

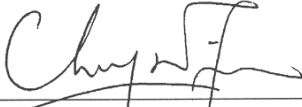
Highways Department

**Route 8 (previously known as Route 9) between
Cheung Sha Wan & Sha Tin**

**Contract No. HY/2003/10 - Environmental Team for
Lai Chi Kok Viaduct and Eagle's Nest Tunnel**

**Monthly EM&A Report
Part I – Lai Chi Kok Viaduct (Version 1)**

November 2005

Approved By 
(Environmental Team Leader)

REMARKS:

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

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CINOTECH CONSULTANTS LTD

Room 1602-1610, Delta House,
3 On Yiu Street,

Shatin, NT, Hong Kong

Tel: (852) 2151 2083 Fax: (852) 3107 1388

Email: info@cinotech.com.hk

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ABBREVIATION AND ACRONYM

AL Levels	Action and Limit Levels
CEDD	Civil Engineering and Development Department
E / ER	Engineer/Engineer's Representative
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring and Audit
EMIS	Environmental Mitigation Implementation Schedule
EP	Environmental Permit
EPD	Environmental Protection Department
ET	Environmental Team
HVS	High Volume Sampler
HyD	Highways Department
IEC	Independent Environmental Checker
NOE	Notification of Exceedance
QA/QC	Quality Assurance / Quality Control
RE	Resident Engineer
RH	Relative Humidity
SLM	Sound Level Meter
TSP	Total Suspended Particulates

EXECUTIVE SUMMARY

Introduction

- This is the twenty-fourth monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the “Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin, Lai Chi Kok Viaduct & Eagle’s Nest Tunnel”. This report documents the findings of EM&A Works conducted in November 2005 for Contract No. HY/2003/01, Lai Chi Kok Viaduct (the Project).
- The major site activities undertaken in the reporting month included piling works, construction of pile caps and piers, slope works and segment erection works.

Environmental Monitoring and Audit Works

- Environmental monitoring and audit works for the Project was performed regularly as stipulated in the updated EM&A Manual and the results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
- Summary of the events and action taken in the reporting month is tabulated in **Table I**.

Table I Summary Table for Events Recorded in the Reporting Month

Parameter	No. of Events		No. of Events Due to the Project	Action Taken
	Action Level	Limit Level		
1-hr TSP	0	0	0	N/A
24-hr TSP	0	0	0	N/A
Noise	1	0	0	Complaint investigation

Environmental Licenses and Permits

- Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, the Water Discharge Licenses (WDLs) and the Construction Noise Permits (CNPs). Four new CNPs were issued to the Project in the reporting month.

Key Information in the Reporting Month

- Summary of key information in this reporting month is tabulated in **Table II**.

Table II Summary Table for Key Information in the Reporting Month

Event	Event Details		Action Taken	Status	Remark
	Number	Nature			
Complaint received	1	Dark smoke, dust and noise	Complaint investigation	Closed	---
Changes to the assumptions and key construction / operation activities recorded	0	---	N/A	N/A	---
Status of submissions under EP	0	---	N/A	N/A	---
Notifications of any summons & prosecutions received	0	---	N/A	N/A	---

Future Key Issues:
Major site activities for the coming month include:

- Construction of abutment, pile caps and columns;
- Bulk excavation,
- Buttress wall construction;
- Soil nail installation;
- Retaining wall construction;
- Drainage works;
- Cast in-situ of slip roads; and
- Segment erection by lifting frame and launching gantry.

The anticipated environmental impacts will be mainly on dust generation and construction noise impact from slope works.

1. INTRODUCTION

Background

- 1.1 Route 9 (Kowloon Section) (R9K) (hereinafter call the R9K-Project) forms part of the Route 9 between Cheung Sha Wan and Sha Tin (R9-CSWST) project, which will be a new expressway connecting West Kowloon and Sha Tin. It will be the fourth external link between Sha Tin and Kowloon and will form an important link between the northeast New Territories and the west Kowloon, Lantau Island and the western New Territories. R9K is being managed and implemented by the Highways Department (HyD).
- 1.2 The engineering design of R9K is covered under Agreement No. CE 50/98 “Route 9 between Cheung Sha Wan and Sha Tin – Design Construction Assignment”. The main consultant engaged under Agreement No. CE 50/98 is Maunsell Hyder Joint Venture (MHJV), who will act as the Engineer for the construction contracts. The works of R9K mainly comprise a 1.4km dual 3-lane Lai Chi Kok Viaduct from Lai Wan Interchange to Butterfly Valley; 0.5 km of dual 3-lane at-grade carriageway linking to the 2.1 km dual 3-lane twin-bore Eagle's Nest Tunnel with associated portal buildings; a toll plaza with an administration building located with the Sha Tin valley woodland; a ventilation building and an adit; associated noise barriers, noise enclosures, drainage, slope and landscape works; and electrical and mechanical works for the whole R9-CSWST. The remainder of the R9-CSWST forms the Sha Tin Section (R9S) of the project and is being managed and implemented separately by the Civil Engineering and Development Department (CEDD).
- 1.3 The R9-CSWST project is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). An environmental impact assessment (EIA) report has been prepared in 1998 for the R9-CSWST project (1998 R9 EIA) to consider the key issues of noise, air quality, water quality, ecological, construction waste, landscape and visual, land use and cultural impacts, and identify possible mitigation measures.
- 1.4 An Updated Final EIA report was subsequently completed in August 1999 for the R9-CSWST project (1999 R9 EIA), to cater for some changes in R9K portion as mentioned in paragraph 1 in the report. The 1999 R9 EIA was endorsed by Environmental Protection Department (EPD) in November 1999. The 1998 R9 EIA and the 1999 R9 EIA (R9 EIA Reports) were included in the EIA register under the EIAO as report no. EIA-135/BC and AEIAR-022/1999 respectively. An Environmental Monitoring and Audit (EM&A) Manuals for each of the R9 EIA Reports (EM&A Manuals) were also included as part of the EIA reports in the register.
- 1.5 Subsequent to the endorsement of the R9 EIA Reports by EPD in November 1999, the project programme was deferred to start in 2002/2003 for completion by 2006/07. The implementation of the project was then separated into the R9S and R9K portion. An Environmental Permit (EP) No. EP-103/2001 was issued on 17 September 2001 for R9K to the HyD as Permit Holder and a varied EP No. EP-103/2001/A was subsequently issued on 20 May 2003 for R9K (R9K EP) to HyD as Permit Holder. A varied EP-103/2001/C was recently issued on 22 July 2005.

- 1.6 The major construction activities of two civil contracts of the R9K project, Contract No. HY/2003/01 entitled “Route 9 – Lai Chi Kok Viaduct” and Contract No. HY/2003/02 entitled “Route 9 – Eagle’s Nest Tunnel and Associated Works”, were commenced in 15th December 2003 for completion in April 2007.
- 1.7 “Route 9” was recently re-titled as “Route 8 (previously known as Route 9)”. Cinotech Consultants Limited (Cinotech) was commissioned by HyD to undertake the Environmental Monitoring and Audit works for “Route 8 between Cheung Sha Wan and Sha Tin - Environmental Team (ET) for Lai Chi Kok Viaduct and Eagle’s Nest Tunnel (Contract No. HY/2003/10)”. Dr. Priscilla CHOY of Cinotech Consultants Ltd. was appointed as the ET Leader under Condition 2.2 of the EP. Mr. David YEUNG of CH2M-IDC Hong Kong Ltd. was appointed as the IEC under Condition 2.1 of the EP. This is the twenty-fourth monthly EM&A report summarizing the EM&A works for the Project in November 2005.

Project Organizations

- 1.8 Different parties with different levels of involvement in the project organization include:
- Project Proponent – Major Works Project Management Office (MWPMO) of Highways Department (HyD)
 - Engineer (E) – Maunsell-Hyder Joint Venture
 - Engineer’s Representative (ER) – Maunsell-Hyder Joint Venture
 - Environmental Team (ET) – Cinotech Consultants Limited
 - Independent Environmental Checker (IEC) – CH2M-IDC Hong Kong Limited
 - Contractor – NECSO Entrecanales Cubiertas, S.A.
- 1.9 The responsibilities of respective parties are detailed in Section 1.8.3 of the EM&A Manual (1999) of the Project.
- 1.10 The key contacts of the Project are shown in **Table 1.1**.

Construction Programme

- 1.11 The site activities undertaken in the reporting month were:
- Construction of abutments, pile caps and columns at Slip Roads C and D, Lai Wan Overpass and Main Viaduct;
 - Bulk excavation works and retaining wall construction at CCR-R1;
 - Bulk excavation works and soil nails installation at slope CCR-S1 and CCR-R3;
 - Drainage works at Rest Garden area, Hoi Lai Estate, Piers B1 and P5;
 - Segment erection by lifting frame for Main Viaduct, Slip Roads A and B;
 - Pier construction at Slip Road D;
 - Retaining wall construction at CCR-R2;
 - Buttress wall construction at CCR-S1;
 - Cast in-situ of Slip Roads C and D;
 - Bored piling work at R3; and
 - Segment erection at Main Viaduct by launching gantry at night at Piers P6, P7 and P8.

Summary of EM&A Requirements

1.12 The EM&A programme requires construction phase monitoring for air quality and construction noise, and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:

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

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.	Fax No.
HyD	Permit Holder	Mr. K.T. Lee	SE3/R8K	2762 3684	2714 5198
		Mr. C.Y. Tang	E6/R8K	2762 3598	
		Mr. L.C. Chung	E2/R8K	2762 3613	
MHJV	Engineer	Mr. Conrad Ng	Project Manager	2605 6262	2691 2649
	Engineer's Representative	Mr. D.F. Lilliman	CRE	2959 0010	2959 0290
		Mr. Henry Liu	SRE	2991 1068	
Mr. Joseph Chi	RE	2991 1034			
Cinotech	Environmental Team	Dr. Priscilla Choy	The ET Leader	2151 2089	3107 1388
		Mr. KK Chan	Audit Team Leader	2151 2077	
		Mr. Henry Leung	Monitoring Team Leader	2151 2087	
CH2M-IDC	Independent Environmental Checker	Mr. David Yeung	Independent Environmental Checker	2872 2934	2507 2293
		Mr. Billy Yu	Assistant Independent Environmental Checker	2872 2949	
NECSO	Contractor	Mr. Rafael Rubio	Project Director	2956 3300	2956 3331
		Mr. Lawrence Kwok	QA/E Manager		
24-hour Emergency Hotline				2370 9200	-

1.13 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 4 of this report.

1.14 This report presents the environmental monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely dust and noise levels and audit works for the Project in November 2005.

2. AIR QUALITY

Monitoring Requirements

- 2.1 Monitoring of 1-hour and 24-hour TSP was conducted to monitor the air quality. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

- 2.2 One designated monitoring station, AM2 was selected for impact dust monitoring for the Project. **Table 2.1** describes the air quality monitoring location, which is also depicted in **Figures 1**.

Table 2.1 Locations for Air Quality Monitoring

Monitoring Station	Description	Location
AM2	Lai Chi Kok Park Sports Centre	Rooftop

Monitoring Equipment

- 2.3 **Table 2.2** summarizes the equipment used for the air quality monitoring. Copies of calibration certificates are attached in **Appendix B**.

Table 2.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Calibrator	GMW25; S/N: 1536	1
HVS Sampler	Graseby GMW Model GS2310 High Volume TSP Sampler and associated equipment and shelter	1

Monitoring Parameters, Frequency and Duration

- 2.4 **Table 2.3** summarizes the monitoring parameters and frequencies of impact dust monitoring for the whole construction period. The air quality monitoring schedule for the reporting period is shown in **Appendix C**.

Table 2.3 Impact Dust Monitoring Parameters, Frequency and Duration

Parameters	Frequency
1-hr TSP	Three times / 6 days
24-hr TSP	Once / 6 days

Monitoring Methodology and QA/QC Procedure

Instrumentation

- 2.5 Graseby GMW Model GS2310 TSP High Volume Sampler (HVS) was employed for 1-hour & 24-hour TSP monitoring. The sampler was composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complied with that required by USEPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50). Moreover, the HVS also met all the requirements in Sections 2.2 to 2.4 of the EM&A Manual (1999).

Operating/Analytical Procedures

- 2.6 Operating/analytical procedures for the operation of HVS were as follows:
- A horizontal platform was provided with appropriate support to secure the samplers against gusty wind.
 - No two samplers were placed less than 2 meters apart.
 - The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
 - A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
 - A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
 - No furnaces or incineration flues were nearby.
 - Airflow around the sampler was unrestricted.
 - The sampler was more than 20 meters from the drip line.
 - Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.
- 2.7 Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m³/min. and 1.4 m³/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.
- 2.8 For TSP sampling, fiberglass filters (G810) were used.
- 2.9 The power supply was checked to ensure the sampler worked properly.
- 2.10 On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.
- 2.11 The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.

- 2.12 The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- 2.13 The shelter lid was closed and secured with the aluminum strip.
- 2.14 The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- 2.15 After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.
- 2.16 Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than $\pm 3^\circ\text{C}$; the relative humidity (RH) should be $< 50\%$ and not vary by more than $\pm 5\%$. A convenient working RH is 40%.

Maintenance/Calibration

- 2.17 The following maintenance/calibration was required for the HVS:
- The high volume motors and their accessories were properly maintained. Appropriate maintenance such as routine motor brushes replacement and electrical wiring checking were made to ensure that the equipment and necessary power supply are in good working condition.
 - High volume samplers were calibrated at bi-monthly intervals using GMW-25 Calibration Kit throughout all stages of the air quality monitoring.

Results and Observations

- 2.18 All TSP monitoring was conducted as scheduled in this reporting month.
- 2.19 No Action/Limit Level exceedance was recorded for both 1-hr and 24-hr TSP monitoring.
- 2.20 Wind data monitoring equipment has been installed in Shatin Heights for logging wind speed and wind direction. These wind data for the reporting month is summarized in **Appendix D**.
- 2.21 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendices E** and **F**, respectively.

3. NOISE

Monitoring Requirements

- 3.1 Monitoring and audit of construction noise levels is required to be conducted, in accordance with the EM&A Manual, to ensure that any unacceptable noise impacts could be readily detected and timely and appropriate action be undertaken to rectify the situation.
- 3.2 The construction noise levels shall be measured in terms of the A-weighted equivalent continuous sound pressure level (Leq). Leq (30min) shall be used as the monitoring parameter for the time period between 0700-1900 hours on normal weekdays. For all other time periods, Leq (5min) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. As supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.
- 3.3 Four designated noise monitoring stations, namely NM4, NM8a, NM8b and NM9 were selected for impact monitoring. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

- 3.4 Noise monitoring was conducted at five designated monitoring stations as summarized in **Table 3.1**. **Figures 1** show the locations of these stations.

Table 3.1 Noise Monitoring Stations

Stations*	Description	Location
NM4	Mei Foo Sun Chuen, Phase 5	Rooftop of Block 9
NM8a	Nob Hill	M/F of Car Park
NM8b	Nob Hill	3/F of Car Park
NM9	Hoi Lai Estate	G/F of Hoi Fai House

- (1) Renovation work was undertaken at the Lai Chi Kok Reception Centre (NM2) and the centre was found vacated. The noise monitoring was suspended since December 2004. Approval for the change of EM&A Programme was granted by EPD on 30th December 2004.
- (2) The Lai Chi Kok Hospital (NM3) was also found vacated and noise monitoring has been suspended since January 2005, as approved by EPD on 15th March 2005.

- 3.5 Stations NM8a and NM8b were installed at Nob Hill in May 2004. Station NM8b is located at 3/F of the car park of Nob Hill, which is strongly influenced by traffic noise from Ching Cheung Road. The measurement at this station is for reference purpose, but not for compliance check of construction noise. The measured noise level at Station NM8a, which is located at M/F of car park and closer to the construction site, acts as an indicator of the construction noise. Since the domestic premises are located above 5/F, noise assessment would be performed to assess the level of nuisance resulting from the construction noise at the domestic premises whenever the measured noise level at NM8a exceeds the noise limit level.

- 3.6 A new housing estate, Hoi Lai Estate, became one of the noise sensitive receivers close to the Project site. As recommended by the Regional (West) Office of EPD, noise monitoring at this location (Station NM9) was newly included in the EM&A programme. Approval for the change of EM&A programme was granted by EPD on 30th December 2004.

Monitoring Equipment

- 3.7 **Table 3.2** summarizes the noise monitoring equipment model being used. Copies of calibration certificates are attached in **Appendix B**.

Table 3.2 Noise Monitoring Equipment

Equipment	Model and Make	Qty.
Integrating Sound Level Meter	B&K Model 2238	5
Calibrator	B&K 4231	2
Wind Speed Anemometer	RS232 Integral Vane Digital Anemometer	1

Monitoring Parameters, Frequency and Duration

- 3.8 **Table 3.3** summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in **Appendix C**.

Table 3.3 Noise Monitoring Parameters, Frequency and Duration

Stations	Parameter	Period	Frequency	Measurement
NM4	L ₁₀ (30 min.)dB(A) L ₉₀ (30 min.)dB(A) L _{eq} (30 min.)dB(A)	0700-1900 hrs. on weekdays	Once per week	Façade
NM8a				Façade
NM8b				Façade
NM9				Façade

Monitoring Methodology and QA/QC Procedures

- The Sound Level Meter was generally set on a tripod at a height of 1.2 m above the ground, depending to the actual monitoring condition.
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - frequency weighting : A
 - time weighting : Fast
 - time measurement : 30 minutes / 5 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.

- At the end of the monitoring period, the L_{eq} , L_{90} and L_{10} were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise measurement was paused during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

Maintenance and Calibration

- 3.9 The microphone head of the sound level meter and calibrator was cleaned with soft cloth regularly.
- 3.10 The meters were sent to the supplier to check and calibrate on a yearly interval.

Results and Observations

- 3.11 Noise monitoring was performed at the four designated locations as scheduled in this reporting month.
- 3.12 All the Construction Noise Levels (CNLs) reported in this report, except those collected at Stations NM8a, NM8b and NM9, were adjusted with the corresponding baseline level (i.e. Measured L_{eq} – Baseline L_{eq} = Measured CNL), in order to facilitate the interpretation of the noise exceedance.
- 3.13 Noise monitoring results and graphical presentations are shown in **Appendix G**.
- 3.14 One noise complaint was received on 7th November 2005, triggering one noise Action Level exceedance. No noise Limit Level exceedance was recorded in the reporting month.
- 3.15 At Stations NM4, NM8a and NM8b, the major noise source identified during the monitoring exercises was mainly the road traffic noise.
- 3.16 At Station NM9, construction noise from the Project and occasionally the traffic noise were identified as the major noise source during monitoring.

4. ENVIRONMENTAL AUDIT

Site Audits

- 4.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix I**.
- 4.2 Site audits were conducted on 3, 9, 17, 24 and 30 November 2005 by ET. The audit session on 3 November 2005 was conducted with the representatives of HyD, IEC, ER, the Contractor and ET.

Review of Environmental Monitoring Procedures

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

Air Quality Monitoring

- The monitoring team recorded all observations around the monitoring stations within and outside the construction site.
- The monitoring team recorded the temperature and weather conditions on the monitoring days.

Noise Monitoring

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

Status of Environmental Licensing and Permitting

- 4.4 All permits/licenses obtained for the Project are summarized in **Table 4.1**. Four new CNPs were issued to the Project in the reporting month.

Implementation Status of Environmental Mitigation Measures

- 4.5 According to the Environmental Permit and the EM&A Manuals, the mitigation measures detailed in the documents are required to be implemented. An updated summary of the EMIS is provided in **Appendix K**.

Table 4.1 Summary of Environmental Licensing and Permit Status

Permit No.	Valid Period		Details	Status
	From	To		
Environmental Permit (EP)				
EP-103/2001/C	22/7/05	N/A	<u>Construction and operation of</u> (a) All civil works (including highways, traffic, geotechnical, drainage, structural, architectural and landscaping works) for the Lai Chi Kok Viaduct, the interchange with Ching Cheung Road, the main road within Butterfly Valley and the Eagle's Nest Tunnel; (b) All E&M works (including ventilation, Traffic Control & Surveillance System (TCSS), toll collection system and lighting) for the whole Route 9 between Cheung Sha Wan and Sha Tin; (c) The permanent slope works above the northern portal of the Eagle's Nest Tunnel; (d) The architectural works (including fitting out and furnishings) of the portal buildings of the Sha Tin Heights Tunnel.	Valid
Registration of Chemical Waste Producer				
WPN 5213-261-N2413-04	17/11/03	N/A	N/A	Valid
Water Discharge Licence				
EP482/260/251/1	05/12/03	31/12/08	Discharge of industrial trade effluent arising from the construction site at Route 9 – Lai Po Road Section of Lai Chi Kok Viaduct (Contract HY/2003/01).	Valid
EP482/260/251/2	15/12/03	31/12/08	Discharge of industrial trade effluent arising from the construction site at Route 9 – Lai Chi Kok Viaduct excluding Lai Po Road Section.	Valid
Construction Noise Permit (CNP)				
GW-RW0401-05	27/06/05	22/12/05	<i>Location:</i> Butterfly Valley Road near LCK Interchange <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0402-05	27/06/05	23/12/05	<i>Location:</i> Butterfly Valley Road near LCK Fire Station <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0501-05	03/08/05	02/02/06	<i>Location:</i> Hing Wah Street West (Jetty Area) <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0519-05	13/08/05	12/02/06	<i>Location:</i> Butterfly Valley Road near LCK Reception Center <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0534-05	17/08/05	16/02/06	<i>Location:</i> Lai Po Road near Yuet Lun Street <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid

Permit No.	Valid Period		Details	Status
	From	To		
GW-RW0535-05	17/08/05	15/02/06	<i>Location:</i> Butterfly Valley Road and Kom Tsun Street <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0563-05	02/09/05	01/03/06	<i>Location:</i> Ching Cheung Road near Mei Foo Sun Chuen <i>Time Period:</i> General holidays (including Sundays) between 0700-2300 hours and any other days between 1900-2300 hours	Valid
GW-RW0585-05	15/09/05	14/03/06	<i>Location:</i> Butterfly Valley, LCK <i>Time Period:</i> General holidays (including Sundays) between 0700-2300 hours and any other days between 1900-2300 hours	Valid
GW-RW0624-05	30/09/05	29/03/06	<i>Location:</i> Lai Wan Road <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0648-05	07/10/05	06/04/06	<i>Location:</i> Junction of Ching Cheung Road and Castle Peak Road <i>Time Period:</i> General holidays (including Sundays) between 0700-2300 hours and any other days between 1900-2300 hours	Valid
GW-RW0662-05	17/10/05	16/03/06	<i>Location:</i> Junction of Ching Cheung Road and Castle Peak Road <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0674-05	23/10/05	19/02/06	<i>Location:</i> Butterfly Valley near LCK Reception Centre <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0699-05	7/11/05	5/5/06	<i>Location:</i> Lai Po Road near West Kowloon Highway <i>Time Period:</i> Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0716-05	9/11/05	31/3/06	<i>Location:</i> Kwai Chung Road and Butterfly Valley Road <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0738-05	15/11/05	14/05/06	<i>Location:</i> Lai Po Road near Hoi Lai Estate <i>Time Period:</i> General holidays (including Sundays) between 0700-2300 hours and any other days between 1900-2300 hours	Valid
GW-RW0745-05	18/11/05	17/05/06	<i>Location:</i> Ching Cheung Road near LCK Swimming Pool <i>Time Period:</i> Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid

4.6 During site inspections in the reporting month, no non-conformance was identified. The

observations and recommendations are summarized in **Table 4.2**.

Table 4.2 Observations and Recommendations of Site Audits

Parameters	Date	Observations and Recommendations	Follow-up
<i>Air Quality</i>	3-Nov-05	Fugitive dust emission was observed at the works area near Pier D14. The Contractor was reminded to water the area more frequently.	The situation was found improved / rectified during the audit on 9-Nov-05.
	9-Nov-05 17-Nov-05	Small parts of soil slope surfaces and stockpiles were observed at the works areas of R2 and R3. The Contractor was recommended to cover the surfaces properly to prevent wind erosion.	The situation was found improved / rectified during the audit on 24-Nov-05.
	17-Nov-05	Some exposed soil slope surfaces at the areas of R2 and R3 were not covered. The Contractor was reminded to cover the slopes properly.	The situation was found improved / rectified during the audit on 24-Nov-05.
	17-Nov-05	Fugitive dust emission was observed during the loading at Slope S1. The Contractor was reminded to provide sufficient water spray for the loading process.	The situation was found improved / rectified during the audit on 24-Nov-05.
	24-Nov-05	Deposition of dusty material was observed at the access road near Slope S6. The Contractor was reminded to keep the access road clean.	The situation was found improved / rectified during the audit on 30-Nov-05.
	30-Nov-05	Open stockpile of soil was observed at R2. The Contractor was recommended to cover the stockpile by impervious sheeting to minimize dust emission.	The situation would be followed up in Dec 05.
<i>Noise</i>	24-Nov-05	An air compressor without noise emission label was operated at R3. The Contractor was reminded to affix a valid NEL on the compressor.	The situation was found improved / rectified during the audit on 30-Nov-05.
<i>Chemical Management</i>	3-Nov-05	An oil drum was placed on bared ground without drip trap at R2. The Contractor was reminded to provide a drip tray for the drum as soon as possible.	The situation was found improved / rectified during the audit on 9-Nov-05.
	30-Nov-05	An oil drum was not placed in bunded area at S3. The Contractor was reminded to provide a drip tray for the oil drum.	The situation would be followed up in Dec 05.

