultural Centre Studio Theatre selected as an alternative location to A2 in consultation with the IEC, estimated to be about 6m above ground. This is needed since permission from the Cultural Centre for monitoring there is not yet received and in order to reduce the delay to the construction programme by the permission.
- A3 is at the west site boundary of the construction site on top of the existing hoarding, estimated to be about 5m above ground. This position is slightly different to that originally proposed in the Project Profile due to the inability to obtain permission to gain access to the building at Star House or Marco Polo Hongkong Hotel for measurement and that the present revised position will provide a more conservative measurement for environmental protection
- A4 is at the site boundary north of the construction site on top of the existing hoarding, estimated to be about 13m above ground.

3.5. Impact air quality monitoring (both 1-hour and 24-hour TSP) was carried out for July 2006. The monitoring dates for each station are summarised in Table 3.4.

Table 3.4 Exact monitoring periods for the impact air monitoring locations

Location	Monitoring period	
	1-hour TSP	24-hour TSP
A1	(5, 11, 17, 21, 27)/7/2006	(5, 11, 17, 21, 27)/7/2006
A2a	(5, 11, 17, 21, 27)/7/2006	(5, 11, 17, 21, 27)/7/2006
A3	(5, 11, 17, 21, 27)/7/2006	(5, 11, 17, 21, 27)/7/2006
A4	(5, 11, 17, 21, 27)/7/2006	(5, 11, 17, 21, 27)/7/2006

Monitoring Equipment

3.6. The 1-hour and continuous 24-hour TSP air quality monitoring were performed using direct reading DustTrak meter and High Volume Sampler ["HVS"] respectively, located at each of the designated monitoring locations A1, A2a, A3 and A4. Table 3.5 summarizes the equipment used in the impact air monitoring. Copies of the calibration records for the HVSs and calibration certificates for the DustTrak meters are attached in Appendix D. After review of the calibration certificate and technical specification of the DustTrak meter, the IEC and AR have approved the dust meter to be suitable in giving direct reading of 1-hour TSP measurement equivalent to HVS.

Table 3.5 Equipment used in the impact air monitoring

Equipment	Model	Qty.
HVS	GMWS-2310 ACCU-VOL	4
Direct reading dust meter	8520 DustTrak	2

Monitoring Methodology

- 3.7. As mentioned above, 1-hour TSP levels was measured by direct reading methods capable of producing comparable results as that by the high volume sampling method, to indicate short term impacts.
- 3.8. For measurement of 24-hour TSP levels, HVS complete with the appropriate sampling inlets were used. The sampler is composed of a motor, filter holder, flow controller and a sampling inlet and its performance specification complies with the requirement of the EM&A Manual. The standard high volume sampling method as set out in the *Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B*.
- 3.9. Initial calibration of the HVSSs was performed prior to the commencement of the air monitoring.
- 3.10. The flow rate of the HVS was set to about 1.1 m³/min – 1.7 m³/min prior to commencement of the dust sampling in accordance with the manufacturer's instruction.
- 3.11. Fiberglass filter papers were used for 24-hour TSP sampling. The filter papers were equilibrated in the conditioning environment for 24 hours before weighing. The flow indicator reading was recorded and the sampler flow rate was determined. The programmable timer was set and the starting sampling time, weather condition and the filter number was recorded.
- 3.12. At the end of sampling, the filter was transferred from the filter holder of the HVS to a sealable plastic bag and sent to the laboratory for weighing. The elapsed time was also recorded.
- 3.13. The laboratory for the preparation of the filter papers and analysis of the filter papers is SGS Hong Kong Ltd. which is HOKLAS accredited.

Impact Monitoring Results

- 3.14. Impact air quality monitoring was conducted at A1, A2a, A3 and A4. Detailed impact monitoring data of 1-hour and 24-hour TSP are presented in Appendix E. These are summarized in Tables 3.6 and 3.7 for 1-hour and 24-hour TSP respectively. Graphical presentations of the monitoring results are shown in Appendix F.

Table 3.6 Summary of 1-hour TSP monitoring results

Location	Average 1-hour TSP concentration ($\mu\text{g}/\text{m}^3$)
A1	136.5
A2a	143.9
A3	140.9
A4	143.3

Table 3.7 Summary of 24-hour TSP monitoring results

Location	Average 24-hour TSP concentration ($\mu\text{g}/\text{m}^3$)
A1	67.8
A2a	65.8
A3	66.4
A4	66.5

Observations

- 3.15. No AL Level exceedance was recorded in the reporting month as detailed in Appendix G.

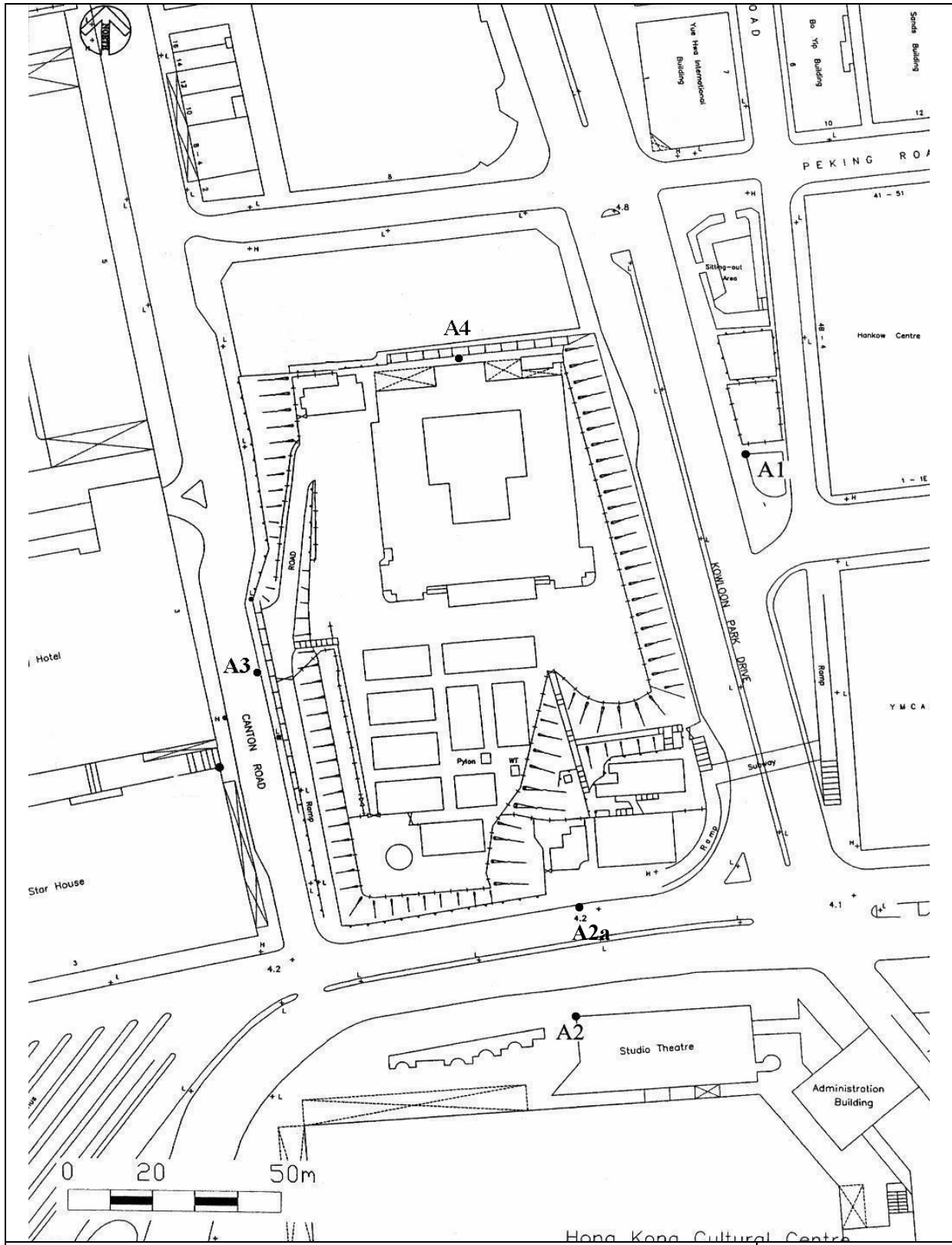


Figure 3.1 Dust Monitoring Locations (A1 is on building rooftop about 11m above ground, A2, on podium level about 5m above ground, A2a, A3 and A4 on hoarding top about 6m, 5m and 13m above ground respectively)

Scale: N.T.S

4. Noise

- 4.1. Renewal of the Construction Noise Permit (Electric Water Pump, Submersible) has been granted on 26 July 2006.
- 4.2. In accordance to the EM&A Manual, noise monitoring has to be carried out at two sensitive receiver locations outside the site. According to the EM&A Manual Section 3.15 - 3.18, one set of measurements between 0700 to 1900 hours on normal weekdays was carried out for each location on weekly basis.
- 4.3. Based on the EM&A Manual Section 3.21, impact ground-borne noise measurement has to be carried out inside the Hong Kong Space Museum ["HKSM"] and Hong Kong Cultural Centre ["HKCC"]. It should be conducted on at least monthly basis during the period when the piling works at the FMPHQ.

Action and Limit Levels

- 4.4. As per requirements of the EM&A Manual, the AL Levels for noise monitoring locations were established as in Table 4.1 AL levels

Table 4.1 AL levels for impact noise monitoring locations

Time Period	Action	Limit
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		65** dB(A)
2300-0700 hrs of next day		50** dB(A)

* Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

** Based on Area Sensitivity Rating 'B'.

- 4.5. The corresponding AL levels for ground borne noise indoor of HKCC and HKSM will be as per Table 4.2.

Table 4.2 AL levels for HKCC and HKSM

Location	Action	Limit
HKCC	When one documented complaint is received	60 dB(A)
HKSM Recording Studio (1/F)		60 dB(A)
HKSM Sky Theatre (1/F)		60 dB(A)
HKSM Lecture Room (G/F)		60 dB(A)

Event and Action Plan for Noise

- 4.6. Should non-compliance of the criteria occur, action in accordance with the Action Plan in Table 4.3 should be carried out as per requirements of the EM&A Manual.

Table 4.3 Event/Action Plan for Construction Noise

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

Monitoring Locations

- 4.7. The noise monitoring locations, namely CN1a & CN2a, were selected for the impact noise monitoring. These locations are made up for the locations at CN1 & CN2 (podium of Hankow Centre east of the construction site) carried out for the baseline noise monitoring as Hankow Centre no longer permit to enter the premises for noise measurement since 28 May 2004. These locations are shown in Figure 4.1 and are located on the roof of Po Yip Building and 4/F YMCA facing the east of the site.
- 4.8. No ground borne noise measurement at the HKSM and HKCC in July 2006 as there was no piling.
- 4.9. The monitoring periods for each station are summarised in Table 4.4.

Table 4.4 Exact monitoring periods for the noise monitoring locations

Location	Monitoring period
CN1a	(5, 11, 17, 27) /7/2006
CN2a	(5, 11, 17, 27) /7/2006

Monitoring Equipment

- 4.10. Integrated sound level meter was used for the noise monitoring. The meter is in compliance with the *International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1)* specifications. Immediately prior to and following each noise measurement the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0dB. The calibration certificates of the sound level meter and calibrator are attached in Appendix H.
- 4.11. Also, a portable wind speed meter capable of measuring the wind speed in m/s was used to monitor the wind speed. Table 4.5 summarized the noise monitoring equipment model being used.

Table 4.5 Equipment used in the baseline air monitoring

Equipment	Model	Qty.
Integrated sound level meter	NL-31	1
Calibrator	NC-73	1
Portable wind speed meter	AZ Instrument 8908 Thermo-Anemometer	1

Monitoring Methodology

- 4.12. Impact noise for the 30 minutes period A-weighted levels L_{eq} , L_{10} and L_{90} are measured for CN1a and CN2a. Each 30 minutes noise level is usually comprised of six 5-minutes measured data. For HKSM and HKCC, 30 minutes ground-borne measurements would be taken for various points and is to be comprised of six 5-minutes measured data unless there is insufficient allocation of time slots for measurement by the HKSM or HKCC management.
- 4.13. For the reporting month, however, no measurement was made in HKSM & HKCC as there was no piling works.
- 4.14. The frequencies and parameters of noise measurement in the reporting month are thus presented in Table 4.6.

Table 4.6 Frequency and parameters of noise monitoring

Location	Frequency	Duration	Parameter
CN1a	Weekly	30 min.	L_{eq} , L_{10} and L_{90}
CN2a	Weekly	30 min.	L_{eq} , L_{10} and L_{90}

- 4.15. The monitoring location at CN1a was at free field condition. The meter was fixed on a stand with the microphone at position 1.2m above the reflecting ground and hence façade correction of +3dB(A) was applied. The other monitoring location at CN2a was at a point 1m from the exterior of the building façade.
- 4.16. Before and after each noise measurement, the meter was calibrated using the Calibrator for 94 dB at 1000 Hz.
- 4.17. The wind speed was checked with the portable wind speed meter to be within 5m/s during measurement.
- 4.18. Site conditions and possible noise sources affecting the measurement were recorded on the noise monitoring field record sheet. Extraneous noise was avoided as far as possible.

Impact Monitoring Results

- 4.19. Impact noise monitoring results for CN1a, CN2a are summarized in Tables 4.7. All detailed impact noise monitoring data and graphical presentations of the monitoring results for CN1a and CN2a are given in Appendix I and Appendix J respectively.

Table 4.7 Summary of noise monitoring results

Measurement point	Mean Noise Level, dB(A)		
	L_{eq}	L_{10}	L_{90}
CN1a	70.2	68.6	72.1
CN2a	70.3	68.3	72.8

Observations

- 4.20. There was no AL Level exceedance was recorded in the reporting month as attached in Appendix G.

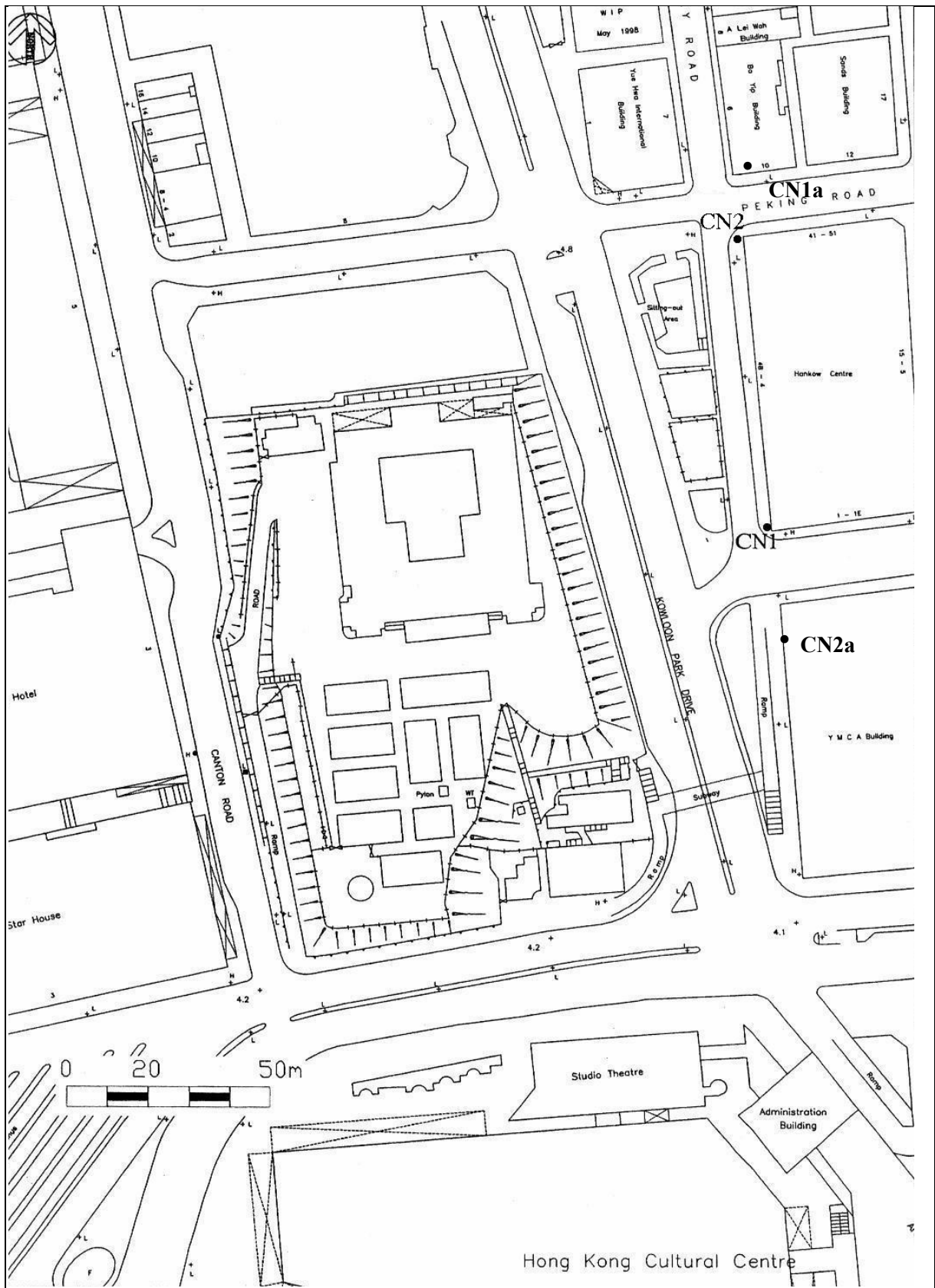


Figure 4.1 Proposed Noise Monitoring Stations (CN1 and CN2 are at podium level, about 15m above ground). Alternative measurement stations (CN1a and CN2a are about 33m and 11m above ground respectively).

Scale: N.T.S

5. Waste Management

- 5.1. According to the Waste Management Plan [“WMP”], all Construction & Demolition materials will be recorded for each month.
- 5.2. Types, quantities and disposal location of all surplus excavated materials and wastes arising from the Project site are summarized in Table 5.1 based on information from the Contractor.

Table 5.1 Summary of the wastes arising from the Project site

Date	Quantity (tonnes)		Quantity (tonnes)	
	Soil	Disposal Location	General Refuse	Disposal Location
1 July 2006 to 31 July 2006	760	TKO137, Quarry Bay, Tuen Mun 38 and Ma Wan Development – VDA Phase 3	13.75	TKO137

Note: SENT – South East New Territories Landfill Site
TKO – Fill Bank at Tseung Kwan O Area 137 (Public Filling Facility)
QB – Quarry Bay Barging Point
MW – Ma Wan Development –VDA Phase 3

- 5.3. Updated records on waste disposal should be made available promptly to allow better monitoring of waste management performance.
- 5.4. There was no timber consumption for the construction activities in this reporting month.

6. Cultural Heritage and Landscape

- 6.1. For protection of cultural heritage, a brief structural investigation has been carried out to all the monument structures, i.e. the Main Building, the Stable Block and Signal Tower. It was found that most of them are brickwork foundation and a mixture of reinforced concrete and timber superstructures, which are sensitive to vibration and ground movement possibly generated during site formation works. In order to protect them from damaging during the construction works, a number of monitoring points such as building settlement markers, ground settlement markers and tell-tale devices, were installed both around and inside all the monument structures prior to commencement of works.
- 6.2. Baseline (initial) monitoring was carried out on 31 May 2004. For monitoring of the monument structure during construction works, the Alert, Alarm and Action levels in Table 6.1 are adopted based on a certain percentage of the design value for allowable structure or ground deformation with the following definition:
- Alert Level is set at 50% of the allowable structure or ground deformation. This is the lowest response value and signifies the reading for an instrument. Response is to increase the frequency of monitoring
 - Alarm Level is set at 80% of the allowable structure or ground deformation. Response is to increase the monitoring frequency and improve construction methods in the vicinity of the monitoring area.
 - Action Level is set at 100% of the allowable structure or ground deformation. Response is to suspend all activities and notify the Architect before proceeding with any further construction.

Table 6.1 Alert, Alarm and Action Levels of monument structural monitoring

Instrument	Unit	Alert	Alarm	Action
Ground Settlement Markers	mm	10	15	20
Building Settlement Markers	mm	5	8	10
Building tilting & settlement	-	1:2000	1:1500	1:1000
Tell-tales (crack monitoring)	mm	5	8	10

Remarks: * The Design or allowable value is specified in the design report and drawings submitted to and approved by Building Department in their letter Ref (85) in BD 6/4023/03 dated 13 February 2004.

- 6.3. The monitoring results of monument structure in July 2006 are presented in Appendix K of this report. The structural integrity of the protected monuments is considered to be satisfactory.
- 6.4. For preservation of trees, submission of a Tree Preservation Proposal, baseline photographic survey of trees was taken on 24 February 2004 as a baseline prior to the commencement of construction works. These photographic records are documented in the Baseline environmental monitoring report.
- 6.5. Continuous surveillance showed that the retention, transplantation and felling of trees has been made. Photographic records of the trees retained on site are given in Appendix L. T10 appeared to have a great recovery in the rainy season.

7. Summary of Non-compliance, Complaints, Notification of Summons and Successful Prosecutions, Environmental Licensing and Permitting

7.1. No AL levels exceedance was found in the reporting month.

7.2. No environmental prosecution was received in the reporting month.

7.3. Status of environmental licensing and permitting can be summarized as follows:

Description	Permit / License No.	Status	Permit Holder
Environmental Permit	EP-184/2004	Remain valid since 9 February 2004	Flying Snow Ltd.
Construction Noise Permit	GW-RE5149-05	Expires on 9 February 2007	Konwall Construction & Engineering Company Limited
WPCO Discharge Licence	EP482/211/0863/I	Application made on 18 May 2004 and licence was granted on 7 July 2004 and valid till 31 July 2009	Konwall Construction & Engineering Co. Ltd.

