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)

December 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.

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

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

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 Exceedancne
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-fifth 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 December 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	0	0	0	N/A

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). Five 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	0	---	N/A	N/A	---
Changes to the assumptions and key construction / operation activities recorded	0	---	N/A	N/A	---
Status of submissions under EP	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-fifth monthly EM&A report summarizing the EM&A works for the Project in December 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 – Acciona Infraestructuras S.A. (formely known as 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, CCR-S2 and CCR-R3;
- Soil nails / rock dowel installation at 11NW-A/C26;
- Drainage works at Rest Garden area, Hoi Lai Estate, Piers B1 and P5;
- Segment erection by lifting frame at B2, P13 and P18;
- 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 P8 to P10.

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	
Acciona	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 December 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 m^3/min. and 1.4 m^3/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 ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±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 Leq – Baseline Leq = 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 No noise Action / 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 6, 14, 22 and 29 December 2005 by ET. The audit session on 6 December 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**. Five 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	Construction and operation of (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 Lisence				
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-RW0501-05	03/08/05	02/02/06	*Location*: Hing Wah Street West (Jetty Area) *Time Period:* 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	*Location*: Butterfly Valley Road near LCK Reception Center *Time Period:* Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0535-05	17/08/05	15/02/06	*Location*: Butterfly Valley Road and Kom Tsun Street *Time Period:* Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0563-05	02/09/05	01/03/06	*Location:* Ching Cheung Road near Mei Foo Sun Chuen *Time Period:* 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	*Location:* Lai Wan Road *Time Period:* Any day not being a general holiday between 2100-0700 hours	Valid

Permit No.	Valid Period		Details	Status
	From	To		
GW-RW0648-05	07/10/05	06/04/06	*Location:* Junction of Ching Cheung Road and Castle Peak Road *Time Period:* General holidays (including Sundays) between 0700-2300 hrs and any other days between 1900-2300 hrs	Valid
GW-RW0662-05	17/10/05	16/03/06	*Location:* Junction of Ching Cheung Road and Castle Peak Road *Time Period:* Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0674-05	23/10/05	19/02/06	*Location:* Butterfly Valley near LCK Reception Centre *Time Period:* 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	*Location:* Lai Po Road near West Kowloon Highway *Time Period:* Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0716-05	9/11/05	31/3/06	*Location:* Kwai Chung Road and Butterfly Valley Road *Time Period:* 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	*Location:* Lai Po Road near Hoi Lai Estate *Time Period:* General holidays (including Sundays) between 0700-2300 hrs and any other days between 1900-2300 hrs	Valid
GW-RW0739-05	19/11/05	31/03/06	*Location:* Yuet Lun Street, Kwai Chung Road & Butterfly Valley Road *Time Period:* Any day not being a general holiday between 2100-0700 hours	Valid
GW-RW0740-05	16/11/05	14/05/06	*Location:* Lai Po Road near Yuet Lun Street *Time Period:* Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0745-05	18/11/05	17/05/06	*Location:* Ching Cheung Road near LCK Swimming Pool *Time Period:* Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0757-05	23/11/05	31/03/06	*Location:* Ching Cheung Road near LCK Power Substation *Time Period:* Whole day of general holidays (including Sundays) and any other days between 1900-0700 hours on next day	Valid
GW-RW0825-05	20/12/05	19/05/06	*Location:* Butterfly Valley *Time Period:* General holidays (including Sundays) between 0000-2400 hrs from 20/12/05 to 9/1/06, general holidays (including Sundays) between 0000-2300 hrs from 10/1/06 to 19/5/06, any other days between 1900-0700 hrs 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
Air Quality	06-Dec-05	Uncovered stockpiles were observed at S4 and S1. The Contractor was reminded to cover the idled stockpiles properly to prevent dust emission.	The situation was found improved / rectified during the audit on 14-Dec-05.
	14-Dec-05	No water spray was applied for the breaking work at R2. The Contractor was reminded to apply water spray for the work to minimize dust emission.	The situation was found improved / rectified during the audit on 22-Dec-05.
Noise	06-Dec-05	No noise emission label was affixed on an air compressor operating at P1R. The Contractor was reminded to provide a valid NEL for the compressor as soon as possible.	The situation was found improved / rectified during the audit on 14-Dec-05.
	22-Dec-05	The noise label of air compressor was found missing at R3. The contractor was reminded to provide a noise label on the air compressor.	The situation was found improved / rectified during the audit on 14-Dec-05.
Chemical Management	06-Dec-05	Oil drums were not placed on bunded area at WMT's workshop. The Contractor was reminded to provide a drip tray for the drum.	The situation was found improved / rectified during the audit on 14-Dec-05.
	29-Dec-05	Oil dripping from drip tray was observed on the bridge at P5L. The contractor was reminded to block the water discharging hold of the drip tray.	The situation was found improved / rectified during the audit on 4-Jan-06.

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 No environmental complaint was received in this reporting month.

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 stockpiles of dusty materials, exposed slope surfaces, breaking works, excavation works and soil nail installations at CCR-S1, S4 R1 to R3;
- Construction noise from slope works at S1 and excavation works at R2 and R3;
- Nighttime construction noise from segment transportation and segment erection;
- Proper storage of fuel oil and chemical waste.

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 soil nails installation at slope CCR-S4;
- Bulk excavation works and retaining wall construction at CCR-R1 and LCK-R2;
- 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 P18 and Slip Road B;
- Segment erection by launching gantry at night at Piers P10 and P15;
- 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 No environmental complaint was received in the reporting month.

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.