Summary of Exceedances

1-hr TSP Monitoring

- 4.7 No Action/Limit Level exceedance was recorded in the reporting month.

24-hr TSP Monitoring

- 4.8 No Action/Limit Level exceedance was recorded in the reporting month.

Construction Noise Monitoring

- 4.9 No Action/Limit Level exceedance was recorded in the reporting month.

Implementation Status of Event Action Plans

- 4.10 The Event Action Plans for air quality and construction noise are presented in **Appendix J**.

Summary of Complaint and Prosecution

- 4.11 An environmental complaint was received on 7th November 2005, regarding construction dark smoke, dust and noise at Ching Cheung Road near Mei Foo Sun Chuen. The complaint was lodged by a resident of Mei Foo Sun Chuen and the sites of concern were CCR-R2, R3 and S4. Ad-hoc noise and dust monitoring was conducted on 8th and 10th November 2005 and no exceedance was recorded. Therefore, the complaint was considered not justifiable. A complaint investigation report was submitted to EPD on 15th November 2005.
- 4.12 There were 16 environmental complaints and no prosecution received since the commencement of the Project. The Complaint Log is attached in **Appendix M**.

5. FUTURE KEY ISSUES

Key Issues for the Coming Month

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

- Dust generation from excavation works and soil nail installations at CCR-S1, R1 to R3;
- Potential dust emission from haul roads, stockpiles of dusty materials and exposed slope surfaces at CCR-S1 and S4;
- Construction noise generation from slope works at S1 and piling works at R2 and R3;
- Nighttime construction noise from segment transportation and segment erection;
- Accumulation of stagnant water in the site.

Monitoring Schedule for the Next Month

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

Construction Program for the Next Month

5.3 The major construction activities in coming months include:

- Construction of abutments, pile caps and piers at Slip Roads C and D, Lai Wan Overpass and Main Viaduct;
- Bulk excavation works, buttress wall construction and soil nails installation at slope CCR-S1;
- Bulk excavation works and retaining wall construction at CCR-R1;
- Bulk excavation works at CCR-R3;
- Drainage works at Rest Garden area, Hoi Lai Estate, Piers B1 and P5;
- Segment erection by lifting frame at Piers P4, P14, P15, P18, Slip Roads A and B;
- Segment erection by launching gantry at night at Piers P9 and P10;
- Cast insitu of Slip Roads C and D; and
- Bored piling work at R3.

5.4 The tentative construction program for the Project is provided in **Appendix L**.

6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 6.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.
- 6.2 No exceedance was recorded for the environmental monitoring in the reporting month, except one noise Action Level (complaint) exceedance was recorded.
- 6.3 One environmental complaint was received on 7th November 2005, regarding construction dark smoke, dust and noise at Ching Cheung Road near Mei Foo Sun Chuen. After investigation by ET, the complaint was considered not justifiable.

Recommendations

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

Dust Impact

- To ensure water spray is applied for the dust emissive works, such as soil nail installation, loading and unloading of soil materials, rock breaking works.
- To cover soil stockpiles and exposed slope surface by impervious sheets or other means.

Noise Impact

- To provide temporary noise barriers for noisy activities, such as breaking works near the noise sensitive receivers.
- To employ quiet powered mechanical equipment if possible.
- To ensure compliance of CNP conditions during restricted-hour works.
- To space out noisy equipment and position the equipment as far away as possible from noise sensitive receivers.

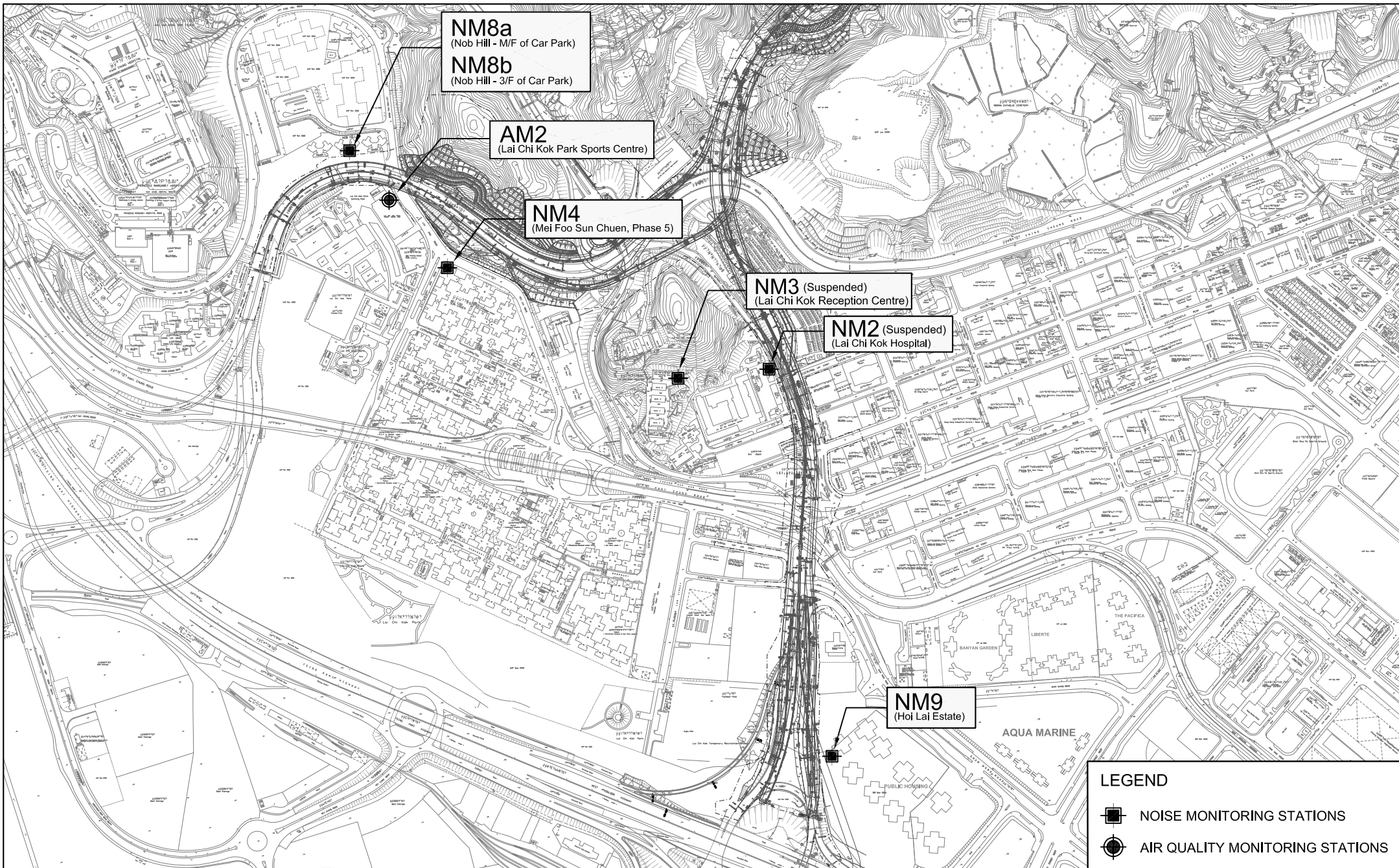
Water Impact

- To review the capacity of de-silting facilities for discharge.
- To keep the sedimentation faculties well maintained and to perform de-silting regularly.

Waste / Chemical Management

- To avoid accumulation of stagnant water on site.
- To provide proper storage for oil drums on site.
- To check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste directly from the site.

FIGURES



Title ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
CONTRACT HY/2003/01 - LAI CHI KOK VIADUCT

LOCATIONS OF MONITORING STATIONS

Scale	1 : 8000 (A4)	Project No.	MA3024
Date	2005	Figure No.	1



**APPENDIX A
ACTION AND LIMIT LEVELS**

Appendix A - Action and Limit Levels (LCKV)

1-Hour TSP

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM2	301	500

24-Hour TSP

Location	Action Level, $\mu\text{g}/\text{m}^3$	Limit Level, $\mu\text{g}/\text{m}^3$
AM2	177	260

Construction Noise

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

(*) The Area Sensitivity Rating for the noise monitoring stations (NM4, NM8a, NM8b and NM9) is taken as C, according to Table 1 of EPD's Technical Memorandum on Noise from Construction Work other than Percussive Piling.

**APPENDIX B
COPIES OF CALIBRATION
CERTIFICATES**

High-Volume TSP Sampler

5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/20/0013

Station Lai Chi Kok Sport Centre (AM2)
 Date: 4-Oct-05
 Equipment No.: A-01-20

Operator: KC
 Next Due Date: 3-Dec-05
 Serial No. 0818

Ambient Condition			
Temperature, Ta (K)	301.8	Pressure, Pa (mmHg)	761.2

Orifice Transfer Standard Information					
Equipment No.:	A-04-03	Slope, mc	0.0572	Intercept, bc	0.0261
Last Calibration Date:	23-Apr-05	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	22-Apr-06	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler					
Calibration Point	Orifice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) X - axis	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Y-axis
1	12.3	3.49	60.52	7.3	2.69
2	9.2	3.02	52.28	5.6	2.35
3	7.4	2.71	46.84	4.6	2.13
4	5.2	2.27	39.19	3.0	1.72
5	3.0	1.72	29.66	1.8	1.33

By Linear Regression of Y on X

Slope, $mw =$ 0.0446 Intercept, $bw =$ 0.0085

Correlation coefficient* = 0.9987

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation
From the TSP Field Calibration Curve, take Qstd = 43 CFM
From the Regression Equation, the "Y" value according to
$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$
Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ <u>3.75</u>

Remarks: _____

Conducted by: KC Signature: [Signature]
 Checked by: HK Signature: [Signature]

Date: 4/10/05
 Date: 4oct 05

WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center
13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited
1602-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/05/50503
Date of Issue:	2005-05-03
Date Received:	2005-05-03
Date Tested:	2005-05-03
Date Completed:	2005-05-03

ATTN: Mr. Henry Leung

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description : RS232 Integral Vane Digital Anemometer
Manufacturer : AZ Instrument
Model No. : 451104
Serial No. : 9020746
Project No. : C13
Equipment No. : A-03-01

Test conditions:

Room Temperature : 21 degree Celsius
Relative Humidity : 70%
Pressure : 100.8 kPa

Methodology:

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

Results:

	Reference Set Point	Instrument Readings
Measuring Air Velocity, m/s	2.00	2.00
Temperature, °C	20.0	20.1

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
Operation Manager

D.0403

Andersen Instruments, Inc.
Orifice Transfer Standard Certification Worksheet

Date: 04/23/2005	Rootsmeter S/N: 9736553	Ta: 22.00 C
Operator: RA	Calibrator S/N: 1888A	Pa: 761.0 mm Hg
Calibrator Model #: G25A	Placed in service:	

Run	Vol. Init. (m3)	Vol. Final (m3)	Δ Vol. (m3)	Δ Time (min)	ΔP (mm Hg)	ΔH (in H2O)
1	1.00	2.00	1.00	1.404	3.08	2.00
2	3.00	4.00	1.00	0.997	6.17	4.00
3	5.00	6.00	1.00	0.889	7.85	5.00
4	7.00	8.00	1.00	0.848	8.59	5.50
5	9.00	10.00	1.00	0.700	12.42	8.00

Data Tabulation

Vstd (m3)	Qstd (x-axis)	$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$ (y-axis)	Va	Qa (x-axis)	$\sqrt{\Delta H (Ta / Pa)}$ (y-axis)
1.007	0.717	1.422	0.996	0.709	0.881
1.003	1.006	2.011	0.992	0.995	1.246
1.000	1.125	2.248	0.990	1.113	1.393
0.999	1.179	2.358	0.989	1.166	1.461
0.994	1.420	2.844	0.984	1.405	1.762
	m =	2.0208		m =	1.2658
	b =	-0.024947		b =	-0.015460
	r =	0.999989		r =	0.999989

Calculations

$$Vstd = \Delta Vol \left(\frac{Pa - \Delta P}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)$$

$$Qstd = Vstd / \Delta Time$$

$$Va = \Delta Vol \left(\frac{Pa - \Delta P}{Pa} \right)$$

$$Qa = Va / \Delta Time$$

For subsequent flow rate calculations:

$$Qstd = 1 / m \left(\left(\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)} \right) - b \right)$$

$$Qa = 1 / m \left(\left(\sqrt{\Delta H (Ta / Pa)} \right) - b \right)$$

Standard Conditions:

Tstd: 298.18 °K
Pstd: 760 mm Hg

where:

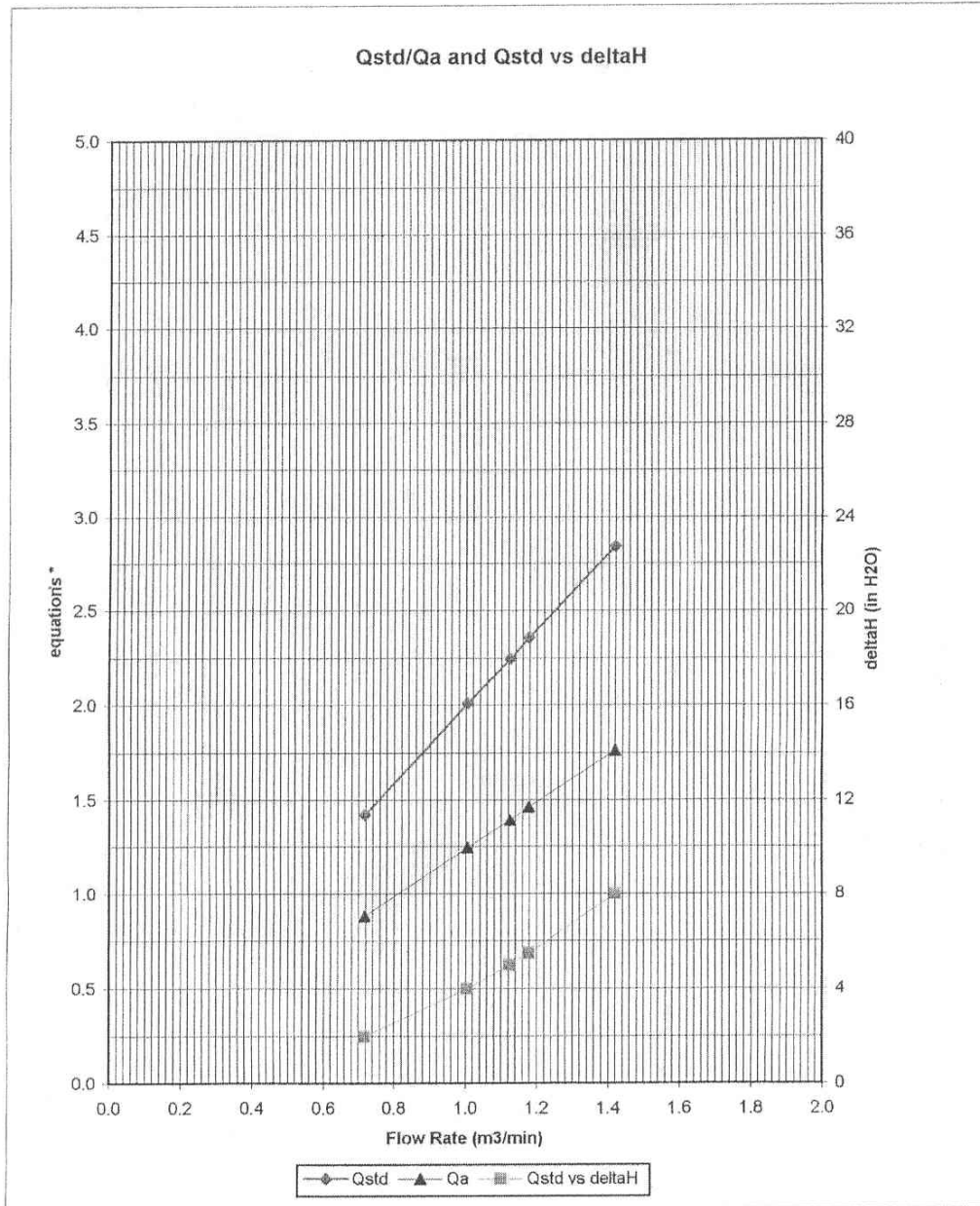
ΔH: calibrator manometer reading (in H2O)
ΔP: rootsmeter manometer reading (mm Hg)
Ta: actual absolute temperature (°K)
Pa: actual barometric pressure (mm Hg)
b: intercept
m: slope

For additional information consult:

- The Federal Register, Vol. 47, No.234, pp. 54896-54921, Dec. 6, 1982
- Quality Assurance Handbook, Vol II (EPA 60074-77-277a), Section 2.11
- Andersen Instruments, Inc. Instruction Manual

Notes:

- Copies of this calibration are not kept on file.
- EPA recommends calibrators should be recalibrated after one year of use.



* y-axis equations:

Qstd series:
$$\sqrt{\Delta H \left(\frac{Pa}{Pstd} \right) \left(\frac{Tstd}{Ta} \right)}$$

Qa series:
$$\sqrt{(\Delta H (Ta / Pa))}$$

WELLAB LTD.

606 - 608 Cornell Centre,
50 Wing Tai Road,
Chai Wan, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited
1601-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/N/41218/1
Date of Issue:	2004-12-18
Date Received:	2004-12-17
Date Tested:	2004-12-17
Date Completed:	2004-12-18

ATTN: Mr. Henry Leung

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2337665
Microphone No.	: 2289749
Equipment No.	: N-01-01

Test conditions:

Room Temperature	: 20 degree Celsius
Relative Humidity	: 64%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



William Yip
Laborary Manager

WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center
13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited
1602-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/N/51116/1
Date of Issue:	2005-11-16
Date Received:	2005-11-15
Date Tested:	2005-11-15
Date Completed:	2005-11-16
Next Due Date:	2006-11-15

ATTN: Mr. Henry Leung

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2337666
Microphone No.	: 2289750
Equipment No.	: N-01-02

Test conditions:

Room Temperature	: 20 degree Celsius
Relative Humidity	: 60%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
Operation Manager

WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center
13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited
1602-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/N/50905-1
Date of Issue:	2005-09-06
Date Received:	2005-09-05
Date Tested:	2005-09-06
Date Completed:	2005-09-06
Next Due Date:	2006-09-05

ATTN: Mr. Henry Leung

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2359311
Microphone No.	: 2346382
Equipment No.	: N-01-03

Test conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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For and On Behalf of **WELLAB Ltd.**

Patrick

PATRICK TSE
Laborary Manager

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13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

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APPLICANT: Cinotech Consultants Limited
1602-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/N/50905-2
Date of Issue:	2005-09-06
Date Received:	2005-09-05
Date Tested:	2005-09-05
Date Completed:	2005-09-06
Next Due Date:	2006-09-05

ATTN: Mr. Henry Leung

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2359303
Equipment No.	: N-01-04

Test conditions:

Room Temperature	: 21 degree Celsius
Relative Humidity	: 62%
Pressure	: 1006.5hPa

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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Operation Manager

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13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited
1602-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/N/51015/1
Date of Issue:	2005-10-15
Date Received:	2005-10-13
Date Tested:	2005-10-14
Date Completed:	2005-10-15
Next Due Date:	2006-10-14

ATTN: Mr. Henry Leung

Page: 1 of 1

Certificate of Calibration

Item for calibration:

Description	: Integrating Sound Level Meter
Manufacturer	: Brüel & Kjær
Model No.	: B&K 2238
Serial No.	: 2394976
Microphone No.	: 2407349
Equipment No.	: N-01-05

Test conditions:

Room Temperature	: 22 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

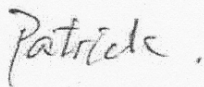
In-house method, according to manufacturer instruction manual

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
Operation Manager

WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center
13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited
1602-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/05/1115-1
Date of Issue:	2005-11-15
Date Received:	2005-11-14
Date Tested:	2005-11-15
Date Completed:	2005-11-15
Next Due Date:	2006-11-14

ATTN: Mr. Henry Leung

Page: 1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2326353
Project No.	: C13
Equipment No.	: N-02-01

Test conditions:

Room Temperature	: 20 degree Celsius
Relative Humidity	: 65%
Pressure	: 1015.2 hPa

Methodology:

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

Results:

Sound Pressure Level	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**

Patrick

PATRICK TSE
Operation Manager

WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center
13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited
1602-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/05/50305
Date of Issue:	2005-03-05
Date Received:	2005-03-04
Date Tested:	2005-03-05
Date Completed:	2005-03-05

ATTN: Mr. Henry Leung

Page: 1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2343007
Project No.	: C13
Equipment No.	: N-02-02

Test conditions:

Room Temperature	: 19 degree Celsius
Relative Humidity	: 70%
Pressure	: 1020.1hPa

Methodology:

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

Results:

Sound Pressure Level	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.2 dB

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE
Operation Manager

WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center
13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
Tel: (852) 2898 7388
Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited
1602-1610 Delta House,
3 On Yiu Street,
Shatin, N.T.