8. Other Issues

- 8.1. In addition to welding and steel works, excavation and drilling would be the main activities in the coming month. There would then be dust and noise emissions.
- 8.2. Record for application of dust suppression water sprays was yet to be completed.
- 8.3. Wastewater after sedimentation system was discharged at the designated discharge point specified in the License. However, due to lack of piling and hence no wastewater discharge from site for the past months, the bi-monthly wastewater sampling due for February 2006 could not be carried out in February – July 2006. Nevertheless, it is recommended to carry out water sampling when there is discharge from site due to heavy rain.
- 8.4. The Contractor should continue to ensure all project staffs, irrespective when they joined the project team, are briefed on the requirements of the EM&A Manual and WMP with proper record keeping of the briefing.

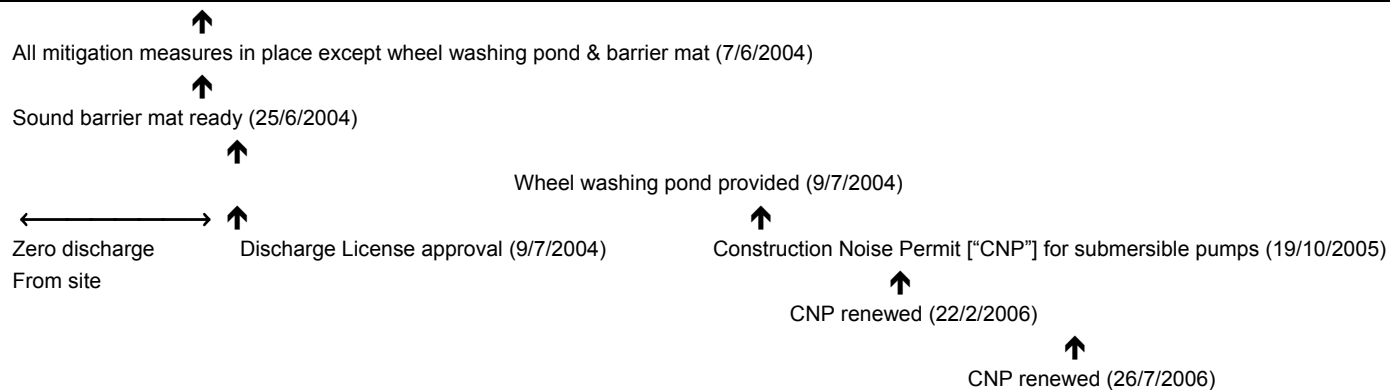
9. Conclusion

- 9.1. EM&A work for July 2006 has been successfully completed. No exceedance of the air and noise limits was found.
- 9.2. Bi-monthly sampling of wastewater could not be carried out in February – July 2006 due to lack of piling and hence wastewater discharge from site. In view of the anticipated rainy weather, it is recommended to conduct wastewater sampling when there is discharge of site runoff even when there is no piling.
- 9.3. There were no notification of summons and prosecutions.
- 9.4. Monitoring of the monument structure and trees were also made.
- 9.5. Site audits were carried out once per week. The conditions of the site were generally satisfactory. The following improvements are to be further pursued:
 - The air compressor was found in site without a noise emission label. However, the label was found in site office and was subsequently placed onto the compressor immediately.
 - Proper record keeping for environmental management have to be enforced. For instance, dust suppression water sprays, updated waste disposal records should be readily made available for close monitoring.
 - Oily containers should not be placed on ground without drip trays.
 - Noise mats need to be improved to ensure there is sufficient noise screening along the eastern boundary of the site for compliance with the Project Profile if full construction activities are carried out.
 - Continual protection of the preserved monuments and trees.

Appendix A: The construction programme with milestones of environmental protection/mitigation activities

Updated Construction Programme

Phase	Description	Year 2004												Year 2005												Year 2006												Year 2007			
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
1	Site Formation																																								
1.1	Site Formation - Tree Retaining, Underpinning & Tree Column																																								
1.2	Site Formation - Retaining wall for Main Building																																								
1.3	Site Formation - Open Cut Excavation																																								
1.4	Site Formation - Remaining Excavation																																								
2	Building Foundation																																								
3	Superstructure & Furnishing																																								



Appendix B: Implementation schedule for recommended mitigation measures

Implementation Schedule
Redevelopment of Former Marine Police Headquarters, KIL11161

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	Fugitive Dust Impact on the Surrounding Sensitive Uses					
4.1.2.10	To erect site hoarding of at least 2.4m high along the boundaries of the Project Site (particularly along the northern boundary adjacent to No. 1, Peking Road) except at the site entrance/ exit	Site (site boundary)	Site Formation Contractor (for maintenance or improvement as the hoarding was already erected by the Hoarding Contractor earlier)	Construction Phase (prior to construction)	TM-EIA, APC(CD)R & AQO in APCO	To control fugitive dust emissions in accordance with the requirements of Air Pollution Control (Construction Dust) Regulation in principle; Provide shielding against dispersion of fugitive dust
	To control truck speed to within 8 km/hr and that dusty vehicle loads transported to and from the work location should be covered by tarpaulin sheets and should not be overloaded	Site	Site Formation Contractor	Construction Phase	TM-EIA, APC(CD)R & AQO in APCO	To control fugitive dust emissions in accordance with the requirements of Air Pollution Control (Construction Dust) Regulation in principle; Reduce fugitive emission wherever possible
	To provide vehicle wheel washing facilities including high pressure water jets at designated vehicle exit points	Site	Site Formation Contractor	Construction Phase	TM-EIA, APC(CD)R & AQO in APCO	To control fugitive dust emissions in accordance with the requirements of Air Pollution Control (Construction Dust) Regulation in principle; Reduce fugitive emission wherever possible
	To use impervious sheeting where practicable for side enclosure and covering of any aggregate or other dusty material storage piles, to place stockpiles in an area sheltered on the top and the three sides, and/or to spray with water	Site	Site Formation Contractor	Construction Phase	TM-EIA, APC(CD)R & AQO in APCO	To control fugitive dust emissions in accordance with the requirements of Air Pollution Control (Construction Dust) Regulation in principle; Reduce fugitive emission wherever possible
	To cover the demolished items by impervious sheeting or to place in area sheltered on the top and the three sides within a day of demolition.	Site	Site Formation Contractor	Construction Phase	TM-EIA, APC(CD)R & AQO in APCO	To control fugitive dust emissions in accordance with the requirements of Air Pollution Control (Construction Dust) Regulation in principle; Reduce fugitive emission wherever possible

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	To spray all dusty material with water prior to loading, unloading or transfer so as to maintain the C&D material wet	Site	Site Formation Contractor	Construction Phase	TM-EIA, APC(CD)R & AQO in APCO	To control fugitive dust emissions in accordance with the requirements of Air Pollution Control (Construction Dust) Regulation in principle; Reduce fugitive emission wherever possible
	To apply wet suppression at least four times per day at the worksites with active dusty operations and to water all dust emission sources when necessary. The frequency shall be increased when the weather is dry	Site	Site Formation Contractor	Construction Phase	TM-EIA, APC(CD)R & AQO in APCO	To control fugitive dust emissions in accordance with the requirements of Air Pollution Control (Construction Dust) Regulation in principle; Reduce fugitive emission wherever possible
	To control the drop height of excavated materials to a minimum to limit fugitive dust generation from unloading as far as practicable	Site	Site Formation Contractor	Construction Phase	TM-EIA, APC(CD)R & AQO in APCO	To control fugitive dust emissions in accordance with the requirements of Air Pollution Control (Construction Dust) Regulation in principle; Reduce fugitive emission wherever possible
5.2.1.3	To carry out EM&A programme	Site	Site Formation Contractor & Superstructure Contractor	Pre-Construction and Construction Phase	TM-EIA & AQO in APCO	To proactively monitor fugitive dust impact and take necessary action against any unacceptable impact

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	Construction Noise Impact on the Surrounding Sensitive Uses					
4.2.1.5	To restrict operation to within non-restricted hours only	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	NCO	To avoid generation of noise during restricted hours under NCO
4.2.1.11	To use quiet PME with lower sound power level	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	TM-EIA	To reduce noise generation and in turn the construction noise impact
	To provide site hoarding of 4m to 6m high along the eastern boundary with sufficient surface density (10 to 15 kg/m ²), use of noise curtain or other mitigation measures for noise abatement as soon as Action Level is exceeded and confirmed to be due to the construction works	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	TM-EIA	To provide noise shielding or equivalent measures to reduce construction noise impact as per @ or equivalent subject to IEC/ AR's agreement.
	To adopt noise enclosure and temporary noise barriers with sufficient surface density (10 to 15 kg/m ²) (vertical and cantilevered types)	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	TM-EIA	To provide noise shielding to reduce construction noise impact or equivalent measures subject to IEC/ AR's agreement.
	To make use of the topography by carrying out excavation from west to east so that the original platform can act as effective noise barrier	Site	Site Formation Contractor	Construction	TM-EIA	To provide noise shielding to reduce construction noise impact or equivalent measures subject to IEC/ AR's agreement.

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
4.2.1.12	<p>To implement good site practice and noise management</p> <ul style="list-style-type: none"> ▪ To submit to the Engineer for approval the method of working, equipment and sound-reducing measures intended to be used at the site before the commencement of any work ▪ To allow only well-maintained plants to operate on-site; ▪ To service the plants regularly during the construction program; ▪ To shut down or throttle down machines that may be in intermittent use to a minimum between work periods; ▪ To utilize and maintain silencer and mufflers on construction equipment during the construction program; ▪ To schedule noisy activities to minimise exposure of nearby NSRs to high levels of construction noise. For example, noisy activities can be scheduled for midday or at times coinciding with periods of high background noise (such as during peak traffic hours); ▪ To site noisy equipment such as emergency generators as far away as possible from NSRs; ▪ To site mobile plants as far away from NSRs as possible; and ▪ To utilize material stockpiles and other structures as noise barrier, where practicable. 	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	NCO & TM-EIA	To reduce noise generation and its impact in accordance with NCO and its subsidiary regulations

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
4.2.1.23	No percussive piling	Site	Site Formation Contractor	Construction Phase	TM-EIA & NCO	To eliminate possibility of generating any significant ground borne noise impact
4.2.1.81	To avoid concurrent pipe piles driving near the tree ring and the Main Building when the pipes near the Main Building is about to penetrate the bedrock	Site	Site Formation Contractor	Construction Phase	TM-EIA & NCO	To avoid adverse cumulative ground borne noise impact
	To conduct on-site noise measurement at the HKCC and the HKSM when the works at the FMPH commences to verify the level of transmitted ground-borne noise	Site	Site Formation Contractor	Construction Phase	TM-EIA & NCO	To avoid adverse cumulative ground borne noise impact
	To establish a communication channel with HKCC and HKSM to stagger, if necessary, the ground-borne noise causing construction activities to avoid clashing with hours of performance at both venues	Site	Site Formation Contractor	Construction Phase	TM-EIA & NCO	To avoid adverse cumulative ground borne noise impact
5.2.1.3	To carry out EM&A program	Site	Site Formation Contractor & Superstructure Contractor	Pre-Construction and Construction Phase	TM-EIA	To proactively monitor construction noise impact and take necessary action against any unacceptable impact

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	Construction Phase Water Quality Impact					
4.3.1.7	To carry out the Works in such a manner as to minimize adverse impacts on the water quality during execution of the works. In particular he shall arrange his method of working to minimize the effects on the water quality within and outside the Site, on the transport routes and at the loading, dredging and dumping areas.	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	WPCO	To comply with the Water Pollution Control Ordinance and its subsidiary regulation.
	To follow the practices, and be responsible for the design, construction, operation and maintenance of all the mitigation measures as specified in the Professional Persons Environmental Consultative Committee Practice Note (ProPECC PN) 1/94 "Construction Site Drainage" issued by the Director of Environmental Protection. The design of the mitigation measures shall be submitted by the Contractor to the Engineer for approval.	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	ProPECC PN1/94 & WPCO	To comply with the Water Pollution Control Ordinance and its subsidiary regulation.
	To contain within the Site all surface runoff generated from foundation works, dust control and vehicle washing, etc.	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	WPCO	To comply with the Water Pollution Control Ordinance and its subsidiary regulation.

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	To avoid discharge directly or indirectly or cause or permit or suffer to be discharged into any public sewer, stormwater drain, channel, stream-course or sea any trade effluent or foul or contaminated water or cooling or hot water without the prior written consent of the Engineer in consultation with the Director of Environmental Protection and Director of Water Supplies, who may as a condition of granting his consent require the Contractor to provide, operate and maintain at the Contractor's own expense to the satisfaction of the Engineer suitable works for the treatment and disposal of such trade effluent or foul or contaminated or cooling or hot water. [The design of such treatment works shall be submitted to the Engineer for approval not less than one month before the commencement of the relevant works.]	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	WPCO	To comply with the Water Pollution Control Ordinance and its subsidiary regulation.
	To direct foul water effluent to a foul sewer or to a sewage treatment and disposal facility either directly or indirectly by means of pumping or other means approved by the Engineer if any office, site canteen or toilet facilities is erected	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	WPCO	To comply with the Water Pollution Control Ordinance and its subsidiary regulation.

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	Operational Phase Water Quality Impact					
4.3.2.1	To discharge sewage/wastewater generated from the Project to the nearby public sewers	Site	Project Proponent/Operator	Design / Operational Phase	WPCO	To meet the requirement as stipulated in the Technical Memorandum on Water Pollution Control Ordinance
	Waste Management					
4.5.1.7	To minimize the production of construction waste through careful design, planning, good site management, and control of ordering procedures, segregation and reuse of materials; To arrange for private contractors to collect used formwork materials for reuse.	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	WDO	To follow relevant regulations (Waste Disposal Ordinance) in all circumstances.
4.5.1.8	To dispose of any chemical wastes such as lubricating oil or solvent in strict accordance with the Waste Disposal (Chemical Waste) (General) Regulation	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	WDO	To follow relevant regulations (Waste Disposal Ordinance) in all circumstances.
4.5.1.9	To assign a reliable waste collector to collect general refuse generated from the construction site on a daily basis to minimise the potential odour, pest and litter impacts.	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	WDO	To follow relevant regulations (Waste Disposal Ordinance) in all circumstances.
4.5.2.1	To identify requirements on proper waste management for implementation during the operation of the Project	Site	Operator	Operational Phase	WDO	To follow relevant regulations (Waste Disposal Ordinance) in all circumstances.

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	Construction Phase Landscape and Visual Impact					
4.6.2.2	To screen the works area during the construction phase through the use of decorative hoarding along the site boundary with unified edge treatment and interface	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	A&MO, TM-EIA, Project Profile ["PP"], Landscape Mitigation and Tree Preservation Proposal ["LMTPP"] & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTPP to the mature trees during the construction period.
4.6.2.11	Creation of precautionary area (Cordon Area) around trees to be retained equal to the spread of the trees canopy diameter. Precautionary area to be fenced. Following the completion of the piling the Cordon Area would be based on the retained rootball.	Site	Specialist Landscape Contractor	Construction Phase	A&MO, TM-EIA, PP, LMTPP & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTPP to the mature trees during the construction period.
	Prohibition of the storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the Cordon Area.	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	A&MO, TM-EIA, PP, LMTPP & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTPP to the mature trees during the construction period.
	Phased segmental root pruning for trees to be retained over a six-month period prior to or site formation works, which affect the existing rootball of trees identified for retention. The extent of the pruning shall be based on a minimum half canopy and has been determined on a tree by tree basis. Phased segmental root pruning over a three-month period prior to lifting the trees identified for transplantation.	Site	Specialist Landscape Contractor	Construction Phase	A&MO, TM-EIA, PP, LMTPP & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTPP to the mature trees during the construction period.

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	Pruning of the branches of existing trees identified for transplantation and retention to be based on the principle of crown thinning maintaining their form and amenity value	Site	Specialist Landscape Contractor	Construction Phase	A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTTP to the mature trees during the construction period.
	The watering of existing vegetation particularly during periods of excavation when the water table beneath the existing vegetation is lowered.	Site	Specialist Landscape Contractor	Construction Phase	A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTTP to the mature trees during the construction period.
	The rectification and repair of damaged vegetation following the construction phase to it's original condition prior to the commencement of the works or replacement using specimens of the same species, size and form where appropriate to the design intention of the area affected	Site	Specialist Landscape Contractor	Construction Phase	A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTTP to the mature trees during the construction period.
	All works affecting the trees identified for retention and transplantation will be carefully monitored. This includes the key stages in the preparation of the trees, the implementation of protection measures and health monitoring through out the construction period	Site	Specialist Landscape Contractor	Construction Phase	A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTTP to the mature trees during the construction period.
	The tree transplanting and planting works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree protection / transplanting specification would be included within the contract documents. Tree preservation proposals and procedures for the protection and preservation of the existing trees to be reviewed by third party Tree Specialist including the provision of an additional level of monitoring during the construction phase.	Site	Specialist Landscape Contractor	Construction Phase	A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Interim measures designed to ensure acceptable landscape and visual impact on completion. Implementation of the LMTTP to the mature trees during the construction period.
	Operational Phase Landscape and Visual Impact					

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
4.6.3.4	To retain trees that have historic value and contribute most to the landscape and visual amenity of the site and its immediate environs	Site	Project Proponent/ Operator	Design, Construction and Operational Phase	TPO, A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Long term measures deigned to ensure creation of a high quality urban landscape
4.6.3.5	To restore the main buildings and to create landscaped gardens in order to beneficially affect the landscape character and quality of the area	Site	Project Proponent/ Operator	Design, Construction and Operational Phase	TPO, A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Long term measures deigned to ensure creation of a high quality urban landscape
	To create the plaza to the south of the main colonial buildings to increase public access to the site and to open up views of the building façade	Site	Project Proponent/ Operator	Design, Construction and Operational Phase	TPO, A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Long term measures deigned to ensure creation of a high quality urban landscape
	To provide where conditions allow new street planting along Canton Road, from No. 1 Peking Road to the intersection at Salisbury Road, and along the Salisbury Road frontage in order to create a boulevard type landscape to partially screen the development, and to enhance the green edge effect that is a dominant feature of both the site and its urban context.	Site	Project Proponent/ Operator	Design, Construction and Operational Phase	TPO, A&MO, TM-EIA, PP, LMTTP & WBTC No. 14/2002	Long term measures deigned to ensure creation of a high quality urban landscape
	To conduct new paving works at the street level as a result of the development and the widening of Canton Road which will lead to a significant improvement in the landscape and visual amenity of the streetscape within the study area	Site	Project Proponent/ Operator	Design, Construction and Operational Phase	TPO, A&MO, TM-EIA, PP	Long term measures deigned to ensure creation of a high quality urban landscape
	Detailed landscape and tree preservation proposals will be submitted to the relevant government departments for approval under the lease conditions and in accordance with WBTC No. 14/2002.	Site	Project Proponent/ Operator	Design, Construction and Operational Phase	TPO, A&MO, TM-EIA, PP & WBTC No. 14/2002	Long term measures deigned to ensure creation of a high quality urban landscape
4.6.3.8	All landscape and visual mitigation works will be funded, implemented managed and maintained by the project proponent.	Site	Project Proponent/ Operator	Design, Construction and Operational Phase	TPO, A&MO, TM-EIA, PP & WBTC No. 14/2002	Long term measures deigned to ensure creation of a high quality urban landscape

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	A qualified or registered landscape architect will be involved in the design, construction supervision and monitoring, and maintenance period to oversee the implementation of the recommended landscape and visual mitigation measures including the tree preservation and landscape works on site. Tree preservation proposals to be reviewed by third party Tree Specialist including monitoring during the establishment period.	Site	Project Proponent/ Operator	Design, Construction and Operational Phase	TPO, A&MO, TM-EIA, PP & WBTC No. 14/2002	Long term measures deigned to ensure creation of a high quality urban landscape

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
	Cultural Heritage Impact					
4.7.1.1	All monuments within the site will be preserved to an extent given according to the in the tender requirement	Site	Project Proponent	Design, Construction and Operational Phase	Tender Document	To preserve the monument
4.7.4.1	To prepare and submit a detailed study report comprising the historic archives, measured drawings, photographic records and full bibliography in support of the historic evidence prepared by experts in cultural heritage for their approval under the Antiquities and Monuments Ordinance (Cap. 53)	Site	Project Proponent	Design Phase	A&MO	To observed principles in the Charter of Venice (ICOMOS) and the Burra Charter (ICOMOS Australia) and requirement of A&MO
4.7.4.2	To submit detailed descriptions, plans for building and mitigation works and implementation programme to AMO for their approval and monitoring before commencement of works.	Site	Project Proponent	Design Phase	A&MO	To observed principles in the Charter of Venice (ICOMOS) and the Burra Charter (ICOMOS Australia) and requirement of A&MO
4.7.4.3	To preserve the Historic Buildings to meet international standard. Relevant legislations, standards, Charters and planning guidelines will be observed.	Site	Project Proponent	Design, Construction & Operational Phase	A&MO	To observed principles in the Charter of Venice (ICOMOS) and the Burra Charter (ICOMOS Australia) and requirement of A&MO
4.7.4.4	To allow only alteration or addition works to the Historic Buildings, which are reversible except those, considered to be minor by AMO.	Site	Superstructure Contractor	Construction Phase	A&MO	To observed principles in the Charter of Venice (ICOMOS) and the Burra Charter (ICOMOS Australia) and requirement of A&MO
4.7.4.5	To take necessary precautions during construction and excavation work to prevent any damage to the Historic Buildings. Structural monitoring system will be designed and supervised by a Registered Structural Engineer during the whole of construction works on the site.	Site	Site Formation Contractor & Superstructure Contractor	Construction Phase	A&MO	To prevent any damage to the historic buildings and structures during the site formation.
4.7.4.8	A comprehensive management plan including a heritage building maintenance guideline for the operation of FMPHQ would be prepared by conservation experts.	Site	Agent appointed by Project Proponent	Prior to Operational Phase	A&MO	To maintain the historic site and buildings in a proper manner