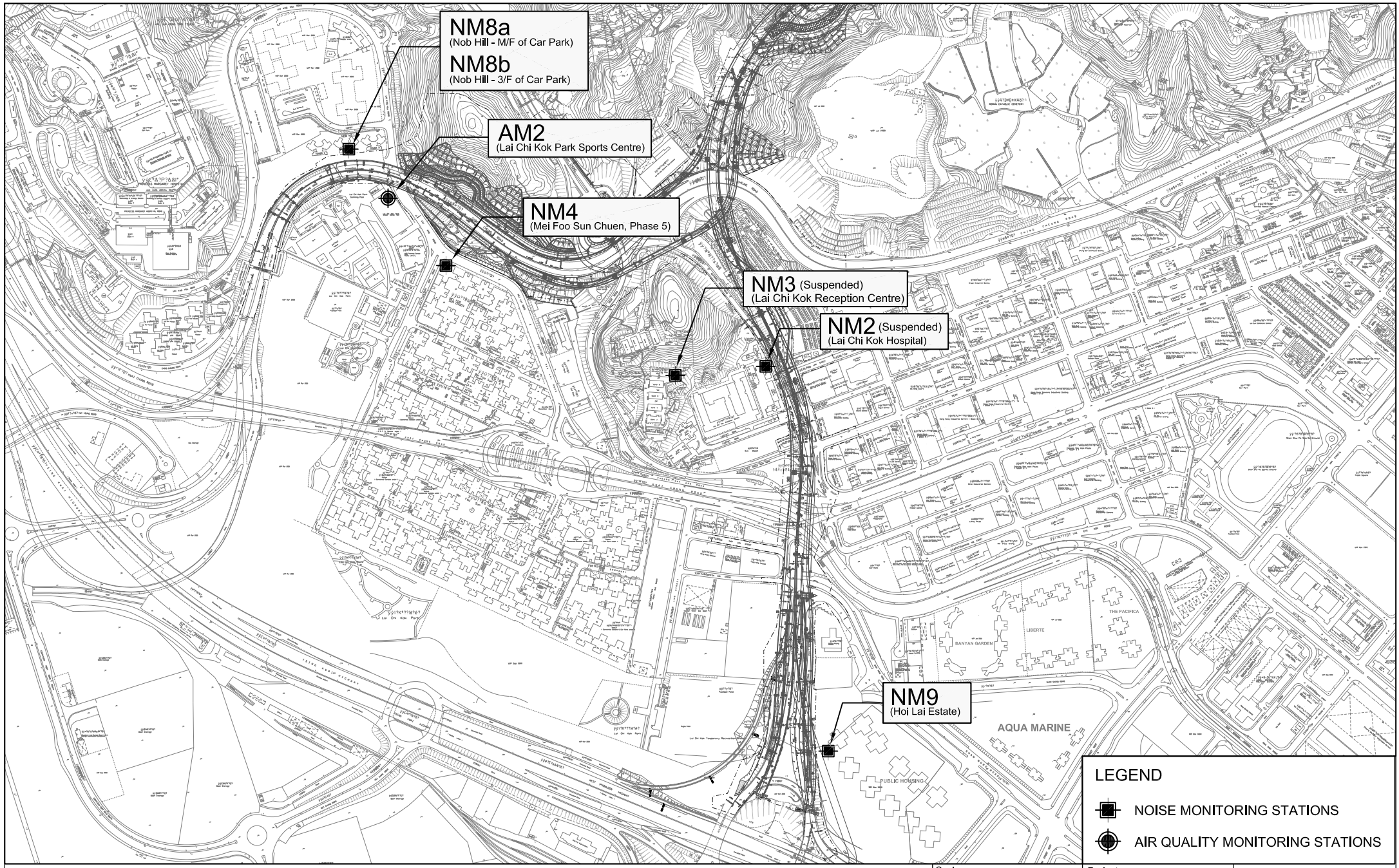
Water Impact

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

CINOTECH consultants limited

F:\PROJECTS\MA3024\DRAWING\IMPACT\LCK\FIGURE 1_LAYOUT_05.DWG

APPENDIX A
ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels (LCKV)

1-Hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/m^3
AM2	301	500

24-Hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/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 CERTIFCATES

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/20/0014

Station: Lai Chi Kok Sport Centre (AM2) | Operator: WK
Date: 2-Dec-05 | Next Due Date: 1-Feb-06
Equipment No.: A-01-20 | Serial No. 0818

Ambient Condition			
Temperature, Ta (K)	293.9	Pressure, Pa (mmHg)	765.6

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	Orfice			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	12.5	3.57	62.01	8.1	2.88
2	9.0	3.03	52.55	5.4	2.35
3	7.3	2.73	47.28	4.5	2.14
4	5.0	2.26	39.05	2.9	1.72
5	3.1	1.78	30.65	2.0	1.43

By Linear Regression of Y on X

Slope , mw = 0.0463 **Intercept, bw =** -0.0391

Correlation coefficient* = 0.9965

*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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.73**

Remarks:

Conducted by: W.K. Tang Signature: Kwai Date: 2-Dec 2005

Checked by: HL Signature: Date: 2 Dec 2005

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

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
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.

PATRICK TSE
Operation Manager

A.04.03

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

$$Vstd = \Delta Vol((Pa - \Delta P) / Pstd)(Tstd / Ta)$$
$$Qstd = Vstd / \Delta Time$$
$$Va = \Delta Vol((Pa - \Delta P) / Pa)$$
$$Qa = Va / \Delta Time$$

For subsequent flow rate calculations:

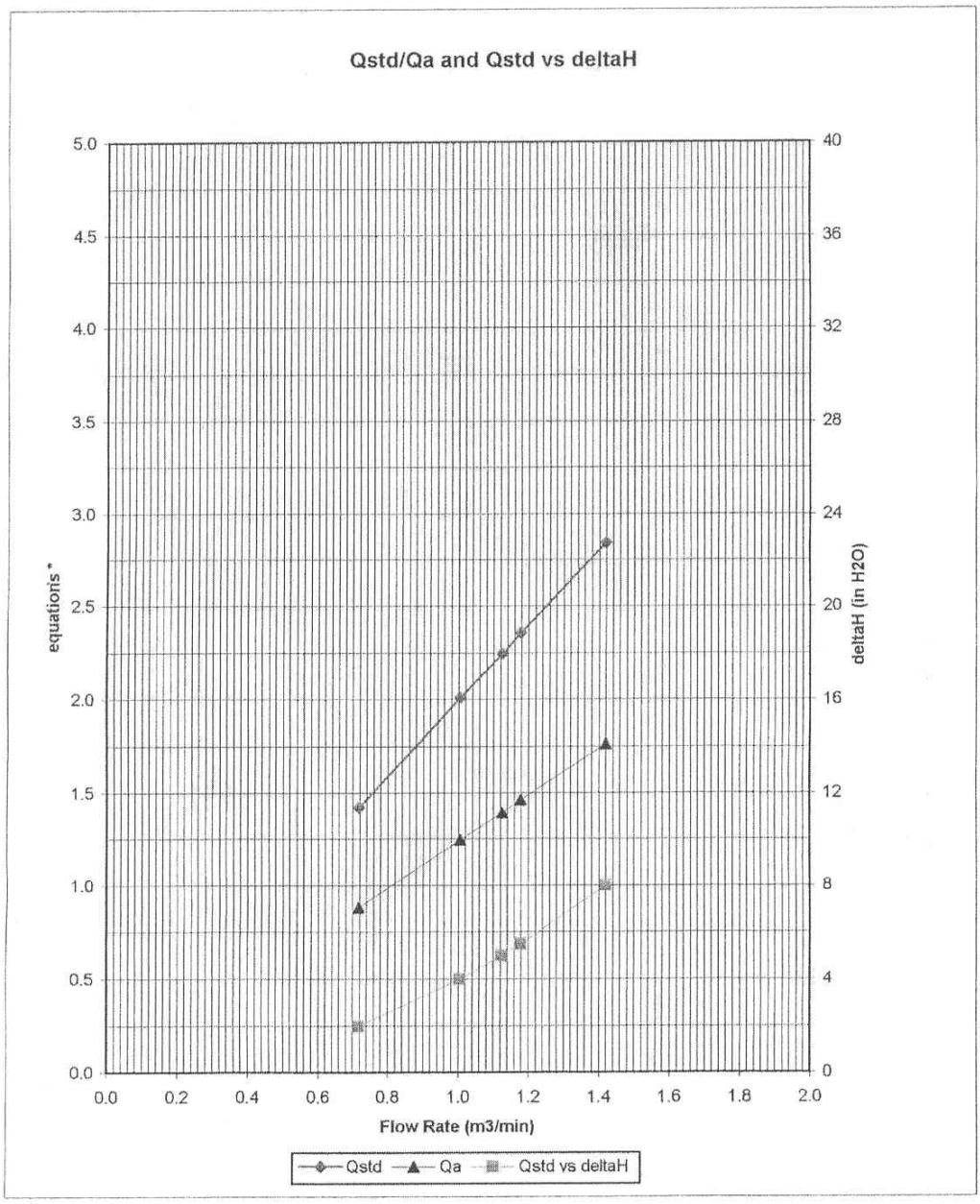
$$Qstd = 1 / m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right) - b\right)$$
$$Qa = 1 / m\left(\left(\sqrt{\Delta H(Ta / Pa)}\right) - b\right)$$