Test Report No.:	C/N/50905-1A
Date of Issue:	2005-09-06
Date Received:	2005-09-05
Date Tested:	2005-09-05
Date Completed:	2005-09-06
Next Due Date:	2006-09-05

ATTN: Mr. Henry Leung

Page: 1 of 1

Item for calibration:

Description	: Acoustical Calibrator
Manufacturer	: Brüel & Kjær
Model No.	: 4231
Serial No.	: 2412367
Equipment No.	: N-02-03

Test conditions:

Room Temperature	: 21 degree Celsius
Relative Humidity	: 62%
Pressure	: 1006.5hPa

Methodology:

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

Results:

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

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**

Patrick

PATRICK TSE
Operation Manager

**APPENDIX C
ENVIRONMENTAL MONITORING AND
AUDIT SCHEDULE**

**Environmental Monitoring for Lai Chi Kok Viaduct
Air Quality and Noise Monitoring Schedule for November 2005**

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

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

AM2 Lai Chi Kok Sports Centre
 NM4 Mei Foo Sun Chuen, Phase 5
 NM8a M/F of Nob Hill
 NM8b 3/F of Nob Hill
 NM9 G/F, Hoi Fai House, Hoi Lai Estate

**Environmental Monitoring for Lai Chi Kok Viaduct
Tentative Air Quality and Noise Monitoring Schedule for December 2005**

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

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

AM2 Lai Chi Kok Sports Centre
 NM4 Mei Foo Sun Chuen, Phase 5
 NM8a M/F of Nob Hill
 NM8b 3/F of Nob Hill
 NM9 G/F, Hoi Fai House, Hoi Lai Estate

APPENDIX D
WIND DATA

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
1-Nov-2005	0:00	4	W
1-Nov-2005	1:00	3.6	W
1-Nov-2005	2:00	2.7	WNW
1-Nov-2005	3:00	2.7	W
1-Nov-2005	4:00	2.7	W
1-Nov-2005	5:00	3.1	WSW
1-Nov-2005	6:00	4	WSW
1-Nov-2005	7:00	3.6	SW
1-Nov-2005	8:00	3.1	SW
1-Nov-2005	9:00	2.2	SW
1-Nov-2005	10:00	1.8	WSW
1-Nov-2005	11:00	2.2	SW
1-Nov-2005	12:00	2.2	WSW
1-Nov-2005	13:00	2.2	SW
1-Nov-2005	14:00	2.2	SW
1-Nov-2005	15:00	2.7	WNW
1-Nov-2005	16:00	3.6	WSW
1-Nov-2005	17:00	3.1	WSW
1-Nov-2005	18:00	3.6	WSW
1-Nov-2005	19:00	3.1	SW
1-Nov-2005	20:00	3.1	WSW
1-Nov-2005	21:00	2.2	SW
1-Nov-2005	22:00	3.1	SW
1-Nov-2005	23:00	3.6	SW
2-Nov-2005	0:00	3.6	W
2-Nov-2005	1:00	3.1	WSW
2-Nov-2005	2:00	4.5	W
2-Nov-2005	3:00	4	W
2-Nov-2005	4:00	4.9	W
2-Nov-2005	5:00	4.5	WNW
2-Nov-2005	6:00	4.5	W
2-Nov-2005	7:00	4.5	W
2-Nov-2005	8:00	3.1	W
2-Nov-2005	9:00	2.7	SSW
2-Nov-2005	10:00	2.2	SW
2-Nov-2005	11:00	2.2	WSW
2-Nov-2005	12:00	1.8	W
2-Nov-2005	13:00	3.1	WNW
2-Nov-2005	14:00	3.1	W
2-Nov-2005	15:00	3.6	WNW
2-Nov-2005	16:00	4	NW
2-Nov-2005	17:00	2.7	W
2-Nov-2005	18:00	1.8	WNW
2-Nov-2005	19:00	1.3	WNW
2-Nov-2005	20:00	1.3	NW
2-Nov-2005	21:00	3.1	WNW
2-Nov-2005	22:00	4	W
2-Nov-2005	23:00	3.1	W
3-Nov-2005	0:00	2.7	W
3-Nov-2005	1:00	2.7	W
3-Nov-2005	2:00	3.1	WNW
3-Nov-2005	3:00	2.7	WNW
3-Nov-2005	4:00	2.7	WNW
3-Nov-2005	5:00	3.1	WNW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
3-Nov-2005	6:00	3.1	W
3-Nov-2005	7:00	2.7	WSW
3-Nov-2005	8:00	2.2	SW
3-Nov-2005	9:00	3.6	WNW
3-Nov-2005	10:00	3.1	WNW
3-Nov-2005	11:00	3.1	WNW
3-Nov-2005	12:00	3.6	WNW
3-Nov-2005	13:00	4	WNW
3-Nov-2005	14:00	3.6	WNW
3-Nov-2005	15:00	3.1	WNW
3-Nov-2005	16:00	2.2	WNW
3-Nov-2005	17:00	3.1	WNW
3-Nov-2005	18:00	1.3	WSW
3-Nov-2005	19:00	0.4	S
3-Nov-2005	20:00	0	W
3-Nov-2005	21:00	0	SW
3-Nov-2005	22:00	0	---
3-Nov-2005	23:00	0	SW
4-Nov-2005	0:00	2.7	WNW
4-Nov-2005	1:00	3.6	WNW
4-Nov-2005	2:00	3.1	WNW
4-Nov-2005	3:00	2.7	WNW
4-Nov-2005	4:00	1.3	WNW
4-Nov-2005	5:00	2.2	WNW
4-Nov-2005	6:00	1.8	WSW
4-Nov-2005	7:00	1.8	SSW
4-Nov-2005	8:00	1.3	SW
4-Nov-2005	9:00	1.8	WNW
4-Nov-2005	10:00	2.7	WNW
4-Nov-2005	11:00	3.6	WNW
4-Nov-2005	12:00	3.6	WNW
4-Nov-2005	13:00	4	WNW
4-Nov-2005	14:00	3.6	WNW
4-Nov-2005	15:00	2.2	WNW
4-Nov-2005	16:00	2.2	WNW
4-Nov-2005	17:00	2.2	W
4-Nov-2005	18:00	1.8	W
4-Nov-2005	19:00	0	SSW
4-Nov-2005	20:00	0	---
4-Nov-2005	21:00	0	S
4-Nov-2005	22:00	0	SSW
4-Nov-2005	23:00	0	---
5-Nov-2005	0:00	0	---
5-Nov-2005	1:00	0	SSW
5-Nov-2005	2:00	0	SSW
5-Nov-2005	3:00	0	SSW
5-Nov-2005	4:00	0	---
5-Nov-2005	5:00	0	---
5-Nov-2005	6:00	0	---
5-Nov-2005	7:00	0	---
5-Nov-2005	8:00	0	SW
5-Nov-2005	9:00	0.4	NW
5-Nov-2005	10:00	0.4	NW
5-Nov-2005	11:00	0.4	NW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
5-Nov-2005	12:00	0.9	N
5-Nov-2005	13:00	2.7	N
5-Nov-2005	14:00	2.2	NNE
5-Nov-2005	15:00	2.2	N
5-Nov-2005	16:00	1.8	NE
5-Nov-2005	17:00	2.2	ENE
5-Nov-2005	18:00	0.9	NNE
5-Nov-2005	19:00	0	NE
5-Nov-2005	20:00	0	E
5-Nov-2005	21:00	0	E
5-Nov-2005	22:00	0	E
5-Nov-2005	23:00	0	E
6-Nov-2005	0:00	0	---
6-Nov-2005	1:00	0	E
6-Nov-2005	2:00	0	---
6-Nov-2005	3:00	0	---
6-Nov-2005	4:00	0	---
6-Nov-2005	5:00	0	---
6-Nov-2005	6:00	0	---
6-Nov-2005	7:00	0	---
6-Nov-2005	8:00	0	---
6-Nov-2005	9:00	0	NE
6-Nov-2005	10:00	0.4	NW
6-Nov-2005	11:00	1.8	N
6-Nov-2005	12:00	3.1	N
6-Nov-2005	13:00	3.1	NNE
6-Nov-2005	14:00	2.7	NNE
6-Nov-2005	15:00	3.1	NNE
6-Nov-2005	16:00	2.7	NNE
6-Nov-2005	17:00	2.2	NE
6-Nov-2005	18:00	1.3	ENE
6-Nov-2005	19:00	0.4	NE
6-Nov-2005	20:00	0.9	NE
6-Nov-2005	21:00	0.9	ENE
6-Nov-2005	22:00	0	ENE
6-Nov-2005	23:00	0	ENE
7-Nov-2005	0:00	0	---
7-Nov-2005	1:00	0	ENE
7-Nov-2005	2:00	0	ENE
7-Nov-2005	3:00	0	---
7-Nov-2005	4:00	0	ENE
7-Nov-2005	5:00	0	---
7-Nov-2005	6:00	0	---
7-Nov-2005	7:00	0	---
7-Nov-2005	8:00	0	---
7-Nov-2005	9:00	0	ENE
7-Nov-2005	10:00	0	---
7-Nov-2005	11:00	0	W
7-Nov-2005	12:00	1.3	WNW
7-Nov-2005	13:00	1.3	NE
7-Nov-2005	14:00	1.3	N
7-Nov-2005	15:00	2.2	WNW
7-Nov-2005	16:00	1.8	W
7-Nov-2005	17:00	1.3	N

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
7-Nov-2005	18:00	1.3	WNW
7-Nov-2005	19:00	0.9	W
7-Nov-2005	20:00	0.4	W
7-Nov-2005	21:00	1.3	W
7-Nov-2005	22:00	1.8	W
7-Nov-2005	23:00	2.7	W
8-Nov-2005	0:00	2.7	W
8-Nov-2005	1:00	2.7	W
8-Nov-2005	2:00	2.7	W
8-Nov-2005	3:00	3.1	W
8-Nov-2005	4:00	2.7	WNW
8-Nov-2005	5:00	2.2	W
8-Nov-2005	6:00	2.2	W
8-Nov-2005	7:00	1.8	W
8-Nov-2005	8:00	2.2	W
8-Nov-2005	9:00	2.2	W
8-Nov-2005	10:00	1.3	W
8-Nov-2005	11:00	0.9	W
8-Nov-2005	12:00	2.7	WNW
8-Nov-2005	13:00	2.7	WNW
8-Nov-2005	14:00	2.2	WNW
8-Nov-2005	15:00	1.3	W
8-Nov-2005	16:00	2.2	W
8-Nov-2005	17:00	1.3	WSW
8-Nov-2005	18:00	1.3	WSW
8-Nov-2005	19:00	0	S
8-Nov-2005	20:00	0	S
8-Nov-2005	21:00	0	S
8-Nov-2005	22:00	0	S
8-Nov-2005	23:00	0	---
9-Nov-2005	0:00	0	S
9-Nov-2005	1:00	0	S
9-Nov-2005	2:00	0	---
9-Nov-2005	3:00	0	---
9-Nov-2005	4:00	0	---
9-Nov-2005	5:00	0	S
9-Nov-2005	6:00	0	S
9-Nov-2005	7:00	0	---
9-Nov-2005	8:00	0	NE
9-Nov-2005	9:00	0.9	W
9-Nov-2005	10:00	2.7	WNW
9-Nov-2005	11:00	2.2	WNW
9-Nov-2005	12:00	1.3	WNW
9-Nov-2005	13:00	1.3	WNW
9-Nov-2005	14:00	1.3	N
9-Nov-2005	15:00	1.3	N
9-Nov-2005	16:00	1.8	NNE
9-Nov-2005	17:00	1.8	N
9-Nov-2005	18:00	1.3	E
9-Nov-2005	19:00	0.4	ENE
9-Nov-2005	20:00	0.4	ENE
9-Nov-2005	21:00	0	---
9-Nov-2005	22:00	0	WNW
9-Nov-2005	23:00	0	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
10-Nov-2005	0:00	0	---
10-Nov-2005	1:00	0	---
10-Nov-2005	2:00	0	---
10-Nov-2005	3:00	0	---
10-Nov-2005	4:00	0	---
10-Nov-2005	5:00	0	---
10-Nov-2005	6:00	0	---
10-Nov-2005	7:00	0	---
10-Nov-2005	8:00	0	---
10-Nov-2005	9:00	0	NW
10-Nov-2005	10:00	0.4	NW
10-Nov-2005	11:00	0.9	WNW
10-Nov-2005	12:00	1.3	WNW
10-Nov-2005	13:00	2.7	NE
10-Nov-2005	14:00	2.7	NE
10-Nov-2005	15:00	2.7	NE
10-Nov-2005	16:00	2.2	N
10-Nov-2005	17:00	2.2	N
10-Nov-2005	18:00	0.4	NW
10-Nov-2005	19:00	0.4	E
10-Nov-2005	20:00	0	E
10-Nov-2005	21:00	0.9	ESE
10-Nov-2005	22:00	0.4	ESE
10-Nov-2005	23:00	0	---
11-Nov-2005	0:00	0	---
11-Nov-2005	1:00	0	SE
11-Nov-2005	2:00	0	---
11-Nov-2005	3:00	0	---
11-Nov-2005	4:00	0	SE
11-Nov-2005	5:00	0	---
11-Nov-2005	6:00	0	---
11-Nov-2005	7:00	0	SE
11-Nov-2005	8:00	0	---
11-Nov-2005	9:00	0	WNW
11-Nov-2005	10:00	0	WNW
11-Nov-2005	11:00	0	WNW
11-Nov-2005	12:00	0.4	WNW
11-Nov-2005	13:00	0.4	ENE
11-Nov-2005	14:00	0.4	WNW
11-Nov-2005	15:00	0.9	N
11-Nov-2005	16:00	2.2	N
11-Nov-2005	17:00	1.3	NE
11-Nov-2005	18:00	0.9	E
11-Nov-2005	19:00	0	ENE
11-Nov-2005	20:00	0	---
11-Nov-2005	21:00	0	---
11-Nov-2005	22:00	0	---
11-Nov-2005	23:00	0	---
12-Nov-2005	0:00	0	---
12-Nov-2005	1:00	0	---
12-Nov-2005	2:00	0	---
12-Nov-2005	3:00	0	---
12-Nov-2005	4:00	0	---
12-Nov-2005	5:00	0	---

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
12-Nov-2005	6:00	0	---
12-Nov-2005	7:00	0	E
12-Nov-2005	8:00	0	---
12-Nov-2005	9:00	0	W
12-Nov-2005	10:00	2.2	WNW
12-Nov-2005	11:00	2.7	WNW
12-Nov-2005	12:00	4.9	WNW
12-Nov-2005	13:00	4.5	WNW
12-Nov-2005	14:00	4	WNW
12-Nov-2005	15:00	4	WNW
12-Nov-2005	16:00	4.9	WNW
12-Nov-2005	17:00	3.6	W
12-Nov-2005	18:00	3.1	WSW
12-Nov-2005	19:00	4.9	WNW
12-Nov-2005	20:00	4	WNW
12-Nov-2005	21:00	4.9	W
12-Nov-2005	22:00	4.5	WNW
12-Nov-2005	23:00	3.1	W
13-Nov-2005	0:00	3.6	W
13-Nov-2005	1:00	3.6	WNW
13-Nov-2005	2:00	3.6	W
13-Nov-2005	3:00	3.6	W
13-Nov-2005	4:00	4	W
13-Nov-2005	5:00	3.6	W
13-Nov-2005	6:00	3.1	WNW
13-Nov-2005	7:00	1.8	W
13-Nov-2005	8:00	1.3	SW
13-Nov-2005	9:00	3.6	W
13-Nov-2005	10:00	2.7	WNW
13-Nov-2005	11:00	2.7	WNW
13-Nov-2005	12:00	3.1	WNW
13-Nov-2005	13:00	3.6	W
13-Nov-2005	14:00	2.7	WNW
13-Nov-2005	15:00	2.7	WNW
13-Nov-2005	16:00	2.7	WNW
13-Nov-2005	17:00	2.7	WNW
13-Nov-2005	18:00	2.2	W
13-Nov-2005	19:00	2.7	WNW
13-Nov-2005	20:00	2.7	WNW
13-Nov-2005	21:00	1.8	WNW
13-Nov-2005	22:00	2.2	W
13-Nov-2005	23:00	1.8	W
14-Nov-2005	0:00	1.8	WNW
14-Nov-2005	1:00	1.8	WNW
14-Nov-2005	2:00	1.8	WSW
14-Nov-2005	3:00	0.9	WNW
14-Nov-2005	4:00	1.3	WNW
14-Nov-2005	5:00	0.4	SSW
14-Nov-2005	6:00	0.4	SSW
14-Nov-2005	7:00	0.4	SW
14-Nov-2005	8:00	0.4	WNW
14-Nov-2005	9:00	2.7	WNW
14-Nov-2005	10:00	2.7	W
14-Nov-2005	11:00	2.7	WNW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
14-Nov-2005	12:00	2.2	WNW
14-Nov-2005	13:00	3.1	W
14-Nov-2005	14:00	3.6	WNW
14-Nov-2005	15:00	4.5	WNW
14-Nov-2005	16:00	3.6	WNW
14-Nov-2005	17:00	4	W
14-Nov-2005	18:00	2.7	W
14-Nov-2005	19:00	2.2	W
14-Nov-2005	20:00	2.7	W
14-Nov-2005	21:00	1.8	SW
14-Nov-2005	22:00	2.2	WSW
14-Nov-2005	23:00	3.1	WNW
15-Nov-2005	0:00	3.1	WNW
15-Nov-2005	1:00	3.6	W
15-Nov-2005	2:00	3.1	WNW
15-Nov-2005	3:00	2.7	W
15-Nov-2005	4:00	2.7	W
15-Nov-2005	5:00	3.1	W
15-Nov-2005	6:00	2.2	SW
15-Nov-2005	7:00	1.3	SW
15-Nov-2005	8:00	0.9	SSW
15-Nov-2005	9:00	0	SSW
15-Nov-2005	10:00	1.3	SSW
15-Nov-2005	11:00	3.1	WSW
15-Nov-2005	12:00	3.1	SW
15-Nov-2005	13:00	2.7	WNW
15-Nov-2005	14:00	3.6	WNW
15-Nov-2005	15:00	3.1	WNW
15-Nov-2005	16:00	2.7	WSW
15-Nov-2005	17:00	2.7	WSW
15-Nov-2005	18:00	3.6	WNW
15-Nov-2005	19:00	4.9	WNW
15-Nov-2005	20:00	3.1	WSW
15-Nov-2005	21:00	3.1	WSW
15-Nov-2005	22:00	2.2	SW
15-Nov-2005	23:00	2.2	SW
16-Nov-2005	0:00	2.2	SW
16-Nov-2005	1:00	2.7	SW
16-Nov-2005	2:00	1.8	WSW
16-Nov-2005	3:00	2.7	WNW
16-Nov-2005	4:00	2.7	SW
16-Nov-2005	5:00	2.7	WSW
16-Nov-2005	6:00	2.2	WSW
16-Nov-2005	7:00	3.1	WSW
16-Nov-2005	8:00	3.6	W
16-Nov-2005	9:00	4	WNW
16-Nov-2005	10:00	3.1	WNW
16-Nov-2005	11:00	3.6	W
16-Nov-2005	12:00	3.6	WSW
16-Nov-2005	13:00	2.7	W
16-Nov-2005	14:00	2.2	WNW
16-Nov-2005	15:00	1.8	WNW
16-Nov-2005	16:00	1.8	WNW
16-Nov-2005	17:00	1.8	SW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
16-Nov-2005	18:00	1.8	SSW
16-Nov-2005	19:00	2.7	SSW
16-Nov-2005	20:00	2.7	SW
16-Nov-2005	21:00	2.7	W
16-Nov-2005	22:00	4.5	WNW
16-Nov-2005	23:00	2.7	SW
17-Nov-2005	0:00	2.2	SW
17-Nov-2005	1:00	2.2	SW
17-Nov-2005	2:00	2.2	WNW
17-Nov-2005	3:00	2.2	W
17-Nov-2005	4:00	1.8	WSW
17-Nov-2005	5:00	1.8	SW
17-Nov-2005	6:00	0.9	WNW
17-Nov-2005	7:00	1.3	WNW
17-Nov-2005	8:00	2.7	WNW
17-Nov-2005	9:00	3.6	WNW
17-Nov-2005	10:00	3.6	WNW
17-Nov-2005	11:00	3.1	WNW
17-Nov-2005	12:00	3.1	WNW
17-Nov-2005	13:00	3.1	WNW
17-Nov-2005	14:00	3.1	WSW
17-Nov-2005	15:00	4	WNW
17-Nov-2005	16:00	3.1	WNW
17-Nov-2005	17:00	2.2	W
17-Nov-2005	18:00	1.3	W
17-Nov-2005	19:00	0	WNW
17-Nov-2005	20:00	1.8	WSW
17-Nov-2005	21:00	1.8	SW
17-Nov-2005	22:00	3.6	W
17-Nov-2005	23:00	2.7	WSW
18-Nov-2005	0:00	2.2	SW
18-Nov-2005	1:00	2.2	WSW
18-Nov-2005	2:00	2.7	WSW
18-Nov-2005	3:00	3.1	WSW
18-Nov-2005	4:00	2.7	WSW
18-Nov-2005	5:00	2.2	WNW
18-Nov-2005	6:00	2.2	SW
18-Nov-2005	7:00	1.8	SW
18-Nov-2005	8:00	3.1	WSW
18-Nov-2005	9:00	4.5	WNW
18-Nov-2005	10:00	4.9	WNW
18-Nov-2005	11:00	4.5	WNW
18-Nov-2005	12:00	3.1	WSW
18-Nov-2005	13:00	2.7	WSW
18-Nov-2005	14:00	2.7	WNW
18-Nov-2005	15:00	3.6	WNW
18-Nov-2005	16:00	3.1	SW
18-Nov-2005	17:00	2.2	SW
18-Nov-2005	18:00	1.3	SSW
18-Nov-2005	19:00	2.2	SSW
18-Nov-2005	20:00	1.8	SSW
18-Nov-2005	21:00	1.3	SSW
18-Nov-2005	22:00	1.8	WSW
18-Nov-2005	23:00	1.8	WSW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
19-Nov-2005	0:00	2.2	WSW
19-Nov-2005	1:00	2.2	WNW
19-Nov-2005	2:00	1.8	SW
19-Nov-2005	3:00	2.2	WSW
19-Nov-2005	4:00	2.2	SW
19-Nov-2005	5:00	2.2	WSW
19-Nov-2005	6:00	3.1	WNW
19-Nov-2005	7:00	1.8	SW
19-Nov-2005	8:00	1.8	WNW
19-Nov-2005	9:00	3.1	WNW
19-Nov-2005	10:00	3.1	W
19-Nov-2005	11:00	3.1	WSW
19-Nov-2005	12:00	5.8	WNW
19-Nov-2005	13:00	5.4	WNW
19-Nov-2005	14:00	4.5	WNW
19-Nov-2005	15:00	4.5	WNW
19-Nov-2005	16:00	4	WSW
19-Nov-2005	17:00	3.1	WSW
19-Nov-2005	18:00	2.7	SW
19-Nov-2005	19:00	2.2	SSW
19-Nov-2005	20:00	2.7	WSW
19-Nov-2005	21:00	2.2	WSW
19-Nov-2005	22:00	1.8	SW
19-Nov-2005	23:00	1.3	SW
20-Nov-2005	0:00	2.7	WSW
20-Nov-2005	1:00	2.7	W
20-Nov-2005	2:00	3.1	WSW
20-Nov-2005	3:00	2.2	WSW
20-Nov-2005	4:00	2.7	WNW
20-Nov-2005	5:00	2.2	WNW
20-Nov-2005	6:00	1.3	W
20-Nov-2005	7:00	2.2	WSW
20-Nov-2005	8:00	3.1	WSW
20-Nov-2005	9:00	3.6	WSW
20-Nov-2005	10:00	6.7	WNW
20-Nov-2005	11:00	7.2	WNW
20-Nov-2005	12:00	6.7	WNW
20-Nov-2005	13:00	6.3	WNW
20-Nov-2005	14:00	5.4	WNW
20-Nov-2005	15:00	5.4	WNW
20-Nov-2005	16:00	2.7	WSW
20-Nov-2005	17:00	0.9	SW
20-Nov-2005	18:00	0.9	SSW
20-Nov-2005	19:00	1.8	SW
20-Nov-2005	20:00	1.8	SW
20-Nov-2005	21:00	2.2	SW
20-Nov-2005	22:00	2.2	SW
20-Nov-2005	23:00	2.2	WSW
21-Nov-2005	0:00	3.1	WNW
21-Nov-2005	1:00	3.1	SW
21-Nov-2005	2:00	2.7	WSW
21-Nov-2005	3:00	3.1	WSW
21-Nov-2005	4:00	3.1	WSW
21-Nov-2005	5:00	2.7	WSW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
21-Nov-2005	6:00	2.2	WSW
21-Nov-2005	7:00	1.8	WSW
21-Nov-2005	8:00	2.7	W
21-Nov-2005	9:00	3.1	WSW
21-Nov-2005	10:00	4.5	WNW
21-Nov-2005	11:00	6.3	WNW
21-Nov-2005	12:00	6.7	WNW
21-Nov-2005	13:00	6.3	WNW
21-Nov-2005	14:00	5.8	WNW
21-Nov-2005	15:00	5.4	WNW
21-Nov-2005	16:00	4.9	WNW
21-Nov-2005	17:00	3.1	SW
21-Nov-2005	18:00	3.1	SW
21-Nov-2005	19:00	2.2	SSW
21-Nov-2005	20:00	1.8	SW
21-Nov-2005	21:00	1.8	SSW
21-Nov-2005	22:00	0.9	SW
21-Nov-2005	23:00	1.3	WNW
22-Nov-2005	0:00	0.4	WNW
22-Nov-2005	1:00	0.9	WNW
22-Nov-2005	2:00	0	WNW
22-Nov-2005	3:00	0.9	WNW
22-Nov-2005	4:00	1.8	WNW
22-Nov-2005	5:00	2.7	WNW
22-Nov-2005	6:00	1.3	WNW
22-Nov-2005	7:00	2.7	WNW
22-Nov-2005	8:00	3.6	WNW
22-Nov-2005	9:00	4	WNW
22-Nov-2005	10:00	4.5	WNW
22-Nov-2005	11:00	4.5	WNW
22-Nov-2005	12:00	3.1	WNW
22-Nov-2005	13:00	3.6	WNW
22-Nov-2005	14:00	4	WNW
22-Nov-2005	15:00	2.2	WNW
22-Nov-2005	16:00	2.2	W
22-Nov-2005	17:00	1.3	SSW
22-Nov-2005	18:00	0.4	SSW
22-Nov-2005	19:00	0	SSW
22-Nov-2005	20:00	0	SSW
22-Nov-2005	21:00	0	---
22-Nov-2005	22:00	0	---
22-Nov-2005	23:00	0	SSW
23-Nov-2005	0:00	0	SW
23-Nov-2005	1:00	0	SW
23-Nov-2005	2:00	0	SW
23-Nov-2005	3:00	0.4	WSW
23-Nov-2005	4:00	0.9	WNW
23-Nov-2005	5:00	2.2	WNW
23-Nov-2005	6:00	0.4	W
23-Nov-2005	7:00	0	WSW
23-Nov-2005	8:00	0.4	WNW
23-Nov-2005	9:00	1.3	WNW
23-Nov-2005	10:00	1.8	WNW
23-Nov-2005	11:00	4	WNW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
23-Nov-2005	12:00	4.5	WNW
23-Nov-2005	13:00	3.1	WNW
23-Nov-2005	14:00	2.7	WNW
23-Nov-2005	15:00	3.1	W
23-Nov-2005	16:00	2.7	WNW
23-Nov-2005	17:00	0.9	S
23-Nov-2005	18:00	0.9	SSW
23-Nov-2005	19:00	0	SW
23-Nov-2005	20:00	0	SSW
23-Nov-2005	21:00	0	---
23-Nov-2005	22:00	0	SSW
23-Nov-2005	23:00	0	---
24-Nov-2005	0:00	0	---
24-Nov-2005	1:00	0	---
24-Nov-2005	2:00	0	---
24-Nov-2005	3:00	0	SSW
24-Nov-2005	4:00	0.9	W
24-Nov-2005	5:00	1.8	SW
24-Nov-2005	6:00	1.3	SW
24-Nov-2005	7:00	1.8	SW
24-Nov-2005	8:00	1.3	W
24-Nov-2005	9:00	3.6	WNW
24-Nov-2005	10:00	4	WNW
24-Nov-2005	11:00	3.1	WNW
24-Nov-2005	12:00	3.1	WNW
24-Nov-2005	13:00	2.7	WNW
24-Nov-2005	14:00	2.7	WNW
24-Nov-2005	15:00	1.8	WNW
24-Nov-2005	16:00	0.9	N
24-Nov-2005	17:00	1.3	ENE
24-Nov-2005	18:00	0	E
24-Nov-2005	19:00	0	---
24-Nov-2005	20:00	0.4	SE
24-Nov-2005	21:00	0	SE
24-Nov-2005	22:00	0	---
24-Nov-2005	23:00	0	---
25-Nov-2005	0:00	0	---
25-Nov-2005	1:00	0	SE
25-Nov-2005	2:00	0	SE
25-Nov-2005	3:00	0	---
25-Nov-2005	4:00	0	SE
25-Nov-2005	5:00	0	---
25-Nov-2005	6:00	0	SSW
25-Nov-2005	7:00	0.9	SW
25-Nov-2005	8:00	1.8	WSW
25-Nov-2005	9:00	1.8	WSW
25-Nov-2005	10:00	2.7	WNW
25-Nov-2005	11:00	2.2	WNW
25-Nov-2005	12:00	1.3	W
25-Nov-2005	13:00	1.8	W
25-Nov-2005	14:00	0.9	WNW
25-Nov-2005	15:00	0.9	N
25-Nov-2005	16:00	1.3	N
25-Nov-2005	17:00	0.9	NE