Project Profile Ref.:	Recommended Mitigation Measures	Location of the measure	Who to implement the measure	When to implement the measures	What requirements or standards for the measure to achieve*	Objectives of the Recommended Measure & Main Concern to address
4.7.4.9	Periodic site inspection to heritage buildings on external areas, interior decoration and covered-up areas to ensure a constant monitoring of building condition is conducted.	Site	Agent appointed by Project Proponent	Operational Phase	A&MO	To maintain the historic site and buildings in a proper manner
4.7.4.10	The Permit on routine maintenance would be applied to AMO under the A & M Ordinance.	Site	Agent appointed by Project Proponent	Operational Phase	A&MO	To maintain the historic site and buildings in a proper manner

*Abbreviation

TM-EIA – Technical Memorandum on Environmental Impact Assessment Process

AQO – Air Quality Objectives

APCO – Air Pollution Control Ordinance

APC(CD)R - Air Pollution Control (Construction Dust) Regulation

HKPSG – Hong Kong Planning Standards and Guidelines

TPO – Town Planning Ordinance

NCO – Noise Control Ordinance

WPCO – Water Pollution Control Ordinance

PN1/94 – Professional Persons Environmental Consultative Committee Practice Note (ProPECC PN) 1/94 "Construction Site Drainage"

WDO – Waste Disposal Ordinance

A&MO – Antiquities and Monuments Ordinance

Appendix C: The environmental site inspection, deficiency and remedial action reports



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Email電郵 : enquiry@nt.com.hk Web page網址 : http://www.nt.com.hk

**Development at Former Marine Police
Headquarters KIL 11161 (EP-184/2004)**

Environmental Site Inspection, Deficiency and Remedial Action Report

Date of Issue:	10/7/2006	# Pages:	6
To:	Konwall Construction & Engineering Co., Ltd. Attn: Mr Tommy Ip Project Manager	Cc:	Mr Roger W K Leung - IEC CH2M-IDC Hong Kong Ltd.
Fax No.:	2561 7122		2507 2293

Inspection date: 7-7-06 Inspected
Time: 17:00-17:30
ET's Representative: _____
Contractor's Representative: [Signature]
Architect's Representative: _____

Site: Former Marine Police Headquarter

WEATHER

Condition: Sunny Fine Overcast Hazy Drizzle Rain Storm
Humidity: High Moderate Low
Wind: Calm Light Breeze Strong
Temperature: 30 °C

GENERAL

Ref.	Checklist/Conditions	N/A	Yes	No	Remarks
EP 1.3	Is a copy of Environmental Permit together with all documents referred to in the permit kept in all sites/offices covered in the permit?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EP 1.5	Is a copy of the most updated Environmental Permit displayed at the at all vehicular site entrances/exits or at a convenient location for public information?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	

AIR QUALITY

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EM&A 2.32	Is the site hoarding of at least 2.4m high erected along the boundaries of the site (particularly along the northern boundary adjacent to No. 1, Peking Road) except at the site entrance/ exit?		✓		
EP Annex I 29; EM&A 2.32	Is the truck speed suitably low (within 8 km/hr)?		✓		
EP Annex I 29; EM&A 2.32	Are the dusty vehicle loads transported to and from the work location covered by tarpaulin sheets and not to be overloaded?	✓			Dusty vehicle not observed
Annex I 30	Are water suppression applied at least four times a day at the work sites with active dusty operations and to water all dust emission sources when necessary?	✓			Records need updating frequently
EM&A 2.32	Is there any vehicle wheel washing facilities including high pressure water jets provided at designated vehicle exit points?		✓		
EM&A 2.32	Is there any side enclosure and covering of any aggregate or other dusty material storage piles, placing of stockpiles in an area to be sheltered on the top and the three sides, and sprayed with water?	✓			
EM&A 2.32	Are the demolished items covered by impervious sheeting or placed in area sheltered on the top and the three sides?		✓		
EM&A 2.32	Are all dusty material sprayed with water prior to loading, unloading or transfer?	✓			Not observed on site
EP Annex I 31; EM&A 2.32	Is the drop height of excavated materials controlled to a minimum to limit fugitive dust generation from unloading as far as practicable?	✓			Ditto
	Is the area where vehicle washing takes place and the section of the road between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?		✓		
	Is the public road around the site entrance kept clean and free from dust?		✓		
	Immediately before leaving a construction site, is every vehicle washed to remove any dusty materials from its body and wheels?		✓		
	Are all machinery and equipments well maintained e.g. without black smoke emission?		✓		

NOISE

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
NCO	Are valid construction noise permits available for inspection?		✓		
NCO	Are conditions of construction noise permits for the relevant parts of the works implemented accordingly?		✓		
EP Annex I 34; EM&A 3.26	Are the quiet power mechanical equipment with lower sound power level used?		✓		

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 35; EM&A 3.26	Is the site hoarding of 4m to 6m high along the eastern boundary with sufficient surface density (10 to 15 kg/m ²) as noise barrier or other possible noise mitigation measures provided?		✓		Noise mats to be enhanced if full construction in progress
EP Annex I 36; EM&A 3.26	Are the noise enclosure and temporary noise barriers with sufficient surface density (10 to 15 kg/m ³) (vertical and cantilevered types) or other possible noise mitigation measures adopted?		✓		Ditto
EP Annex I 37; EM&A 3.26	Is the excavation carried out from west to east by making use of the topography so that the original platform can act as effective noise barrier?		✓		
EP Annex I 38; EM&A 3.26	Is proper acoustic barrier/enclosure for the noisy facilities installed?		✓		Noise mats to be enhanced if full construction in progress
EP Annex I 38; EM&A 3.26	Are all E&M facilities in a manner to avoid any unacceptable impact on the surrounding noise sensitive uses shielded and housed?		✓		
EP Annex I 38; EM&A 3.26	Are all noisy facilities if practicable or position them near the western side of the site with proper at-source shielding especially on the east side fully enclosed?		✓		
	Are all air compressors and hand held breakers having valid noise label?			✓	No Compressor in operation
	Are all compressors and generators operating with doors closed?		✓		

WATER QUALITY

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 39; EM&A 4.2	Are works carried out in such a manner as to minimise adverse impacts on the water quality within and outside the site on the transport routes and at the loading, dredging and dumping areas during execution of the works?		✓		Emergency storage to be considered
EP Annex I 40; EM&A 4.2	Is there any design, construction, operation and maintenance of all the mitigation measures?		✓		
EP Annex I 41; EM&A 4.2	Are all surface runoff generated from foundation works, dust control and vehicle washing, etc. within the site contained?		✓		
EM&A 4.2	Is there any discharge directly or indirectly or cause or permit or suffer to be discharged into any public sewer, stormwater drain, channel, stream-course or sea any trade effluent or foul or contaminated water or cooling or hot water?			✓	
EM&A 4.2	Is there any direct foul water effluent to a foul sewer or to a sewage treatment and disposal facility either directly or indirectly by means of pumping or other means?			✓	Temporary toilet provided

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
	Has discharge licence applied from EPD for discharging any effluent from the construction site?		✓		
	Is the drainage system adequate and well maintained to prevent flooding and overflow?		✓		Emergency storage to be considered
	Are channels, earth bunds or temporary ditches used to divert the surface runoff to the sedimentation tanks prior to discharge?		✓		
	Do the sedimentation tanks for settling surface runoff prior to discharge have adequate capacity and free from silt and sediment?		✓		
	Are sand and silt settled in the wheel washing bay, ditches and silt removal facilities cleaned and removed regularly (e.g. at least weekly) or as necessary?		✓		
	Are unnecessary water retained in receptacles and standing water avoided to prevent mosquito breeding?		✓		
	Is toilet that connects to foul sewer or chemical toilets provided?			✓	Temporary toilet provided

WASTE MANAGEMENT

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
WMP Table 4.2	Are all works areas generally cleared of litter and refuse?		✓		
WMP Table 4.2	Are general refuse and litter stored in enclosed bins or compaction units?		✓		
WMP Table 4.2	Are refuse burned at construction site?			✓	
WMP Table 4.2	Are three colour coded bins provided for collection of recyclable materials?		✓		
WMP Table 4.3	Is processing generating chemical waste identified?			✓	Chemical waste not observed
WMP Table 4.3	Are chemical wastes handled in suitable packaging, labeling and storage?	✓			
WMP Table 4.3	Is asbestos waste in suitable handling, storage and disposal?	✓			
WMP Table 4.4	Are all stockpiled spoils covered with tarpaulin or other appropriate fabric?	✓			No stockpiled spoils observed
WMP Table 4.4	Are all vehicles transporting wastes properly fitting tail boards and sides and materials securely covered?	✓			Ditto
WMP Table 4.4	Are all wastes stored in a manner ensuring that they are held securely without loss or leakage?		✓		
WMP Table 4.4	Are all waste storage areas cleaned and maintained?		✓		Refuse needed to be removed
WMP Table 4.4	Are disposal permits obtained for each waste category?		✓		
WMP Table 4.4	Is there any record/trip tickets of quantities of chemical wastes generated, recycled and disposal maintained for inspection?	✓			
WMP Table 4.4	Is there any record/trip tickets of the quantities of wastes generated recycled and disposed for inspection?		✓		Need frequent updating

LANDSCAPE AND VISUAL

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 12; EM&A 6.4	Is the works area screened during the construction phase through the use of decorative hoarding along the site boundary with unified edge treatment and interface?		✓		

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 13; EM&A 6.4	Is there any creation of precautionary area (Cordon Area) around trees retained equal to the spread of the trees canopy diameter?		✓		Cordon Area fenced off but not included the whole tree canopy in all cases due to lack of space
EP Annex I 13; EM&A 6.4	Is the Cordon Area fenced?		✓		
EP Annex I 14; EM&A 6.4	Is there any storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the Cordon Area?			✓	

CULTURAL HERITAGE

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 1	Are all monuments within the site preserved?		✓		
EP Annex I 4	Are the Historic Buildings preserved?		✓		
EP Annex I 6	Is there any necessary precaution taken during construction and excavation work to prevent any damage to the Historic Buildings?		✓		
EP Annex I 10	Is there any percussive piling carried out?			✓	
EP Annex I 11	Is there any concurrent pipe pile driving near the tree ring and the Main Building of the Former Marine Police Headquarters?			✓	

Abbreviation

EP: Environmental Permit (Environmental Permit No. EP-184/2004)
EM&A: Environmental Monitoring & Audit Manual
NCO: Noise Control Ordinance
WMP: Waste Management Plan

Deficiency/Other Observations/Remedial Action to be Taken:

Compressor without valid noise labels should either be removed or stuck valid noise label on it.

Oil containers found lying on ground - drip tray should be used.

Others same as above

Follow Up Actions to Previous Site Inspection:

Job to be carried out

Signatures

ET's Representative

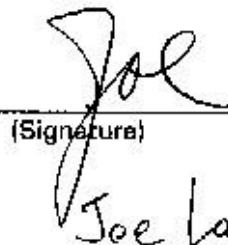
Contractor's
Representative

Architect's
Representative



(Signature)

Ivan Ting
(Name in Block Letter)



(Signature)

Joe Lam
(Name in Block Letter)

(Signature)

(Name in Block Letter)



NATURE & TECHNOLOGIES (HK) LIMITED
科技環保(香港)有限公司

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 Email電郵: enquiry@nt.com.hk Web page網址 : http://www.nt.com.hk

**Development at Former Marine Police
 Headquarters KIL 11161 (EP-184/2004)**

Environmental Site Inspection, Deficiency and Remedial Action Report

Date of Issue:	17/7/2006	# Pages:	
To:	Konwall Construction & Engineering Co., Ltd. Attn: Mr Tommy Ip Project Manager	Cc:	Mr Roger W K Leung - IEC CH2M-IDC Hong Kong Ltd.
Fax No.:	2561 7122		2507 2293

Inspection date: 14-7-06 Inspected
 Time: 16:45-17:15

ET's Representative:

Contractor's Representative:

Architect's Representative:

Site: Former Marine Police Headquarter

WEATHER

Condition: Sunny Fine Overcast Hazy Drizzle Rain Storm
 Humidity: High Moderate Low
 Wind: Calm Light Breeze Strong
 Temperature: 30 °C

GENERAL

Ref		Yes	No	Remarks
EP 1.3	Is a copy of Environmental Permit together with all documents referred to in the permit kept in all sites/offices covered in the permit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
EP 1.5	Is a copy of the most updated Environmental Permit displayed at the at all vehicular site entrances/exits or at a convenient location for public information?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

AIR QUALITY

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EM&A 2.32	Is the site hoarding of at least 2.4m high erected along the boundaries of the site (particularly along the northern boundary adjacent to No. 1, Peking Road) except at the site entrance/ exit?		✓		
EP Annex I 29; EM&A 2.32	Is the truck speed suitably low (within 8 km/hr)?		✓		
EP Annex I 29; EM&A 2.32	Are the dusty vehicle loads transported to and from the work location covered by tarpaulin sheets and not to be overloaded?		✓		
Annex I 30	Are water suppression applied at least four times a day at the work sites with active dusty operations and to water all dust emission sources when necessary?	✓			Records need updating frequently
EM&A 2.32	Is there any vehicle wheel washing facilities including high pressure water jets provided at designated vehicle exit points?		✓		
EM&A 2.32	Is there any side enclosure and covering of any aggregate or other dusty material storage piles, placing of stockpiles in an area to be sheltered on the top and the three sides, and sprayed with water?	✓			
EM&A 2.32	Are the demolished items covered by impervious sheeting or placed in area sheltered on the top and the three sides?	✓			
EM&A 2.32	Are all dusty material sprayed with water prior to loading, unloading or transfer?	✓			Not observed on site
EP Annex I 31; EM&A 2.32	Is the drop height of excavated materials controlled to a minimum to limit fugitive dust generation from unloading as far as practicable?	✓			Ditto
	Is the area where vehicle washing takes place and the section of the road between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?		✓		
	Is the public road around the site entrance kept clean and free from dust?		✓		
	Immediately before leaving a construction site, is every vehicle washed to remove any dusty materials from its body and wheels?		✓		
	Are all machinery and equipments well maintained e.g. without black smoke emission?		✓		

NOISE

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
NCO	Are valid construction noise permits available for inspection?		✓		
NCO	Are conditions of construction noise permits for the relevant parts of the works implemented accordingly?		✓		
EP Annex I 34; EM&A 3.26	Are the quiet power mechanical equipment with lower sound power level used?		✓		

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 35; EM&A 3.26	Is the site hoarding of 4m to 6m high along the eastern boundary with sufficient surface density (10 to 15 kg/m ²) as noise barrier or other possible noise mitigation measures provided?		✓		Noise mats to be enhanced if full construction in progress
EP Annex I 36; EM&A 3.26	Are the noise enclosure and temporary noise barriers with sufficient surface density (10 to 15 kg/m ³) (vertical and cantilevered types) or other possible noise mitigation measures adopted?		✓		Ditto
EP Annex I 37; EM&A 3.26	Is the excavation carried out from west to east by making use of the topography so that the original platform can act as effective noise barrier?		✓		
EP Annex I 38; EM&A 3.26	Is proper acoustic barrier/enclosure for the noisy facilities installed?		✓		Noise mats to be enhanced if full construction in progress
EP Annex I 38; EM&A 3.26	Are all E&M facilities in a manner to avoid any unacceptable impact on the surrounding noise sensitive uses shielded and housed?		✓		
EP Annex I 38; EM&A 3.26	Are all noisy facilities if practicable or position them near the western side of the site with proper at-source shielding especially on the east side fully enclosed?		✓		
	Are all air compressors and hand held breakers having valid noise label?		✓		
	Are all compressors and generators operating with doors closed?		✓		

WATER QUALITY

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 39; EM&A 4.2	Are works carried out in such a manner as to minimise adverse impacts on the water quality within and outside the site on the transport routes and at the loading, dredging and dumping areas during execution of the works?		✓		Emergency storage to be considered
EP Annex I 40; EM&A 4.2	Is there any design, construction, operation and maintenance of all the mitigation measures?		✓		
EP Annex I 41; EM&A 4.2	Are all surface runoff generated from foundation works, dust control and vehicle washing, etc. within the site contained?		✓		
EM&A 4.2	Is there any discharge directly or indirectly or cause or permit or suffer to be discharged into any public sewer, stormwater drain, channel, stream-course or sea any trade effluent or foul or contaminated water or cooling or hot water?			✓	
EM&A 4.2	Is there any direct foul water effluent to a foul sewer or to a sewage treatment and disposal facility either directly or indirectly by means of pumping or other means?			✓	Temporary toilet provided

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
	Has discharge licence applied from EPD for discharging any effluent from the construction site?		✓		
	Is the drainage system adequate and well maintained to prevent flooding and overflow?		✓		Emergency storage to be considered
	Are channels, earth bunds or temporary ditches used to divert the surface runoff to the sedimentation tanks prior to discharge?		✓		
	Do the sedimentation tanks for settling surface runoff prior to discharge have adequate capacity and free from silt and sediment?		✓		
	Are sand and silt settled in the wheel washing bay, ditches and silt removal facilities cleaned and removed regularly (e.g. at least weekly) or as necessary?		✓		
	Are unnecessary water retained in receptacles and standing water avoided to prevent mosquito breeding?		✓		
	Is toilet that connects to foul sewer or chemical toilets provided?			✓	Temporary toilet provided

WASTE MANAGEMENT

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
WMP Table 4.2	Are all works areas generally cleared of litter and refuse?		✓		
WMP Table 4.2	Are general refuse and litter stored in enclosed bins or compaction units?		✓		
WMP Table 4.2	Are refuse burned at construction site?			✓	
WMP Table 4.2	Are three colour coded bins provided for collection of recyclable materials?		✓		
WMP Table 4.3	Is processing generating chemical waste identified?			✓	Chemical waste not observed
WMP Table 4.3	Are chemical wastes handled in suitable packaging, labeling and storage?	✓			
WMP Table 4.3	Is asbestos waste in suitable handling, storage and disposal?	✓			
WMP Table 4.4	Are all stockpiled spoils covered with tarpaulin or other appropriate fabric?	✓			No stockpiled spoils observed
WMP Table 4.4	Are all vehicles transporting wastes properly fitting tail boards and sides and materials securely covered?	✓			Ditto
WMP Table 4.4	Are all wastes stored in a manner ensuring that they are held securely without loss or leakage?		✓		
WMP Table 4.4	Are all waste storage areas cleaned and maintained?		✓		Refuse needed to be removed
WMP Table 4.4	Are disposal permits obtained for each waste category?		✓		
WMP Table 4.4	Is there any record/trip tickets of quantities of chemical wastes generated, recycled and disposal maintained for inspection?	✓			
WMP Table 4.4	Is there any record/trip tickets of the quantities of wastes generated recycled and disposed for inspection?		✓		Need frequent updating

LANDSCAPE AND VISUAL

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 12; EM&A 6.4	Is the works area screened during the construction phase through the use of decorative hoarding along the site boundary with unified edge treatment and interface?		✓		

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 13; EM&A 6.4	Is there any creation of precautionary area (Cordon Area) around trees retained equal to the spread of the trees canopy diameter?		✓		Cordon Area fenced off but not included the whole tree canopy in all cases due to lack of space
EP Annex I 13; EM&A 6.4	Is the Cordon Area fenced?		✓		
EP Annex I 14; EM&A 6.4	Is there any storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the Cordon Area?			✓	

CULTURAL HERITAGE

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 1	Are all monuments within the site preserved?		✓		
EP Annex I 4	Are the Historic Buildings preserved?		✓		
EP Annex I 6	Is there any necessary precaution taken during construction and excavation work to prevent any damage to the Historic Buildings?		✓		
EP Annex I 10	Is there any percussive piling carried out?			✓	
EP Annex I 11	Is there any concurrent pipe pile driving near the tree ring and the Main Building of the Former Marine Police Headquarters?			✓	

Abbreviation

EP: Environmental Permit (Environmental Permit No. EP-184/2004)
EM&A: Environmental Monitoring & Audit Manual
NCO: Noise Control Ordinance
WMP: Waste Management Plan

Deficiency/Other Observations/Remedial Action to be Taken:

Drip tray should be used for oily containers
General Refuse Record has to be provided

Follow Up Actions to Previous Site Inspection:

Noise Label put on the air compressor.