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

Notes:
1. Copies of this calibration are not kept on file.
2. 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: $\sqrt{(\Delta H(Ta / Pa))}$

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/51216/1
Date of Issue:	2005-12-16
Date Received:	2005-12-15
Date Tested:	2005-12-15
Date Completed:	2005-12-16
Next Due Date:	2006-12-15
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 Temperatre	: 20 degree Celsius
Relative Humidity	: 63%

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

PATRICK TSE
Operation Manager

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TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
1602-1610 Delta House,
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ATTN: **Mr. Henry Leung**

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
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 Temperatre	: 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:
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APPLICANT: **Cinotech Consultants Limited**
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ATTN: **Mr. Henry Leung**

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
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 Temperatre	: 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.**

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APPLICANT: **Cinotech Consultants Limited**
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ATTN: **Mr. Henry Leung**

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
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 Temperatre	: 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

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

Patrick.

PATRICK TSE
Operation Manager

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

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
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 Temperatre	: 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.**

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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
Page:	1 of 1

ATTN: **Mr. Henry Leung**

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 Temperatre	: 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.

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

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
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 Temperatre	: 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.

PATRICK TSE
Operation Manager

WELLAB LTD.

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Shatin, Hong Kong.
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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
Page:	1 of 1

ATTN: **Mr. Henry Leung**

Item for calibration:

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

Test conditions:

Room Temperatre	: 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 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

Environmental Monitoring for Lai Chi Kok Viaduct
Tentative Air Quality and Noise Monitoring Schedule for January 2006

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

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-Dec-2005	0:00	3.1	WSW
1-Dec-2005	1:00	3.1	WSW
1-Dec-2005	2:00	1.8	WSW
1-Dec-2005	3:00	2.7	W
1-Dec-2005	4:00	2.7	SW
1-Dec-2005	5:00	2.2	WSW
1-Dec-2005	6:00	1.8	SW
1-Dec-2005	7:00	1.3	SW
1-Dec-2005	8:00	2.2	SSW
1-Dec-2005	9:00	2.7	SW
1-Dec-2005	10:00	1.8	WNW
1-Dec-2005	11:00	3.6	W
1-Dec-2005	12:00	3.1	WNW
1-Dec-2005	13:00	3.6	W
1-Dec-2005	14:00	3.6	W
1-Dec-2005	15:00	2.7	W
1-Dec-2005	16:00	4	W
1-Dec-2005	17:00	3.6	WNW
1-Dec-2005	18:00	2.7	WNW
1-Dec-2005	19:00	1.3	WNW
1-Dec-2005	20:00	0.4	SW
1-Dec-2005	21:00	1.8	SSW
1-Dec-2005	22:00	1.3	SW
1-Dec-2005	23:00	1.8	SW
2-Dec-2005	0:00	1.8	SW
2-Dec-2005	1:00	1.3	SW
2-Dec-2005	2:00	1.8	SW
2-Dec-2005	3:00	1.3	SSW
2-Dec-2005	4:00	0.9	SSW
2-Dec-2005	5:00	0	SSW
2-Dec-2005	6:00	0	---
2-Dec-2005	7:00	0	---
2-Dec-2005	8:00	0	SSW
2-Dec-2005	9:00	0	SW
2-Dec-2005	10:00	0.4	WNW
2-Dec-2005	11:00	2.2	WNW
2-Dec-2005	12:00	2.2	W
2-Dec-2005	13:00	1.8	W
2-Dec-2005	14:00	1.8	WNW
2-Dec-2005	15:00	2.2	W
2-Dec-2005	16:00	1.3	SSW
2-Dec-2005	17:00	1.3	WSW
2-Dec-2005	18:00	0.4	S
2-Dec-2005	19:00	0	E
2-Dec-2005	20:00	0	---
2-Dec-2005	21:00	0.4	SSW
2-Dec-2005	22:00	0.4	SSW
2-Dec-2005	23:00	0.9	WNW
3-Dec-2005	0:00	2.2	SW
3-Dec-2005	1:00	3.6	WNW
3-Dec-2005	2:00	3.1	WSW
3-Dec-2005	3:00	2.7	WSW
3-Dec-2005	4:00	3.6	W
3-Dec-2005	5:00	4.5	WSW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
3-Dec-2005	6:00	3.1	W
3-Dec-2005	7:00	3.6	W
3-Dec-2005	8:00	2.7	SW
3-Dec-2005	9:00	2.7	WNW
3-Dec-2005	10:00	2.2	WSW
3-Dec-2005	11:00	1.8	WSW
3-Dec-2005	12:00	0.9	WNW
3-Dec-2005	13:00	0.9	W
3-Dec-2005	14:00	1.3	NW
3-Dec-2005	15:00	3.1	N
3-Dec-2005	16:00	2.7	NNE
3-Dec-2005	17:00	1.3	N
3-Dec-2005	18:00	0.4	NNE
3-Dec-2005	19:00	0.4	NNE
3-Dec-2005	20:00	0	ENE
3-Dec-2005	21:00	0	---
3-Dec-2005	22:00	0	SSW
3-Dec-2005	23:00	0.4	WSW
4-Dec-2005	0:00	1.3	SW
4-Dec-2005	1:00	3.1	WSW
4-Dec-2005	2:00	5.4	WNW
4-Dec-2005	3:00	4.5	WSW
4-Dec-2005	4:00	4	W
4-Dec-2005	5:00	3.6	WSW
4-Dec-2005	6:00	3.1	WSW
4-Dec-2005	7:00	3.6	WSW
4-Dec-2005	8:00	4.5	WSW
4-Dec-2005	9:00	5.4	WSW
4-Dec-2005	10:00	6.7	WNW
4-Dec-2005	11:00	4.9	WNW
4-Dec-2005	12:00	7.2	WNW
4-Dec-2005	13:00	6.3	WNW
4-Dec-2005	14:00	5.8	WNW
4-Dec-2005	15:00	4	WNW
4-Dec-2005	16:00	3.6	WSW
4-Dec-2005	17:00	3.1	SW
4-Dec-2005	18:00	2.2	SW
4-Dec-2005	19:00	1.3	S
4-Dec-2005	20:00	1.3	S
4-Dec-2005	21:00	1.8	SSW
4-Dec-2005	22:00	1.8	WNW
4-Dec-2005	23:00	2.2	WNW
5-Dec-2005	0:00	2.2	SW
5-Dec-2005	1:00	2.7	WSW
5-Dec-2005	2:00	3.1	WSW
5-Dec-2005	3:00	4.5	WNW
5-Dec-2005	4:00	5.4	WNW
5-Dec-2005	5:00	4.9	WNW
5-Dec-2005	6:00	4	W
5-Dec-2005	7:00	4	W
5-Dec-2005	8:00	4.5	WNW
5-Dec-2005	9:00	4	WNW
5-Dec-2005	10:00	4.5	WNW
5-Dec-2005	11:00	4	W