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
25-Nov-2005	18:00	0.4	E
25-Nov-2005	19:00	0	ESE
25-Nov-2005	20:00	0	---
25-Nov-2005	21:00	0	---
25-Nov-2005	22:00	0	---
25-Nov-2005	23:00	0	---
26-Nov-2005	0:00	0	ESE
26-Nov-2005	1:00	0	---
26-Nov-2005	2:00	0	---
26-Nov-2005	3:00	0	---
26-Nov-2005	4:00	0	---
26-Nov-2005	5:00	0	---
26-Nov-2005	6:00	0	---
26-Nov-2005	7:00	0	---
26-Nov-2005	8:00	0	ESE
26-Nov-2005	9:00	0	ESE
26-Nov-2005	10:00	1.3	WNW
26-Nov-2005	11:00	0.9	WNW
26-Nov-2005	12:00	1.8	WNW
26-Nov-2005	13:00	3.6	WNW
26-Nov-2005	14:00	2.2	W
26-Nov-2005	15:00	1.3	WNW
26-Nov-2005	16:00	2.7	NE
26-Nov-2005	17:00	2.2	NE
26-Nov-2005	18:00	0.4	NE
26-Nov-2005	19:00	0	---
26-Nov-2005	20:00	0	NE
26-Nov-2005	21:00	0	E
26-Nov-2005	22:00	0	---
26-Nov-2005	23:00	0	---
27-Nov-2005	0:00	0	---
27-Nov-2005	1:00	0	---
27-Nov-2005	2:00	0	---
27-Nov-2005	3:00	0	---
27-Nov-2005	4:00	0	---
27-Nov-2005	5:00	0	E
27-Nov-2005	6:00	0	---
27-Nov-2005	7:00	0	---
27-Nov-2005	8:00	0	S
27-Nov-2005	9:00	0	WNW
27-Nov-2005	10:00	0.4	NW
27-Nov-2005	11:00	3.1	WNW
27-Nov-2005	12:00	3.1	W
27-Nov-2005	13:00	3.6	WNW
27-Nov-2005	14:00	4	WNW
27-Nov-2005	15:00	3.1	WSW
27-Nov-2005	16:00	3.1	SW
27-Nov-2005	17:00	3.6	WSW
27-Nov-2005	18:00	3.6	W
27-Nov-2005	19:00	2.7	WSW
27-Nov-2005	20:00	2.7	WNW
27-Nov-2005	21:00	1.8	W
27-Nov-2005	22:00	2.2	WNW
27-Nov-2005	23:00	1.3	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
28-Nov-2005	0:00	1.8	WNW
28-Nov-2005	1:00	0.9	W
28-Nov-2005	2:00	1.8	W
28-Nov-2005	3:00	0.9	W
28-Nov-2005	4:00	0.9	WNW
28-Nov-2005	5:00	0.9	W
28-Nov-2005	6:00	1.8	WNW
28-Nov-2005	7:00	1.8	WNW
28-Nov-2005	8:00	1.3	W
28-Nov-2005	9:00	2.2	WNW
28-Nov-2005	10:00	2.2	W
28-Nov-2005	11:00	2.7	W
28-Nov-2005	12:00	3.6	WNW
28-Nov-2005	13:00	2.7	WNW
28-Nov-2005	14:00	2.2	WNW
28-Nov-2005	15:00	1.3	WNW
28-Nov-2005	16:00	0.9	WNW
28-Nov-2005	17:00	1.3	NE
28-Nov-2005	18:00	0.4	NE
28-Nov-2005	19:00	0.4	E
28-Nov-2005	20:00	0	NE
28-Nov-2005	21:00	0	ENE
28-Nov-2005	22:00	0	---
28-Nov-2005	23:00	0	---
29-Nov-2005	0:00	3.6	SW
29-Nov-2005	1:00	3.1	WSW
29-Nov-2005	2:00	4	SW
29-Nov-2005	3:00	3.6	SW
29-Nov-2005	4:00	4	SW
29-Nov-2005	5:00	4.9	WSW
29-Nov-2005	6:00	4	SW
29-Nov-2005	7:00	4.9	WSW
29-Nov-2005	8:00	4.5	SW
29-Nov-2005	9:00	4.9	W
29-Nov-2005	10:00	4	W
29-Nov-2005	11:00	4.9	W
29-Nov-2005	12:00	6.7	W
29-Nov-2005	13:00	4.9	W
29-Nov-2005	14:00	4	WSW
29-Nov-2005	15:00	4	WSW
29-Nov-2005	16:00	3.1	SW
29-Nov-2005	17:00	3.6	SW
29-Nov-2005	18:00	3.1	SW
29-Nov-2005	19:00	2.7	SSW
29-Nov-2005	20:00	2.2	SSW
29-Nov-2005	21:00	2.7	SSW
29-Nov-2005	22:00	3.1	SW
29-Nov-2005	23:00	3.6	SW
30-Nov-2005	0:00	2.7	WSW
30-Nov-2005	1:00	1.3	W
30-Nov-2005	2:00	2.7	WSW
30-Nov-2005	3:00	3.6	SW
30-Nov-2005	4:00	3.1	WSW
30-Nov-2005	5:00	4	SW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
30-Nov-2005	6:00	2.7	SW
30-Nov-2005	7:00	3.6	SW
30-Nov-2005	8:00	2.7	SW
30-Nov-2005	9:00	3.1	WSW
30-Nov-2005	10:00	3.1	WSW
30-Nov-2005	11:00	3.1	WSW
30-Nov-2005	12:00	2.7	SW
30-Nov-2005	13:00	2.7	SSW
30-Nov-2005	14:00	2.7	WSW
30-Nov-2005	15:00	2.7	W
30-Nov-2005	16:00	2.7	W
30-Nov-2005	17:00	2.7	W
30-Nov-2005	18:00	2.2	W
30-Nov-2005	19:00	2.2	W
30-Nov-2005	20:00	2.7	W
30-Nov-2005	21:00	2.2	W
30-Nov-2005	22:00	3.1	W
30-Nov-2005	23:00	3.1	W

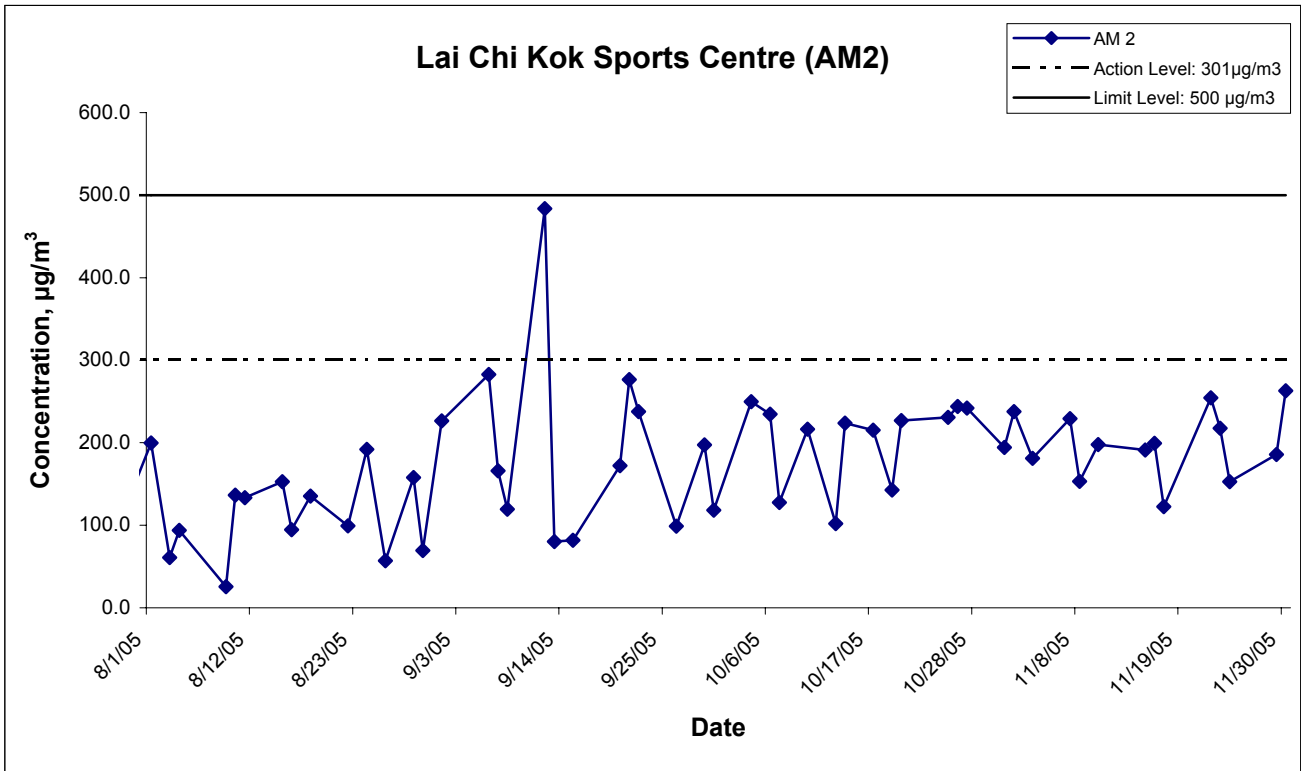
**APPENDIX E
1-HOUR TSP MONITORING RESULTS
AND GRAPHICAL PRESENTATION**

Appendix E - 1-hour TSP Monitoring Results

Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather Condition	Filter Weight (g)		Flow Rate (m ³ /min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m ³ /min)	Total vol. (m ³)	Sampling Time(hrs.)	Conc. (µg/m ³)
		Initial	Final	Initial	Final	Initial	Final							
1-Nov-05	Cloudy	2.7884	2.8061	1.24	1.24	3413.1	3414.1	295.6	765.2	0.0177	1.24	74.5	1.0	237.7
3-Nov-05	Sunny	2.8333	2.8469	1.25	1.25	3414.1	3415.1	299.0	764.8	0.0136	1.25	75.0	1.0	181.3
7-Nov-05	Sunny	2.8916	2.9085	1.23	1.23	3439.1	3440.1	299.6	762.1	0.0169	1.23	73.8	1.0	229.0
8-Nov-05	Sunny	2.8903	2.9015	1.23	1.23	3440.1	3441.1	299.6	764.2	0.0112	1.23	73.2	1.0	153.1
10-Nov-05	Sunny	2.8644	2.8790	1.23	1.23	3441.1	3442.1	300.0	761.8	0.0146	1.23	73.7	1.0	198.0
15-Nov-05	Cloudy	2.8019	2.8161	1.24	1.24	3467.1	3468.1	296.1	762.4	0.0142	1.24	74.2	1.0	191.3
16-Nov-05	Sunny	2.8697	2.8846	1.25	1.25	3468.1	3469.1	292.7	765.1	0.0149	1.25	74.8	1.0	199.2
17-Nov-05	Sunny	2.8853	2.8945	1.25	1.25	3493.1	3494.1	292.1	766.7	0.0092	1.25	75.0	1.0	122.7
22-Nov-05	Sunny	2.8848	2.9040	1.26	1.26	3494.1	3495.1	289.4	769.7	0.0192	1.26	75.5	1.0	254.4
23-Nov-05	Sunny	2.8086	2.8248	1.24	1.24	3519.1	3520.1	295.9	765.9	0.0162	1.24	74.4	1.0	217.6
24-Nov-05	Sunny	2.7633	2.7747	1.24	1.24	3520.1	3521.1	294.8	765.4	0.0114	1.24	74.6	1.0	152.9
29-Nov-05	Cloudy	2.8497	2.8635	1.24	1.24	3545.1	3546.1	296.4	764.2	0.0138	1.24	74.3	1.0	185.7
30-Nov-05	Sunny	2.8894	2.9090	1.24	1.24	3546.1	3547.1	294.2	763.6	0.0196	1.24	74.5	1.0	262.9
													Min	122.7
													Max	262.9
													Average	198.9

1-hr TSP Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct Graphical Presentation of 1-hour TSP Impact Monitoring Results	Scale N.T.S	Project No. MA3024	
	Date Nov 05	Appendix E	

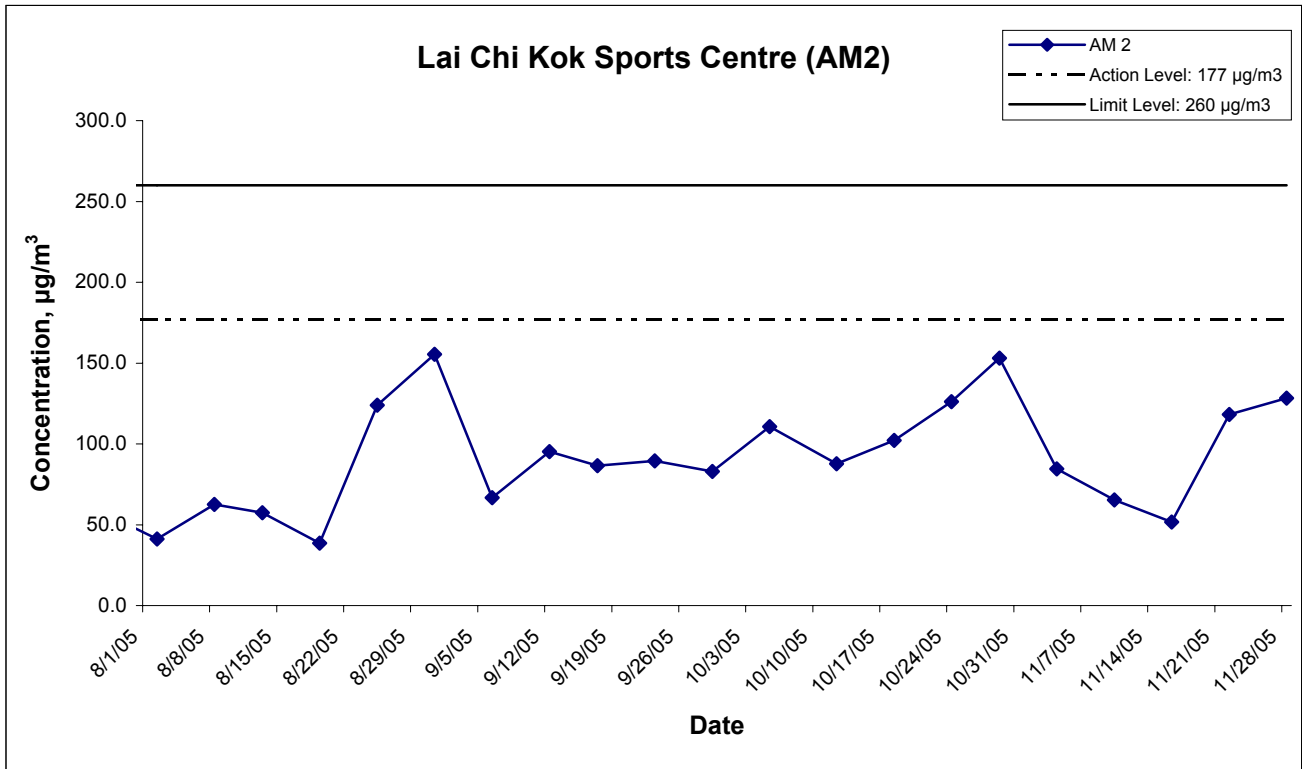
**APPENDIX F
24-HOUR TSP MONITORING RESULTS
AND GRAPHICAL PRESENTATION**

Appendix F - 24-hour TSP Monitoring Results

Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather Condition	Filter Weight (g)		Flow Rate (m ³ /min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m ³ /min)	Total vol. (m ³)	Sampling Time(hrs.)	Conc. (µg/m ³)
		Initial	Final	Initial	Final	Initial	Final							
4-Nov-05	Sunny	2.8489	2.9991	1.23	1.23	3415.1	3439.1	298.7	764.0	0.1502	1.23	1776.0	24.0	84.6
10-Nov-05	Cloudy	2.7905	2.9062	1.23	1.23	3422.1	3466.1	300.2	761.6	0.1157	1.23	1768.7	44.0	65.4
16-Nov-05	Sunny	2.8725	2.9653	1.25	1.25	3469.1	3493.1	293.0	764.9	0.0928	1.25	1794.3	24.0	51.7
22-Nov-05	Sunny	2.8840	3.0981	1.26	1.26	3495.1	3519.1	289.8	769.5	0.2141	1.26	1809.8	24.0	118.3
28-Nov-05	Cloudy	2.8035	3.0326	1.24	1.24	3521.1	3545.1	296.0	766.0	0.2291	1.24	1786.4	24.0	128.2
													Min	51.7
													Max	128.2
													Average	89.6

24-hr TSP Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct Graphical Presentation of 24-hour TSP Impact Monitoring Results	Scale N.T.S	Project No. MA3024	
	Date Nov 05	Appendix F	

**APPENDIX G
NOISE MONITORING RESULTS AND
GRAPHICAL PRESENTATION**

Appendix G - Noise Monitoring Results

Location NM4 - Mei Foo Sun Chuen, Phase 5								
Date	Time	Weather	Unit: dB (A) (30-min)				Remarks	
			Measured Noise Level			Baseline Level		Construction Noise Level
			L _{eq}	L ₁₀	L ₉₀	L _{eq}		L _{eq}
1-Nov-05	15:05	Cloudy	76.2	78.0	73.0	73.8	Road traffic noise from Ching Cheung Road was identified as the major noise source.	
8-Nov-05	15:30	Sunny	76.5	78.0	74.5			
16-Nov-05	14:00	Sunny	76.2	78.0	73.5			
23-Nov-05	11:15	Sunny	77.2	78.5	74.5			
30-Nov-05	10:04	Sunny	76.1	78.0	71.5			
							72.5	
							73.2	
							72.5	
							74.5	
							72.2	

Location NM8a - M/F of Nob Hill						
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks
			L _{eq}	L ₁₀	L ₉₀	
1-Nov-05	13:40	Cloudy	73.2	77.0	72.0	Road traffic noise from Ching Cheung Road was identified as the major noise source.
8-Nov-05	10:45	Sunny	73.2	76.5	71.5	
16-Nov-05	14:50	Sunny	74.0	78.0	72.5	
23-Nov-05	13:05	Sunny	72.4	74.5	69.0	
30-Nov-05	10:56	Sunny	77.4	79.0	72.0	

Location NM8b - 3/F of Nob Hill						
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks
			L _{eq}	L ₁₀	L ₉₀	
1-Nov-05	14:15	Cloudy	77.3	78.0	72.5	Road traffic noise from Ching Cheung Road was identified as the major noise source.
8-Nov-05	10:05	Sunny	75.8	78.0	72.0	
16-Nov-05	15:35	Sunny	77.5	80.0	72.0	
23-Nov-05	13:40	Sunny	77.3	79.0	74.0	
30-Nov-05	13:12	Sunny	78.9	80.5	74.5	

Location NM9 - Hoi Lai Estate						
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks
			L _{eq}	L ₁₀	L ₉₀	
1-Nov-05	13:00	Cloudy	67.4	68.5	63.0	-
8-Nov-05	11:30	Sunny	68.9	70.0	67.5	
16-Nov-05	16:30	Sunny	65.4	67.0	63.0	
23-Nov-05	14:35	Sunny	67.3	68.0	64.5	
30-Nov-05	14:34	Sunny	66.4	69.0	63.5	

Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

*Bolted value indicated limit level exceedance

Appendix G - Noise Monitoring Results

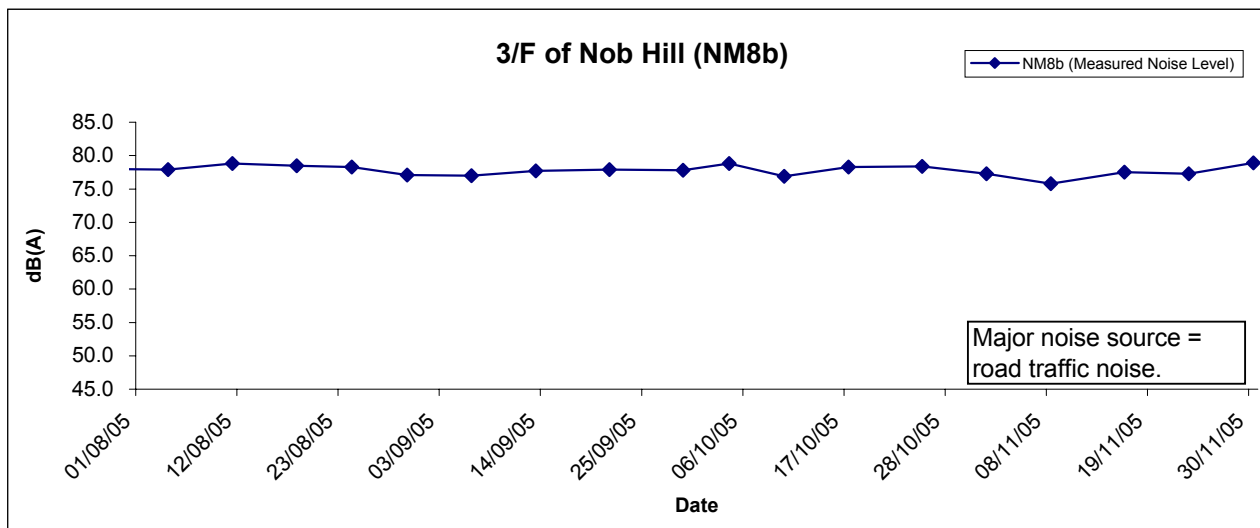
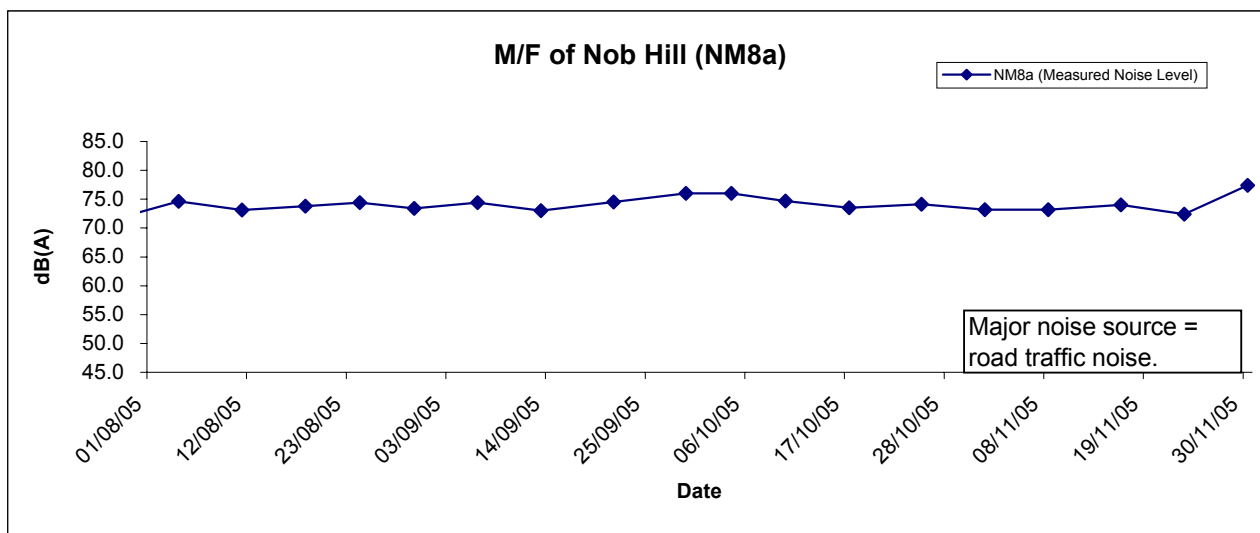
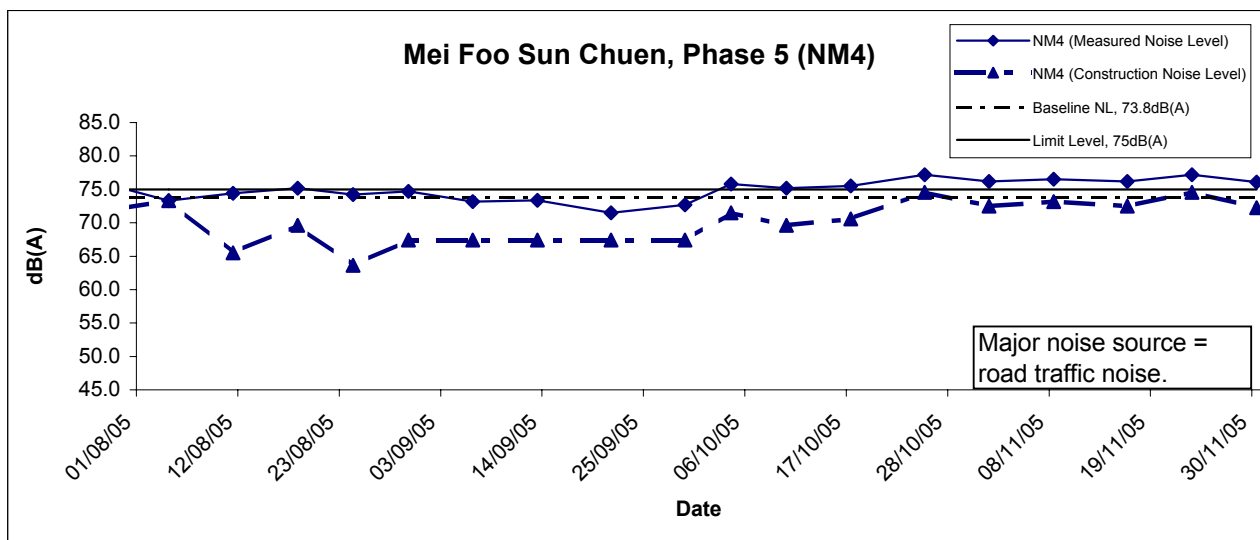
Restricted Hours - 19:00 to 23:00 on normal weekdays