Signatures

ET's Representative

Contractor's Representative

Architect's Representative



(Signature)

Ivan Tsing

(Name in Block Letter)



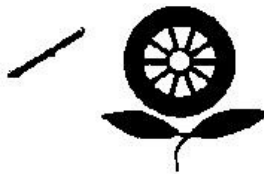
(Signature)

Joe Lam

(Name in Block Letter)

(Signature)

(Name in Block Letter)



NATURE & TECHNOLOGIES (HK) LIMITED
科技環保(香港)有限公司

Unit 2 & 3, 4/F., Wellborne Commercial Centre, 8 Java Road, North Point, Hong Kong.
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 Email電郵: enquiry@nt.com.hk Web page網址: http://www.nt.com.hk

**Development at Former Marine Police
 Headquarters KIL 11161 (EP-184/2004)**

Environmental Site Inspection, Deficiency and Remedial Action Report

Date of Issue:	21/7/2006	# Pages:	6
To:	Konwall Construction & Engineering Co., Ltd. Attn: Mr Tommy Ip Project Manager	Cc:	Mr Roger W K Leung – IEC CH2M-IDC Hong Kong Ltd.
Fax No.:	2561 7122		2507 2293

Inspection date: 20-7-06 Inspected
 Time: 17:00-17:20

ET's Representative: _____
 Contractor's Representative: [Signature]
 Architect's Representative: _____

Site: Former Marine Police Headquarter

WEATHER

Condition: Sunny Fine Overcast Hazy Drizzle Rain Storm
 Humidity: High Moderate Low
 Wind: Calm Light Breeze Strong
 Temperature: 30 °C

GENERAL

Ref.	Checklist Item	N/A	Yes	No	Remarks
EP 1.3	Is a copy of Environmental Permit together with all documents referred to in the permit kept in all sites/offices covered in the permit?		✓		
EP 1.5	Is a copy of the most updated Environmental Permit displayed at the at all vehicular site entrances/exits or at a convenient location for public information?		✓		

AIR QUALITY

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EM&A 2.32	Is the site hoarding of at least 2.4m high erected along the boundaries of the site (particularly along the northern boundary adjacent to No. 1, Peking Road) except at the site entrance/ exit?		✓		
EP Annex I 29; EM&A 2.32	Is the truck speed suitably low (within 8 km/hr)?		✓		
EP Annex I 29; EM&A 2.32	Are the dusty vehicle loads transported to and from the work location covered by tarpaulin sheets and not to be overloaded?	✓			Dusty vehicle not observed
Annex I 30	Are water suppression applied at least four times a day at the work sites with active dusty operations and to water all dust emission sources when necessary?	✓			Records need updating frequently
EM&A 2.32	Is there any vehicle wheel washing facilities including high pressure water jets provided at designated vehicle exit points?		✓		
EM&A 2.32	Is there any side enclosure and covering of any aggregate or other dusty material storage piles, placing of stockpiles in an area to be sheltered on the top and the three sides, and sprayed with water?		✓		
EM&A 2.32	Are the demolished items covered by impervious sheeting or placed in area sheltered on the top and the three sides?	✓			
EM&A 2.32	Are all dusty material sprayed with water prior to loading, unloading or transfer?	✓			Not observed on site
EP Annex I 31; EM&A 2.32	Is the drop height of excavated materials controlled to a minimum to limit fugitive dust generation from unloading as far as practicable?	✓			Ditto
	Is the area where vehicle washing takes place and the section of the road between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?		✓		
	Is the public road around the site entrance kept clean and free from dust?		✓		
	Immediately before leaving a construction site, is every vehicle washed to remove any dusty materials from its body and wheels?		✓		
	Are all machinery and equipments well maintained e.g. without black smoke emission?		✓		

NOISE

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
NCO	Are valid construction noise permits available for inspection?		✓		
NCO	Are conditions of construction noise permits for the relevant parts of the works implemented accordingly?		✓		
EP Annex I 34; EM&A 3.26	Are the quiet power mechanical equipment with lower sound power level used?		✓		

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 35; EM&A 3.26	Is the site hoarding of 4m to 6m high along the eastern boundary with sufficient surface density (10 to 15 kg/m ²) as noise barrier or other possible noise mitigation measures provided?		✓		Noise mats to be enhanced if full construction in progress
EP Annex I 36; EM&A 3.26	Are the noise enclosure and temporary noise barriers with sufficient surface density (10 to 15 kg/m ³) (vertical and cantilevered types) or other possible noise mitigation measures adopted?		✓		Ditto
EP Annex I 37; EM&A 3.26	Is the excavation carried out from west to east by making use of the topography so that the original platform can act as effective noise barrier?		✓		
EP Annex I 38; EM&A 3.26	Is proper acoustic barrier/enclosure for the noisy facilities installed?		✓		Noise mats to be enhanced if full construction in progress
EP Annex I 38; EM&A 3.26	Are all E&M facilities in a manner to avoid any unacceptable impact on the surrounding noise sensitive uses shielded and housed?		✓		
EP Annex I 38; EM&A 3.26	Are all noisy facilities if practicable or position them near the western side of the site with proper at-source shielding especially on the east side fully enclosed?		✓		
	Are all air compressors and hand held breakers having valid noise label?		✓		
	Are all compressors and generators operating with doors closed?			✓	

WATER QUALITY

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 39; EM&A 4.2	Are works carried out in such a manner as to minimise adverse impacts on the water quality within and outside the site on the transport routes and at the loading, dredging and dumping areas during execution of the works?		✓		Emergency storage to be considered
EP Annex I 40; EM&A 4.2	Is there any design, construction, operation and maintenance of all the mitigation measures?		✓		
EP Annex I 41; EM&A 4.2	Are all surface runoff generated from foundation works, dust control and vehicle washing, etc. within the site contained?		✓		
EM&A 4.2	Is there any discharge directly or indirectly or cause or permit or suffer to be discharged into any public sewer, stormwater drain, channel, stream-course or sea any trade effluent or foul or contaminated water or cooling or hot water?			✓	
EM&A 4.2	Is there any direct foul water effluent to a foul sewer or to a sewage treatment and disposal facility either directly or indirectly by means of pumping or other means?			✓	Temporary toilet provided

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
	Has discharge licence applied from EPD for discharging any effluent from the construction site?		✓		
	Is the drainage system adequate and well maintained to prevent flooding and overflow?		✓		Emergency storage to be considered
	Are channels, earth bunds or temporary ditches used to divert the surface runoff to the sedimentation tanks prior to discharge?		✓		
	Do the sedimentation tanks for settling surface runoff prior to discharge have adequate capacity and free from silt and sediment?		✓		
	Are sand and silt settled in the wheel washing bay, ditches and silt removal facilities cleaned and removed regularly (e.g. at least weekly) or as necessary?		✓		
	Are unnecessary water retained in receptacles and standing water avoided to prevent mosquito breeding?		✓		
	Is toilet that connects to foul sewer or chemical toilets provided?			✓	Temporary toilet provided

WASTE MANAGEMENT

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
WMP Table 4.2	Are all works areas generally cleared of litter and refuse?		✓		
WMP Table 4.2	Are general refuse and litter stored in enclosed bins or compaction units?		✓		
WMP Table 4.2	Are refuse burned at construction site?			✓	
WMP Table 4.2	Are three colour coded bins provided for collection of recyclable materials?		✓		
WMP Table 4.3	Is processing generating chemical waste identified?			✓	Chemical waste not observed
WMP Table 4.3	Are chemical wastes handled in suitable packaging, labeling and storage?	✓			
WMP Table 4.3	Is asbestos waste in suitable handling, storage and disposal?	✓			
WMP Table 4.4	Are all stockpiled spoils covered with tarpaulin or other appropriate fabric?	✓			No stockpiled spoils observed
WMP Table 4.4	Are all vehicles transporting wastes properly fitting tail boards and sides and materials securely covered?	✓			Ditto
WMP Table 4.4	Are all wastes stored in a manner ensuring that they are held securely without loss or leakage?		✓		
WMP Table 4.4	Are all waste storage areas cleaned and maintained?		✓		Refuse needed to be removed
WMP Table 4.4	Are disposal permits obtained for each waste category?		✓		
WMP Table 4.4	Is there any record/trip tickets of quantities of chemical wastes generated, recycled and disposal maintained for inspection?	✓			
WMP Table 4.4	Is there any record/trip tickets of the quantities of wastes generated recycled and disposed for inspection?		✓		Need frequent updating

LANDSCAPE AND VISUAL

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 12; EM&A 6.4	Is the works area screened during the construction phase through the use of decorative hoarding along the site boundary with unified edge treatment and interface?		✓		

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 13; EM&A 6.4	Is there any creation of precautionary area (Cordon Area) around trees retained equal to the spread of the trees canopy diameter?		✓		Cordon Area fenced off but not included the whole tree canopy in all cases due to lack of space
EP Annex I 13; EM&A 6.4	Is the Cordon Area fenced?		✓		
EP Annex I 14; EM&A 6.4	Is there any storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the Cordon Area?			✓	

CULTURAL HERITAGE

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 1	Are all monuments within the site preserved?		✓		
EP Annex I 4	Are the Historic Buildings preserved?		✓		
EP Annex I 6	Is there any necessary precaution taken during construction and excavation work to prevent any damage to the Historic Buildings?		✓		
EP Annex I 10	Is there any percussive piling carried out?			✓	
EP Annex I 11	Is there any concurrent pipe pile driving near the tree ring and the Main Building of the Former Marine Police Headquarters?			✓	

Abbreviation

EP: Environmental Permit (Environmental Permit No. EP-184/2004)
EM&A: Environmental Monitoring & Audit Manual
NCO: Noise Control Ordinance
WMP: Waste Management Plan

Deficiency/Other Observations/Remedial Action to be Taken:

One Compressor was running with door opened.
Dirty container was put on floor/ground

Follow Up Actions to Previous Site Inspection:

Signatures

ET's Representative

Contractor's Representative

Architect's Representative



(Signature)

Ivan Ting
(Name in Block Letter)



(Signature)

Joe Lam
(Name in Block Letter)

(Signature)

(Name in Block Letter)



NATURE & TECHNOLOGIES (HK) LIMITED
科技環保(香港)有限公司

Unit 2 & 3, 4/F., Wellborne Commercial Centre, 8 Java Road, North Point, Hong Kong.
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Email電郵: enquiry@nt.com.hk Web page網址 : http://www.nt.com.hk

**Development at Former Marine Police
Headquarters KIL 11161 (EP-184/2004)**

Environmental Site Inspection, Deficiency and Remedial Action Report

Date of Issue:	27/7/2006	# Pages:	6
To:	Konwall Construction & Engineering Co., Ltd. Attn: Mr Tommy Ip Project Manager	Cc:	Mr Roger W K Leung - IEC CH2M-IDC Hong Kong Ltd.
Fax No.:	2561 7122		2507 2293

Inspection date: 26-7-2006 Inspected ET's Representative: _____
Time: 16:30-16:50 Contractor's Representative: [Signature]
Architect's Representative: _____
Site: Former Marine Police Headquarter

WEATHER

Condition: Sunny Fine Overcast Hazy Drizzle Rain Storm
Humidity: High Moderate Low
Wind: Calm Light Breeze Strong
Temperature: 30 °C

GENERAL

Ref.		N/A	Yes	No	Remarks
EP 1.3	Is a copy of Environmental Permit together with all documents referred to in the permit kept in all sites/offices covered in the permit?		✓		
EP 1.5	Is a copy of the most updated Environmental Permit displayed at the at all vehicular site entrances/exits or at a convenient location for public information?		✓		

AIR QUALITY

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EM&A 2.32	Is the site hoarding of at least 2.4m high erected along the boundaries of the site (particularly along the northern boundary adjacent to No. 1, Peking Road) except at the site entrance/ exit?		✓		
EP Annex I 29; EM&A 2.32	Is the truck speed suitably low (within 8 km/hr)?	✓			
EP Annex I 29; EM&A 2.32	Are the dusty vehicle loads transported to and from the work location covered by tarpaulin sheets and not to be overloaded?	✓			Dusty vehicle not observed
Annex I 30	Are water suppression applied at least four times a day at the work sites with active dusty operations and to water all dust emission sources when necessary?	✓			Records need updating frequently
EM&A 2.32	Is there any vehicle wheel washing facilities including high pressure water jets provided at designated vehicle exit points?		✓		
EM&A 2.32	Is there any side enclosure and covering of any aggregate or other dusty material storage piles, placing of stockpiles in an area to be sheltered on the top and the three sides, and sprayed with water?	✓			
EM&A 2.32	Are the demolished items covered by impervious sheeting or placed in area sheltered on the top and the three sides?	✓			
EM&A 2.32	Are all dusty material sprayed with water prior to loading, unloading or transfer?	✓			Not observed on site
EP Annex I 31; EM&A 2.32	Is the drop height of excavated materials controlled to a minimum to limit fugitive dust generation from unloading as far as practicable?	✓			Ditto
	Is the area where vehicle washing takes place and the section of the road between the washing facilities and the exit point paved with concrete, bituminous materials or hardcores?		✓		
	Is the public road around the site entrance kept clean and free from dust?		✓		
	Immediately before leaving a construction site, is every vehicle washed to remove any dusty materials from its body and wheels?		✓		
	Are all machinery and equipments well maintained e.g. without black smoke emission?		✓		

NOISE

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
NCO	Are valid construction noise permits available for inspection?		✓		
NCO	Are conditions of construction noise permits for the relevant parts of the works implemented accordingly?		✓		
EP Annex I 34; EM&A 3.26	Are the quiet power mechanical equipment with lower sound power level used?		✓		

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 35; EM&A 3.26	Is the site hoarding of 4m to 6m high along the eastern boundary with sufficient surface density (10 to 15 kg/m ²) as noise barrier or other possible noise mitigation measures provided?		✓		Noise mats to be enhanced if full construction in progress
EP Annex I 36; EM&A 3.26	Are the noise enclosure and temporary noise barriers with sufficient surface density (10 to 15 kg/m ³) (vertical and cantilevered types) or other possible noise mitigation measures adopted?		✓		Ditto
EP Annex I 37; EM&A 3.26	Is the excavation carried out from west to east by making use of the topography so that the original platform can act as effective noise barrier?		✓		
EP Annex I 38; EM&A 3.26	Is proper acoustic barrier/enclosure for the noisy facilities installed?		✓		Noise mats to be enhanced if full construction in progress
EP Annex I 38; EM&A 3.26	Are all E&M facilities in a manner to avoid any unacceptable impact on the surrounding noise sensitive uses shielded and housed?		✓		
EP Annex I 38; EM&A 3.26	Are all noisy facilities if practicable or position them near the western side of the site with proper at-source shielding especially on the east side fully enclosed?		✓		
	Are all air compressors and hand held breakers having valid noise label?		✓		
	Are all compressors and generators operating with doors closed?		✓		

WATER QUALITY

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 39; EM&A 4.2	Are works carried out in such a manner as to minimise adverse impacts on the water quality within and outside the site on the transport routes and at the loading, dredging and dumping areas during execution of the works?		✓		Emergency storage to be considered
EP Annex I 40; EM&A 4.2	Is there any design, construction, operation and maintenance of all the mitigation measures?		✓		
EP Annex I 41; EM&A 4.2	Are all surface runoff generated from foundation works, dust control and vehicle washing, etc. within the site contained?		✓		
EM&A 4.2	Is there any discharge directly or indirectly or cause or permit or suffer to be discharged into any public sewer, stormwater drain, channel, stream-course or sea any trade effluent or foul or contaminated water or cooling or hot water?			✓	
EM&A 4.2	Is there any direct foul water effluent to a foul sewer or to a sewage treatment and disposal facility either directly or indirectly by means of pumping or other means?			✓	Temporary toilet provided

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
	Has discharge licence applied from EPD for discharging any effluent from the construction site?		✓		
	Is the drainage system adequate and well maintained to prevent flooding and overflow?		✓		Emergency storage to be considered
	Are channels, earth bunds or temporary ditches used to divert the surface runoff to the sedimentation tanks prior to discharge?		✓		
	Do the sedimentation tanks for settling surface runoff prior to discharge have adequate capacity and free from silt and sediment?		✓		
	Are sand and silt settled in the wheel washing bay, ditches and silt removal facilities cleaned and removed regularly (e.g. at least weekly) or as necessary?		✓		
	Are unnecessary water retained in receptacles and standing water avoided to prevent mosquito breeding?		✓		
	Is toilet that connects to foul sewer or chemical toilets provided?			✓	Temporary toilet provided

WASTE MANAGEMENT

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
WMP Table 4.2	Are all works areas generally cleared of litter and refuse?		✓		
WMP Table 4.2	Are general refuse and litter stored in enclosed bins or compaction units?		✓		
WMP Table 4.2	Are refuse burned at construction site?			✓	
WMP Table 4.2	Are three colour coded bins provided for collection of recyclable materials?		✓		
WMP Table 4.3	Is processing generating chemical waste identified?			✓	Chemical waste not observed
WMP Table 4.3	Are chemical wastes handled in suitable packaging, labeling and storage?	✓			
WMP Table 4.3	Is asbestos waste in suitable handling, storage and disposal?	✓			
WMP Table 4.4	Are all stockpiled spoils covered with tarpaulin or other appropriate fabric?	✓			No stockpiled spoils observed
WMP Table 4.4	Are all vehicles transporting wastes properly fitting tail boards and sides and materials securely covered?	✓			Ditto
WMP Table 4.4	Are all wastes stored in a manner ensuring that they are held securely without loss or leakage?		✓		
WMP Table 4.4	Are all waste storage areas cleaned and maintained?		✓		Refuse needed to be removed
WMP Table 4.4	Are disposal permits obtained for each waste category?		✓		
WMP Table 4.4	Is there any record/trip tickets of quantities of chemical wastes generated, recycled and disposal maintained for inspection?	✓			
WMP Table 4.4	Is there any record/trip tickets of the quantities of wastes generated recycled and disposed for inspection?		✓		Need frequent updating

LANDSCAPE AND VISUAL

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 12; EM&A 6.4	Is the works area screened during the construction phase through the use of decorative hoarding along the site boundary with unified edge treatment and interface?		✓		

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 13; EM&A 6.4	Is there any creation of precautionary area (Cordon Area) around trees retained equal to the spread of the trees canopy diameter?		✓		Cordon Area fenced off but not included the whole tree canopy in all cases due to lack of space
EP Annex I 13; EM&A 6.4	Is the Cordon Area fenced?		✓		
EP Annex I 14; EM&A 6.4	Is there any storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the Cordon Area?			✓	

CULTURAL HERITAGE

Ref.	Checklist Conditions	N/A	Yes	No	Remarks
EP Annex I 1	Are all monuments within the site preserved?		✓		
EP Annex I 4	Are the Historic Buildings preserved?		✓		
EP Annex I 6	Is there any necessary precaution taken during construction and excavation work to prevent any damage to the Historic Buildings?		✓		
EP Annex I 10	Is there any percussive piling carried out?			✓	
EP Annex I 11	Is there any concurrent pipe pile driving near the tree ring and the Main Building of the Former Marine Police Headquarters?			✓	

Abbreviation

EP: Environmental Permit (Environmental Permit No. EP-184/2004)
EM&A: Environmental Monitoring & Audit Manual
NCO: Noise Control Ordinance
WMP: Waste Management Plan

Deficiency/Other Observations/Remedial Action to be Taken:

Plastic oily containers are left on ground. drip trays are suggested to avoid staining the ground.

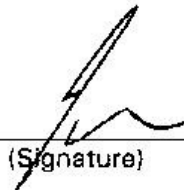
Follow Up Actions to Previous Site Inspection:

Signatures

ET's Representative

Contractor's Representative

Architect's Representative


(Signature)

Ivan Ting
(Name in Block Letter)


(Signature)

Joe Lam
(Name in Block Letter)

(Signature)

(Name in Block Letter)

Appendix D: Calibration records for the HVSs and calibration certificate for the dust meters

High-Volume TSP Sampler
5-Point Calibration Record

Location : A1
Calibrated by : K.F.Ho
Date : 02/07/05

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 0814

Calibration Orifice and Standard Calibration Relationship

Serial Number : CM-ESG-40
Service Date : 6 Jan 2005
Slope (m) : 2.0598
Intercept (b) : 0.0364
Correlation Coefficient(r) : 1.0000

Standard Condition

Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1020
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	12.8	3.331	1.551	54	51.94
2 13 holes	10.4	2.987	1.385	48	45.83
3 10 holes	8.0	2.636	1.216	40	37.68
4 7 holes	5.0	2.087	0.951	30	29.54
5 5 holes	3.2	1.673	0.752	20	20.37

Sampler Calibration Relationship

Slope(m): 39.065 Intercept(b): -10.979 Correlation Coefficient(r): 0.9989

Checked by: Magnum Fan

Date: 05/07/05

High-Volume TSP Sampler
5-Point Calibration Record

Location : A2a
Calibrated by : K.F.Ho
Date : 02/07/05

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 1016

Calibration Orifice and Standard Calibration Relationship

Serial Number : CM-ESG-40
Service Date : 6 Jan. 2005
Slope (m) : 2.0598
Intercept (b) : 0.0364
Correlation Coefficient(r) : 1.0000

Standard Condition

Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1020
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (Flow chart)	Y
1 18 holes	11.9	3.486	1.687	56	58.31
2 13 holes	9.8	3.147	1.532	48	50.30
3 10 holes	7.4	2.735	1.333	42	42.21
4 7 holes	4.7	2.180	1.064	30	30.23
5 5 holes	2.8	1.683	0.824	18	18.12

Sampler Calibration Relationship

Slope(m): 43.278 Intercept(b): -13.771 Correlation Coefficient(r): 0.9991

Checked by: Magnum Fan

Date: 05/07/05

High-Volume TSP Sampler
5-Point Calibration Record

Location : A3
Calibrated by : K.F.Ho
Date : 02/07/05

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 1254

Calibration Orifice and Standard Calibration Relationship

Serial Number : CM-ESG-40
Service Date : 6 Jan. 2005
Slope (m) : 2.0598
Intercept (b) : 0.0364
Correlation Coefficient(r) : 1.0000

Standard Condition

Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1020
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC (Flow chart)	Y
1 18 holes	12.2	3.4599	1.7377	73	73.55
2 13 holes	9.4	3.0370	1.5265	64	63.39
3 10 holes	7.7	2.7487	1.3825	56	55.47
4 7 holes	4.7	2.1475	1.0822	41	40.61
5 5 holes	2.9	1.6869	0.8521	30	29.71

Sampler Calibration Relationship

Slope(m): 50.502 Intercept(b): -8.7973 Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 05/07/05

High-Volume TSP Sampler
5-Point Calibration Record

Location : A4
Calibrated by : K.F.Ho
Date : 02/07/05

Sampler

Model : GMWS-2310 ACCU-VOL
Serial Number : S/N 0816

Calibration Orifice and Standard Calibration Relationship

Serial Number : CM-ESG-40
Service Date : 6 Jan. 2005
Slope (m) : 2.0598
Intercept (b) : 0.0364
Correlation Coefficient(r) : 1.0000