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
14-Dec-2005	12:00	5.8	WNW
14-Dec-2005	13:00	5.4	WNW
14-Dec-2005	14:00	4.5	WNW
14-Dec-2005	15:00	4	W
14-Dec-2005	16:00	4.5	WNW
14-Dec-2005	17:00	4.5	WSW
14-Dec-2005	18:00	3.6	SW
14-Dec-2005	19:00	4	WSW
14-Dec-2005	20:00	4.9	WSW
14-Dec-2005	21:00	4	SW
14-Dec-2005	22:00	4.5	WSW
14-Dec-2005	23:00	4	WSW
15-Dec-2005	0:00	3.6	W
15-Dec-2005	1:00	4.5	WSW
15-Dec-2005	2:00	4	WSW
15-Dec-2005	3:00	4	WSW
15-Dec-2005	4:00	4	WSW
15-Dec-2005	5:00	4.9	WSW
15-Dec-2005	6:00	4.5	WSW
15-Dec-2005	7:00	4	W
15-Dec-2005	8:00	4.9	WSW
15-Dec-2005	9:00	6.3	WNW
15-Dec-2005	10:00	7.2	WNW
15-Dec-2005	11:00	8	WNW
15-Dec-2005	12:00	8	WNW
15-Dec-2005	13:00	7.2	WNW
15-Dec-2005	14:00	6.3	WNW
15-Dec-2005	15:00	5.4	WNW
15-Dec-2005	16:00	4.9	WNW
15-Dec-2005	17:00	2.2	WSW
15-Dec-2005	18:00	2.2	SW
15-Dec-2005	19:00	2.2	SW
15-Dec-2005	20:00	2.2	SSW
15-Dec-2005	21:00	1.8	SW
15-Dec-2005	22:00	2.7	WSW
15-Dec-2005	23:00	4	WNW
16-Dec-2005	0:00	4	WNW
16-Dec-2005	1:00	4.5	WNW
16-Dec-2005	2:00	4	WNW
16-Dec-2005	3:00	2.7	WSW
16-Dec-2005	4:00	2.7	SW
16-Dec-2005	5:00	2.7	WSW
16-Dec-2005	6:00	2.7	WSW
16-Dec-2005	7:00	2.2	SW
16-Dec-2005	8:00	1.8	WSW
16-Dec-2005	9:00	3.1	WNW
16-Dec-2005	10:00	1.8	WNW
16-Dec-2005	11:00	3.1	WNW
16-Dec-2005	12:00	3.6	WNW
16-Dec-2005	13:00	4.5	WNW
16-Dec-2005	14:00	2.2	NW
16-Dec-2005	15:00	3.1	W
16-Dec-2005	16:00	2.7	WNW
16-Dec-2005	17:00	0.9	WNW

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
21-Dec-2005	6:00	7.2	WSW
21-Dec-2005	7:00	7.6	WSW
21-Dec-2005	8:00	7.2	WSW
21-Dec-2005	9:00	6.3	WSW
21-Dec-2005	10:00	6.3	WSW
21-Dec-2005	11:00	7.6	WSW
21-Dec-2005	12:00	5.8	WSW
21-Dec-2005	13:00	6.7	WSW
21-Dec-2005	14:00	5.4	SW
21-Dec-2005	15:00	4.5	WSW
21-Dec-2005	16:00	4.9	WSW
21-Dec-2005	17:00	4.5	WSW
21-Dec-2005	18:00	4.9	SW
21-Dec-2005	19:00	6.3	WSW
21-Dec-2005	20:00	6.3	WSW
21-Dec-2005	21:00	5.4	WSW
21-Dec-2005	22:00	5.8	WSW
21-Dec-2005	23:00	6.3	WSW
22-Dec-2005	0:00	4.9	WSW
22-Dec-2005	1:00	5.4	WSW
22-Dec-2005	2:00	4.5	WSW
22-Dec-2005	3:00	5.4	SW
22-Dec-2005	4:00	5.8	WSW
22-Dec-2005	5:00	5.8	WSW
22-Dec-2005	6:00	4.5	WSW
22-Dec-2005	7:00	4.9	WNW
22-Dec-2005	8:00	5.8	WSW
22-Dec-2005	9:00	6.3	W
22-Dec-2005	10:00	6.7	WSW
22-Dec-2005	11:00	5.8	WNW
22-Dec-2005	12:00	4	W
22-Dec-2005	13:00	6.3	WNW
22-Dec-2005	14:00	5.8	WNW
22-Dec-2005	15:00	4.9	WNW
22-Dec-2005	16:00	4.5	W
22-Dec-2005	17:00	3.1	W
22-Dec-2005	18:00	1.8	SSW
22-Dec-2005	19:00	0.9	S
22-Dec-2005	20:00	0	SW
22-Dec-2005	21:00	0	SW
22-Dec-2005	22:00	0	---
22-Dec-2005	23:00	0	---
23-Dec-2005	0:00	0	---
23-Dec-2005	1:00	0	---
23-Dec-2005	2:00	0	---
23-Dec-2005	3:00	0	---
23-Dec-2005	4:00	0	WSW
23-Dec-2005	5:00	0	---
23-Dec-2005	6:00	0	---
23-Dec-2005	7:00	0	---
23-Dec-2005	8:00	0	WSW
23-Dec-2005	9:00	0	W
23-Dec-2005	10:00	2.7	WNW
23-Dec-2005	11:00	4	WNW