Location NM9 - Hoi Lai Estate						
Date	Time	Weather	dB (A) (5-min)			
			L _{eq}	L ₁₀	L ₉₀	Average L _{eq}
1-Nov-05	19:10	Cloudy	66.5	69.0	61.0	66.7
	19:15		66.6	69.0	61.0	
	19:20		67.1	69.5	61.5	
8-Nov-05	19:00	Cloudy	65.7	68.5	62.0	65.7
	19:05		65.7	68.5	62.0	
	19:20		65.8	69.0	62.0	
18-Nov-05	19:00	Cloudy	65.3	69.0	62.5	65.6
	19:05		65.7	69.0	62.5	
	19:10		65.8	69.0	62.5	
22-Nov-05	19:05	Cloudy	67.1	69.5	62.5	67.0
	19:10		66.9	69.0	62.0	
	19:15		66.9	69.0	62.0	
29-Nov-05	19:00	Cloudy	66.3	68.0	62.0	66.6
	19:05		66.5	68.5	62.5	
	19:10		66.9	69.0	62.5	

Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

*Bolted value indicated limit level exceedance

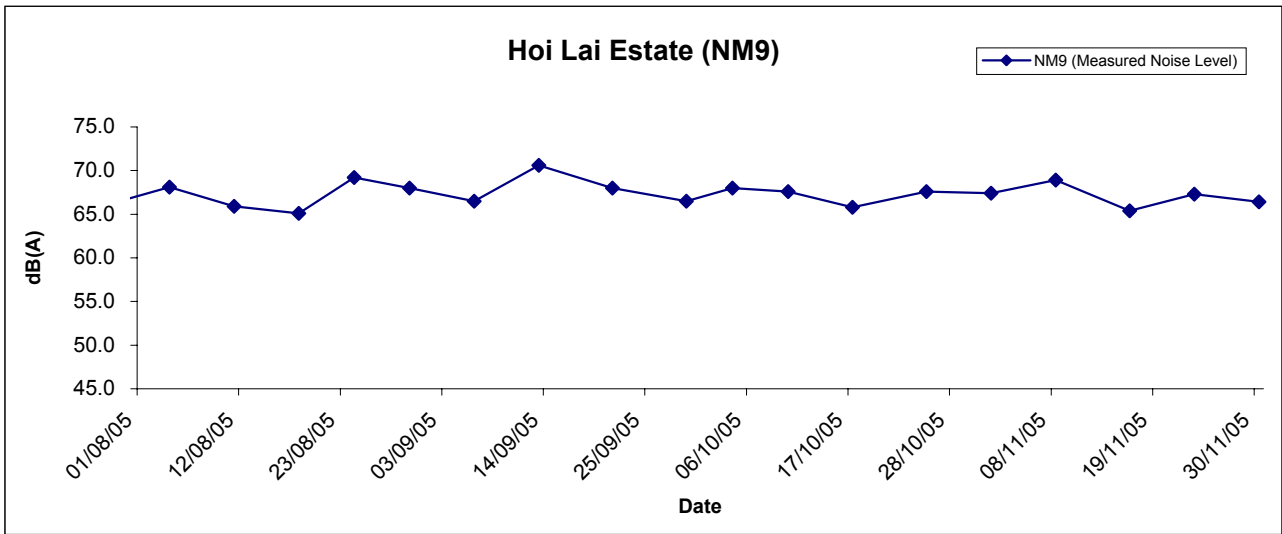
Noise Levels



* Construction Noise Level = Measured Noise Level - Baseline Level
 (If the measured noise level is lower than the baseline level, the construction noise level will be taken as the measured one)

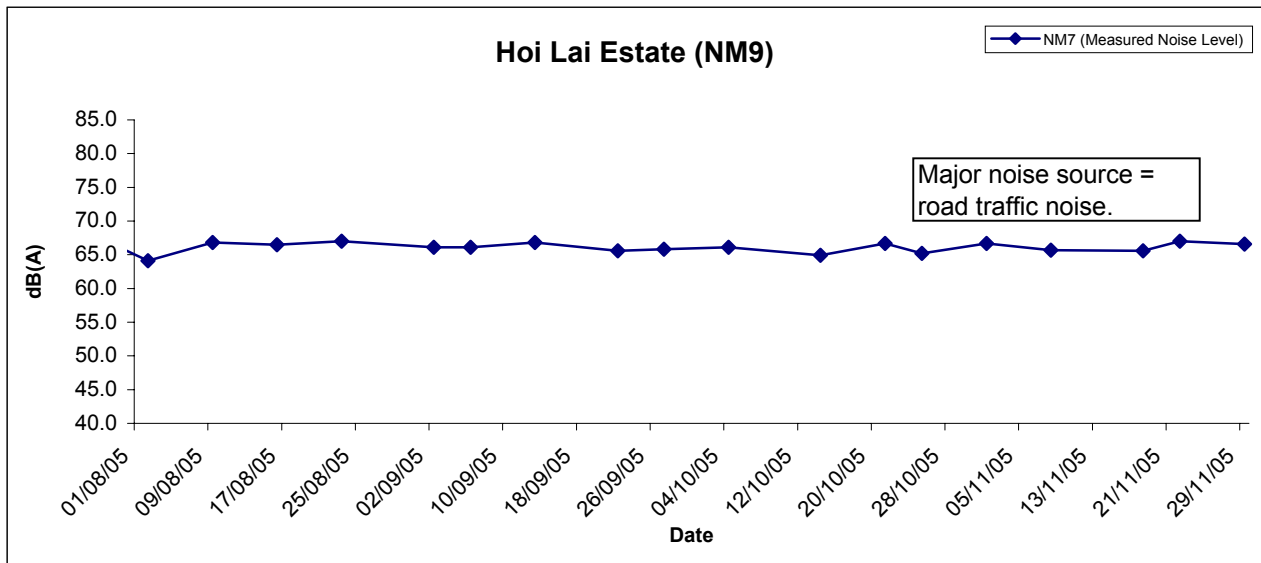
Title Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct Graphical Presentation of Construction Noise Monitoring Results	Scale	Project No.	
	Date	Appendix G	
	N.T.S	MA3024	
	Nov 05	G	

Noise Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. MA3024	CINOTECH
	Date Nov 05	Appendix G	

Restricted Hours (19:00 to 23:00) - Noise Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of Construction Noise Monitoring Results	Scale N.T.S	Project No. MA3024	
	Date Nov 05	Appendix G	

APPENDIX H
SUMMARY OF EXCEEDANCE

Summary of Exceedances Recorded in the Reporting Month

a) Exceedance Report for 1-hr TSP (NIL)

b) Exceedance Report for 24-hr TSP (NIL)

c) Exceedance Report for Construction Noise

- One Action Level exceedance was recorded due to a noise complaint received on 7th November 2005. The details of the complaint can refer to Appendix M.
- No noise Limit Level exceedance was recorded.

**APPENDIX I
SITE AUDIT SUMMARY**

*Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct*

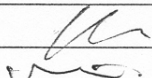
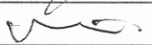
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51103-LCKV
Date	3 November 2005 (Thu)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
51103L-01	<p>A. Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>B. Air Quality</p> <ul style="list-style-type: none"> Fugitive dust emission was observed at the works area near Pier D14. The Contractor was reminded to water the area more frequently. <p>C. Noise</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. 	C2
51103L-02	<p>D. Waste / Chemical Management</p> <ul style="list-style-type: none"> An oil drum was placed on bared ground without drip trap at R2. The Contractor was reminded to provide a drip tray for the drum as soon as possible. <p>E. Permit / Licenses</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>F. Others</p> <ul style="list-style-type: none"> The environmental deficiency identified during last audit (ref. 51026-LCKV) on 26 October 2005 was rectified / improved by the Contractor. 	E3i

	Name	Signature	Date
Recorded by	KK Chan		4 November 2005
Checked by	Winniss Kong		4 November 2005

Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct

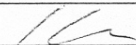
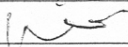
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51109-LCKV
Date	9 November 2005 (Wed)
Time	0930 – 1200

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

Ref. No.	Remarks/Observations	Related Item No.
51109L-01	<p>A. Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>B. Air Quality</p> <ul style="list-style-type: none"> Small parts of soil slope surfaces and stockpiles were observed at the works areas of R2 and R3. The Contractor was recommended to cover the surfaces properly to prevent wind erosion. 	C8
51109L-02	<ul style="list-style-type: none"> Fugitive dust emission was observed during the loading at Slope S1. The Contractor was reminded to provide sufficient water spray for the loading process. <p>C. Noise</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>D. Waste / Chemical Management</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>E. Permit / Licenses</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>F. Others</p> <ul style="list-style-type: none"> The environmental deficiency identified during last audit (ref. 51103-LCKV) on 3 November 2005 was rectified / improved by the Contractor. 	C10

	Name	Signature	Date
Recorded by	KK Chan		10 November 2005
Checked by	Winmiss Kong		10 November 2005

*Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct*



Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51117-LCKV
Date	17 November 2005 (Thu)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
51117L-01	<p>A. Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>B. Air Quality</p> <ul style="list-style-type: none"> Some exposed soil slope surfaces at the areas of R2 and R3 were not covered. The Contractor was reminded to cover the slopes properly. <p>C. Noise</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>D. Waste / Chemical Management</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>E. Permit / Licenses</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>F. Others</p> <ul style="list-style-type: none"> The environmental deficiencies identified during last audit (ref. 51109-LCKV), except item 51107L-01 on 9 November 2005 was rectified / improved by the Contractor. 	C8

	Name	Signature	Date
Recorded by	KK Chan		18 November 2005
Checked by	Alex Ngai		18 November 2005

*Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct*

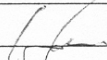
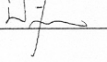
Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51124-LCKV
Date	24 November 2005 (Thu)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
51124L-01	<p>A. Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>B. Air Quality</p> <ul style="list-style-type: none"> Deposition of dusty material was observed at the access road near Slope S6. The Contractor was reminded to keep the access road clean. 	C7
51124L-02	<p>C. Noise</p> <ul style="list-style-type: none"> An air compressor without noise emission label was operated at R3. The Contractor was reminded to affix a valid NEL on the compressor. <p>D. Waste / Chemical Management</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>E. Permit / Licenses</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>F. Others</p> <ul style="list-style-type: none"> The environmental deficiency identified during last audit (ref. 51117-LCKV) 17 November 2005 was rectified / improved by the Contractor. 	D9

	Name	Signature	Date
Recorded by	KK Chan		24 November 2005
Checked by	Dr. Priscilla Choy		24 November 2005

*Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin
 Environmental Team for Lai Chi Kok Viaduct and Eagle's Nest Tunnel
 Contract No. HY/2003/01 - Lai Chi Kok Viaduct*

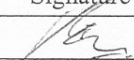

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51130-LCKV
Date	30 November 2005 (Wed)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
51130L-01	<p>A. Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>B. Air Quality</p> <ul style="list-style-type: none"> Open stockpile of soil was observed at R2. The Contractor was recommended to cover the stockpile by impervious sheeting to minimize dust emission. <p>C. Noise</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. 	C8
51130L-02	<p>D. Waste / Chemical Management</p> <ul style="list-style-type: none"> An oil drum was not placed in bunded area at S3. The Contractor was reminded to provide a drip tray for the oil drum. <p>E. Permit / Licenses</p> <ul style="list-style-type: none"> No environmental deficiency was identified during the site inspection. <p>F. Others</p> <ul style="list-style-type: none"> The environmental deficiency identified during last audit (ref. 511-LCKV) 17 November 2005 was rectified / improved by the Contractor. 	E3i

	Name	Signature	Date
Recorded by	KK Chan		30 November 2005
Checked by	Winniss Kong		30 November 2005

APPENDIX J
EVENT ACTION PLANS

Appendix J - Event Action Plans

Event/Action Plan for Air Quality

EVENT	ACTION			
	ET	IEC	ER	Contractor
ACTION LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source 2. Inform ER & IEC 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 methods 	<ol style="list-style-type: none"> 1. Notify Contractor 2. Check monitoring data and Contractor's working methods 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source 2. Inform ER & IEC 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with ER & for remedial actions required 6. If exceedance continues, arrange meeting with ER & IEC 7. If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> 1. Checking monitoring data submitted by ET 2. Check Contractor's working methods 3. Discuss with ET and Contractor on possible remedial measure 4. Advise the ER & ET on the effectiveness of the proposed remedial measures 5. Supervise the implementation of the remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Check Contractor's working methods 4. Discuss with ET, IEC and Contractor on proposed remedial actions 5. Ensure remedial actions properly implemented 	<ol style="list-style-type: none"> 1. Submit proposals for remedial actions to ER within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if appropriate
LIMIT LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source 2. Inform ER & IEC and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's 	<ol style="list-style-type: none"> 1. Checking monitoring data submitted by ET 2. Check Contractor's working methods 3. Discuss with ET and Contractor on possible remedial measure 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Check Contractor's working methods 4. Discuss with ET, IEC and Contractor on 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to ER within 3 working days of notification

EVENT	ACTION			
	ET	IEC	ER	Contractor
	remedial actions and keep EPD and ER & IEC informed of the results	4. Advise the ER & ET on the effectiveness of the proposed remedial measures 5. Supervise the implementation of the remedial measures	proposed remedial actions 5. Ensure remedial actions properly implemented	3. Implement the agreed proposals 4. Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	1. Identify source 2. Inform ER, IEC, Contractor and EPD the cause & actions taken for the exceedances 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Investigate the causes of exceedance 6. Carry out analysis of contractor's working procedures to determine possible mitigation to be implemented. 7. Arrange meeting with EPD, IEC and ER to discuss the remedial actions to be taken 8. Assess effectiveness of Contractor's remedial actions and keep EPD and ER & IEC informed of the results 9. If exceedance stops, cease additional monitoring	1. Checking monitoring data submitted by ET 2. Discuss amongst ER, ET and Contractor on possible remedial measures 3. Review Contractor's remedial measures whenever necessary to ensure their effectiveness and advise the ER accordingly 4. Supervise the implementation of the remedial measures	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 ET, IEC and the Contractor on proposed remedial actions 5. In consultation with IEC, agree with the contractor remedial measures to be implemented 6. Ensure remedial measure are properly implemented 7. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC, ER within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated

Event/Action Plan for Construction Noise

Exceedance	ACTION			
	ET	.IEC	ER	Contractor
Action Level	<p>1. Discuss with the IEC and ER and seek to identify potential noise source</p> <p>2. Undertake noise measurement to confirm the validity of complaint</p> <p>3. Inform ER&IEC in writing Discuss remedial actions required with ER&IEC if an exceedance is recorded</p> <p>4. Increase monitoring frequency to demonstrate efficacy of remedial measures</p> <p>5. If exceedance continues, meet with ER&IEC to review implementation of appropriate mitigation measures.</p> <p>6. If exceedance stops, cease additional monitoring</p>	<p>1. Review the analyzed results submitted by the ET</p> <p>2. Review the proposed remedial measures by the Contractor and advise the ER & ET accordingly</p> <p>3. Supervise the implementation of remedial measures</p>	<p>1. Confirm receipt of notification of complaint and notify Contractor immediately</p> <p>2. Check monitoring data trends and Contractor's working methods</p> <p>3. Remind the Contractor of his contractual obligations and discuss with ET, IEC and Contractor on proposed remedial actions</p> <p>4. Assess the efficacy of remedial actions and keep the Contractor informed</p> <p>5. Inform complainant of actions taken</p>	<p>1. Submit proposals for remedial actions to ER within three working days of notification</p> <p>2. Amend proposals if required by the Engineer</p> <p>3. Implement the remedial actions immediately upon instruction</p> <p>4. Liaise with the ER to optimize the effectiveness of the agreed mitigation</p> <p>5. Amend proposal if appropriate</p>

Exceedance	ACTION			
	ET	IEC	ER	Contractor
Limit Level	<ol style="list-style-type: none"> 1. Repeat measurement to confirm findings 2. Investigate the cause of the exceedance and identify the main source(s) of impact 3. Inform ER&IEC and EPD in writing 4. Discuss remedial actions required with ER&IEC 5. Increase monitoring frequency to demonstrate efficacy of remedial measures 6. Assess efficacy of remedial actions and keep ER & IEC informed of the results 7. If exceedance continues, meet with ER&IEC to identify appropriate mitigation measures 8. If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Review Contractor's remedial actions to assure their effectiveness and advise the ER &ET accordingly 3. Supervise the implementation of the remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance and notify Contractor 2. Check monitoring data trends and Contractor's working methods 3. Discuss with ET, IEC and Contractor on proposed remedial actions to be implemented 4. Assess the efficacy of remedial actions and keep the Contractor informed 5. If exceedance continuous, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is aborted 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to ER immediately not more than 3 working days of notification 3. Amend proposals if required by the ER 4. Implement remedial actions immediately upon instruction 5. Liaise with the ER to optimize the effectiveness of the agreed mitigation 6. Resubmit proposals if problem still not under control 7. Stop the relevant portion of works as determined by the ER until the exceedance is aborted

**APPENDIX K
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)**

Appendix K - Summary of Environmental Mitigation Implementation Schedule

Types of Impacts	Mitigation Measures	Status
Construction Dust	<ul style="list-style-type: none"> Any stockpile of dusty materials or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet. 	^
	<ul style="list-style-type: none"> A stockpile of dusty materials should not extend beyond the pedestrian barriers, fencing or traffic cones. 	^
	<ul style="list-style-type: none"> Vehicle washing facilities should be provided at every exit point. 	^
	<ul style="list-style-type: none"> The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores. 	^
	<ul style="list-style-type: none"> Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit. 	^
	<ul style="list-style-type: none"> Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet. 	^
	<ul style="list-style-type: none"> The portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials. 	^
	<ul style="list-style-type: none"> Any stockpile of dusty materials should be either covered entirely by impervious sheeting, placed in an area sheltered on the top and the 3 sides or sprayed with water or a dust suppression chemical so as to maintain the entire surface wet. 	^
	<ul style="list-style-type: none"> All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet. 	^
	<ul style="list-style-type: none"> Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site. The working area of any excavation should be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet. 	^
Construction Noise	<ul style="list-style-type: none"> Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works. 	^
	<ul style="list-style-type: none"> Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum. 	^
	<ul style="list-style-type: none"> Plant known to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS. 	^
	<ul style="list-style-type: none"> Mobile plant should be sited as far away from NSRs as possible. 	^
	<ul style="list-style-type: none"> Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities. Use quiet plant and Working Method 	^
	<ul style="list-style-type: none"> Reduce the number of plant operating in critical areas close NSRs. Construct temporary and movable noise barriers 	^

Types of Impacts	Mitigation Measures	Status
Water Quality	<i>Construction Runoff and Drainage</i>	
	<ul style="list-style-type: none"> Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow. 	^
	<ul style="list-style-type: none"> Boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilities runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates. 	^
	<ul style="list-style-type: none"> All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment traps should be regularly cleaned and maintained. The temporarily diverted drainage should be reinstated to its original condition when the construction works has finished or the temporary diversion is no longer required 	^
	<ul style="list-style-type: none"> Sand silt in the wash water from the wheel washing facilities, which ensure no earth, mud and debris is deposited on roads, should be settled out the removed before discharging into storm drains. A section of the road between the wheel washing bay and the public road should be paved with backfill to prevent wash water or other site runoff form entering public road drains. 	^
	<ul style="list-style-type: none"> Oil interceptors should be provided in the drainage system and regularly emptied to prevent the release of oils and grease into the storm water drainage system after accidental spillage. The interceptor should have a bypass to prevent flushing during periods of heavy rain. 	N/A
	<ul style="list-style-type: none"> Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks. 	^
	<ul style="list-style-type: none"> Silt removal facilities, channels and manholes shall be suitably maintained with the deposited silt and grit being removed at least once a week, and at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times. 	^
	<ul style="list-style-type: none"> Earthworks final surfaces shall be well compacted and the subsequent permanent work or surface protection shall be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate intercepting channels shall be provided along the site boundary or at the locations agreed with the ET Leader. Rainwater pumped out from trenches or foundation excavations shall be discharged into silt removal facilities before discharge into storm drains. 	^
	<ul style="list-style-type: none"> All generators, fuel and oil storage shall be within bunded areas. Drainage from the areas shall be connected to storm drains via a petrol interceptor. 	^
	<i>Tunnelling Work</i>	
	<ul style="list-style-type: none"> Temporary open storage of excavated materials should be covered with tarpaulin or similar fabric during rainstorms. Any washout of construction or excavated materials form the drill and blast tunnelling work should be diverted to the drainage system via appropriate sediment traps. 	N/A
	<ul style="list-style-type: none"> Ground water pumped out of tunnels should be discharged into the drainage channels which incorporated sediment traps to enhance deposition rates and to remove silt. 	N/A
	<ul style="list-style-type: none"> Spend grouts used in diaphragm wall construction should be collected in a separate slurry collection system, reconditioned and reused wherever practicable. The disposal of used grouting materials will only be permitted if it is treated to the TM standards before discharge to the storm drains or disposal to landfill. 	N/A