Standard Condition

Pstd (hpa) : 1013
Tstd (K) : 298.18

Calibration Condition

Pa (hpa) : 1020
Ta(K) : 303

Resistance Plate	dH [green liquid] (inch water)	Z	X=Qstd (cubic meter/min)	IC	Y
1 18 holes	11.8	3.4610	1.6133	49	49.7
2 13 holes	9.3	3.0726	1.4260	45	43.4
3 10 holes	7.1	2.6846	1.2390	40	38.2
4 7 holes	4.9	2.2303	1.0200	32	30.0
5 5 holes	2.8	1.6859	0.7576	22	22.7

Sampler Calibration Relationship

Slope(m): 32.452 Intercept(b): -2.0285 Correlation Coefficient(r): 0.9975

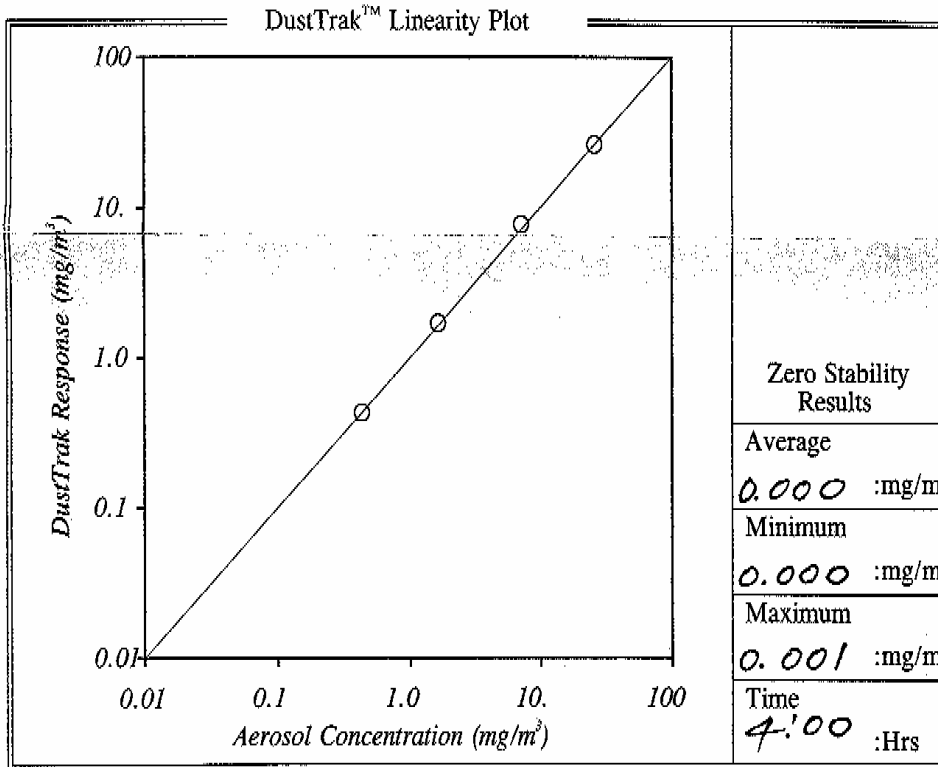
Checked by: Magnum Fan

Date: 05/07/05

TSI CERTIFICATE OF CALIBRATION AND TESTING

TSI Model 8520 DustTrak™ TSI Serial No. 23183

Description Aerosol Monitor



TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil aerosol and has been nominally adjusted to respirable mass of standard ISO 12103-1, A1 test dust (Arizona test dust.) Our calibration ratio is greater than 1.2:1.

Calibrated by *[Signature]*

Final Function Check

OCT 31, 2005
Calibration Date

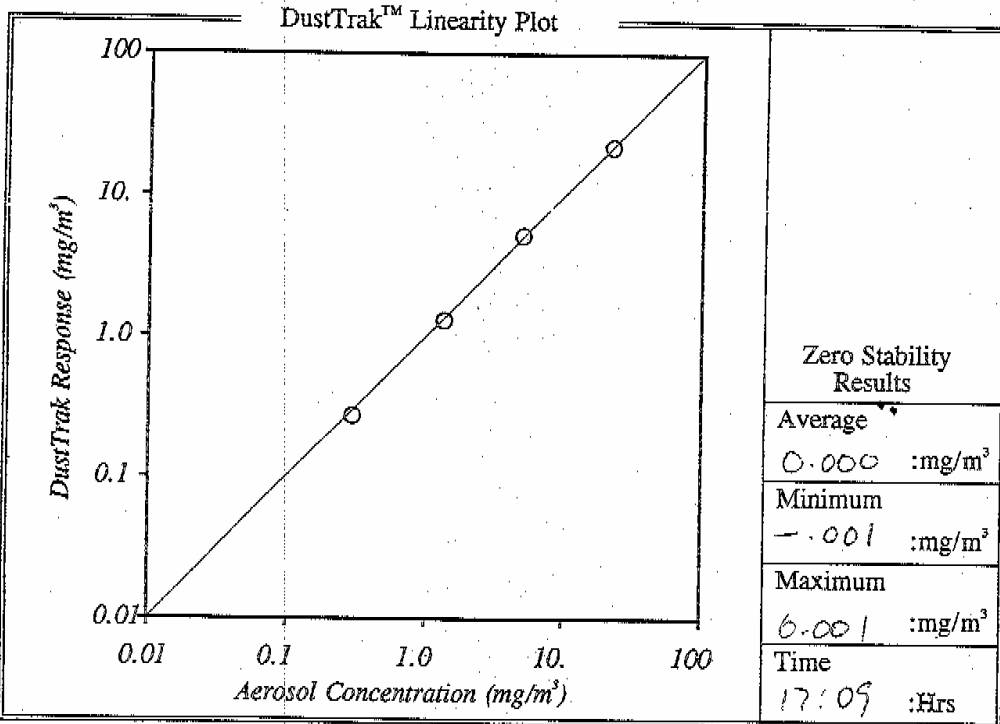
TSI Incorporated
Health & Safety
Instruments Division

Mailing Address: P.O. Box 64394 St. Paul, MN 55164 USA
Shipping Address: 500 Cardigan Road St. Paul, MN 55126 USA
Phone: (800) 926-8378 or (651) 490-2760 Fax: (651) 490-2704

TSI CERTIFICATE OF CALIBRATION AND TESTING

TSI Model 8520 DustTrak™ TSI Serial No. 22378

Description Aerosol Monitor



TSI Incorporated does hereby certify that all materials, components, and workmanship used in the manufacture of this equipment are in strict accordance with the applicable specifications agreed upon by TSI and the customer and with all published specifications. All performance and acceptance tests required under this contract were successfully conducted according to required specifications. There is no NIST standard for optical mass measurements. Calibration of this instrument performed by TSI has been done using emery oil aerosol and has been nominally adjusted to respirable mass of standard ISO 12103-1, A1 test dust (Arizona test dust.) Our calibration ratio is greater than 1.2:1.

[Signature]
Calibrated by

Final
Function Check

JUL 24, 2005
Calibration Date

TSI Incorporated
Health & Safety
Instruments Division

Mailing Address: P.O. Box 64394 St. Paul, MN 55164 USA
Shipping Address: 500 Cardigan Road St. Paul, MN 55126 USA
Phone: (800) 926-8378 or (651) 490-2760 Fax: (651) 490-2704

Appendix E: Detailed impact monitoring data of 1-hour and 24-hour TSP

The Summary of 1-hr TSP Concentration ($\mu\text{g}/\text{m}^3$) at A1

Date	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)
				$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
05-Jul-06	09:10	10:10	11:10	127	128	130
11-Jul-06	09:15	10:15	11:15	132	136	139
17-Jul-06	09:10	10:10	11:10	137	140	141
21-Jul-06	09:10	10:10	11:10	129	136	140
27-Jul-06	09:10	10:10	11:10	143	149	141

The Summary of 1-hr TSP Concentration ($\mu\text{g}/\text{m}^3$) at A2a

Date	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)
				$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
05-Jul-06	09:00	10:00	11:00	130	132	137
11-Jul-06	09:00	10:00	11:00	136	139	142
17-Jul-06	09:00	10:00	11:00	141	145	150
21-Jul-06	09:00	10:00	11:00	145	146	149
27-Jul-06	09:00	10:00	11:00	151	157	159

The Summary of 1-hr TSP Concentration ($\mu\text{g}/\text{m}^3$) at A3

Date	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)
				$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
05-Jul-06	12:25	13:25	14:25	132	135	139
11-Jul-06	12:30	13:30	14:30	126	136	145
17-Jul-06	12:30	13:30	14:30	147	151	157
21-Jul-06	12:30	13:30	14:30	139	141	147
27-Jul-06	12:30	13:30	14:30	138	139	141

The Summary of 1-hr TSP Concentration ($\mu\text{g}/\text{m}^3$) at A4

Date	Sampling Time (1)	Sampling Time (2)	Sampling Time (3)	Reading (1)	Reading (2)	Reading (3)
				$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
05-Jul-06	12:30	13:30	14:30	130	132	138
11-Jul-06	12:40	13:40	14:40	139	147	150
17-Jul-06	12:40	13:40	14:40	140	135	134
21-Jul-06	12:40	13:40	14:40	150	154	158
27-Jul-06	12:40	13:40	14:40	145	147	150

The Summary of 24-hr TSP Concentration ($\mu\text{g}/\text{m}^3$) at A1

Date	Sampling Time	Weather	Elapsed Time	Initial Standard Flow Rate	Final Standard Flow Rate	Ave. Standard Flow Rate	Total Standard Volume	Initial Filter Weight	Final Filter Weight	TSP Conc.
			(min)	(m^3/min)	(m^3/min)	(m^3/min)	(m^3)	(g)	(g)	$\mu\text{g}/\text{m}^3$
05-Jul-06	10:00	Fine	1440	1.31	1.31	1.31	1886.4	2.9535	3.0647	58.9
11-Jul-06	10:00	Fine	1440	1.31	1.31	1.31	1886.4	2.8709	3.0415	90.4
17-Jul-06	10:00	Sunny	1440	1.31	1.31	1.31	1886.4	2.8105	2.9310	63.9
21-Jul-06	10:00	Sunny	1440	1.31	1.31	1.31	1886.4	2.8802	3.0142	71.0
27-Jul-06	10:00	Fine	1440	1.31	1.31	1.31	1886.4	2.8945	2.9977	54.7

The Summary of 24-hr TSP Concentration ($\mu\text{g}/\text{m}^3$) at A2a

Date	Sampling Time	Weather	Elapsed Time	Initial Standard Flow Rate	Final Standard Flow Rate	Ave. Standard Flow Rate	Total Standard Volume	Initial Filter Weight	Final Filter Weight	TSP Conc.
			(min)	(m^3/min)	(m^3/min)	(m^3/min)	(m^3)	(g)	(g)	$\mu\text{g}/\text{m}^3$
05-Jul-06	10:00	Fine	1440	1.32	1.32	1.32	1900.8	2.9691	3.0991	68.4
11-Jul-06	10:00	Fine	1440	1.32	1.32	1.32	1900.8	2.9707	3.0880	61.7
17-Jul-06	10:00	Sunny	1440	1.32	1.32	1.32	1900.8	2.8854	3.0319	77.1
21-Jul-06	10:00	Sunny	1440	1.32	1.32	1.32	1900.8	2.8844	3.0015	61.6
27-Jul-06	10:00	Fine	1440	1.32	1.32	1.32	1900.8	2.8179	2.9325	60.3

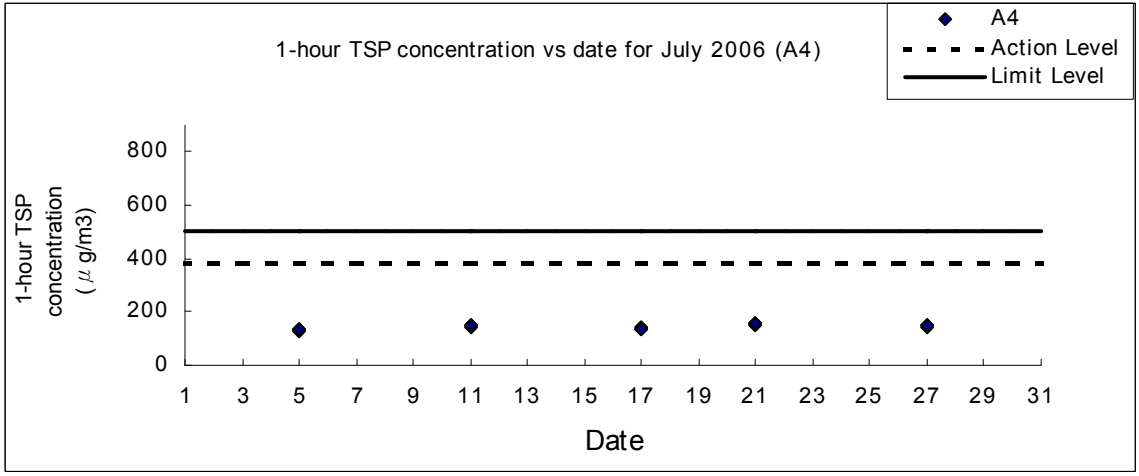
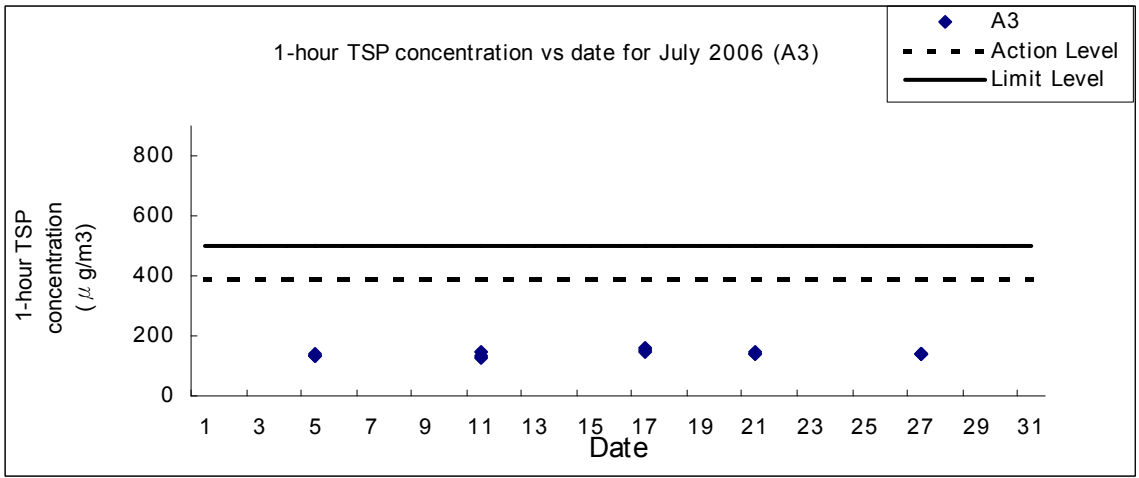
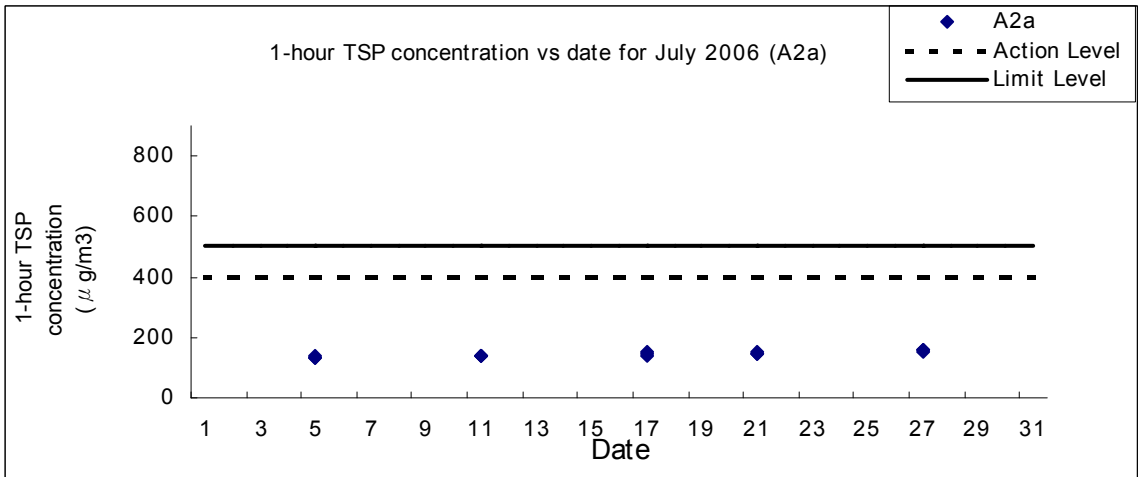
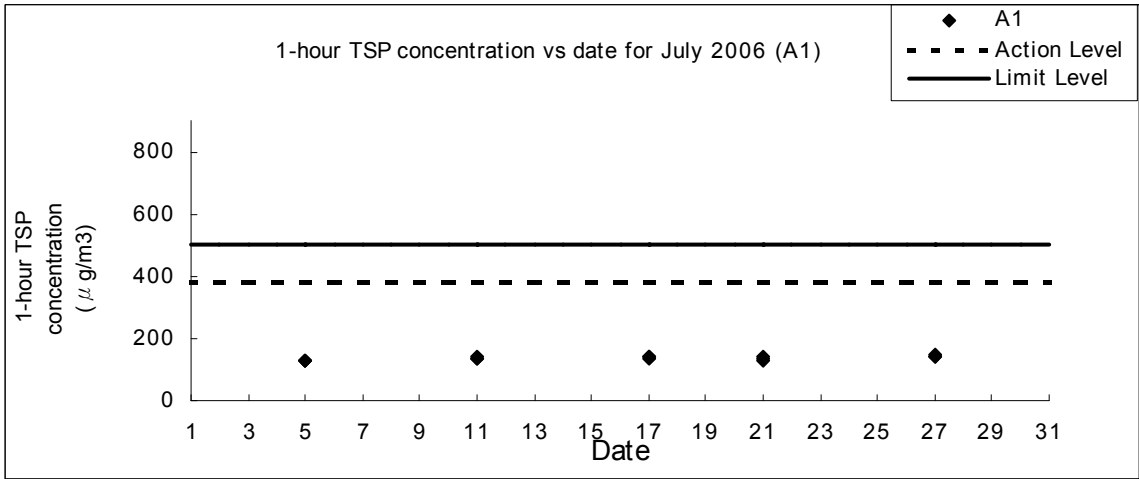
The Summary of 24-hr TSP Concentration ($\mu\text{g}/\text{m}^3$) at A3