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

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

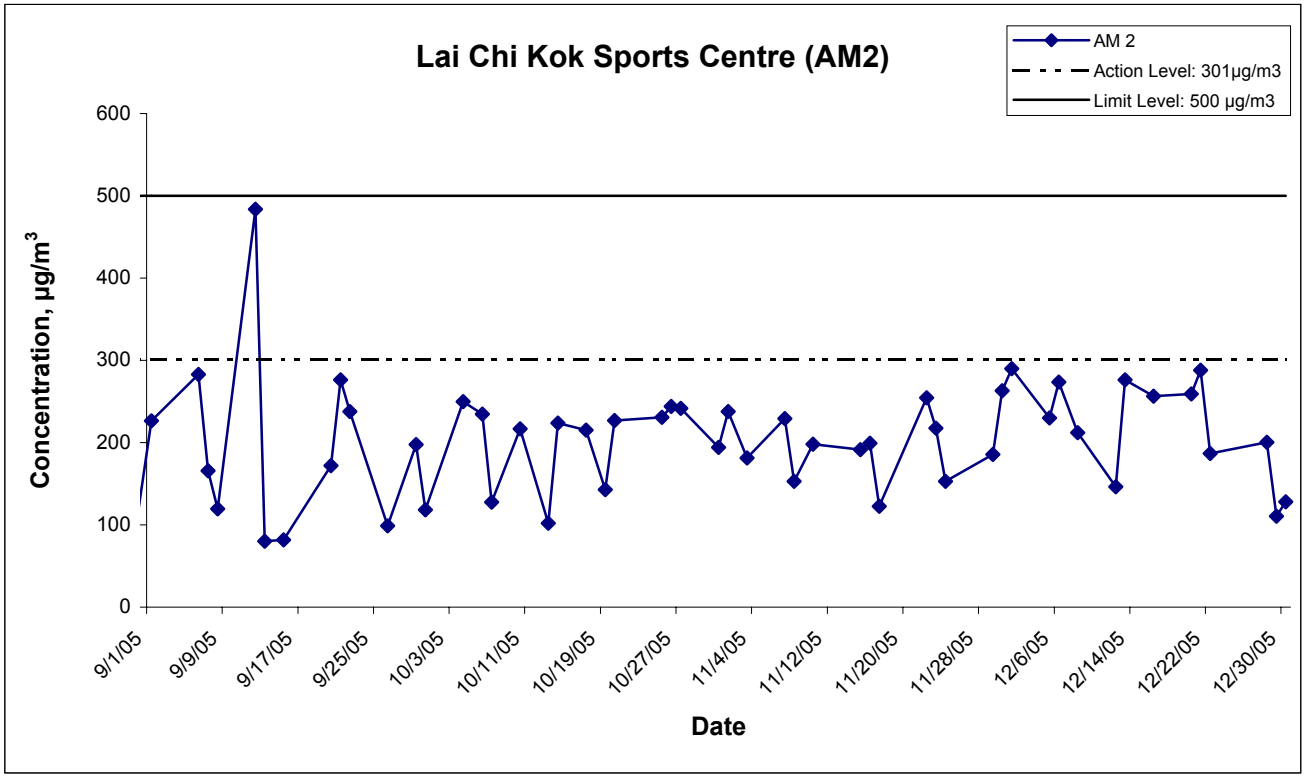
APPENDIX E
1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

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. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
1-Dec-05	Sunny	2.8089	2.8305	1.24	1.24	3547.1	3548.1	294.3	763.5	0.0216	1.24	74.5	1.0	289.8
5-Dec-05	Cloudy	2.8697	2.8866	1.22	1.22	3572.1	3573.1	288.9	767.8	0.0169	1.22	73.5	1.0	230.1
6-Dec-05	Cloudy	2.8779	2.8982	1.24	1.24	3573.1	3574.1	284.1	771.2	0.0203	1.24	74.2	1.0	273.5
8-Dec-05	Sunny	2.8680	2.8836	1.23	1.23	3574.1	3575.1	288.8	769.5	0.0156	1.23	73.5	1.0	212.1
12-Dec-05	Cloudy	2.8653	2.8760	1.22	1.22	3600.2	3601.2	290.3	765.9	0.0107	1.22	73.2	1.0	146.2
13-Dec-05	Cloudy	2.8639	2.8843	1.23	1.23	3601.2	3602.2	286.7	770.3	0.0204	1.23	73.8	1.0	276.3
16-Dec-05	Sunny	2.8565	2.8755	1.23	1.23	3626.2	3627.2	285.4	771.5	0.0190	1.23	74.1	1.0	256.5
20-Dec-05	Sunny	2.8683	2.8874	1.23	1.23	3627.2	3628.2	289.0	767.9	0.0191	1.23	73.7	1.0	259.1
21-Dec-05	Sunny	2.8797	2.9009	1.23	1.23	3628.2	3629.2	287.8	768.6	0.0212	1.23	73.6	1.0	288.0
22-Dec-05	Sunny	2.8916	2.9054	1.23	1.23	3653.2	3654.2	286.4	769.1	0.0138	1.23	73.8	1.0	186.9
28-Dec-05	Cloudy	2.8622	2.8769	1.22	1.22	3654.2	3655.2	289.6	768.1	0.0147	1.22	73.4	1.0	200.4
29-Dec-05	Cloudy	2.8768	2.8849	1.22	1.22	3679.2	3680.2	290.5	766.7	0.0081	1.22	73.2	1.0	110.7
30-Dec-05	Rainy	2.9072	2.9166	1.22	1.22	3680.2	3681.2	289.2	766.6	0.0094	1.22	73.4	1.0	128.1
													Min	110.7
													Max	289.8
													Average	219.8

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 Date: Dec 05	Project No.: MA3024 Appendix: E	CINOTECH

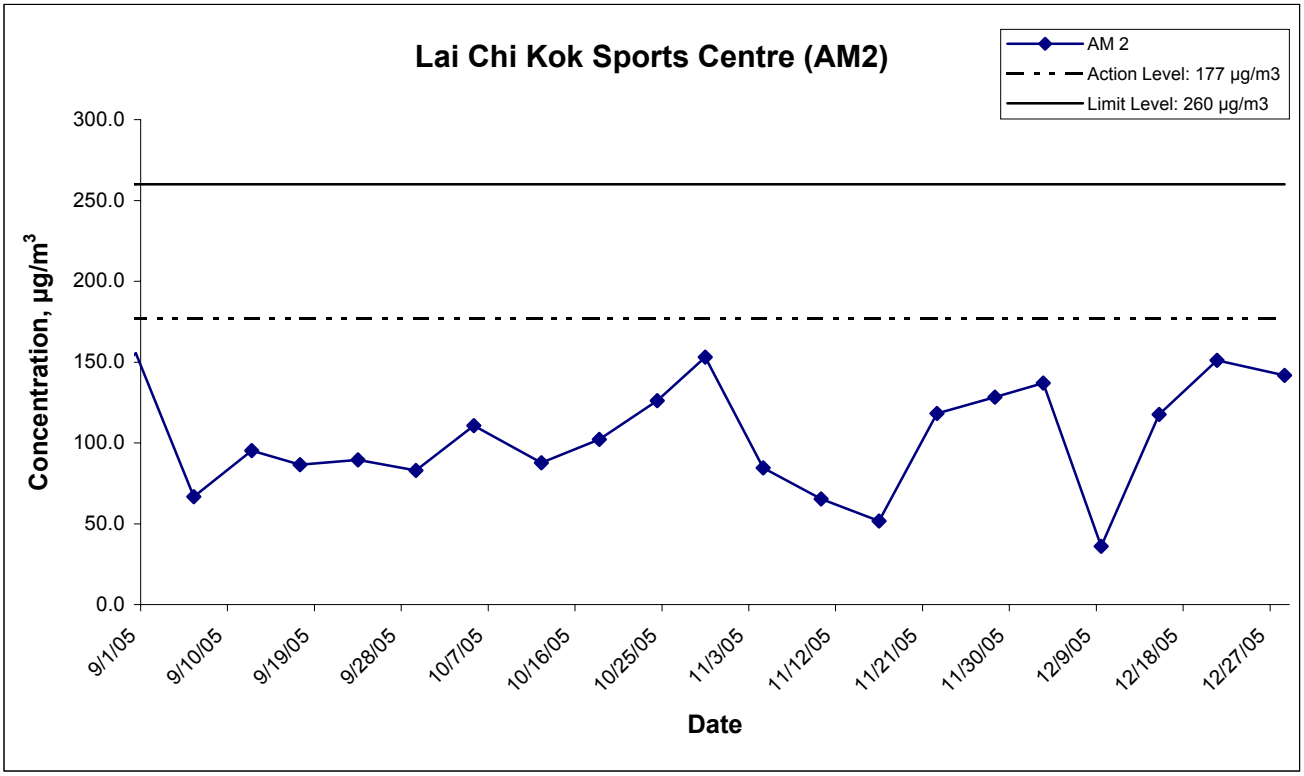
APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