Types of Impacts	Mitigation Measures	Status
	<i>General Construction Activities</i>	
	<ul style="list-style-type: none"> • Debris and rubbish on site should be collected, handled and disposed of properly to avoid entering the water column and cause water quality impacts. • All fuel tanks and storage areas will be provided with locks and be located on sealed areas (within bunds of a capacity equal to 110% of the storage capacity of the largest tank or 20% by volume of the fuel stored in that areas, whichever in the greatest). 	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
	<i>Sewage Effluent</i>	
	<ul style="list-style-type: none"> • Construction work force sewage discharges from fixed toilet facilities on-site should be connected to the nearby existing trunk sewer wherever feasible. However, for areas where existing trunk sewer is not available, it is recommended that appropriate and adequate on site portable chemical toilets should be provided by a licensed contractor who will be responsible for appropriate disposal and maintenance of these facilities. • It is considered that sewage discharges could also be treated by on-site septic tanks and soakaway. Minimum clearance away from streams and catchments and other requirements for the proposed septic tank and soakaway should be referred to EPD's Practice Note for Professional Persons, Drainage Plans. 	<p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p>
Waste	<i>General</i>	
	<ul style="list-style-type: none"> • Training and instruction shall be given at a site to construction staff to increase awareness and draw attention to waste management issues and the need to minimise waste generation. The training requirement shall be included in the site waste management plan. 	<p style="text-align: center;">^</p>
	<i>Storage, Collection and Transportation of Waste</i>	
	<ul style="list-style-type: none"> • Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage. • Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits. • Waste shall be removed on a daily basis. • Waste storage area shall be maintained and cleaned on a daily basis. • Windblown litter and dust during transportation shall be minimised by either covering trucks or transporting wastes in enclosed containers. • Obtain necessary waste disposal permits from the appropriate authorities if they are required. • Wastes shall be disposed of at licensed waste disposal facilities. • Develop procedure such as ticketing system to facilitate tracking of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur. 	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
	<ul style="list-style-type: none"> • Maintain records of the quantities of wastes generated, recycled and disposed. 	<p style="text-align: center;">^</p>
	<i>Surplus Excavated Materials</i>	
	<ul style="list-style-type: none"> • Due to the high risk of loose material being washed into the existing nullah, stockpile materials should be properly compacted and covered from water erosion and located at least 10m away from the nullah wall. 	<p style="text-align: center;">^</p>
<i>Construction and Demolition (C&D) Waste</i>		

Types of Impacts	Mitigation Measures	Status
	<ul style="list-style-type: none"> • Careful design, planning and good site management shall be adopted to minimise over-ordering and generation of waste materials such as concrete grouts. • The handling and disposal of bentonite slurries shall be undertaken in accordance with Practice Note for Professional Persons – Construction Site Drainage (ProPECC PN 1/94) on construction site drainage. • Construction and demolition (C&D) material shall be segregated to inert and non-inert parts. The inert portion shall re-used at areas of reclamation or land formation, or to public filling area shall such allocation is deemed necessary. The non-inert portion shall be disposed of to landfill. 	<p style="text-align: center;">^</p> <p style="text-align: center;">N/A</p> <p style="text-align: center;">^</p>
	<p><i>Chemical Waste</i></p> <ul style="list-style-type: none"> • Chemical waste that is produce during construction shall be handled in accordance with the Cod of Practice on the Packaging, Handling and Storage of Chemical Wastes. • Containers used for the storage of chemical wastes should: <ul style="list-style-type: none"> a. Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; b. Have a capacity of less than 450 litres unless the specifications have been approved by the EPD; c. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste Regulations. • The storage area for chemical wastes should: <ul style="list-style-type: none"> a. Be clearly labelled and used solely for the storage of chemical waste; b. Be enclosed on at least 3 sides; c. Have an impermeable floor and bunding of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is largest; d. Have adequate ventilation; e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary); f. Be arranged so that incompatible materials are adequately separated. • Disposal of chemical waste shall be via a licensed waste collector; and to a facility licensed to receive chemical waste; or a reuser of the waste (under approval from EPD). 	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p> <p style="text-align: center;">^</p>
	<p><i>General Refuse</i></p> <ul style="list-style-type: none"> • General refuse generated on-site shall be stored in enclosed bins or compaction unit separate from C&D and chemical wastes. A reputable waste collector shall be employed by the contractor to remove general refuse from the site, separately from C&D and chemical wastes, on a daily for every second day basis to minimise odour, pest and litter impacts. The burning of refuse on construction sites is prohibited by law. • Reusable rather than disposable dishware shall be used if feasible. 	<p style="text-align: center;">^</p> <p style="text-align: center;">^</p>

Types of Impacts	Mitigation Measures	Status
Ecology	<ul style="list-style-type: none"> • A sediment barrier shall be erected to minimize stream sedimentation at downstream of the project boundary of the Toll Plaza. 	N/A
	<ul style="list-style-type: none"> • Conduct a tree survey before commencement of the construction work. 	^
	<ul style="list-style-type: none"> • All measures recommended in the approved landscape proposals under Condition 2.4 in EP above shall be fully implemented in accordance with the details and time schedule set out in the submission. 	^
	<ul style="list-style-type: none"> • Loss of the adjacent woodland due to temporary land take shall be returned to the original status immediately. 	N/A
	<ul style="list-style-type: none"> • Wild and uncontrolled fire shall be strictly prohibited • Fences shall be erected along the boundary of the construction sites at the Toll Plaza before commencement of works, to prevent tipping, vehicle movements, and encroachment of personnel onto adjacent wooded areas. 	^ N/A
Landscape and Visual Impact	<ul style="list-style-type: none"> • Landscape mitigation measure 1 (LMM1) – Construction programming and management. The periphery of the works areas at street level shall be managed so that they do not appear cluttered, untidy and unattractive and inconvenient to pedestrians. For example, all hoarding shall be colorfully designed with interesting motifs demonstrating the work of Highways Department. Hoardings with bland colours shall be avoided. 	^
	<ul style="list-style-type: none"> • Landscape mitigation measure 2 (LMM2) – Advanced planting and erosion control works. Where possible, the transplantation of existing valuable trees, the stockpiling of topsoil, new planting and erosion control works shall be carried out as early as possible in the construction period instead of at the end. This will assist in maximizing the time for carrying out transplantation and new planting, resulting in a higher success rate for the survival of transplantation and new planting, resulting in a higher success rate for the survival of transplanted trees and the establishment of new screen trees. The stockpiling of topsoil will provide an abundant use of on-site material for growing media. During detailed design, the issue of stockpiling of topsoil in a manner that would avoid washing into the drainage scheme should be examined comprehensively. 	^
	<ul style="list-style-type: none"> • Measurement of vibration would also be carried out on a need basis during the piling work 	^

Remarks:

- | | | | |
|-----|-----------------------------------|---|--|
| ^ | Compliance of mitigation measure; | X | Non-compliance of mitigation measure; |
| N/A | Not Applicable; | • | Non-compliance but rectified by the contractor |

APPENDIX L
CONSTRUCTION PROGRAMME

Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2005												2006		
							OCT 17	OCT 24	OCT 31	NOV 7	NOV 14	NOV 21	NOV 28	DEC 5	DEC 12	DEC 19	DEC 26	DEC 31	JAN 7	JAN 14	JAN 21
Procurement																					
Segmental Deck Casting (Type A Units)																					
SD2630	P15/L-Up - Cast 16 Segments Type A	25	21SEP05A	24OCT05	21SEP05A	13JUN05															
SD2630A	P15/L-Down - Cast 16 Segments Type A	26	26SEP05A	23OCT05	26SEP05A	27JUN05															
SD2630B	P15/R-Up - Cast 16 Segments Type A	25	27SEP05A	25OCT05	27SEP05A	27JUN05															
SD2630C	P15/R-Down - Cast 16 Segments Type A	23	25OCT05	19NOV05	14JUN05	08JUL05															
SD2640	P16/L-Up - Cast 6 Segments Type A	10	20NOV05	30NOV05	09JUL05	20JUL05															
SD2640A	P16/L-Down - Cast 6 Segments Type A	11	24OCT05	04NOV05	28JUN05	08JUL05															
SD2640B	P16/R-Up - Cast 4 Segments Type A	8	26OCT05	03NOV05	28JUN05	05JUL05															
SD2640C	P16/R-Down - Cast 4 Segments Type A	9	05NOV05	15NOV05	09JUL05	19JUL05															
SD2680A	P18/L-Down - Cast 14 Segments Type A	21	04NOV05	26NOV05	06JUL05	29JUL05															
SD2680	P18/L-Up - Cast 14 Segments Type A	22	16NOV05	09DEC05	26JUL05	18AUG05															
SD2670	P18/R-Down - Cast 11 Segments Type A	18	01DEC05	20DEC05	30JUL05	18AUG05															
SD2670A	P18/R-Up - Cast 11 Segments Type A	18	28NOV05	17DEC05	30JUL05	18AUG05															
SD2660A	P17/R-Down - Cast 12 Segments Type A	18	10DEC05	29DEC05	19AUG05	07SEP05															
SD2650A	P17/L-Up - Cast 9 Segments Type A	17	21DEC05	09JAN06	08SEP05	26SEP05															
SD2660	P17/R-Up - Cast 12 Segments Type A	20	18DEC05	09JAN06	09SEP05	30SEP05															
SD2650	P17/L-Down - Cast 9 Segments Type A	18	30DEC05	18JAN06	08SEP05	27SEP05															
SD2700A	P19/R-Down - Cast 10 Segments Type A	16	10JAN06	26JAN06	15NOV05	01DEC05															
SD2700	P19/R-Up - Cast 10 Segments Type A	17	10JAN06	27JAN06	18NOV05	06DEC05															
SD2690A	P19/L-Down - Cast 9 Segments Type A	16	18JAN06	09FEB06	30NOV05	17DEC05															
Segmental Deck Casting (Type B Units)																					
SD3290	PAVL (North) - Cast 9 seg Type B	18	20OCT05	08NOV05	04APR05	22APR05															
SD3400	D5-Pierhead & Up - Cast 15 seg Type B	25	20OCT05	16NOV05	01AUG05	28AUG05															
SD3400A	D5-Down - Cast 14 seg Type B	24	20OCT05	15NOV05	01AUG05	27AUG05															
SD3410	D4-Pierhead & Up - Cast 15 Segments Type B	25	20OCT05	16NOV05	30JUL05	26AUG05															
SD3410A	D4-Down - Cast 14 Segments Type B	24	20OCT05	15NOV05	31JUL05	26AUG05															
SD3330	P18 Slip D-Up - Cast 12 Segments Type B	21	22SEP05A	20OCT05	22SEP05A	15JUL05															
SD3330A	P18 Slip D-Down - Cast 12 Segments Type B	21	09OCT05A	26OCT05	09OCT05A	16JUL05															
SD3350	D10-Up - Cast 12 Segments Type B	21	21OCT05	12NOV05	16JUL05	08AUG05															
SD3350A	D10-Down - Cast 11 Segments Type B	20	27OCT05	18NOV05	18JUL05	08AUG05															
SD3360	D9-Pierhead & Up - Cast 5 Segments Type B	10	20OCT05	29OCT05	12AUG05	23AUG05															
SD3360A	D9-Pierhead & Down - Cast 5 Segments Type B	10	20OCT05	29OCT05	26AUG05	05SEP05															

Highways Department Contract No. HY/2003/01
Route 8 - Lai Chi Kok Viaduct
3 month Rolling Programme
From 20 October 2005



Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2005												2006		
							OCT	NOV	DEC	JAN	OCT	NOV	DEC	JAN							
SD3420	D3-Up - Cast 10 Segments Type B	19	31OCT05	20NOV05	24AUG05	13SEP05															
SD3420A	D3-Down - Cast 10 Segments Type B	19	31OCT05	20NOV05	06SEP05	26SEP05															
SD3430	D2-Pierhead & Up - Cast 14 Segments Type B	22	14NOV05	07DEC05	09AUG05	01SEP05															
SD3430A	D2-Down - Cast 13 Segments Type B	22	19NOV05	13DEC05	09AUG05	01SEP05															
SD3440	D1-Pierhead & Up - Cast 11 Segs Type B	20	21NOV05	13DEC05	14SEP05	06OCT05															
SD3440A	D1-Down - Cast 10 Segments Type B	19	21NOV05	12DEC05	27SEP05	19OCT05															
SD3390	D6-Pierhead & Up - Cast 9 seg Type B	16	08DEC05	24DEC05	02SEP05	20SEP05															
SD3390A	D6-Pierhead & Down - Cast 9 seg Type B	16	14DEC05	30DEC05	02SEP05	20SEP05															
SD3320	C6 Slip C-Up - Cast 3 Segments Type B	6	26DEC05	31DEC05	21SEP05	26SEP05															
SD3450	Abutment D - Cast 3 Segments Type B	6	31DEC05	06JAN06	21SEP05	26SEP05															
SD3460	P19 Slip C-Up - Cast 10 Segments Type B	19	02JAN06	21JAN06	27SEP05	19OCT05															
SD3460A	P19 Slip C-Down - Cast 10 Segments Type B	19	07JAN06	27JAN06	27SEP05	19OCT05															
SD3470	P19 Slip D-Up - Cast 8 Segments Type B	16	14DEC05	30DEC05	10OCT05	26OCT05															
SD3470A	P19 Slip D-Down - Cast 8 Segments Type B	16	14DEC05	30DEC05	07OCT05	24OCT05															
SD3370	D8-Up - Cast 15 Segments Type B	25	31DEC05	27JAN06	27OCT05	23NOV05															
SD3370A	D8-Down - Cast 15 Segments Type B	25	31DEC05	27JAN06	25OCT05	21NOV05															
Segmental Deck Casting (Type C Units)																					
SD3210	PA/R-Up - Cast 9 seg Type C	18	20OCT05	08NOV05	30NOV04	20DEC04															
Precast Parapet Panel Casting																					
PP2000	Casting Type I Parapet Units 1 - 265	55	20OCT05A	22DEC05	20OCT05A	29JUL05															
PP2010	Casting Type I Parapet Units 266 - 565	45	23DEC05	18FEB06	03SEP05	28OCT05															
PP2100	Casting Type II Parapet Units 1 - 265	55	15OCT05A	16DEC05	15OCT05A	01JUN05															
PP2110	Casting Type II Parapet Units 266 - 565	45	17DEC05	13FEB06	29JUL05	20SEP05															
PP2200	Casting Type III Parapet Units 1 - 22	22	29OCT05	23NOV05	02JUL05	27JUL05															
PP2300	Casting Type IV Parapet Units 1 - 180	70	10NOV05	04FEB06	09JUN05	31AUG05															
PP2400	Casting Type V Parapet Units 1 - 180	70	20OCT05	11JAN06	13APR05	06JUL05															
PP2410	Casting Type V Parapet Units 181 - 383	70	12JAN06	07APR06	13AUG05	05NOV05															
Noise Barriers & Enclosures																					
NB1010	Noise Enc' - Slip Rd A - Design & Shop Drawings	23	07JUL05A	25OCT05	07JUL05A	14APR05															
NB1020	Noise Enc' - Slip Rd A - Eng. Review & Approval	28	20OCT05	16NOV05	09APR05	06MAY05															
NB1030	Noise Enc' - Slip Rd A - Materials Purchasing	60	17NOV05	27JAN06	07MAY05	18JUL05															
NB1100	Noise Enc' - Slip Rd B - Design & Shop Drawings	23	07JUL05A	25OCT05	07JUL05A	29APR05															
NB1110	Noise Enc' - Slip Rd B - Eng. Review & Approval	28	20OCT05	16NOV05	25APR05	22MAY05															

Sheet 2 of 20


Highways Department Contract No. HY/2003/01

Route 8 - Lai Chi Kok Viaduct

3 month Rolling Programme

From 20 October 2005

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Start Date	23SEP03	P3 File : LU25	20OCT05
Finish Date	04JUL08		
Data Date			

Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2005							2006											
							OCT	NOV	DEC	JAN	OCT	NOV	DEC	JAN											
NB1120	Noise Encl' - Slip Rd B - Materials Purchasing	72	17NOV05	14FEB06	23MAY05	16AUG05																			
NB1130	Noise Encl' - Slip Rd B - Off-site Fabrication	100	10JAN06	11MAY06	15JUL05	11NOV05																			
NB1200	Noise Encl' - P8 to P11 - Design & Shop Drawings	60	10SEP05A	29DEC05	10SEP05A	30MAY05																			
NB1210	Noise Encl' - P8 to P11 - Eng. Review & Approval	28	02DEC05	29DEC05	03MAY05	30MAY05																			
NB1220	Noise Encl' - P8 to P11 - Materials Purchasing	65	30DEC05	20MAR06	31MAY05	16AUG05																			
NB1300	Noise Encl' - ENT Approach - Design & Shop Dwgs.	23	07JUL05A	25OCT05	07JUL05A	13JUN05																			
NB1310	Noise Encl' - ENT Approach - Eng. Review & Appro	28	20OCT05	16NOV05	07JUN05	04JUL05																			
NB1320	Noise Encl' - ENT Approach - Material Purchasing	100	17NOV05	18MAR06	05JUL05	01NOV05																			
NB2000	Noise Barriers - PA to P4 - Design & Shop Dwgs.	82	19AUG05A	15NOV05	19AUG05A	10FEB06																			
NB2010	Noise Barriers - PA to P4 - Eng. Review & Appro'	28	20OCT05	16NOV05	14JAN06	10FEB06																			
NB2020	Noise Barriers - PA to P4 - Materials Purchasing	95	19NOV05	15MAR06	13FEB06	05JUN06																			
NB2110	Noise Barriers - P5 to P8 - Eng. Review & Appro'	115	20OCT05	11FEB06	11JAN06	05MAY06																			
NB2120	Noise Barriers - P5 to P8 - Materials Purchasing	163	14NOV05	30MAY06	04FEB06	18AUG06																			
NB2210	Noise Barriers - P11 to P13 - Eng Review & Approval	44	08DEC05	20JAN06	10FEB06	25MAR06																			
NB2220	Noise Barriers - P11 to P13 - Materials Purchase	82	09JAN06	18APR06	14MAR06	19JUN06																			
NB2300	Noise Barriers - ENT Approach -Des'n & Shop Dwgs	82	24AUG05A	06DEC05	24AUG05A	28MAR06																			
NB2310	Noise Barriers - ENT Approach -Eng Rev & Approval	28	09NOV05	06DEC05	01MAR06	28MAR06																			
NB2320	Noise Barriers - ENT Approach -Material Purchase	70	07DEC05	03MAR06	29MAR06	21JUN06																			
NB2400	Noise Barriers - Slip Rd. C - Design & Shop Dwgs	82	24OCT05*	31DEC05	09DEC05	21FEB06																			
NB2410	Noise Barriers - Slip Rd. C - Eng Rev & Approval	28	04DEC05	31DEC05	25JAN06	21FEB06																			
NB2420	Noise Barriers - Slip Rd. C - Material Purchase	70	03JAN06	28MAR06	22FEB06	16MAY06																			
NB2500	Noise Barriers - Slip Rd. D - Design & Shop Dwgs	82	11JUL05A	11NOV05	11JUL05A	09FEB06																			
NB2510	Noise Barriers - Slip Rd. D - Eng Rev & Approval	28	20OCT05	16NOV05	15JAN06	11FEB06																			
NB2520	Noise Barriers - Slip Rd. D - Material Purchase	105	21NOV05	28MAR06	16FEB06	21JUN06																			
Bearings																									
BE1010	Detailed Design & Shop Drawings	60	16JAN04A	09NOV05	16JAN04A	18JAN05																			
BE1020	Review & Approval of Design & Shop Drawings	24	05JUN04A	23NOV05	05JUN04A	01FEB05																			
BE1030	Off-Site Manufacturing of Bearings	70	07SEP04A	06JAN06	07SEP04A	04MAR05																			
BE1035	Engineer's Approval of Bearings Before Delivery	42	20OCT05	06JAN06	13DEC04	04MAR05																			
BE1050	Trial of Bearing Installation Method	10	09JUN05A	26OCT05	09JUN05A	15JUL05																			
Movement Joints																									
MJ1005	Engineer's approval of Proprietary Type of M.J	0	20OCT05		21JAN06																				
MJ1010	Detailed Design & Shop Drawings	75	20OCT05	17JAN06	21JAN06	22APR06																			



Activity ID	Activity Description	Orig. Durn.	Early		Late		2005							2006									
			Start	Finish	Start	Finish	OCT	NOV	DEC	JAN	OCT	JAN											
								17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	
MD1062	PA/R to P1/R - Insitu Stitch	3	22NOV05	24NOV05	05JAN05	07JAN05																	
Main Line - Segmental Deck Const'n (Lift Frames)																							
MD1097	P4/L to P5/L - Insitu Stitch	3	20OCT05	22OCT05	05MAY05	07MAY05																	
MD1107	P3/L to P4/L - Insitu stitch	3	24OCT05	26OCT05	09MAY05	11MAY05																	
MD1045	P2/R - 26 Segments Type C	11	17NOV05	29NOV05	21DEC04	04JAN05																	
MD1065	P1/R to P2/R - Insitu Stitch	3	30NOV05	02DEC05	05JAN05	07JAN05																	
MD1032	P3/R - 22 Segments Type C	10	10OCT05A	24OCT05	10OCT05A	02MAR05																	
MD1036	P2/R to P3/R - Insitu Stitch	3	30NOV05	02DEC05	15MAR05	17MAR05																	
MD1025	P4/R - 28 Segments Type C	12	29NOV05	12DEC05	23MAY05	04JUN05																	
MD1034	P3/R to P4/R) - Insitu Stitch	3	13DEC05	15DEC05	31AUG05	02SEP05																	
MD1005	P5 (B4) Slip B - 22 Segments Type B	10	28DEC05	09JAN06	21JUN05	02JUL05																	
MD1007	P5/R (B4) Slip B to P6 Slip B - Insitu Stitch	3	10JAN06	12JAN06	04JUL05	06JUL05																	
MD1008	P5/R (B4) Slip B to B3 - Insitu Stitch	3	13JAN06	16JAN06	07JUL05	09JUL05																	
MD1015	P5/R - 11 Type C & 11 Type B	10	10JAN06	20JAN06	23SEP05	05OCT05																	
Superstructure Finishing Works Required for TCSS																							
MF1000	PA to P6 - Parapets PA/L to P3/L (incl earthing)	48	25NOV05	21JAN06	12MAY05	08JUL05																	
MF1015	PA to P6 - Insitu Slab to Under Median Barrier	36	03JAN06	16FEB06	22OCT05	02DEC05																	
Viaduct - Slip Road A																							
Substructure																							
AS1050	Abutment A - Install Bearings	2	20OCT05	21OCT05	21JAN06	23JAN06																	
Superstructure Finishing Works Required for TCSS																							
AF1010	Slip Rd.A to P7 -Parapets East Face (incl earth)	75	17NOV05	17FEB06	27APR05	26JUL05																	
AF1020	Slip Rd.A to P7- Parapets West Face (incl earth)	75	30DEC05	31MAR06	09JUN05	06SEP05																	
Viaduct - Slip Road B																							
Substructure																							
BS1050	Abutment B - Install Bearings	6	20OCT05	26OCT05	27JUL05	02AUG05																	
Slip Road B -Segmental Deck Construction (Crane)																							
BD1010	B1 - 1st. Pair - 2 seg Type B	6	20OCT05	26OCT05	17FEB05	23FEB05																	
BD1020	B2 - 1st. Pair - 2 seg Type B	6	10NOV05	16NOV05	24FEB05	02MAR05																	
BD1030	B3 - 1st. Pair - 2 seg Type B	6	17NOV05	23NOV05	30MAY05	04JUN05																	
BD1000	Abut B - 3 seg Type B on scaff	2	17NOV05	18NOV05	03AUG05	04AUG05																	

Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2005							2006													
			30NOV05	13DEC05	01MAR05	14MAR05	OCT	NOV	DEC	JAN	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	31	
Main Line - Segmental Deck Const'n (Lift Frames)																											
BD1015	B1 - 28 seg Type B	12	30NOV05	13DEC05	01MAR05	14MAR05																					
BD1005	Abut B - B1 Insitu Stitch	3	14DEC05	16DEC05	05AUG05	08AUG05																					
BD1025	B2 - 22 seg Type B	10	17NOV05	28NOV05	03MAR05	14MAR05																					
BD1027	B1 - B2 Insitu Stitch	3	14DEC05	16DEC05	15MAR05	17MAR05																					
BD1035	B3 - 28 seg Type B	12	13DEC05	27DEC05	06JUN05	20JUN05																					
BD1045	B2 - B3 Insitu Stitch	3	28DEC05	30DEC05	05AUG05	08AUG05																					
At Grade Works - Lai Po Road																											
Temporary Traffic Management Schemes																											
WT3100	3rd. TTMS Lai Po Road - Prepare for Review	18	23NOV05	13DEC05	11MAY05	31MAY05																					
WT3110	3rd. TTMS Lai Po Road - CRE Endorsement	6	21DEC05	28DEC05	02JUN05	08JUN05																					
WT3120	3rd. TTMS Lai Po Road - Roadworks Advice	6	29DEC05	05JAN06	09JUN05	16JUN05																					
WT3130	3rd. TTMS Lai Po Rd - Site Preparation for Divsn	18	06JAN06	26JAN06	17JUN05	08JUL05																					
WT4000	TTMS Deck Erect'n @ Rd D S/B - Prepare for Review	18	20OCT05	09NOV05	12JUN08	04JUL08																					
WT4010	TTMS Deck Erect'n @ Rd D S/B - CRE Endorsement	6	20OCT05	26OCT05	23NOV04	29NOV04																					
WT4020	TTMS Deck Erect'n @ Rd D S/B - Roadworks Advice	6	27OCT05	02NOV05	30NOV04	06DEC04																					
WT4030	TTMS Deck Erect'n @ Rd D S/B - Site Preparation	6	03NOV05	09NOV05	07DEC04	13DEC04																					
WT4040	TTMS Deck Erect'n @ Rd D S/B - Implementation	60*	10NOV05	20JAN06	14DEC04	05OCT05																					
Earthworks & Slope Works																											
WE1030	Lai Po Road S/B - Remove Segment Storage Area	6	29NOV05	05DEC05	26OCT05	01NOV05																					
Retaining Wall LCK-R2																											
WW2010	Ret. Wall LCK-R2 - Bases	24	13DEC05	11JAN06	18JAN05	17FEB05																					
WW2020	Ret. Wall LCK-R2 - Walls	42	28DEC05	18FEB06	01FEB05	24MAR05																					
Kiosk at Lai Wan Interchange																											
WK1000	Kiosk at Lai Wan Interchange - Structure	48	25NOV05	21JAN06	17AUG05	14OCT05																					
Lai Po Road Fire Hydrant Pump House																											
WH1000	Lai Po Rd. F/H Pump House - Plate Load Test	6	06DEC05	12DEC05	22JUL06	28JUL06																					
WH1010	Lai Po Rd. F/H Pump House - Structure	24	13DEC05	11JAN06	31JUL06	26AUG06																					
WH1020	Lai Po Rd. F/H Pump House - Waterproofing	12	12JAN06	25JAN06	02SEP06	15SEP06																					
WH1040	Lai Po Rd. F/H Pump House - MVAC Installation	30	12JAN06	18FEB06	28AUG06	03OCT06																					