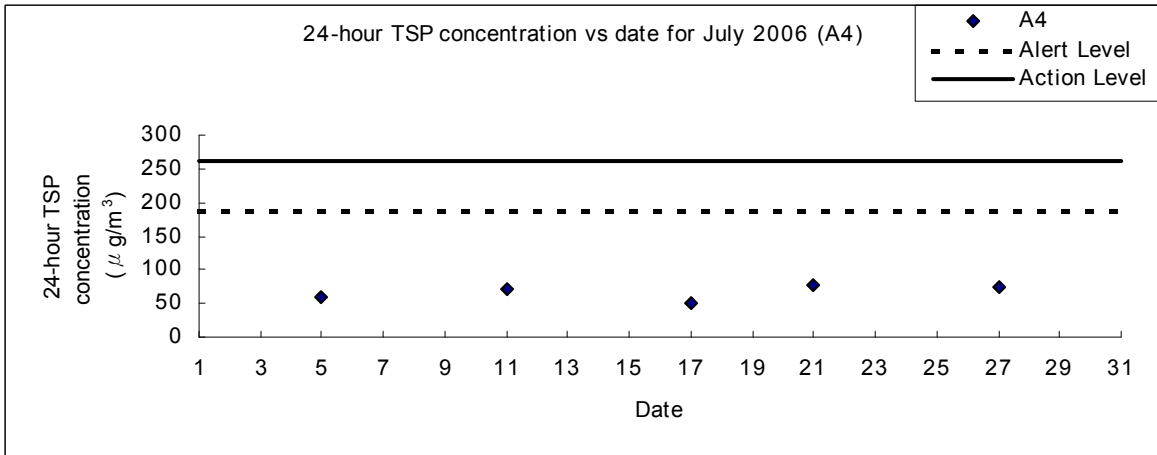
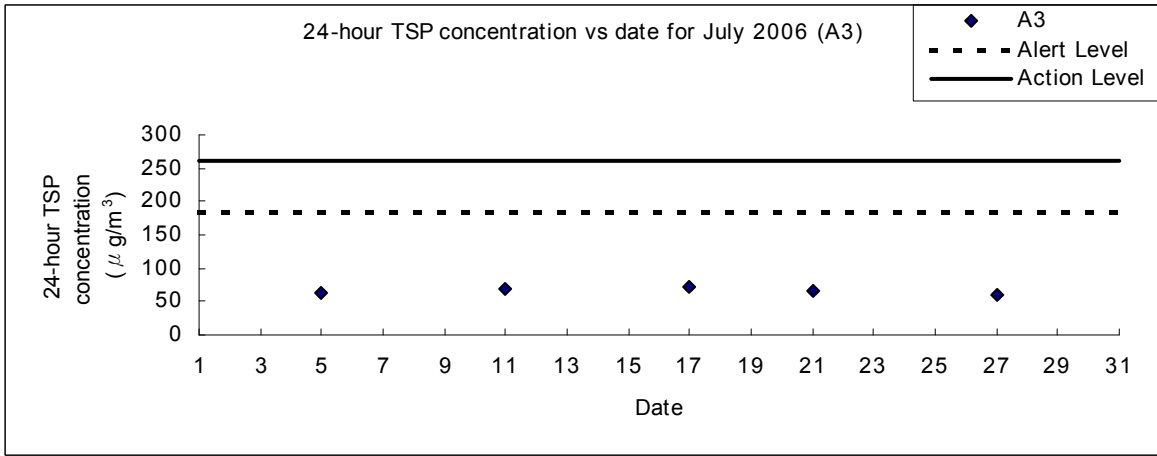
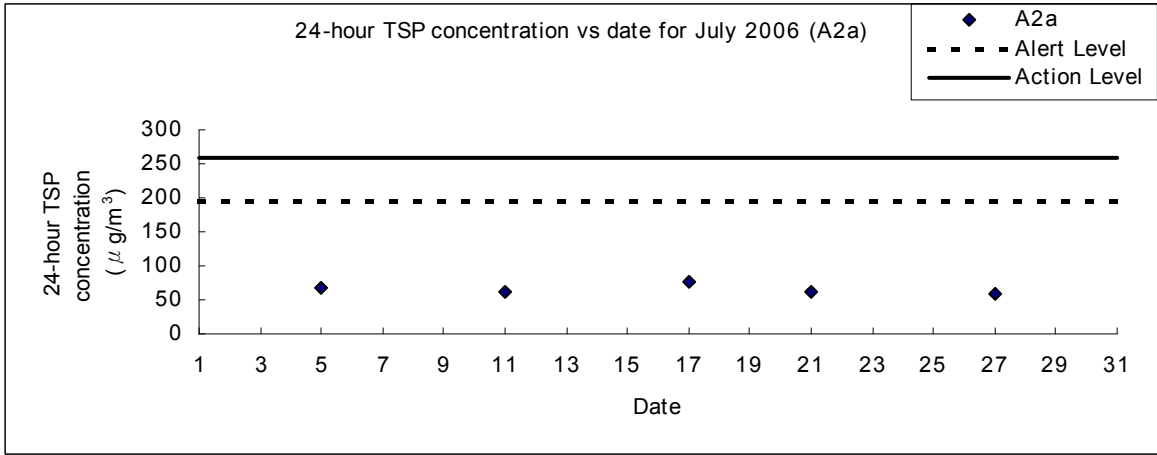
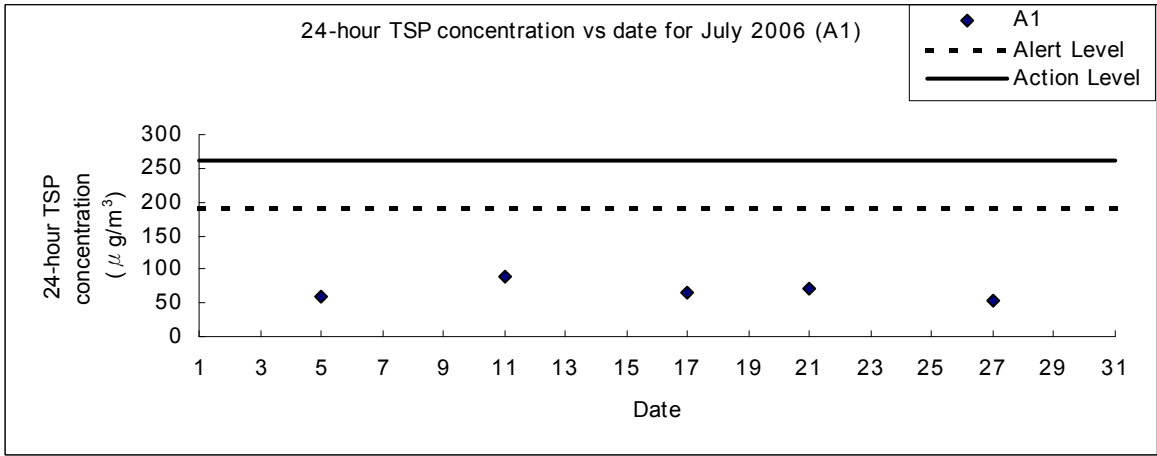
Date	Sampling Time	Weather	Elapsed Time	Initial Standard Flow Rate	Final Standard Flow Rate	Ave. Standard Flow Rate	Total Standard Volume	Initial Filter Weight	Final Filter Weight	TSP Conc.
			(min)	(m^3/min)	(m^3/min)	(m^3/min)	(m^3)	(g)	(g)	$\mu\text{g}/\text{m}^3$
05-Jul-06	10:00	Fine	1440	1.25	1.25	1.25	1800	2.9729	3.0887	64.3
11-Jul-06	10:00	Fine	1440	1.25	1.25	1.25	1800	2.9737	3.0965	68.2
17-Jul-06	10:00	Sunny	1440	1.25	1.25	1.25	1800	2.8700	2.9989	71.6
21-Jul-06	10:00	Sunny	1440	1.25	1.25	1.25	1800	2.9138	3.0343	66.9
27-Jul-06	10:00	Fine	1440	1.25	1.25	1.25	1800	2.8141	2.9241	61.1

The Summary of 24-hr TSP Concentration ($\mu\text{g}/\text{m}^3$) at A4

Date	Sampling Time	Weather	Elapsed Time	Initial Standard Flow Rate	Final Standard Flow Rate	Ave. Standard Flow Rate	Total Standard Volume	Initial Filter Weight	Final Filter Weight	TSP Conc.
			(min)	(m^3/min)	(m^3/min)	(m^3/min)	(m^3)	(g)	(g)	$\mu\text{g}/\text{m}^3$
05-Jul-06	10:00	Fine	1440	1.31	1.31	1.31	1886.4	2.9755	3.0894	60.4
11-Jul-06	10:00	Fine	1440	1.31	1.31	1.31	1886.4	2.9851	3.1204	71.7
17-Jul-06	10:00	Sunny	1440	1.31	1.31	1.31	1886.4	2.8917	2.9868	50.4
21-Jul-06	10:00	Sunny	1440	1.31	1.31	1.31	1886.4	2.8829	3.0273	76.5
27-Jul-06	10:00	Fine	1440	1.31	1.31	1.31	1886.4	2.8216	2.9597	73.2

Appendix F: Graphical presentations of the air impact monitoring results





Appendix G: Summary of exceedance

Parameter	Location	Monitoring Period	No. of Exceedance(s)	
			Action Level	Limit Level
Air (1-hour TSP)	A1	01/7/2006 – 31/7/2006	0	0
	A2a	01/7/2006 – 31/7/2006	0	0
	A3	01/7/2006 – 31/7/2006	0	0
	A4	01/7/2006 – 31/7/2006	0	0
Air (24-hour TSP)	A1	01/7/2006 – 31/7/2006	0	0
	A2a	01/7/2006 – 31/7/2006	0	0
	A3	01/7/2006 – 31/7/2006	0	0
	A4	01/7/2006 – 31/7/2006	0	0
Noise	CN1a	01/7/2006 – 31/7/2006	0	0
	CN2a	01/7/2006 – 31/7/2006	0	0

Appendix H: Calibration certificates of the sound level meter and calibrator



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C054441

Certificate of Calibration

This is to certify that the equipment

Description : Sound Level Meter

Manufacturer : Rion

Model No. : NL-31

Serial No. : 00320533

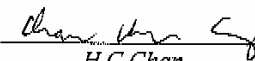
*has been calibrated for the specific items and ranges.
The results are shown in the Calibration Report No. C054441.*

The equipment is supplied by

Co. Name : Envirotech Services Co.

*Address : Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
Hong Kong*

Date of Issue : 17 October 2005

Certified by : 
H C Chan

The test equipment used for calibration are traceable to the National Standards as specified in this report.
This report shall not be reproduced except in full and with prior written approval from this laboratory.

Calibration and Testing Laboratory of Sun Creation Engineering Limited

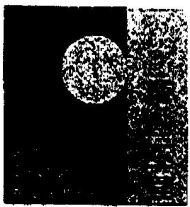
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

Tel: 2927 2606

Fax: 2744 8986

E-mail: callab@suncreation.com

Website: www.suncreation.com



輝創工程有限公司

Sun Creation Engineering Limited Calibration and Testing Laboratory

Certificate No. : C062508

Certificate of Calibration

This is to certify that the equipment

Description : Sound Level Calibrator

Manufacturer : Rion

Model No. : NC-73

Serial No. : 10786708

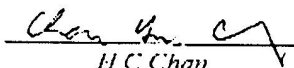
*has been calibrated for the specific items and ranges.
The results are shown in the Calibration Report No. C062508.*

The equipment is supplied by

Co. Name : Envirotech Services Co.

*Address : Shop 6, G/F., Custo Mansion, 209 Shaukeiwan Road,
Hong Kong*

Date of Issue : 8 June 2006

Certified by : 
H C Chan

The test equipment used for testing are traceable to the National Standards as specified in this report.
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Calibration and Testing Laboratory of Sun Creation Engineering Limited

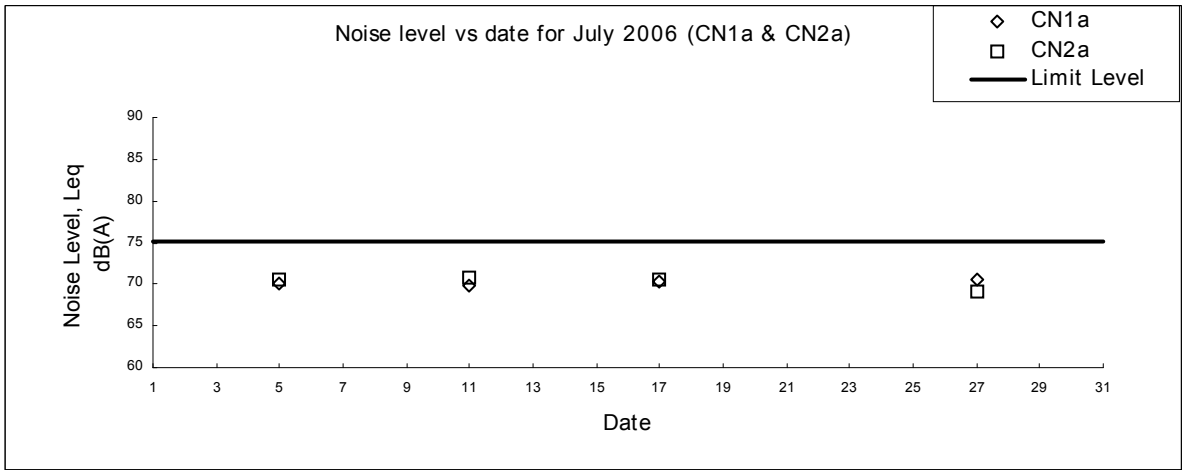
c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong
Tel: 2927 2606 Fax: 2744 8986 E-mail: callab@suncreation.com Website: www.suncreation.com

Appendix I: Detailed impact noise monitoring data for CN1a & CN2a

Date	Time	Weather	CN1a (Po Yip)		
			Noise Level, dB(A)		
			L _{eq}	L ₉₀	L ₁₀
05-Jul-06	11:20	Sunny	70	68.9	72.2
11-Jul-06	11:25	Sunny	69.9	68.0	71.8
17-Jul-06	11:20	Sunny	70.2	69.2	72.3
27-Jul-06	11:20	Sunny	70.5	68.0	72.1

Date	Time	Weather	CN2a (YMCA)		
			Noise Level, dB(A)		
			L _{eq}	L ₉₀	L ₁₀
05-Jul-06	10:20	Sunny	70.5	68	73.2
11-Jul-06	10:25	Sunny	70.9	68.9	73.6
17-Jul-06	10:20	Sunny	70.5	68.9	73.0
27-Jul-06	10:20	Sunny	69.2	67.2	71.1

Appendix J: Graphical presentations of the noise impact monitoring results



Appendix K: Monitoring results of monument structure

Building Settlement Marker (BSM) Record For Main Building

BSM No.	31/5/04	3/7/2006		5/7/2006		7/7/2006		10/7/2006		12/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
BSM 1	+16.407	+16.407	0	+16.407	0	+16.407	0	+16.407	0	+16.407	0
BSM 2	+16.637	+16.638	1	+16.638	1	+16.638	1	+16.638	1	+16.638	1
BSM 3	+16.264	+16.265	1	+16.265	1	+16.265	1	+16.265	1	+16.265	1
BSM 4	+16.375	+16.375	0	+16.375	0	+16.375	0	+16.375	0	+16.375	0
BSM 5	+17.364	+17.364	0	+17.364	0	+17.364	0	+17.364	0	+17.364	0
BSM 6	+17.357	+17.357	0	+17.357	0	+17.357	0	+17.357	0	+17.357	0
BSM 7	+17.356	+17.357	1	+17.357	1	+17.357	1	+17.357	1	+17.357	1
BSM 8	+17.338	+17.338	0	+17.338	0	+17.338	0	+17.338	0	+17.338	0
BSM 9	+17.337	+17.337	0	+17.337	0	+17.337	0	+17.337	0	+17.337	0
BSM 10	+17.412	+17.412	0	+17.412	0	+17.412	0	+17.412	0	+17.412	0
BSM 11	+17.367	+17.367	0	+17.367	0	+17.367	0	+17.367	0	+17.367	0
BSM 12	+17.386	+17.386	0	+17.386	0	+17.386	0	+17.386	0	+17.386	0
BSM 13	+17.339	+17.339	0	+17.339	0	+17.339	0	+17.339	0	+17.339	0
BSM 14	+17.392	+17.392	0	+17.392	0	+17.392	0	+17.392	0	+17.392	0
BSM 15	+16.357	+16.356	-1	+16.356	-1	+16.356	-1	+16.356	-1	+16.356	-1
BSM 16	+16.282	+16.282	0	+16.282	0	+16.282	0	+16.282	0	+16.282	0
BSM 17	+16.137	+16.137	0	+16.137	0	+16.137	0	+16.137	0	+16.137	0
BSM 18	+16.207	+16.206	-1	+16.206	-1	+16.206	-1	+16.206	-1	+16.206	-1
BSM 19	+16.469	+16.469	0	+16.469	0	+16.469	0	+16.469	0	+16.469	0
BSM 20	+16.458	+16.458	0	+16.458	0	+16.458	0	+16.458	0	+16.458	0
BSM 21	+15.312	+15.312	0	+15.312	0	+15.312	0	+15.312	0	+15.312	0
BSM 22	+16.503	+16.502	-1	+16.502	-1	+16.502	-1	+16.502	-1	+16.502	-1
BSM 23	+16.167	+16.167	0	+16.167	0	+16.167	0	+16.167	0	+16.167	0
BSM 24	+16.176	+16.176	0	+16.176	0	+16.176	0	+16.176	0	+16.176	0
BSM 25	+16.512	+16.511	-1	+16.511	-1	+16.511	-1	+16.511	-1	+16.511	-1
BSM 26	+16.198	+16.197	-1	+16.197	-1	+16.197	-1	+16.197	-1	+16.197	-1
BSM 27	+16.260	+16.260	0	+16.260	0	+16.260	0	+16.260	0	+16.260	0
BSM 28	+16.244	+16.244	0	+16.244	0	+16.244	0	+16.244	0	+16.244	0
BSM 29	+16.228	+16.228	0	+16.228	0	+16.228	0	+16.228	0	+16.228	0
BSM 30	+16.341	+16.341	0	+16.341	0	+16.341	0	+16.341	0	+16.341	0
BSM 31	+16.258	+16.257	-1	+16.257	-1	+16.257	-1	+16.257	-1	+16.257	-1
BSM 32	+16.289	+16.288	-1	+16.288	-1	+16.288	-1	+16.288	-1	+16.288	-1
BSM 33	+16.265	+16.264	-1	+16.264	-1	+16.264	-1	+16.264	-1	+16.264	-1
BSM 34	+16.473	+16.473	0	+16.473	0	+16.473	0	+16.473	0	+16.473	0
BSM 35	+16.179	+16.179	0	+16.179	0	+16.179	0	+16.179	0	+16.179	0
BSM 36	+16.190	+16.190	0	+16.190	0	+16.190	0	+16.190	0	+16.190	0
BSM 37	+16.528	+16.527	-1	+16.527	-1	+16.527	-1	+16.527	-1	+16.527	-1
BSM 38	+16.215	+16.214	-1	+16.214	-1	+16.214	-1	+16.214	-1	+16.214	-1
BSM 39	+17.478	+17.478	0	+17.478	0	+17.478	0	+17.478	0	+17.478	0
BSM 40	+17.437	+17.436	-1	+17.436	-1	+17.436	-1	+17.436	-1	+17.436	-1
BSM 41	+17.321	+17.320	-1	+17.320	-1	+17.320	-1	+17.320	-1	+17.320	-1
BSM 42	+17.397	+17.396	-1	+17.396	-1	+17.396	-1	+17.396	-1	+17.396	-1
BSM 43	+17.165	+17.165	0	+17.165	0	+17.165	0	+17.165	0	+17.165	0
BSM 44	+17.389	+17.388	-1	+17.388	-1	+17.388	-1	+17.388	-1	+17.388	-1
BSM 45	+17.319	+17.318	-1	+17.318	-1	+17.318	-1	+17.318	-1	+17.318	-1
BSM 46	+17.398	+17.397	-1	+17.397	-1	+17.397	-1	+17.397	-1	+17.397	-1
BSM 47	+17.425	+17.424	-1	+17.424	-1	+17.424	-1	+17.424	-1	+17.424	-1
BSM 48	+17.303	+17.302	-1	+17.302	-1	+17.302	-1	+17.302	-1	+17.302	-1
BSM 49	+17.334	+17.333	-1	+17.333	-1	+17.333	-1	+17.333	-1	+17.333	-1
BSM 50	+17.368	+17.367	-1	+17.367	-1	+17.367	-1	+17.367	-1	+17.367	-1
BSM 51	+16.227	+16.226	-1	+16.226	-1	+16.226	-1	+16.226	-1	+16.226	-1
BSM 52	+16.227	+16.226	-1	+16.226	-1	+16.226	-1	+16.226	-1	+16.226	-1
BSM 53	+16.035	+16.034	-1	+16.034	-1	+16.034	-1	+16.034	-1	+16.034	-1
BSM 54	+16.021	+16.020	-1	+16.020	-1	+16.020	-1	+16.020	-1	+16.020	-1
BSM 55	+17.208	+17.208	0	+17.208	0	+17.208	0	+17.208	0	+17.208	0
BSM 56	+17.226	+17.225	-1	+17.225	-1	+17.225	-1	+17.225	-1	+17.225	-1
BSM 57	+17.536	+17.536	0	+17.536	0	+17.536	0	+17.536	0	+17.536	0
BSM 58	+17.546	+17.546	0	+17.546	0	+17.546	0	+17.546	0	+17.546	0
BSM 59	+17.479	+17.479	0	+17.479	0	+17.479	0	+17.479	0	+17.479	0
BSM 60	+17.537	+17.537	0	+17.537	0	+17.537	0	+17.537	0	+17.537	0
BSM 61	+17.504	+17.504	0	+17.504	0	+17.504	0	+17.504	0	+17.504	0
BSM 62	+17.461	+17.461	0	+17.461	0	+17.461	0	+17.461	0	+17.461	0
BSM 63	+17.516	+17.516	0	+17.516	0	+17.516	0	+17.516	0	+17.516	0
BSM 64	+17.521	+17.521	0	+17.521	0	+17.521	0	+17.521	0	+17.521	0