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. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
3-Dec-05	Cloudy	2.8821	3.1204	1.21	1.21	3548.1	3572.1	295.8	764.6	0.2383	1.21	1738.9	24.0	137.0
9-Dec-05	Cloudy	2.8788	2.9420	1.22	1.22	3575.1	3599.1	292.5	764.9	0.0632	1.22	1749.5	24.0	36.1
15-Dec-05	Sunny	2.8864	3.0958	1.24	1.24	3602.2	3626.2	285.4	772.7	0.2094	1.24	1778.8	24.0	117.7
21-Dec-05	Sunny	2.8935	3.1591	1.22	1.22	3629.2	3653.2	290.3	766.5	0.2656	1.22	1757.0	24.0	151.2
28-Dec-05	Cloudy	2.8585	3.1078	1.22	1.22	3655.2	3679.2	290.1	767.6	0.2493	1.22	1758.9	24.0	141.7
													Min	36.1
													Max	151.2
													Average	116.8

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 Date: Dec 05	Project No.: MA3024 Appendix: F	CINOTECH

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}	
6-Dec-05	13:30	Cloudy	76.8	79.5	72.0	73.8	73.8	Road traffic noise from Ching Cheung Road was identified as the major noise source.
13-Dec-05	10:10	Cloudy	77.1	79.0	73.5		74.4	
21-Dec-05	13:43	Sunny	76.1	78.0	72.5		72.2	
29-Dec-05	10:06	Fine	77.0	79.5	72.0		74.2	

Location NM8a - M/F of Nob Hill						
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks
			L_{eq}	L_{10}	L_{90}	
6-Dec-05	14:50	Cloudy	72.8	75.0	69.5	Road traffic noise from Ching Cheung Road was identified as the major noise source.
13-Dec-05	10:50	Cloudy	74.5	78.5	72.0	
21-Dec-05	14:36	Sunny	73.8	77.0	71.0	
29-Dec-05	13:36	Fine	75.4	79.0	71.5	

Location NM8b - 3/F of Nob Hill						
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks
			L_{eq}	L_{10}	L_{90}	
6-Dec-05	15:30	Cloudy	77.9	81.0	75.0	Road traffic noise from Ching Cheung Road was identified as the major noise source.
13-Dec-05	11:25	Cloudy	77.6	79.5	73.0	
21-Dec-05	15:12	Sunny	78.9	79.5	74.0	
29-Dec-05	14:24	Fine	78.8	81.0	74.0	

Location NM9 - Hoi Lai Estate						
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks
			L_{eq}	L_{10}	L_{90}	
6-Dec-05	16:30	Cloudy	70.2	73.5	68.5	-
13-Dec-05	13:20	Cloudy	64.3	66.5	62.5	
21-Dec-05	16:06	Sunny	65.9	68.5	63.5	
29-Dec-05	15:39	Fine	68.2	70.5	63.5	

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

*Bolded value indicated limit level exceedance

Appendix G - Noise Monitoring Results

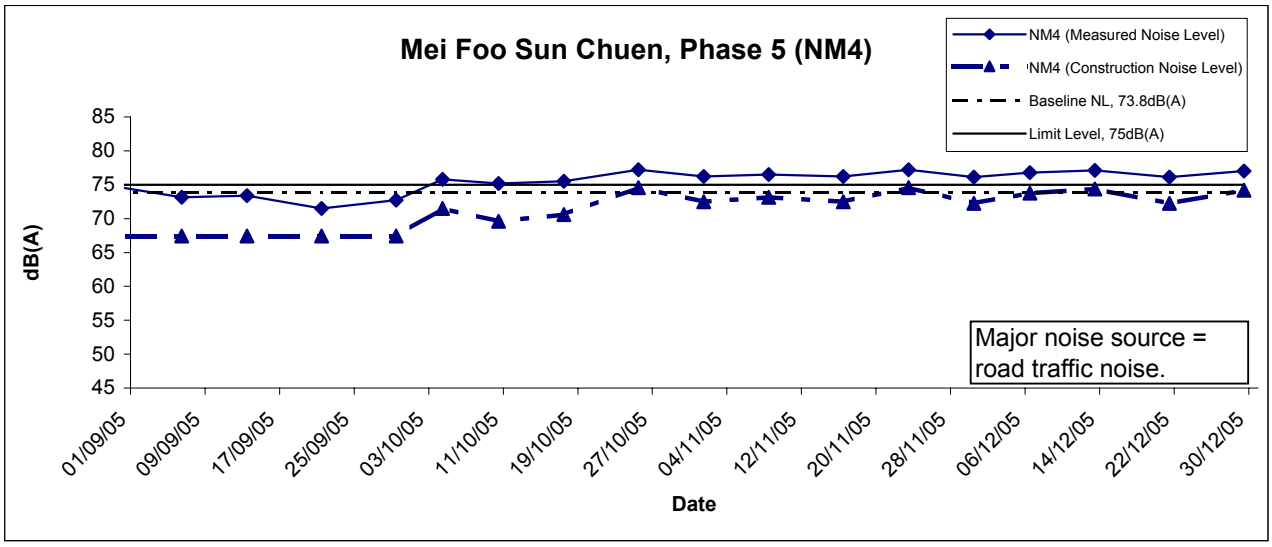
Restricted Hours - 19:00 to 23:00 on normal weekdays