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Highways Department Contract No. HY/2003/01

Route 8 - Lai Chi Kok Viaduct

3 month Rolling Programme

From 20 October 2005



Start Date: 23SEP03

Finish Date: 04JUL08

Data Date: 20OCT05

Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2005			2006		
							OCT	NOV	DEC	JAN	FEB	MAR
Viaduct - Main Line - Piers P7 to P10												
Substructure												
MS2052	P7 Install Bearings	2	20OCT05	21OCT05	07NOV05	08NOV06						
Main Line - Segmental Deck Construction (Crane)												
MD2120	P10/L - 1st. Pair - 2 Segments Type A	6	20OCT05	26OCT05	23MAY05	28MAY05						
MD2130	P10/R - 1st. Pair - 2 Segments Type A	6	24OCT05	29OCT05	26MAY05	01JUN05						
Main Line - Segmental Deck Construction (Gantry)												
MD2065	P8/L - 30 Segments Type A	13	20OCT05	03NOV05	21APR05	06MAY05						
MD2075	P8/R - 30 Segments Type A	13	20OCT05	03NOV05	21APR05	06MAY05						
MD2077	P7-P8 Insitu Stiches	3	04NOV05	07NOV05	07MAY05	10MAY05						
MD2080	Launch Gantry to P8/P9	2	08NOV05	09NOV05	11MAY05	12MAY05						
MD2095	P9/R - 28 Segments Type A	12	10NOV05	23NOV05	13MAY05	26MAY05						
MD2105	P9/L - 24 Segments Type A	12	10NOV05	23NOV05	13MAY05	26MAY05						
MD2107	P8-P9 Insitu Stiches	3	24NOV05	26NOV05	27MAY05	30MAY05						
MD2110	Launch Gantry to P9/P10	2	28NOV05	29NOV05	31MAY05	01JUN05						
MD2125	P10/L - 26 Segments Type A	14	30NOV05	15DEC05	02JUN05	18JUN05						
MD2135	P10/R - 24 Segments Type A	14	30NOV05	15DEC05	02JUN05	18JUN05						
MD2145	P9-P10 Insitu Stiches	3	16DEC05	19DEC05	20JUN05	22JUN05						
Superstructure Finishing Works Required for TCSS												
MF2000	P7 to P10 - Parapets P7 to P8 (incl earthing)	36	22NOV05	04JAN06	30JUN05	11AUG05						
MF2002	P7 to P10 - Parapets P9 to P10 (incl earthing)	36	23DEC05	08FEB06	30JUL05	09SEP05						
MF2005	P7 to P10 - Insitu Slab to Under Median Barrier	48	22NOV05	18JAN06	21JUN05	16AUG05						
MF2007	P7 to P10 - Median Barrier (incl earthing)	48	20DEC05	18FEB06	20JUL05	13SEP05						
At Grade Works - Lai Chi Kok Interchange												
Temporary Traffic Management Schemes												
MT1300	2nd. TTMS Butterfly Valley Rd-Prepare for Review	12	20OCT05	02NOV05	19JUN08	04JUL08						
MT1310	2nd. TTMS Butterfly Valley Rd - CRE Endorsement	6	20OCT05	26OCT05	08JUN05	15JUN05						
MT1320	2nd. TTMS Butterfly Valley Rd - Roadworks Advice	6	27OCT05	02NOV05	16JUN05	22JUN05						
MT1330	2nd. TTMS Butterfly Valley Rd - Prepare	18	03NOV05	23NOV05	23JUN05	14JUL05						
MT1400	3rd TTMS Butterfly Valley Rd -Prepare for Review	12	23NOV05	06DEC05	11MAY05	24MAY05						
MT1410	3rd. TTMS Butterfly Valley Rd - CRE Endorsement	6	21DEC05	28DEC05	10SEP05	16SEP05						
MT1420	3rd. TTMS Butterfly Valley Rd - Roadworks Advice	6	29DEC05	05JAN06	17SEP05	24SEP05						

Start Date
Finish Date
Data Date

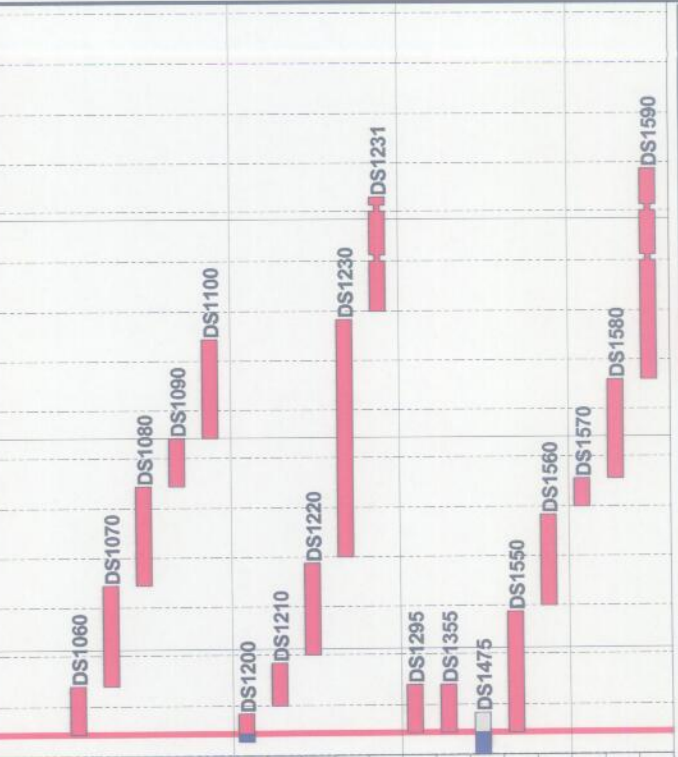
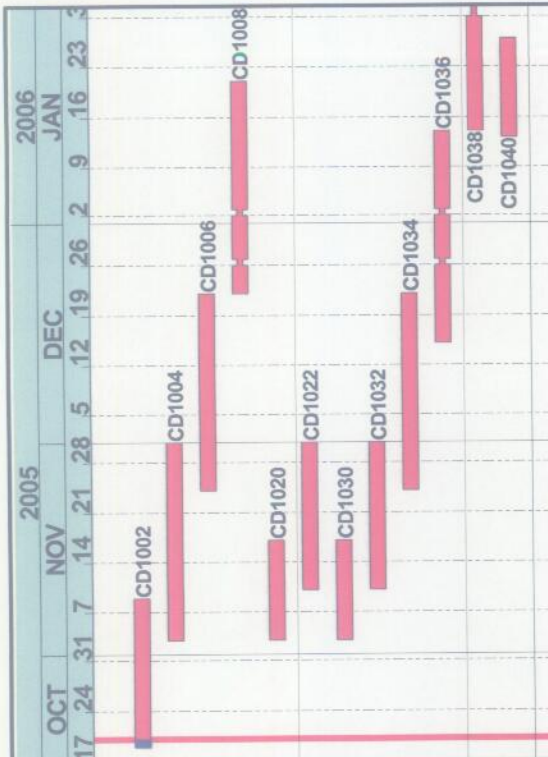
23SEP03
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P3 File : LU25

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Highways Department Contract No. HY/2003/01
Route 8 - Lai Chi Kok Viaduct
3 month Rolling Programme
From 20 October 2005





Activity ID	Activity Description	Orig. Durrn.	Early Start	Early Finish	Late Start	Late Finish
Slip Road C - Insitu Deck Construction						
CD1002	Slip Rd. C - Deck Span C2 to C3 - Falsework	18	19OCT05A	08NOV05	19OCT05A	28JUL05
CD1004	Slip Rd. C - Deck Span C2 to C3 - Soffit	24	03NOV05	30NOV05	23JUL05	19AUG05
CD1006	Slip Rd. C - Deck Span C2 to C3 - 1st. Pour	24	24NOV05	21DEC05	13AUG05	09SEP05
CD1008	Slip Rd. C - Deck Span C2 to C3 - 2nd. Pour	24	22DEC05	20JAN06	10SEP05	10OCT05
CD1020	Slip Rd. C - Deck Span Ab.C to C2 - Ground Prep.	12	03NOV05	16NOV05	02JUL05	15JUL05
CD1022	Slip Rd. C - Deck Span Abut. C to C2 - Falsework	18	10NOV05	30NOV05	09JUL05	29JUL05
CD1030	Slip Rd. C - Deck Span C3 to C4 - Ground Prep.	12	03NOV05	16NOV05	23JUL05	05AUG05
CD1032	Slip Rd. C - Deck Span C3 to C4 - Falsework	18	10NOV05	30NOV05	30JUL05	19AUG05
CD1034	Slip Rd. C - Deck Span C3 to C4 - Soffit	24	24NOV05	21DEC05	13AUG05	09SEP05
CD1036	Slip Rd. C - Deck Span C3 to C4 - 1st. Pour	24	15DEC05	13JAN06	03SEP05	03OCT05
CD1038	Slip Rd. C - Deck Span C3 to C4 - 2nd. Pour	24	14JAN06	14FEB06	04OCT05	01NOV05
CD1040	Slip Rd. C - Deck Span C4 to C5 - Ground Prep.	12	13JAN06	26JAN06	15JUL05	28JUL05
Viaduct - Slip Road D						
Substructure						
DS1060	D1 - Install Sheet Temporary Piles	6	20OCT05	26OCT05	03MAY05	09MAY05
DS1070	D1 - Excavate, Strut & Break Down Piles	12	27OCT05	09NOV05	10MAY05	23MAY05
DS1080	D1 - Pile Cap & Pier Kicker	12	10NOV05	23NOV05	24MAY05	06JUN05
DS1090	D1 - Backfill & Remove Temporary Works	6	24NOV05	30NOV05	07JUN05	14JUN05
DS1100	D1 - Pier	12	01DEC05	14DEC05	27SEP05	12OCT05
DS1200	D3 - Pile Cap & Pier Kicker	12	19OCT05A	22OCT05	19OCT05A	20JUL05
DS1210	D3 - Backfill & Remove Temporary Works	6	24OCT05	29OCT05	21JUL05	27JUL05
DS1220	D3 - Pier	12	31OCT05	12NOV05	28JUL05	10AUG05
DS1230	D3 - Pier Head - Insitu Segment	30	14NOV05	17DEC05	11AUG05	14SEP05
DS1231	D3 - Pier Head - Cure & Strike Form/Falsework	12	19DEC05	03JAN06	15SEP05	29SEP05
DS1295	D4 - Install Bearings	6	20OCT05	26OCT05	15AUG05	20AUG05
DS1355	D5 - Install Bearings	6	20OCT05	26OCT05	08AUG05	13AUG05
DS1475	D7 - Pier Head - Cure & Strike Form/Falsework	12	26SEP05A	22OCT05	26SEP05A	04NOV05
DS1550	D9 - Excavate, Strut & Break Down Piles	18	20OCT05A	05NOV05	20OCT05A	09JUL05
DS1560	D9 - Pile Cap & Pier Kicker	12	07NOV05	19NOV05	11JUL05	23JUL05
DS1570	D9 - Backfill & Remove Temporary Works	4	21NOV05	24NOV05	25JUL05	28JUL05
DS1580	D9 - Pier	12	25NOV05	08DEC05	29JUL05	11AUG05
DS1590	D9 - Pier Head	24	09DEC05	07JAN06	12AUG05	08SEP05

Start Date: 23SEP03
 Finish Date: 04JUL08
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Highways Department Contract No. HY/2003/01
 Route 8 - Lai Chi Kok Viaduct
 3 month Rolling Programme
 From 20 October 2005

P3 File : LU25



Activity ID	Activity Description	Orig. Durrn.	Early Start	Early Finish	Late Start	Late Finish	2005				2006																
							OCT	NOV	DEC	JAN	OCT	NOV	DEC	JAN													
East Bound - Insitu Deck							17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	3					
LD2016	Lai Wan O/Pass E/B - Span St.2 - 1st. Pour	36	12SEP05A	16NOV05	12SEP05A	06SEP05																					
LD2018	Lai Wan O/Pass E/B - Span St.2 - 2nd Pour	24	17NOV05	14DEC05	07SEP05	06OCT05																					
LD2019	Lai Wan O/Pass E/B - Span St.2 - Stressing	6	15DEC05	21DEC05	07OCT05	14OCT05																					
LD2050	Lai Wan O/Pass E/B - Span St.3 - Ground Prep	18	18JAN06	10FEB06	27JUL05	16AUG05																					
At Grade Works - Ching Cheung Road at LCK Park																											
Temporary Traffic Management Schemes																											
NT2050	2nd. TTMS CC Rd (E/B C/Way) - Prepare for Review	12	23NOV05	06DEC05	11MAY05	24MAY05																					
NT2060	2nd. TTMS CC Rd (E/B C/Way) - CRE Endorsement	6	21DEC05	26DEC05	19OCT06	24OCT06																					
NT2070	2nd. TTMS CC Rd (E/B C/Way) - Roadworks Advice	6	27DEC05	01JAN06	25OCT06	30OCT06																					
NT2080	2nd. TTMS CC Rd (E/B C/Way) - Site Preparation	6	03JAN06	09JAN06	31OCT06	06NOV06																					
Retaining Wall CCR-R1 West Bound																											
NW1030	W/B Ret. Wall CCR-R1A East - Excavate	48	24JUN05A	27OCT05	24JUN05A	30JUN05																					
NW1040	W/B Ret. Wall CCR-R1A East - Bases	48	04JUL05A	17NOV05	04JUL05A	22JUL05																					
NW1050	W/B Ret. Wall CCR-R1A East - Walls	72	13JUL05A	15DEC05	13JUL05A	19AUG05																					
NW1060	W/B Ret. Wall CCR-R1A East - B/fill & Remove T/W	36	02DEC05	14JAN06	06AUG05	16SEP05																					
NW1120	W/B Ret. Wall CCR-R1B - Excavate	15	07NOV05	23NOV05	09APR05	26APR05																					
NW1130	W/B Ret. Wall CCR-R1B - Bases	24	24NOV05	21DEC05	16APR05	14MAY05																					
NW1140	W/B Ret. Wall CCR-R1B - Walls	36	22DEC05	07FEB06	16MAY05	27JUN05																					
NW1200	W/B Ret. Wall CCR-R1A West - Excavate	15	20OCT05	05NOV05	11MAR05	28MAR05																					
NW1210	W/B Ret. Wall CCR-R1A West - Bases	24	27OCT05	23NOV05	18MAR05	15APR05																					
NW1220	W/B Ret. Wall CCR-R1A West - Walls	36	10NOV05	21DEC05	01APR05	14MAY05																					
NW1230	W/B Ret. Wall CCR-R1A West - B/fill Behind Wall	12	22DEC05	06JAN06	13JUL05	26JUL05																					
Retaining Wall CCR-R1 East Bound																											
NW2065	W/B Ret. Wall CCR-R1C (Bays 3 & 4) - Backfill	24	30MAY05A	22OCT05	30MAY05A	05JUL05																					
NW2070	W/B Ret. Wall CCR-R1C - Parapets on Wall	48	21NOV05	17JAN06	03AUG05	28SEP05																					
NW2140	W/B Ret. Wall CCR-R1D - Walls	72	25JAN05A	09NOV05	25JAN05A	13SEP05																					
NW2150	W/B Ret. Wall CCR-R1D - Backfill Behind Wall	24	30MAY05A	23NOV05	30MAY05A	28SEP05																					
NW2160	W/B Ret. Wall CCR-R1D - Parapets on Wall	60	18JAN06	31MAR06	29SEP05	09DEC05																					
NW2240	W/B Ret. Wall CCR-R1E - Parapets on Wall	24	24OCT05	19NOV05	06JUL05	02AUG05																					
Drainage Works																											
NA2010	C.C. Rd. W/B in New C/way - S/water Drainage E3	75	16JAN06	17APR06	26SEP05	23DEC05																					
NA3000	C.C. Rd. E/B in New C/way - Stormwater Drainage	75	24NOV05	24FEB06	24JAN06	25APR06																					


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Highways Department Contract No. HY/2003/01
Route 8 - Lai Chi Kok Viaduct
3 month Rolling Programme
From 20 October 2005

Start Date: 23SEP03
Finish Date: 04JUL08
Data Date: 20OCT05

P3 File : LUT5

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Activity ID	Activity Description	Orig. Durrn.	Early Start	Early Finish	Late Start	Late Finish	2005				2006															
							OCT	NOV	DEC	JAN	OCT	NOV	DEC	JAN												
RW1230	Ch 02.13 to 41.71 - Retaining Wall Base Slabs	12	10DEC05	23DEC05	29MAR05	12APR05																				
RW1240	Ch 02.13 to 41.71 - Retaining Wall Stem & Coping	27	24DEC05	26JAN06	13APR05	14MAY05																				
RW1300	Ch 50.71 to 78.27 -Excavate & Rock Stabilisation	24	20OCT05	16NOV05	24NOV05	21DEC05																				
RW1320	Ch 50.71 to 78.27 - Mass Concrete Facing Wall	27	17NOV05	17DEC05	22DEC05	24JAN06																				
RW1330	Ch 50.71 to 78.27 - Retaining Wall Base Slabs	12	19DEC05	03JAN06	25JAN06	10FEB06																				
RW1340	Ch 50.71 to 78.27 - Retaining Wall Stem & Coping	24	04JAN06	03FEB06	11FEB06	10MAR06																				
RW1400	Ch 00.00 to 02.13 -Excavate & Rock Stabilisation	12	17NOV05	30NOV05	04MAR06	17MAR06																				
RW1420	Ch 00.00 to 02.13 - Mass Concrete Facing Wall	6	01DEC05	07DEC05	18MAR06	24MAR06																				
RW1430	Ch 00.00 to 02.13 - Retaining Wall Base Slabs	6	08DEC05	14DEC05	25MAR06	31MAR06																				
RW1440	Ch 00.00 to 02.13 - Retaining Wall Stem & Coping	16	15DEC05	04JAN06	01APR06	20APR06																				
Retaining Wall CCR-R3 Type D, E & F																										
RW2065	Ret. Wall CCR-R3E - Erect Noise Barriers	12	20OCT05	02NOV05	20MAY05	02JUN05																				
RW2070	Ret. Wall CCR-R3E - Break Down Top of Piles	24	20OCT05	16NOV05	20MAY05	17JUN05																				
RW2090	Ret. Wall CCR-R3E - Capping beam	24	27OCT05	23NOV05	27MAY05	24JUN05																				
RW2110	Ret. Wall CCR-R3E - Stem Walls	24	21NOV05	17DEC05	22JUN05	20JUL05																				
RW2165	Ret. Wall CCR-R3F - Erect Noise Barriers	12	20OCT05	02NOV05	07JUN05	21JUN05																				
RW2190	Ret. Wall CCR-R3F - Break Down Top of Piles	12	20OCT05	02NOV05	10JUN05	24JUN05																				
RW2200	Ret. Wall CCR-R3F - Capping beam	12	03NOV05	16NOV05	22JUN05	06JUL05																				
RW2210	Ret. Wall CCR-R3F - Stem Walls	12	17NOV05	30NOV05	07JUL05	20JUL05																				
RW2550	Ret. Wall CCR-R3D - 10No Bored Piles Piles	46	08SEP05A	21NOV05	06SEP05A	17FEB06																				
RW2560	Ret. Wall CCR-R3D - 10No Bored Piles Piles	46	22NOV05	16JAN06	18FEB06	13APR06																				
RW2570	Ret. Wall CCR-R3D - Pile Testing	24	03JAN06	02FEB06	30MAR06	27APR06																				
RW2590	Ret. Wall CCR-R3D - Erect Noise Barriers	12	17JAN06	02FEB06	14APR06	27APR06																				
Retaining Wall CCR-R3 Type A																										
RW3010	Ret. Wall CCR-R3A - Excavation & Blinding	18	01DEC05	21DEC05	15JUN05	06JUL05																				
RW3020	Ret. Wall CCR-R3A - Bases	12	22DEC05	06JAN06	07JUL05	20JUL05																				
RW3030	Ret. Wall CCR-R3A - Walls	18	07JAN06	27JAN06	21JUL05	10AUG05																				
Retaining Wall CCR-R3 Type B																										
RW4010	Ret. Wall CCR-R3B - Excavation & Blinding	24	01DEC05	29DEC05	22JUN05	20JUL05																				
RW4020	Ret. Wall CCR-R3B - Bases	24	07JAN06	07FEB06	21JUL05	17AUG05																				
Retaining Wall CCR-R3 Type C																										
RW5010	Ret. Wall CCR-R3C - Excavation & Blinding	6	11JAN06	17JAN06	30SEP05	07OCT05																				

Start Date
Finish Date
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23SEP03
04JUL08
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P3 File : LU25

Highways Department Contract No. HY/2003/01
Route 8 - Lai Chi Kok Viaduct
3 month Rolling Programme
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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish	2005			2006			
							OCT	NOV	DEC	JAN	FEB	MAR	APR
Slope Works Above Retaining Walls CCR-R3D, E & F													
RE4205	Slope above CCR-R3E&F -Remove Piling Platform	6	19DEC05	24DEC05	21JUL05	27JUL05							RE4205
RE4207	Slope above CCR-R3E&F -Excavate Slope	12	27DEC05	10JAN06	28JUL05	10AUG05							RE4207
RE4210	Slope above CCR-R3E&F- Filter - Btm. to 1st Berm	6	11JAN06	17JAN06	11AUG05	17AUG05							RE4210
RE4211	Slope above CCR-R3E&F -Rockfill-Bi'm to 1st Berm	12	18JAN06	03FEB06	18AUG05	31AUG05							RE4211
Earthworks & Slope Works - CCR-S4													
RE4267	Slope CCR-S4 - Relocate Term Rock Fence	24	20OCT05	16NOV05	12DEC05	10JAN06			RE4267				
RE4268	Slope CCR-S4 - Excavate & Bench Upper Slope	24	17NOV05	14DEC05	11JAN06	10FEB06			RE4268				
RE4280	Slope CCR-S4 - Fill and Compact	24	15DEC05	13JAN06	11FEB06	10MAR06							RE4280
RE4285	Slope CCR-S4 - Form New Access Road at Footpath	24	15DEC05	13JAN06	11FEB06	10MAR06							RE4285
RE4290	Slope CCR-S4 - Upper Slope Drainage	18	14JAN06	07FEB06	04JUL06	24JUL06							RE4290
Ching Cheung Road NTMM Retaining Wall A													
RW5990	NNTM Wall A - Excavate to Formation	36	24OCT05	03DEC05	07APR06	19MAY06							
RW6000	NNTM Wall A - Bases	12	05DEC05	17DEC05	20MAY06	02JUN06							
RW6010	NNTM Wall A - Walls	18	19DEC05	10JAN06	03JUN06	24JUN06							RW6010
RW6020	NNTM Wall A - Drainage & Fill Behind Walls	12	11JAN06	24JAN06	26JUN06	10JUL06							RW6020
Drainage Works													
RR1015	1200 dia. Stormwater Diversion at Pier D4	58	21JUN05A	23NOV05	21JUN05A	04JUL08							
Utilities & Roadworks													
RA3070	Ching Cheung Rd. New E/B - Sign Gantry Foundations	18	08DEC05	29DEC05	10DEC05	31DEC05							
RA4000	Ching Cheung Rd. New E/B Slip Road - E&M + TCSS	75	24OCT05	20JAN06	26OCT05	23JAN06							RA3070
RA4030	Ching Cheung Rd. New E/B - N/B Foundations Base	75	08DEC05	10MAR06	05MAY06	03AUG06							RA4000
RA7000	Lai Wan Road - Watermains & Hydrants FH4 & FH5	24	04JAN06	03FEB06	11FEB06	10MAR06							RA7000
At Grade Works - Butterfly Valley Interchange													
Earthworks & Slopeworks - 11NW-A/C26													
PE1010	Slope 11NW-A/C26 - Trim slope	12	01DEC05	14DEC05	11AUG06	24AUG06							
PE1015	Slope 11NW-A/C26 - Platform for Soil Nailing	6	15DEC05	21DEC05	25AUG06	31AUG06							
PE1017	Slope 11NW-A/C26 - Soil Nails - Test Nail	12	22DEC05	06JAN06	01SEP06	14SEP06							PE1015
PE1020	Slope 11NW-A/C26 - Soil Nails (incl. Testing)	18	07JAN06	27JAN06	15SEP06	07OCT06							PE1017
Retaining Wall CCR-R5 (Pre-bored "H" Piles)													
PW2150	Ret. Wall CCR-R5 - R.C. Wall CCR-R5A	48	20OCT05	30NOV05	05AUG05	15SEP05							PW2150
PW2220	Ret. Wall CCR-R5 - Coping & Facing to Ret Wall	90	05SEP05A	05JAN06	05SEP05A	08OCT05							PW2220