BSM No.	31/5/04	14/7/2006		17/7/2006		19/7/2006		21/7/2006		24/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
BSM 1	+16.407	+16.407	0	+16.407	0	+16.407	0	+16.407	0	+16.407	0
BSM 2	+16.637	+16.638	1	+16.638	1	+16.638	1	+16.638	1	+16.638	1
BSM 3	+16.264	+16.265	1	+16.265	1	+16.265	1	+16.265	1	+16.265	1
BSM 4	+16.375	+16.375	0	+16.375	0	+16.375	0	+16.375	0	+16.375	0
BSM 5	+17.364	+17.364	0	+17.364	0	+17.364	0	+17.364	0	+17.364	0
BSM 6	+17.357	+17.357	0	+17.357	0	+17.357	0	+17.357	0	+17.357	0
BSM 7	+17.356	+17.357	1	+17.357	1	+17.357	1	+17.357	1	+17.357	1
BSM 8	+17.338	+17.338	0	+17.338	0	+17.338	0	+17.338	0	+17.338	0
BSM 9	+17.337	+17.337	0	+17.337	0	+17.337	0	+17.337	0	+17.337	0
BSM 10	+17.412	+17.412	0	+17.412	0	+17.412	0	+17.412	0	+17.412	0
BSM 11	+17.367	+17.367	0	+17.367	0	+17.367	0	+17.367	0	+17.367	0
BSM 12	+17.386	+17.386	0	+17.386	0	+17.386	0	+17.386	0	+17.386	0
BSM 13	+17.339	+17.339	0	+17.339	0	+17.339	0	+17.339	0	+17.339	0
BSM 14	+17.392	+17.392	0	+17.392	0	+17.392	0	+17.392	0	+17.392	0
BSM 15	+16.357	+16.356	-1	+16.356	-1	+16.356	-1	+16.356	-1	+16.356	-1
BSM 16	+16.282	+16.282	0	+16.282	0	+16.282	0	+16.282	0	+16.282	0
BSM 17	+16.137	+16.137	0	+16.137	0	+16.137	0	+16.137	0	+16.137	0
BSM 18	+16.207	+16.206	-1	+16.206	-1	+16.206	-1	+16.206	-1	+16.206	-1
BSM 19	+16.469	+16.469	0	+16.469	0	+16.469	0	+16.469	0	+16.469	0
BSM 20	+16.458	+16.458	0	+16.458	0	+16.458	0	+16.458	0	+16.458	0
BSM 21	+15.312	+15.312	0	+15.312	0	+15.312	0	+15.312	0	+15.312	0
BSM 22	+16.503	+16.502	-1	+16.502	-1	+16.502	-1	+16.502	-1	+16.502	-1
BSM 23	+16.167	+16.167	0	+16.167	0	+16.167	0	+16.167	0	+16.167	0
BSM 24	+16.176	+16.176	0	+16.176	0	+16.176	0	+16.176	0	+16.176	0
BSM 25	+16.512	+16.511	-1	+16.511	-1	+16.511	-1	+16.511	-1	+16.511	-1
BSM 26	+16.198	+16.197	-1	+16.197	-1	+16.197	-1	+16.197	-1	+16.197	-1
BSM 27	+16.260	+16.260	0	+16.260	0	+16.260	0	+16.260	0	+16.260	0
BSM 28	+16.244	+16.244	0	+16.244	0	+16.244	0	+16.244	0	+16.244	0
BSM 29	+16.228	+16.228	0	+16.228	0	+16.228	0	+16.228	0	+16.228	0
BSM 30	+16.341	+16.341	0	+16.341	0	+16.341	0	+16.341	0	+16.341	0
BSM 31	+16.258	+16.257	-1	+16.257	-1	+16.257	-1	+16.257	-1	+16.257	-1
BSM 32	+16.289	+16.288	-1	+16.288	-1	+16.288	-1	+16.288	-1	+16.288	-1
BSM 33	+16.265	+16.264	-1	+16.264	-1	+16.264	-1	+16.264	-1	+16.264	-1
BSM 34	+16.473	+16.473	0	+16.473	0	+16.473	0	+16.473	0	+16.473	0
BSM 35	+16.179	+16.179	0	+16.179	0	+16.179	0	+16.179	0	+16.179	0
BSM 36	+16.190	+16.190	0	+16.190	0	+16.190	0	+16.190	0	+16.190	0
BSM 37	+16.528	+16.527	-1	+16.527	-1	+16.527	-1	+16.527	-1	+16.527	-1
BSM 38	+16.215	+16.214	-1	+16.214	-1	+16.214	-1	+16.214	-1	+16.214	-1
BSM 39	+17.478	+17.478	0	+17.478	0	+17.478	0	+17.478	0	+17.478	0
BSM 40	+17.437	+17.436	-1	+17.436	-1	+17.436	-1	+17.436	-1	+17.436	-1
BSM 41	+17.321	+17.320	-1	+17.320	-1	+17.320	-1	+17.320	-1	+17.320	-1
BSM 42	+17.397	+17.396	-1	+17.396	-1	+17.396	-1	+17.396	-1	+17.396	-1
BSM 43	+17.165	+17.165	0	+17.165	0	+17.165	0	+17.165	0	+17.165	0
BSM 44	+17.389	+17.388	-1	+17.388	-1	+17.388	-1	+17.388	-1	+17.388	-1
BSM 45	+17.319	+17.318	-1	+17.318	-1	+17.318	-1	+17.318	-1	+17.318	-1
BSM 46	+17.398	+17.397	-1	+17.397	-1	+17.397	-1	+17.397	-1	+17.397	-1
BSM 47	+17.425	+17.424	-1	+17.424	-1	+17.424	-1	+17.424	-1	+17.424	-1
BSM 48	+17.303	+17.302	-1	+17.302	-1	+17.302	-1	+17.302	-1	+17.302	-1
BSM 49	+17.334	+17.333	-1	+17.333	-1	+17.333	-1	+17.333	-1	+17.333	-1
BSM 50	+17.368	+17.367	-1	+17.367	-1	+17.367	-1	+17.367	-1	+17.367	-1
BSM 51	+16.227	+16.226	-1	+16.226	-1	+16.226	-1	+16.226	-1	+16.226	-1
BSM 52	+16.227	+16.226	-1	+16.226	-1	+16.226	-1	+16.226	-1	+16.226	-1
BSM 53	+16.035	+16.034	-1	+16.034	-1	+16.034	-1	+16.034	-1	+16.034	-1
BSM 54	+16.021	+16.020	-1	+16.020	-1	+16.020	-1	+16.020	-1	+16.020	-1
BSM 55	+17.208	+17.208	0	+17.208	0	+17.208	0	+17.208	0	+17.208	0
BSM 56	+17.226	+17.225	-1	+17.225	-1	+17.225	-1	+17.225	-1	+17.225	-1
BSM 57	+17.536	+17.536	0	+17.536	0	+17.536	0	+17.536	0	+17.536	0
BSM 58	+17.546	+17.546	0	+17.546	0	+17.546	0	+17.546	0	+17.546	0
BSM 59	+17.479	+17.479	0	+17.479	0	+17.479	0	+17.479	0	+17.479	0
BSM 60	+17.537	+17.537	0	+17.537	0	+17.537	0	+17.537	0	+17.537	0
BSM 61	+17.504	+17.504	0	+17.504	0	+17.504	0	+17.504	0	+17.504	0
BSM 62	+17.461	+17.461	0	+17.461	0	+17.461	0	+17.461	0	+17.461	0
BSM 63	+17.516	+17.516	0	+17.516	0	+17.516	0	+17.516	0	+17.516	0
BSM 64	+17.521	+17.521	0	+17.521	0	+17.521	0	+17.521	0	+17.521	0

BSM No.	31/5/04	26/7/2006		28/7/2006		31/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
BSM 1	+16.407	+16.407	0	+16.407	0	+16.407	0
BSM 2	+16.637	+16.638	1	+16.638	1	+16.638	1
BSM 3	+16.264	+16.265	1	+16.265	1	+16.265	1
BSM 4	+16.375	+16.375	0	+16.375	0	+16.375	0
BSM 5	+17.364	+17.364	0	+17.364	0	+17.364	0
BSM 6	+17.357	+17.357	0	+17.357	0	+17.357	0
BSM 7	+17.356	+17.357	1	+17.357	1	+17.357	1
BSM 8	+17.338	+17.338	0	+17.338	0	+17.338	0
BSM 9	+17.337	+17.337	0	+17.337	0	+17.337	0
BSM 10	+17.412	+17.412	0	+17.412	0	+17.412	0
BSM 11	+17.367	+17.367	0	+17.367	0	+17.367	0
BSM 12	+17.386	+17.386	0	+17.386	0	+17.386	0
BSM 13	+17.339	+17.339	0	+17.339	0	+17.339	0
BSM 14	+17.392	+17.392	0	+17.392	0	+17.392	0
BSM 15	+16.357	+16.356	-1	+16.356	-1	+16.356	-1
BSM 16	+16.282	+16.282	0	+16.282	0	+16.282	0
BSM 17	+16.137	+16.137	0	+16.137	0	+16.137	0
BSM 18	+16.207	+16.206	-1	+16.206	-1	+16.206	-1
BSM 19	+16.469	+16.469	0	+16.469	0	+16.469	0
BSM 20	+16.458	+16.458	0	+16.458	0	+16.458	0
BSM 21	+15.312	+15.312	0	+15.312	0	+15.312	0
BSM 22	+16.503	+16.502	-1	+16.502	-1	+16.502	-1
BSM 23	+16.167	+16.167	0	+16.167	0	+16.167	0
BSM 24	+16.176	+16.176	0	+16.176	0	+16.176	0
BSM 25	+16.512	+16.511	-1	+16.511	-1	+16.511	-1
BSM 26	+16.198	+16.197	-1	+16.197	-1	+16.197	-1
BSM 27	+16.260	+16.260	0	+16.260	0	+16.260	0
BSM 28	+16.244	+16.244	0	+16.244	0	+16.244	0
BSM 29	+16.228	+16.228	0	+16.228	0	+16.228	0
BSM 30	+16.341	+16.341	0	+16.341	0	+16.341	0
BSM 31	+16.258	+16.257	-1	+16.257	-1	+16.257	-1
BSM 32	+16.289	+16.288	-1	+16.288	-1	+16.288	-1
BSM 33	+16.265	+16.264	-1	+16.264	-1	+16.264	-1
BSM 34	+16.473	+16.473	0	+16.473	0	+16.473	0
BSM 35	+16.179	+16.179	0	+16.179	0	+16.179	0
BSM 36	+16.190	+16.190	0	+16.190	0	+16.190	0
BSM 37	+16.528	+16.527	-1	+16.527	-1	+16.527	-1
BSM 38	+16.215	+16.214	-1	+16.214	-1	+16.214	-1
BSM 39	+17.478	+17.478	0	+17.478	0	+17.478	0
BSM 40	+17.437	+17.436	-1	+17.436	-1	+17.436	-1
BSM 41	+17.321	+17.320	-1	+17.320	-1	+17.320	-1
BSM 42	+17.397	+17.396	-1	+17.396	-1	+17.396	-1
BSM 43	+17.165	+17.165	0	+17.165	0	+17.165	0
BSM 44	+17.389	+17.388	-1	+17.388	-1	+17.388	-1
BSM 45	+17.319	+17.318	-1	+17.318	-1	+17.318	-1
BSM 46	+17.398	+17.397	-1	+17.397	-1	+17.397	-1
BSM 47	+17.425	+17.424	-1	+17.424	-1	+17.424	-1
BSM 48	+17.303	+17.302	-1	+17.302	-1	+17.302	-1
BSM 49	+17.334	+17.333	-1	+17.333	-1	+17.333	-1
BSM 50	+17.368	+17.367	-1	+17.367	-1	+17.367	-1
BSM 51	+16.227	+16.226	-1	+16.226	-1	+16.226	-1
BSM 52	+16.227	+16.226	-1	+16.226	-1	+16.226	-1
BSM 53	+16.035	+16.034	-1	+16.034	-1	+16.034	-1
BSM 54	+16.021	+16.020	-1	+16.020	-1	+16.020	-1
BSM 55	+17.208	+17.208	0	+17.208	0	+17.208	0
BSM 56	+17.226	+17.225	-1	+17.225	-1	+17.225	-1
BSM 57	+17.536	+17.536	0	+17.536	0	+17.536	0
BSM 58	+17.546	+17.546	0	+17.546	0	+17.546	0
BSM 59	+17.479	+17.479	0	+17.479	0	+17.479	0
BSM 60	+17.537	+17.537	0	+17.537	0	+17.537	0
BSM 61	+17.504	+17.504	0	+17.504	0	+17.504	0
BSM 62	+17.461	+17.461	0	+17.461	0	+17.461	0
BSM 63	+17.516	+17.516	0	+17.516	0	+17.516	0
BSM 64	+17.521	+17.521	0	+17.521	0	+17.521	0

Note: The Alert Settlement reading is 5 mm.; The Alarm Settlement reading is 8 mm.; The Action Settlement reading is 10 mm.

Building Settlement Marker (SMS) Record For Stable House

SMS No.	31/5/04	3/7/2006		5/7/2006		7/7/2006		10/7/2006		12/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
SMS 1	+16.129	+16.129	0	+16.129	0	+16.129	0	+16.129	0	+16.129	0
SMS 2	+16.149	+16.149	0	+16.149	0	+16.149	0	+16.149	0	+16.149	0
SMS 3	+16.108	+16.108	0	+16.108	0	+16.108	0	+16.108	0	+16.108	0
SMS 4	+16.131	+16.130	-1	+16.130	-1	+16.130	-1	+16.130	-1	+16.130	-1
SMS 5	+16.128	+16.127	-1	+16.127	-1	+16.127	-1	+16.127	-1	+16.127	-1
SMS 6	+16.123	+16.123	0	+16.123	0	+16.123	0	+16.123	0	+16.123	0
SMS 7	+16.096	+16.096	0	+16.096	0	+16.096	0	+16.096	0	+16.096	0
SMS 8	+16.088	+16.088	0	+16.088	0	+16.088	0	+16.088	0	+16.088	0
SMS 9	+16.141	+16.140	-1	+16.140	-1	+16.140	-1	+16.140	-1	+16.140	-1

SMS No.	31/5/04	14/7/2006		17/7/2006		19/7/2006		21/7/2006		24/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
SMS 1	+16.129	+16.129	0	+16.129	0	+16.129	0	+16.129	0	+16.129	0
SMS 2	+16.149	+16.149	0	+16.149	0	+16.149	0	+16.149	0	+16.149	0
SMS 3	+16.108	+16.108	0	+16.108	0	+16.108	0	+16.108	0	+16.108	0
SMS 4	+16.131	+16.130	-1	+16.130	-1	+16.130	-1	+16.130	-1	+16.130	-1
SMS 5	+16.128	+16.127	-1	+16.127	-1	+16.127	-1	+16.127	-1	+16.127	-1
SMS 6	+16.123	+16.123	0	+16.123	0	+16.123	0	+16.123	0	+16.123	0
SMS 7	+16.096	+16.096	0	+16.096	0	+16.096	0	+16.096	0	+16.096	0
SMS 8	+16.088	+16.088	0	+16.088	0	+16.088	0	+16.088	0	+16.088	0
SMS 9	+16.141	+16.140	-1	+16.140	-1	+16.140	-1	+16.140	-1	+16.140	-1

SMS No.	31/5/04	26/7/2006		28/7/2006		31/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
SMS 1	+16.129	+16.129	0	+16.129	0	+16.129	0
SMS 2	+16.149	+16.149	0	+16.149	0	+16.149	0
SMS 3	+16.108	+16.108	0	+16.108	0	+16.108	0
SMS 4	+16.131	+16.130	-1	+16.130	-1	+16.130	-1
SMS 5	+16.128	+16.127	-1	+16.127	-1	+16.127	-1
SMS 6	+16.123	+16.123	0	+16.123	0	+16.123	0
SMS 7	+16.096	+16.096	0	+16.096	0	+16.096	0
SMS 8	+16.088	+16.088	0	+16.088	0	+16.088	0
SMS 9	+16.141	+16.140	-1	+16.140	-1	+16.140	-1

Note: The Alert Settlement reading is 5 mm.; The Alarm Settlement reading is 8 mm.; The Action Settlement reading is 10 mm.

Building Settlement Marker (BSMR) Record For Round House

BSMR No.	31/5/04	3/7/2006		5/7/2006		7/7/2006		10/7/2006		12/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
BSMR 1	+15.926	+15.924	-2	+15.924	-2	+15.924	-2	+15.924	-2	+15.924	-2
BSMR 2	+15.814	+15.812	-2	+15.812	-2	+15.812	-2	+15.812	-2	+15.812	-2
BSMR 3	+15.751	+15.749	-2	+15.749	-2	+15.749	-2	+15.749	-2	+15.749	-2
BSMR 4	+15.717	+15.715	-2	+15.715	-2	+15.715	-2	+15.715	-2	+15.715	-2

BSMR No.	31/5/04	14/7/2006		17/7/2006		19/7/2006		21/7/2006		24/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
BSMR 1	+15.926	+15.924	-2	+15.924	-2	+15.924	-2	+15.924	-2	+15.924	-2
BSMR 2	+15.814	+15.812	-2	+15.812	-2	+15.812	-2	+15.812	-2	+15.812	-2
BSMR 3	+15.751	+15.749	-2	+15.749	-2	+15.749	-2	+15.749	-2	+15.749	-2
BSMR 4	+15.717	+15.715	-2	+15.715	-2	+15.715	-2	+15.715	-2	+15.715	-2

BSMR No.	31/5/04	26/7/2006		28/7/2006		31/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
BSMR 1	+15.926	+15.924	-2	+15.924	-2	+15.924	-2
BSMR 2	+15.814	+15.812	-2	+15.812	-2	+15.812	-2
BSMR 3	+15.751	+15.749	-2	+15.749	-2	+15.749	-2
BSMR 4	+15.717	+15.715	-2	+15.715	-2	+15.715	-2

Note: The Alert Settlement reading is 5 mm.; The Alarm Settlement reading is 8 mm.; The Action Settlement reading is 10 mm.

Ground Settlement Marker (GSM) Record For Main Building

GSM No.	31/5/04	3/7/2006		5/7/2006		7/7/2006		10/7/2006		12/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
GSM 1	+14.895	+14.848	0	+14.848	0	+14.848	0	+14.848	0	+14.848	0
GSM 2	+14.919	+14.833	0	+14.833	0	+14.833	0	+14.833	0	+14.833	0
GSM 3	+15.161	Removed		Removed		Removed		Removed		Removed	
GSM 4	+14.616	+14.616	0	+14.616	0	+14.616	0	+14.616	0	+14.616	0
GSM 5	+14.609	+14.608	-1	+14.608	-1	+14.608	-1	+14.608	-1	+14.608	-1
GSM 6	+15.189	+15.189	0	+15.188	-1	+15.188	-1	+15.189	0	+15.188	-1
GSM 7	+15.199	+15.199	0	+15.199	0	+15.199	0	+15.199	0	+15.199	0
GSM 8	+15.214	+15.213	-1	+15.213	-1	+15.213	-1	+15.213	-1	+15.213	-1
GSM 9	+15.186	+15.186	0	+15.186	0	+15.186	0	+15.186	0	+15.186	0
GSM 10	+15.210	+15.210	0	+15.210	0	+15.210	0	+15.210	0	+15.210	0
GSM 11	+15.235	+15.234	-1	+15.234	-1	+15.234	-1	+15.234	-1	+15.234	-1

GSM No.	31/5/04	14/7/2006		17/7/2006		19/7/2006		21/7/2006		24/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
GSM 1	+14.895	+14.848	0	+14.848	0	+14.848	0	+14.848	0	+14.848	0
GSM 2	+14.919	+14.833	0	+14.833	0	+14.833	0	+14.833	0	+14.833	0
GSM 3	+15.161	Removed		Removed		Removed		Removed		Removed	
GSM 4	+14.616	+14.616	0	+14.616	0	+14.616	0	+14.616	0	+14.616	0
GSM 5	+14.609	+14.608	-1	+14.608	-1	+14.608	-1	+14.608	-1	+14.608	-1
GSM 6	+15.189	+15.188	-1	+15.189	0	+15.188	-1	+15.188	-1	+15.189	0
GSM 7	+15.199	+15.199	0	+15.199	0	+15.199	0	+15.199	0	+15.199	0
GSM 8	+15.214	+15.213	-1	+15.213	-1	+15.213	-1	+15.213	-1	+15.213	-1
GSM 9	+15.186	+15.186	0	+15.186	0	+15.186	0	+15.186	0	+15.186	0
GSM 10	+15.210	+15.210	0	+15.210	0	+15.210	0	+15.210	0	+15.210	0
GSM 11	+15.235	+15.234	-1	+15.234	-1	+15.234	-1	+15.234	-1	+15.234	-1

GSM No.	31/5/04	26/7/2006		28/7/2006		31/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)
GSM 1	+14.895	+14.848	0	+14.848	0	+14.848	0
GSM 2	+14.919	+14.833	0	+14.833	0	+14.833	0
GSM 3	+15.161	Removed		Removed		Removed	
GSM 4	+14.616	+14.616	0	+14.616	0	+14.616	0
GSM 5	+14.609	+14.608	-1	+14.608	-1	+14.608	-1
GSM 6	+15.189	+15.188	-1	+15.188	-1	+15.189	0
GSM 7	+15.199	+15.199	0	+15.199	0	+15.199	0
GSM 8	+15.214	+15.213	-1	+15.213	-1	+15.213	-1
GSM 9	+15.186	+15.186	0	+15.186	0	+15.186	0
GSM 10	+15.210	+15.210	0	+15.210	0	+15.210	0
GSM 11	+15.235	+15.234	-1	+15.234	-1	+15.234	-1

Note: The Alert Settlement reading is 10 mm.; The Alarm Settlement reading is 15 mm.; The Action Settlement reading is 20 mm.

Ground Settlement Marker (GSMS) Record For Stable House

GSMS No.	31/5/04	3/7/2006		5/7/2006		7/7/2006		10/7/2006		12/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
GSMS 1	+14.943	+14.942	-1	+14.942	-1	+14.942	-1	+14.942	-1	+14.942	-1
GSMS 2	+14.963	+14.963	0	+14.963	0	+14.963	0	+14.963	0	+14.963	0
GSMS 3	+14.928	+14.928	0	+14.928	0	+14.928	0	+14.928	0	+14.928	0
GSMS 4	+14.940	+14.939	-1	+14.939	-1	+14.939	-1	+14.939	-1	+14.939	-1

GSMS No.	31/5/04	14/7/2006		17/7/2006		19/7/2006		21/7/2006		24/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
GSMS 1	+14.943	+14.942	-1	+14.942	-1	+14.942	-1	+14.942	-1	+14.942	-1
GSMS 2	+14.963	+14.963	0	+14.963	0	+14.963	0	+14.963	0	+14.963	0
GSMS 3	+14.928	+14.928	0	+14.928	0	+14.928	0	+14.928	0	+14.928	0
GSMS 4	+14.940	+14.939	-1	+14.939	-1	+14.939	-1	+14.939	-1	+14.939	-1

GSMS No.	31/5/04	26/7/2006		28/7/2006		31/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)
GSMS 1	+14.943	+14.942	-1	+14.942	-1	+14.942	-1
GSMS 2	+14.963	+14.963	0	+14.963	0	+14.963	0
GSMS 3	+14.928	+14.928	0	+14.928	0	+14.928	0
GSMS 4	+14.940	+14.939	-1	+14.939	-1	+14.939	-1

Note: The Alert Settlement reading is 10 mm.; The Alarm Settlement reading is 15 mm.; The Action Settlement reading is 20 mm.