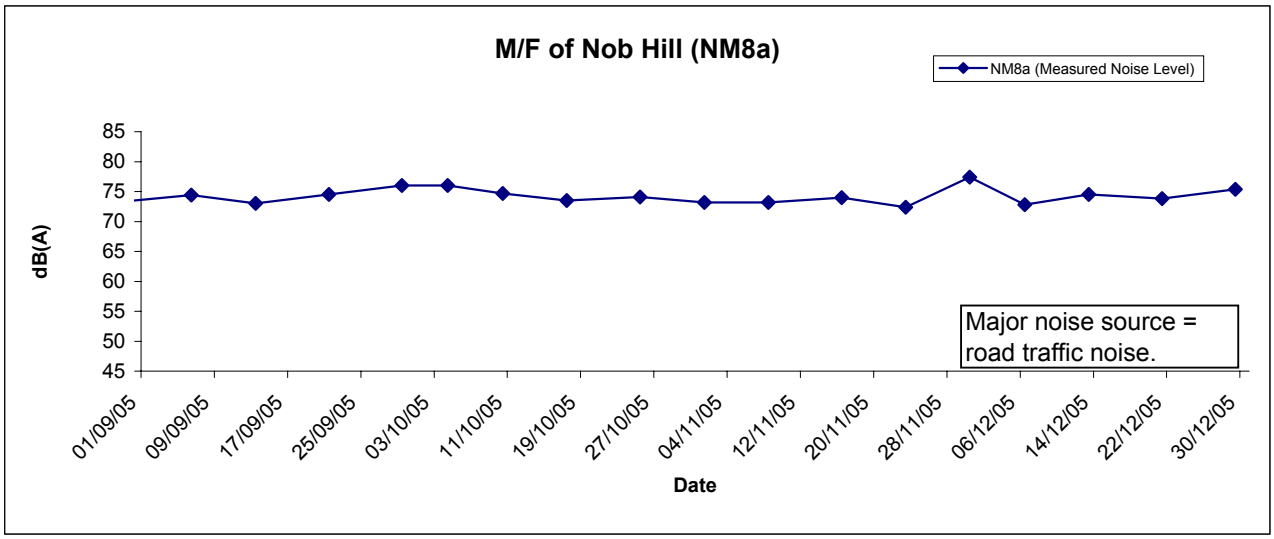
Location NM9 - Hoi Lai Estate						
Date	Time	Weather	dB (A) (5-min)			
			L_{eq}	L_{10}	L_{90}	Average L_{eq}
6-Dec-05	19:05	Cloudy	67.3	69.0	62.5	67.5
	19:10		67.4	69.0	62.5	
	19:15		67.7	69.5	63.5	
13-Dec-05	19:30	Cloudy	66.8	68.0	62.0	66.6
	19:35		66.5	68.0	61.0	
	19:40		66.6	68.0	61.5	
20-Dec-05	19:00	Cloudy	64.9	68.0	62.0	65.3
	19:05		65.2	68.5	63.0	
	19:10		65.8	69.5	63.5	
30-Dec-05	19:10	Cloudy	66.1	69.0	62.5	66.1
	19:15		66.2	69.0	62.5	
	19:20		66.1	69.0	62.0	

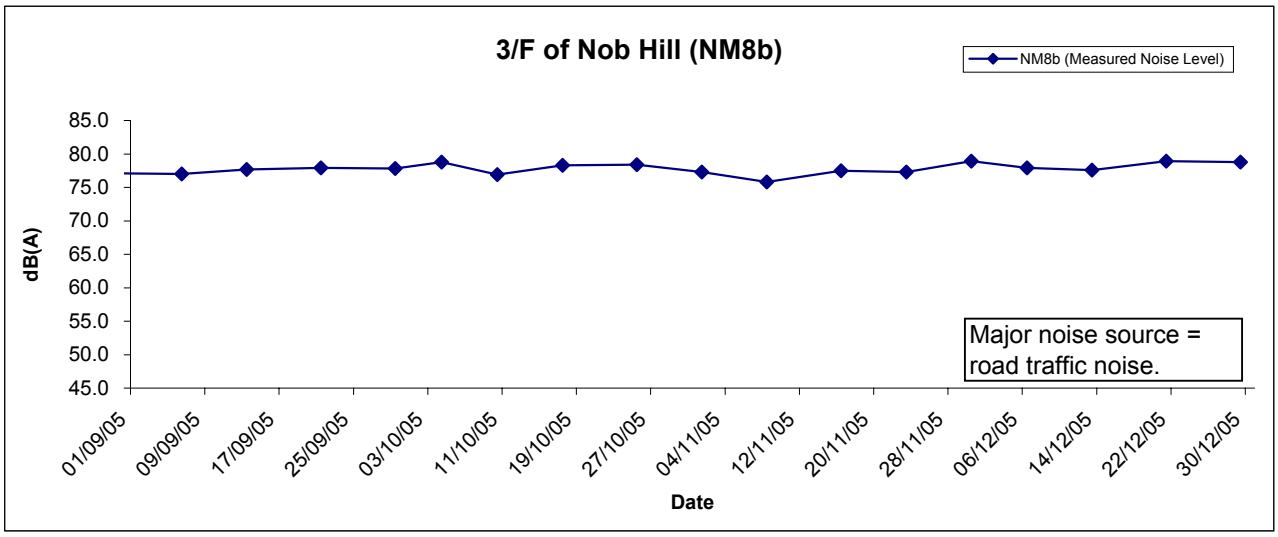
Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