Start Date
Finish Date
Data Date

23SEP03
04JUL08
20OCT05

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Activity ID	Activity Description	Orig. Durm.	Early Start	Early Finish	Late Start	Late Finish	2005			2006												
							OCT	NOV	DEC	OCT	NOV	DEC										
PW2040	Ret. Wall CCR-R5 - Stage 1 - Fill Behind Wall	24	21DEC05	19JAN06	24SEP05	24OCT05	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30
Retaining Wall CCR-R6 (Pre-bored "H" Piles)																						
PW3037	Ret. Wall CCR-R6 - Temporary Piling Platform	50	20OCT05	16DEC05	02DEC04	31JAN05																
PW3040	Ret. Wall CCR-R6 - "H" Piles A60-A63 & A1-A23	75	17DEC05	20MAR06	01FEB05	04MAY05																
Kiosk at Slip Road C																						
PK1000	Kiosk at Slip Rd. C - Structure	24	08DEC05	06JAN06	29OCT05	25NOV05																
PK1010	Kiosk at Slip Rd. C - Building Finishes	48	07JAN06	07MAR06	26NOV05	23JAN06																
PK1020	Kiosk at Slip Rd. C - MVAC Installation	24	07JAN06	07FEB06	26NOV05	23DEC05																

Start Date
Finish Date
Data Date

23SEP03
04JUL08
20OCT05

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**APPENDIX M
COMPLAINT LOG**

Appendix M - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40318	Nob Hill	18 March 2004	<p>Kwai Tsing District Officer (KTDO) recently received a public noise complaint about construction noise generated from the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok. KTDO referred the complaint to the Highways Department (HyD) on the same day. HyD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 18 March 2004.</p> <p>The complaint was raised by the Citybase Property Management Ltd. (the management company of Nob Hill) and the Secretary of Nob Hill Owners Committee (Mr. Kevin Tse) about construction noise generated from the R8-LCKV Project at the work areas near Nob Hill. Mr. Kevin Tse mentioned that residents living in Nob Hill have greatly been affected by the noise impacts generating from the R8-LCKV construction works. He also requested relevant government departments to consider installing noise barrier along Ching Cheung Road and to work out possible measures to minimize the noise nuisances to the residents living in the vicinity.</p>	<p>Based on the information provided by the ER, the construction activities conducted in the vicinity of Nob Hill in the period between 2 and 18 March 2004 were:</p> <ul style="list-style-type: none"> ▪ Item 1 – Breaking off existing planter and excavate trial trench to expose underground utilities (using one to two backhoes) ▪ Item 2 – Erect rock fall fence & forming platform for pre-drilling (using one backhoe and occasionally one crane lorry) ▪ Item 4 – Excavate further to expose all underground utilities (using hand tools) ▪ Item 5 – Pre-drilling works (using one drilling rig) <p>Considering the scale of work and the PMEs adopted, the ET believed that the construction noise impact at Nob Hill from the above construction activities of R8-LCKV was not significant.</p> <p>The bored piling work (Item 3) using one crawler crane and one oscillator was started on 19 March 2004, which was two days after the issue date of this complaint, so this activity was not considered in this report.</p> <p>According to the EM&A Manuals, Nob Hill was not selected as Noise Monitoring Location (NML) for the Project. Therefore, no direct noise monitoring data could be provided for the complaint investigation. However, there was no noise level exceedance recorded at the nearby NML (NM4 – Mei Foo Sun Chuen, Phase 5) since the commencement of the project according to ET's inventory.</p> <p>During ET's weekly environmental site inspections on 3, 10, 17 March 2004, no serious noise nuisance induced by the Project works was observed at the sites near Nob Hill.</p> <p>Based on the joint site visit with the representative of HyD, IEC, RSS and ET to the Nob Hill on 30 March 2004, the major noise</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				<p>source at Nob Hill was identified as traffic noise on Ching Cheung Road, which is located very close to this building, especially at or above the Podium Floor (i.e. 5/F).</p> <p>Based on the information obtained, this noise complaint is not considered due to the construction activities of the Project. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as:</p> <ul style="list-style-type: none"> • To space out noisy equipment and position it as far away as possible from the sensitive receivers; • To avoid concurrent uses of noisy equipment near the sensitive area; • To ensure the equipment are maintaining in good operation condition; and • To turned off any idle equipment on site. <p>Adding to that, ET is proposed to install one to two noise monitoring stations at Nob Hill in order to monitor the noise impact generated from the R8-LCKV Project to the resident of Nob Hill or the nearby buildings.</p>	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40330	Site Areas near Nob Hill	30 March 2004	<p>Highways Department (HyD) recently received a public noise complaint about construction noise generated from the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok. HyD referred the complaint to the RSS and subsequently referred to the ET Leader of the Project on 30 March 2004.</p> <p>The complaint was raised by Mr. Yau, the Office of DCV Member Mr. Cheung Wing Shum, regarding the high pitch construction noise generated at the R8-LCKV site which cause serious nuisance to the residents at Mei Foo.</p>	<p>Based on the information provided by the RSS, the Contractor was not aware of any high pitched construction noise arising from plant employed for their works. The noise complaint referred to may be originated from the damage of a gas main valve on the afternoon of 29 March 2004 in the vicinity of the junction of Mai Lai Road with Lai King Hill Road. The high pitched whistle apparently resulted from the damage which was repaired by TownGas in that afternoon.</p> <p>Based on the information obtained, this noise complaint is considered not due to the construction activities of the Project. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as:</p> <ul style="list-style-type: none"> • To space out noisy equipment and position it as far away as possible from the sensitive receivers; • To avoid concurrent uses of noisy equipment near the sensitive area; • To ensure the equipment are maintaining in good operation condition; and • To turned off any idle equipment on site. 	Closed
40402	Nob Hill	06 April 2004	<p>A public noise complaint was received by the Contractor (NECSO) on 02 April 2004 regarding the noise generated from the Ching Cheung Road Widening Works of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, near Nob Hill, Lai Chi Kok.</p> <p>NECSO referred the complaint to the RSS and subsequently referred to the ET Leader of the Project on 6 April 2004</p>	<p>The complaint was raised by Ms Wong, regarding the noise generated from the Ching Cheung Road Widening Works of the R8-LCKV Project, which cause serious nuisance to her.</p> <p>Based on the information provided by the RSS, the plants employed by the Contractor for carrying out bored piling works in front of Nob Hill should not generate excessive noise. The RSS had also checked against the site records that no piling works was in progress in front of Nob Hill on 1-3 April 2004.</p> <p>According to telephone communication between the complainant (Ms Wong) and the RSS on 8 April 2004, the RSS reported that Ms Wong was not complaining about the construction noise generated by the R8-LCKV Project. She was actually complaining about the traffic noise she anticipated to be generated after completion of widening work at Ching Cheung</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				<p>Road in front of Nob Hill.</p> <p>During ET's weekly environmental site inspections on 17, 24 & 31 March 2004 and 7 April 2004, no serious noise nuisance induced by the Project works was observed at the construction sites near Nob Hill.</p> <p>Based on the joint site visit with the representative of HyD, IEC, RSS and ET to the Nob Hill on 30 March 2004, the major noise source at Nob Hill was identified as traffic noise on Ching Cheung Road, which is located very close to this building, especially at or above the Podium Floor (i.e. 5/F).</p> <p>Based on the information obtained, this noise complaint is considered not due to the construction activities of the Project.</p> <p>Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise, such as</p> <ul style="list-style-type: none"> • To space out noisy equipment and position it as far away as possible from the sensitive receivers; • To avoid concurrent uses of noisy equipment near the sensitive area; • To ensure the equipment are maintaining in good operation condition; and • To turned off any idle equipment on site. 	
40710	Pier P7 in Portion E1	10 July 2004	<p>A public complaint was raised on 30th June 2004 regarding the washout of muddy water from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, at Pier P7 onto Lai Chi Kok Road.</p> <p>The complaint was referred to the RSS on 3rd July 2004 and subsequently referred to the ET Leader of the Project on 10th July 2004.</p>	<p>Based on the information provided by the RSS, the spillage of muddy water was in fact due to a burst in a temporary water pipe being utilized in the piling operations at Pier P7 in Portion E1.</p> <p>Emergency remedial works were undertaken preventing further spillage of muddy water. The remaining ponding water within the works area arising from the burst was all removed from the area on 5th July 2004.</p> <p>During ET's weekly environmental site inspection on 14th July 2004, no serious water quality nuisance induced by the Project works was observed at the construction sites near Pier P7. It was</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			<p>The complaint was raised by Mr. Chan, regarding the washout of muddy water from the works area of the R8-LCKV Project onto Lai Chi Kok Road. The washout caused nuisance to the drivers utilizing the road, and may also cause danger to the motorbikes.</p>	<p>also noted that the back of profile barriers along the site boundary had been sealed up by cement as preventive measures.</p> <p>During ET's weekly environmental site inspections on 17, 24 & 31 March 2004 and 7 April 2004, no serious noise nuisance induced by the Project works was observed at the construction sites near Nob Hill.</p> <p>Based on the information obtained, the complaint is considered due to the construction activities of the Project. Emergency remedial works had been taken by the Contractor to rectify the situation and preventive measures had also been implemented.</p> <p>Nevertheless, the Contractor was recommended to adopt the following measures to avoid re-occurrence of similar incidents:</p> <ul style="list-style-type: none"> • to enhance surface runoff control measures along the site boundary; • to provide adequate training to the frontline workers; and • to regularly inspect temporary water supply equipment, such as hose pipe to make sure the equipment is in good condition. 	
40809	Ching Cheung Road area near Nob Hill	<p>22-Jul-04 (by EPD)</p> <p>09-Aug-04 (by ET Leader)</p>	<p>EPD received a public noise complaint on 22 July 2004 about construction noise and dust generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project, at the Ching Cheung Road Area near Nob Hill. EPD subsequently referred the complaint to the ET Leader of the Project on 9 August 2004.</p> <p>The complaint was about the construction noise and dust observed at the Ching Cheung Road area near Nob Hill. The locations of the works areas being concerned by the complainant include:</p> <p>1. Area A: Works area between Nob</p>	<p>Information Provided by RSS Information (construction activities and equipment adopted) in a 2-week period before the date of complaint, i.e. 7 to 21 July 2004, was obtained from the Resident Site Staff.</p> <p>Area A:</p> <ul style="list-style-type: none"> ▪ Item 1 – Drainage works by using 1 x backhoe; ▪ Item 2 – Bored piling works by using 1 x crawler crane, 1 x air compressor, 1 x reverse circulation drill and 1 x power pack; ▪ Item 3 – Trial trench excavation by man power; ▪ Item 4 – Gas main diversion by 1 x backhoe (performed by TGC's Contractor) <p>Area B: No construction activity was undertaken in the concerned period.</p> <p>Review of Environmental Monitoring Results</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			<p>Hill and Lai Chi Kok Park Swimming Pool</p> <p>2. Area B: Works area between Ching Cheung Road and Mei Lai Road / Lai Wan Road opposite to Mei Foo Sun Cheung (Phase 5) and Lai Chi Kok Public Library.</p>	<p>The routine monitoring stations, which are in the vicinity of the concerned works areas, include:</p> <p><u>Noise Monitoring</u> NM4: R/F of Mei Foo Sun Chuen (Phase 5) NM8a: M/F of Nob Hill NM8b: 3/F of Nob Hill</p> <p><u>Air Quality (1-hr TSP / 24-hr TSP) Monitoring</u> AM2: R/F of Lai Chi Kok Sports Centre</p> <p>No Action / Limit level exceedance was identified in July 2004.</p> <p>Environmental Site Inspection During the ET site inspections on 8th, 14th and 20th July 04, no major environmental deficiency with regard to noise and air quality was identified by the auditors.</p> <p>Conclusions Based on the RSS's information, environmental monitoring results as well as the observations made during site inspections, this complaint is considered to be invalid and not due to the construction activities of the Project. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise and dust impacts, such as:</p> <ul style="list-style-type: none"> • To space out noisy equipment and position it as far away as possible from the sensitive receivers; • To avoid concurrent uses of noisy equipment near the sensitive area; • To ensure the equipment are maintaining in good operation condition; • To turn off any idle equipment on site. • To cover excavated dusty materials by impervious sheeting; • To provide water spray for haul roads, loading/unloading and concrete breaking operations; • To perform wheel wash for every vehicle immediately before leaving the site. 	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50215	Mei Foo Sun Chuen, Phase 5 (Retaining Wall CC-R3)	15-Feb-05 (by ET Leader)	<p>A public complaint was raised on 8th Feb 2005 regarding construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Mei Foo Sun Chuen. The complaint was referred to the Resident Site Staff on 14th Feb 2005 and subsequently referred to the ET Leader of the Project on 15th Feb 2005.</p> <p>The complaint was raised by a resident in Mei Foo Sun Chuen, regarding the noise generation from the piling work at Retaining Wall CC-R3, adjacent to Po Leung Kuk Tong Nai Kan College.</p>	<p>Construction Activities</p> <p>During the weekly site inspection on 17 Feb 05, piling work was being conducted at the concerned. The major powered mechanical equipment (PME) in operation included a mobile crane, an air compressor, a reverse circulation drill and a generator.</p> <p>In view of the separation of the site area and the residential building (around 40 m) and also the high traffic noise from Ching Cheung Road as well as Mei Lai Road, the noise generated from the operation of the PME was believed to be insignificant.</p> <p>Environmental Monitoring</p> <p>The noise monitoring results at Station NM4 (Mei Foo Sun Chuen, Phase 5) for the last 3 months were reviewed in order to evaluate the noise impact from the Project on the noise sensitive receiver. The measured noise levels in last three threes were ranged from 70.8 to 75.8 dB(A). It was observed that the measured noise levels were well within the range of baseline noise levels (69.2 to 75.8 dB(A)).</p> <p>The corrected construction noise levels were found to be ranged from 63.5 to 71.5 dB(A), which were well below the noise criterion of 75 dB(A).</p> <p>Conclusions</p> <p>Based on the information obtained and the noise monitoring results, this complaint is considered to be invalid and not due to the construction activities of the Project.</p> <p>Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise impacts.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50322	Seung Lai House, Wah Lai Estate (Slope S1)	11-Mar-05 (by EPD) 22-Mar-05 (by ET Leader)	<p>Environmental Protection Department (EPD) received a public noise complaint on 11 Mar 05 about daytime construction noise generation from R8-LCKV. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 22 Mar 05.</p> <p>The complaint was raised by a resident of Seung Lai House of Wah Lai Estate, regarding the daytime (0800-1800 hrs) construction noise generated from the slope work and road work of R8-LCKV Project. As advised by EPD, the complainant is living on 20/F or above in Seung Lai House.</p>	<p>Construction Activities</p> <p>As advised by the RSS, the major construction work during 25 Feb 05 to 11 Mar 05 (2 weeks before the date of complaint) in the vicinity of Wah Lai Estate included excavation work, soil nail work and installation of u-channel and manholes. The major powered mechanical equipment included excavators, drilling machine and air compressor.</p> <p>In view of the separation of the site area (Slope S1) and the Seung Lai House (around 140 m) and also the traffic noise from Ching Cheung Road, the noise generated from the construction activities at Slope S1 was believed to be insignificant.</p> <p>Environmental Monitoring</p> <p>Ad-hoc noise measurement was conducted at Seung Lai House on 30th Mar 05 and the measured noise level (Leq-30min) was 66.9 dB(A), which was well below the criterion for daytime construction noise of 75 dB(A). The construction noise level (with reduction of background noise level) is expected to be even lower.</p> <p>Conclusion</p> <p>Based on the information obtained and the noise measurement results, this complaint is considered not justifiable. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise impact.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50330, 50331, 50404 & 50407	Wah Lai Estate	30-Mar-05, 31-Mar-05, 4-Apr-05 & 7-Apr-05 (by ET Leader via RSS)	<p>Four public complaints were lodged by the residents of Wah Lai Estate regarding the construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Wah Lai Estate. The complaints were referred by the Resident Site Staff to the Environmental Team (ET) Leader on 30th, 31st March, 4th and 7th April 2005, respectively.</p>	<p>Construction Activities</p> <p>The site of concern was likely to be Slope S1, which is around 140 m away from Wah Lai Estate. The major construction work at Slope S1 included trimming of slope, soil nail work and erection of u-channels and step channels.</p> <p>Environmental Monitoring</p> <p>Ad-hoc noise measurement was conducted at Seung Lai House on 30th Mar 05 and 7th Apr 05 and the measured noise levels (Leq-30min) were ranged from 66.9 to 69.1 dB(A), which were well below the criterion for daytime construction noise of 75 dB(A). The construction noise level (with reduction of background noise level) is expected to be even lower.</p> <p>Conclusion</p> <p>Based on the results of the ad-hoc noise measurements at Wah Lai Estate, no exceedance of daytime noise criterion of 75 dB(A) was recorded. The complaints lodged are therefore considered not justifiable.</p> <p>Mitigation</p> <p>The Contractor agreed to arrange the noisy activities to commence after 8:00 am. This arrangement could effectively reduce the disturbance to the residents within the more sensitive time period (7:00 am to 8:00 am).</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50404-v2	Mei Foo Sun Chuen	4-Apr-05 (by ET Leader via RSS)	A public complaint was raised on 1 st April 2005 regarding construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Mei Foo Sun Chuen. The complaint was referred to the Resident Site Staff and the ET Leader on 4 th April 2005.	<p>Construction Activities</p> <p>The site of concern was likely to Retaining Wall CC-R3, adjacent to Po Leung Kuk Tong Nai Kan College. The major construction works at this area included bored piling works and excavation works.</p> <p>Environmental Monitoring</p> <p>According to the EM&A Manual, Mei Foo Sun Chuen, Phase 5 (NM4) is designated as one of the noise monitoring stations.</p> <p>Since the commencement of the impact monitoring programme, the construction noise levels recorded at this station were all below the noise criterion.</p> <p>Conclusion</p> <p>Based on the noise monitoring results at Station NM4 (Mei Foo Sun Chuen), no exceedance of daytime noise criterion of 75 dB(A) was recorded since the commencement of the impact monitoring programme. The complaint lodged is therefore considered not justifiable.</p> <p>Mitigation</p> <p>The Contractor has agreed to arrange the noisy activities to commence after 8:00 am. This arrangement could effectively reduce the disturbance to the residents within the more sensitive time period (7:00 am to 8:00 am). The Contractor also agreed to provide some temporary noise barriers for the noisy machinery if found necessary.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50613	Mei Foo Sun Chuen	7-Jun-05 (by EPD) 13-Jun-05 (by ET Leader)	<p>According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen (Block 7, Phase 5) on 7 June 2005. It was about construction dust emitted intermittently from the slope works undertaken on the other side of Mei Lai Road.</p> <p>The complainant was particularly concerned about the fugitive dust emission during rock / concrete breaking activities.</p>	<p><i>Site Activities</i></p> <p>The site of concern was likely to be CCR-R3. Bored piling works and demolition of existing retaining walls were undertaken at this area in the period between 1 and 7 June 2005. It was believed that the demolition of existing retaining wall, which involved concrete breaking, was the activity of concern.</p> <p><i>Observations</i></p> <p>On 1 Jun 05, one of the environmental deficiencies noted by the ET was about fugitive dust emission from breaking activities at CCR-R3. The Contractor was reminded to provide sufficient dust mitigation measures for the breaking works. Immediate action was taken by the Contractor to apply water spray for the works as observed during the audit session.</p> <p>On 9 Jun 05, the breaking works were still being taken at CCR-R3. Water spray as a dust mitigation measure was being adopted by the Contractor during the audit. No observable dust emission was noted from the breaking works or other site activities.</p> <p>On 15 Jun 05, the same area was re-inspected due to the receipt of the complaint from EPD. The demolition works had been finished and no other dust emissive activity was being taken. No other dust source from the construction site was observed during the inspection.</p> <p><i>Conclusion</i></p> <p>Based on the observations noted during our site inspections, this complaint is considered to be valid and related to the construction activities of the Project.</p> <p>However, corrective action had been taken by the Contractor and the situation was found improved during the follow-up inspections.</p>	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50721	Hei Lai House, Wah Lai Estate	21-Jul-05 (by ET Leader)	<p>The complaint was lodged by a resident of Hei Lai House of Wah Lai Estate through a Legislative Council member. The complaint was about construction noise nuisance caused by rock breaking work, which claimed to be started from 8:30am daily, carried out at Ching Cheung Road near Wah Lai Estate.</p> <p>The complainant hoped that the rock breaking work could start later i.e. be carried out from noon to afternoon and the site could be fully enclosed.</p> <p>The Environmental Team (ET) of the Project received the complaint on 21 July 2005 and forwarded it to the Resident Site Staff (RSS) to obtain necessary information.</p>	<p><i>Site Activities</i></p> <p>The slope work at Slope S1 was likely to be the activity of concern. The work at Slope S1 recently included the operation of excavator mounted breakers, excavators and dump trucks.</p> <p>The time period of concern was within normal working hours (7am to 7pm) on a weekday not being a public holiday. The noise criterion is 75 dB(A) for domestic premises.</p> <p><i>Noise Measurement</i></p> <p>Ad-hoc measurements were carried out on the roof of Hei Lai House on 25 July 2005.</p> <p>The results show that the measured noise level is well below the noise criterion of 75 dB(A). The construction noise level (with reduction of background noise) is expected to be even lower.</p> <p><i>Conclusion</i></p> <p>Since the noise measurement results at Wah Lai Estate were below 75 dB(A), the complaint was considered not justifiable.</p> <p>Nevertheless, noise mitigation measures have been implemented by the Contractor to minimize the noise impact arising from the breaking activities:</p> <ol style="list-style-type: none"> 1. Employment of silenced-type breakers; 2. Temporary noise barriers, attached with sound adsorption materials, were erected to screen the site of breaking from sensitive receivers 3. While the permitted hours for construction works are 7am to 7pm on non-holidays, the Contractor has commenced the rock breaking activity after 8:30am. 	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
51107	Ching Cheung Road near Mei Foo Sun Chuen	7-Nov-05 (by the ET Leader)	<p>Environmental Protection Department (EPD) received a public complaint about environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 7 November 2005.</p> <p>According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen. The complaint was about dark smoke, dust and noise nuisance caused by the construction work of R8-LCKV near Mei Foo Sun Chuen.</p>	<p>The site of concern was likely to be CCR-S4 and CCR-R3. According to RSS's records, bored piling works and soil nail drilling at CCR-R3, excavation works at CCR-S4 in the concerned period.</p> <p>Site Inspection</p> <p>After receipt of the complaint, an ad-hoc site inspection was carried by ET on 9 November 2005 and the following observations were made:</p> <ol style="list-style-type: none"> 1. Breaking activities were undertaken at CCR-R2 and R3. Continuous water spray was applied by the workers for dust suppression. Movable noise barriers were erected to alleviate the noise impact. 2. The haul roads and exposed works areas were observed wet. A water sprinkler was installed at the CCR-S4 for water spraying. 3. Most of the slope was shot-creted to avoid wind erosion. 4. Bored piling work was carried out near the site exit of CCR-R3. Since bored piling mainly involves handling of wet materials, dust nuisance causing by this type of work is not anticipated. Gas exhaust from the machines was visually clear and no dark smoke was identified. <p>Environmental Monitoring</p> <p>Air quality monitoring was conducted at Lai Chi Kok Sports Centre and noise monitoring is conducted at Mei Foo Sun Chuen. No exceedance was recorded for both monitoring.</p> <p>Conclusion</p> <p>Based on the ad-hoc site inspection and the environmental monitoring results, this complaint was considered not justifiable.</p>	Closed