Ground Settlement Marker (GSMR) Record For Round House

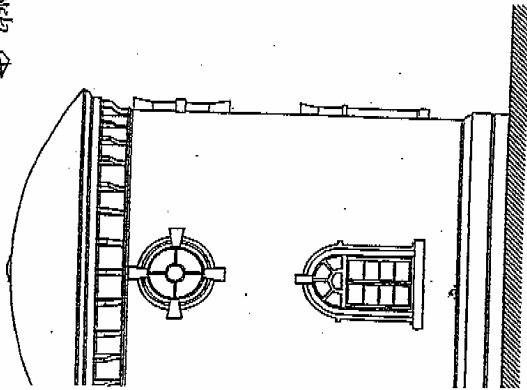
GSMR No.	31/5/04	3/7/2006		5/7/2006		7/7/2006		10/7/2006		12/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
GSMR 1	+15.152	+15.150	-2	+15.150	-2	+15.150	-2	+15.150	-2	+15.150	-2
GSMR 2	+15.149	+15.147	-2	+15.147	-2	+15.147	-2	+15.147	-2	+15.147	-2
GSMR 3	+15.142	+15.140	-2	+15.140	-2	+15.140	-2	+15.140	-2	+15.140	-2
GSMR 4	+15.152	+15.150	-2	+15.150	-2	+15.150	-2	+15.150	-2	+15.150	-2

GSMR No.	31/5/04	14/7/2006		17/7/2006		19/7/2006		21/7/2006		24/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)	Reading (mPD)	Difference (mm)
GSMR 1	+15.152	+15.150	-2	+15.150	-2	+15.150	-2	+15.150	-2	+15.150	-2
GSMR 2	+15.149	+15.147	-2	+15.147	-2	+15.147	-2	+15.147	-2	+15.147	-2
GSMR 3	+15.142	+15.140	-2	+15.140	-2	+15.140	-2	+15.140	-2	+15.140	-2
GSMR 4	+15.152	+15.150	-2	+15.150	-2	+15.150	-2	+15.150	-2	+15.150	-2

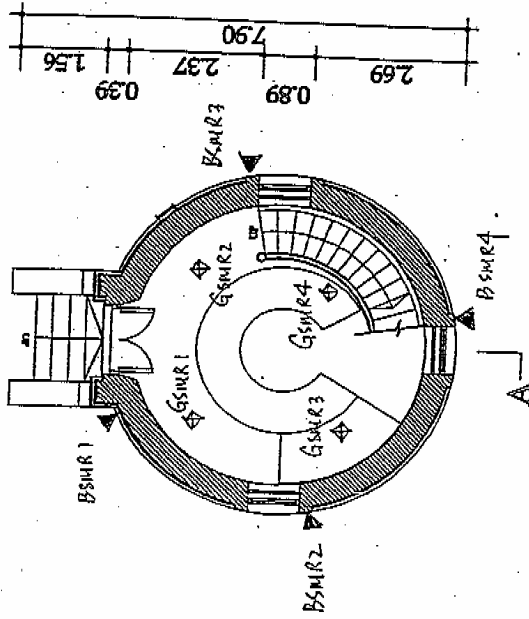
GSMR No.	31/5/04	26/7/2006		28/7/2006		31/7/2006	
	Initial Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)	Reading (mPD)
GSMR 1	+15.152	+15.150	-2	+15.150	-2	+15.150	-2
GSMR 2	+15.149	+15.147	-2	+15.147	-2	+15.147	-2
GSMR 3	+15.142	+15.140	-2	+15.140	-2	+15.140	-2
GSMR 4	+15.152	+15.150	-2	+15.150	-2	+15.150	-2

Note: The Alert Settlement reading is 10 mm.; The Alarm Settlement reading is 15 mm.; The Action Settlement reading is 20 mm.

▲ BSMR Building TOMBULT MARKER
 ◆ GSMR Ground SETTLEMENT MARKER



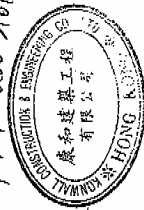
ROUND HOUSE



SK 03 - SETTLEMENT MARKER
 LOCATION PLAN FOR
 ROUND HOUSE

in Elevation

KCE's letter Ref.
 WTS/MS/2004/316/04

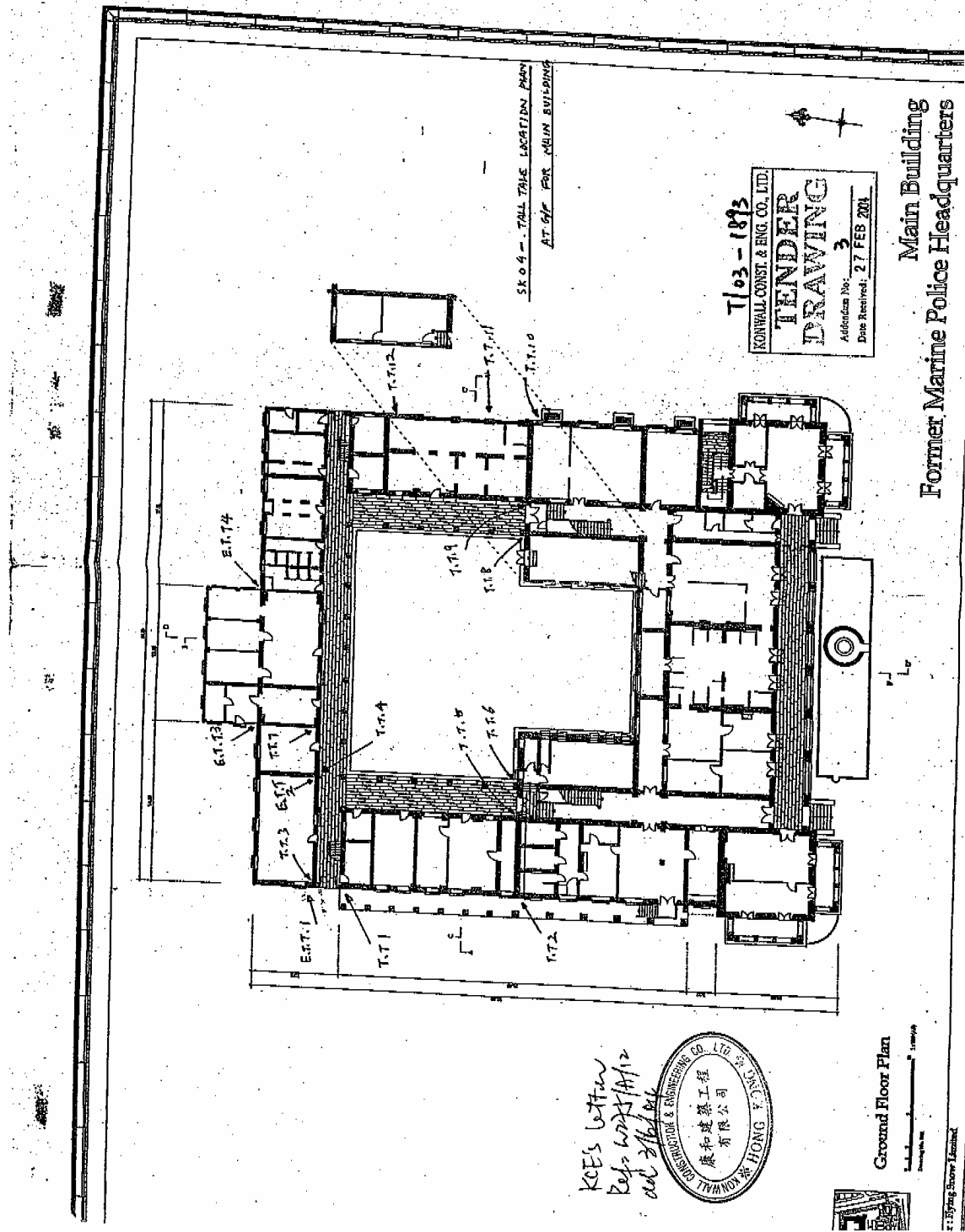


Ground Floor Plan

GSMR1 左 R#
 BSMR1 左 R#

T103-1897
 KOWALL CONST & ENG. CO., LTD.
DRAWING
 Address: 103, ...
 Date Executed: 27 FEB 2004

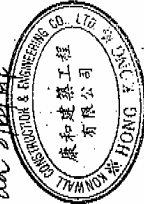




T/03 - 1893
 KONWALL CONST. & ENG. CO. LTD.
TENDER DRAWING
 Addendum No. 3
 Date Received: 27 FEB 2001

Main Building
 Former Marine Police Headquarters

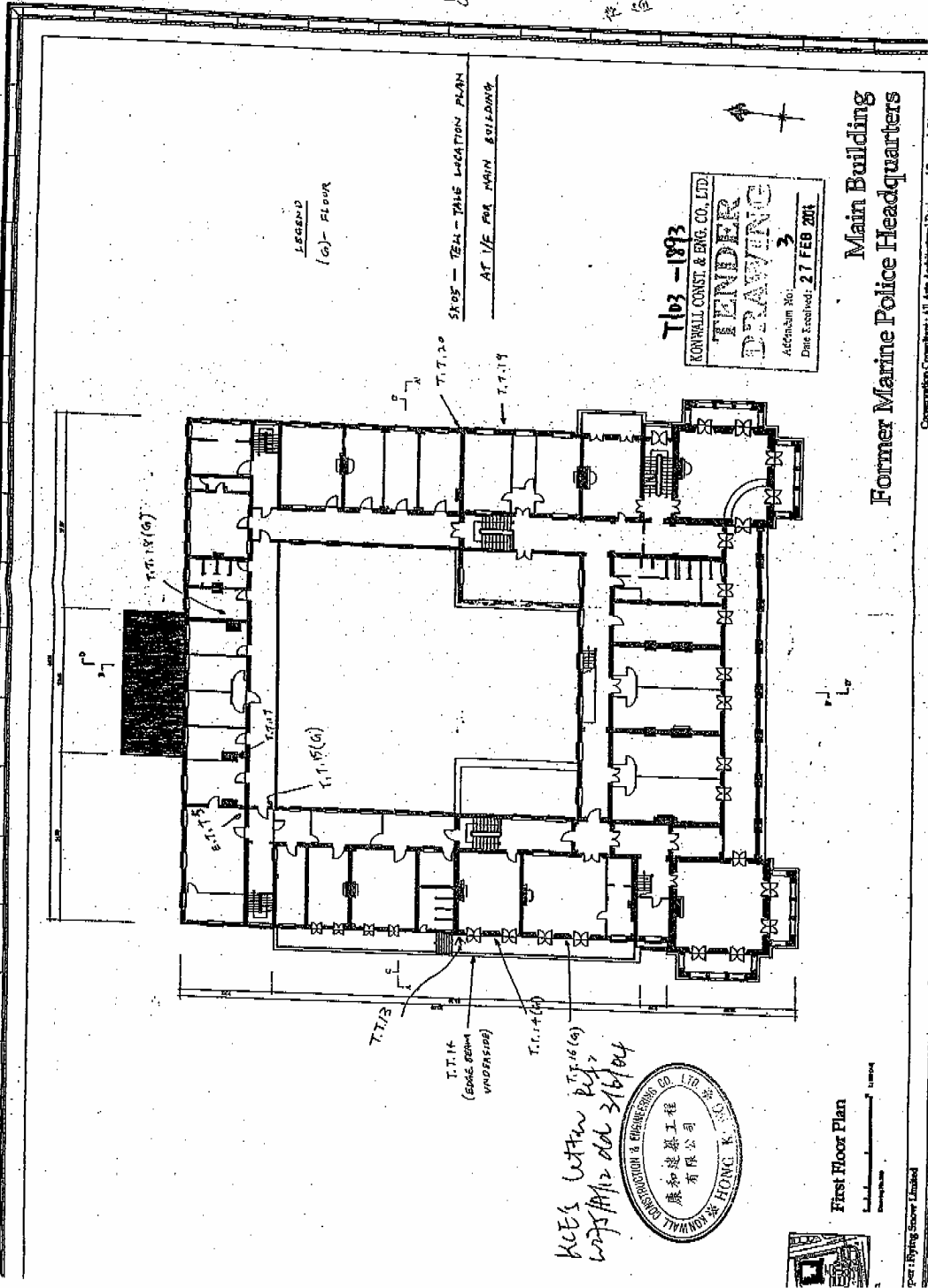
KOE'S letter
 Refs with H/A 12
 and 3/16/04

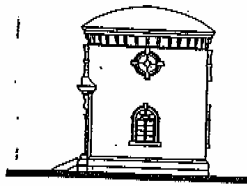


Ground Floor Plan
 Scale: 1:1000

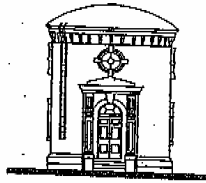


1:1000
 1:1000
 1:1000

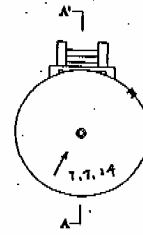




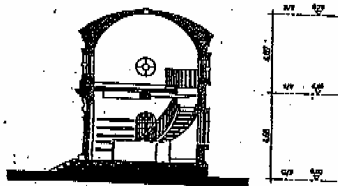
West Elevation



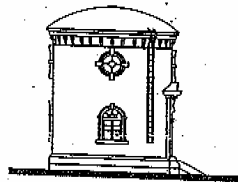
North Elevation



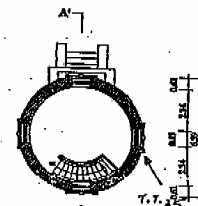
Roof Plan



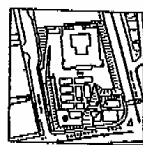
Section AA'



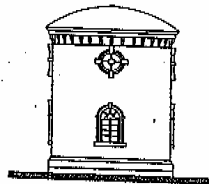
East Elevation



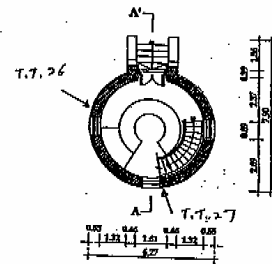
First Floor Plan



Key Plan



South Elevation

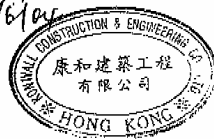


Ground Floor Plan

KONWALL CONSTR. & ENGR. CO., LTD.
TENDER DRAWINGS
Addendum No. 3
Date Issued: 27 FEB 2004

7103-1813

KCE's letter
Ref: wj/s/1A/12
dd 3/6/04

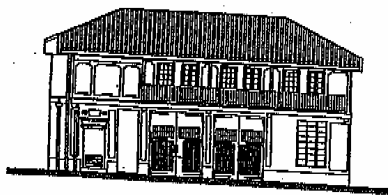


SE06 - TELL-TALE LOCATION PLAN
FOR ROUND HOUSE

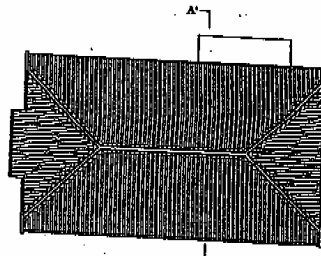


1:100 (As)

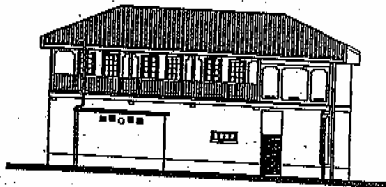
Round House
Former Marine Police Headquarters



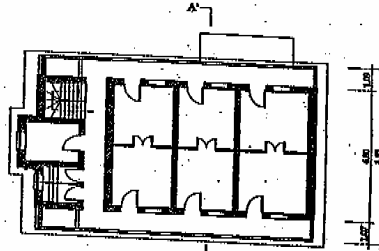
South Elevation



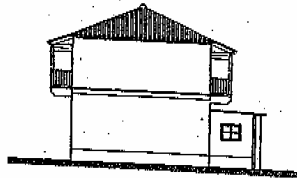
Roof Plan



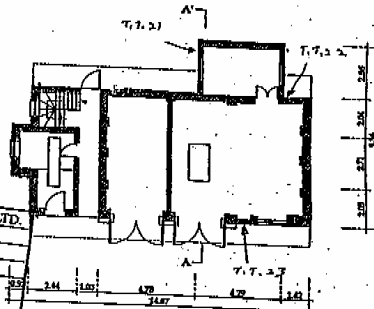
North Elevation



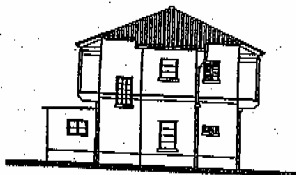
First Floor Plan



East Elevation

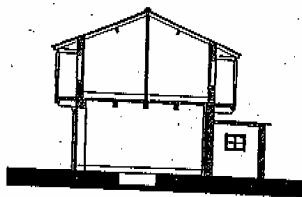


Ground Floor Plan



West Elevation

KONWALL CONST. & ENG. CO., LTD.
 DATE ISSUED: 14/3/04
 OUR REF: DYS 4
 APPROVED BY: EK/WKC/TM/L
 FOR INFORMATION



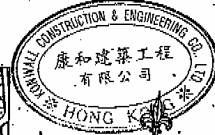
Section AA'

SK07- TELL-TALE LOCATION PLAN
 FOR STABLE HOUSE

T/03-1893
 KONWALL CONST. & ENG. CO., LTD.
TENDER DRAWING
 Addendum No: 3
 Date Received: 27 FEB 2004



Key Plan



KCES letter
 Ref: W27/A/12
 ad 316/04

Stable Block

Drawing No. C01

1:100 (A1)

Former Marine Police Headquarters

Appendix L: Photographic record of retained trees

Tree #	Status of Trees		Condition of Trees during the monitoring period (June 2006) (Condition 1, 2 or 3)	Required Action	Remarks
	To be retained	To be transplanted			
T1	✓		1	No	---
T3	✓		1	No	---
T6	✓		1	No	---
T8	✓		1	No	---
T9		✓	1	No	---
T10	✓		1	No	Recovered
T14		✓	1	No	---
T17		✓	2	Yes	Need close monitoring
T32		✓	1	No	---
T34		✓	1	No	---
T35		✓	1	No	---
T54	✓		1	No	---
T55		✓	1	No	---
T65	✓		1	No	---
T66	✓		1	No	---
T67	✓		1	No	---
T73		✓	3	Yes	To be replaced
T75		✓	1	No	---
T79		✓	1	No	---
T80		✓	1	No	---
T96	✓		1	No	---
T98(R)		✓	1	No	Replaced T98
T99		✓	1	No	---
T100(R)		✓	1	No	Replaced T100
T102		✓	1	No	---
T104		✓	1	No	---
T107		✓	1	No	---
T111		✓	1	No	---
T120	✓		1	No	---
T121	✓		1	No	---
T122	✓		1	No	---
T124	✓		1	No	---
T125	✓		1	No	---
T126	✓		1	No	---
T127	✓		1	No	---
T128	✓		1	No	---
T129	✓		1	No	---
T131	✓		1	No	---
T132	✓		1	No	---
T134	✓		1	No	---
TA1	✓		1	No	---
TA2	✓		1	No	---
TA66		✓	1	No	---
T1	✓		1	No	---

Please note that although the assessment of the condition of trees T73 and T98 indicates a decline in their condition this decline is due to the fact that they were originally located on steeply sloping ground but were selected for transplantation due to the general lack of other suitable candidates. In addition when they were prepared for lifting it was found that their

Remark: roots were growing in close proximity to a number of boulders (previously buried below the shotcrete on the slope) and the roots were severely constrained by the footings of the adjacent wall at the crest of the slope. Therefore the specialist landscape contractor had extreme difficulty in forming a viable rootball and so even with good horticultural treatment the trees experienced a significant decline in their health following relocation in the temporary holding nursery.

Note: 1 = No adverse comment
2 = Sign of deterioration
3 = Severe decline in condition compared to baseline assessment

Trees identified for Retention



T54 (31 July 2006)



T10 (31 July 2006)



T65 (31 July 2006)



T96 (31 July 2006)



T66/67 (31 July 2006)



TA1 (31 July 2006)



T6 / T8 (31 July 2006)



T131 (31 July 2006)



T132 (31 July 2006)



T121 / T122 (31 July 2006)



T134 (31 July 2006)



T124 (31 July 2006)



T125 (31 July 2006)



T126 (31 July 2006)



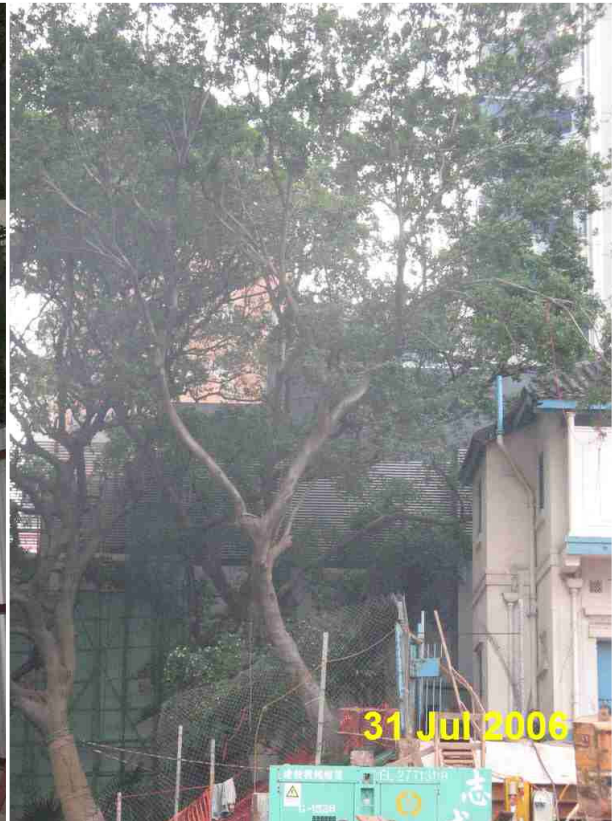
T127 (31 July 2006)



T128 (31 July 2006)



T129 (31 July 2006)



T120 (31 July 2006)



TA2 (31 July 2006)



T1 / T3 (31 July 2006)