*Bolded value indicated limit level exceedance

Noise Levels



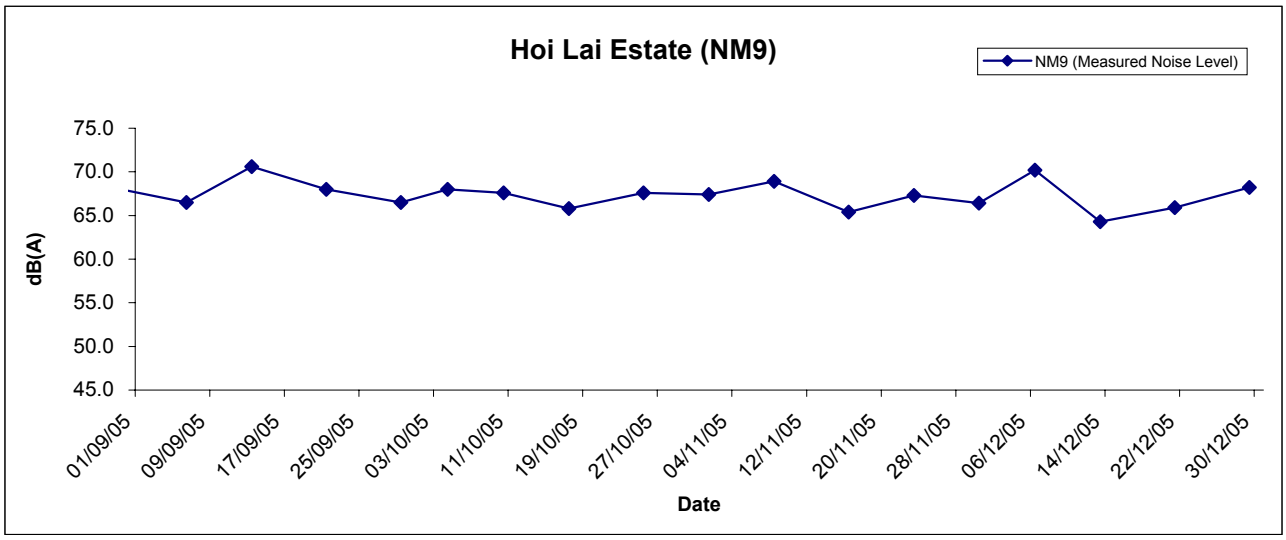




* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

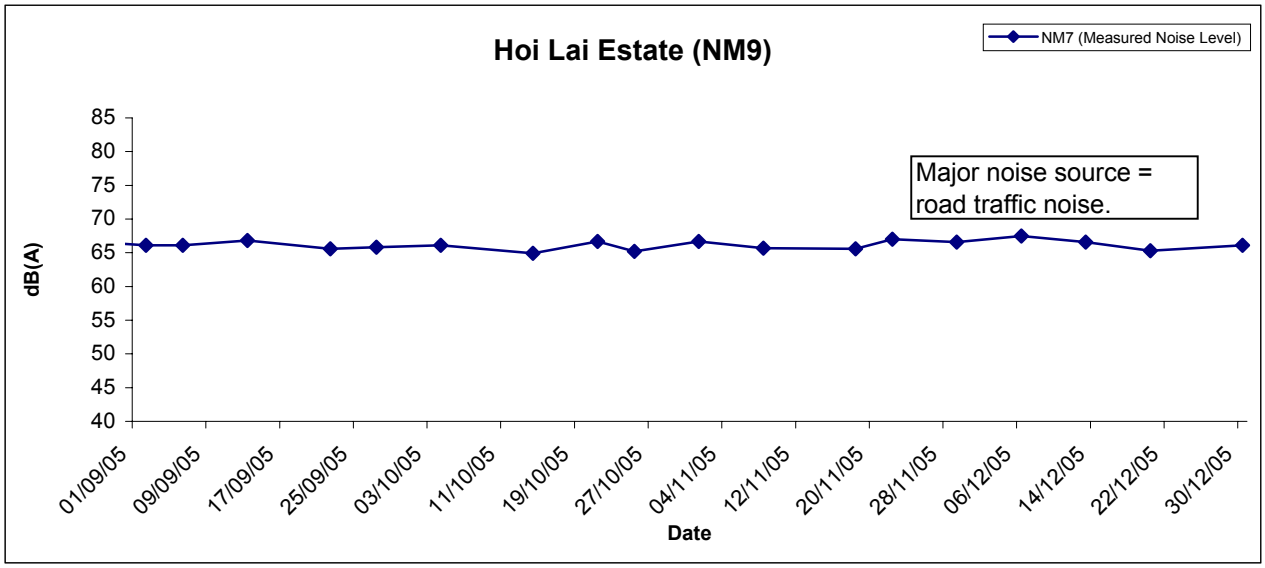
Title: Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S	Project No.: MA3024	CINOTECH
	Date: Dec 05	Appendix: G	

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 Date: Dec 05	Project No.: MA3024 Appendix: G	CINOTECH

Restricted Hours (19:00 to 23:00) - 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 Date: Dec 05	Project No.: MA3024 Appendix: G	CINOTECH

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 (NIL)

APPENDIX I
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51206-LCKV
Date	6 December 2005 (Tue)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality • No environmental deficiency was identified during the site inspection.	
51206L-01	*B. Air Quality* • Uncovered stockpiles were observed at S4 and S1. The Contractor was reminded to cover the idled stockpiles properly to prevent dust emission.	C8
51206L-02	*C. Noise* • No noise emission label was affixed on an air compressor operating at P1R. The Contractor was reminded to provide a valid NEL for the compressor as soon as possible.	D9
51206L-03	*D. Waste / Chemical Management* • An oil drums were not placed on bunded area at WMT's workshop. The Contractor was reminded to provide a drip tray for the drum.	E3i
	E. Permit / Licenses • No environmental deficiency was identified during the site inspection.	
	F. Others • The environmental deficiency identified during last audit (ref. 51130-LCKV) 30 November 2005, except item 51130L-01, was rectified / improved by the Contractor.	

	Name	Signature	Date
Recorded by	KK Chan		6 December 2005
Checked by	Jesse Yuen		6 December 2005

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51214-LCKV
Date	14 December 2005 (Wed)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
51214L-01	***A. Water Quality*** • No environmental deficiency was identified during the site inspection. ***B. Air Quality*** • No water spray was applied for the breaking work at R2. The Contractor was reminded to apply water spray for the work to minimize dust emission. ***C. Noise*** • No environmental deficiency was identified during the site inspection. ***D. Waste / Chemical Management*** • No environmental deficiency was identified during the site inspection. ***E. Permit / Licenses*** • No environmental deficiency was identified during the site inspection. ***F. Others*** • The environmental deficiency identified during last audit (ref. 51206-LCKV) 6 December 2005, was rectified / improved by the Contractor.	C2

	Name	Signature	Date
Recorded by	KK Chan		15 December 2005
Checked by	Winniss Kong		15 December 2005

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51222-LCKV
Date	22 December 2005 (Thr)
Time	0930 – 1140

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

Ref. No.	Remarks/Observations	Related Item No.
51222L-01	***A. Water Quality*** • No environmental deficiency was identified during the site inspection. ***B. Air Quality*** • No environmental deficiency was identified during the site inspection. ***C. Noise*** • The noise label of air compressor was found missing at R3. The contractor was reminded to provide a noise label on the air compressor. ***D. Waste / Chemical Management*** • No environmental deficiency was identified during the site inspection. ***E. Permit / Licenses*** • No environmental deficiency was identified during the site inspection. ***F. Others*** • The environmental deficiency identified during last audit (ref. 51214-LCKV) 14 December 2005, was rectified / improved by the Contractor.	D9

	Name	Signature	Date
Recorded by	CM Cheung		23 December 2005
Checked by	KK Chan		23 December 2005

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	51229-LCKV
Date	29 December 2005 (Thr)
Time	0930 – 1145

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality • No environmental deficiency was identified during the site inspection. ***B. Air Quality*** • No environmental deficiency was identified during the site inspection. ***C. Noise*** • No environmental deficiency was identified during the site inspection. ***D. Waste / Chemical Management*** • Oil dripping from drip tray was observed on the bridge at P5L. The contractor was reminded to block the water discharging hold of the drip tray. ***E. Permit / Licenses*** • No environmental deficiency was identified during the site inspection. ***F. Others*** • The environmental deficiency identified during last audit (ref. 51222-LCKV) 22 December 2005, was rectified / improved by the Contractor.	
51229L-01		E 3ii

	Name	Signature	Date
Recorded by	CM Cheung		30 December 2005
Checked by	Winniss Kong		30 December 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	1. Identify source 2. Inform ER & IEC 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by ET 2. Check Contractor's working methods	1. Notify Contractor 2. Check monitoring data and Contractor's working methods	1. Rectify any unacceptable practice 2. Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	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	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	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	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	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	1. Checking monitoring data submitted by ET 2. Check Contractor's working methods 3. Discuss with ET and Contractor on possible remedial measure	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	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	1. Discuss with the IEC and ER and seek to identify potential noise source 2. Undertake noise measurement to confirm the validity of complaint 3. Inform ER&IEC in writing Discuss remedial actions required with ER&IEC if an exceedance is recorded 4. Increase monitoring frequency to demonstrate efficacy of remedial measures 5. If exceedance continues, meet with ER&IEC to review implementation of appropriate mitigation measures. 6. If exceedance stops, cease additional monitoring	1. Review the analyzed results submitted by the ET 2. Review the proposed remedial measures by the Contractor and advise the ER & ET accordingly 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of complaint and notify Contractor immediately 2. Check monitoring data trends and Contractor's working methods 3. Remind the Contractor of his contractual obligations and discuss with ET, IEC and Contractor on proposed remedial actions 4. Assess the efficacy of remedial actions and keep the Contractor informed 5. Inform complainant of actions taken	1. Submit proposals for remedial actions to ER within three working days of notification 2. Amend proposals if required by the Engineer 3. Implement the remedial actions immediately upon instruction 4. Liaise with the ER to optimize the effectiveness of the agreed mitigation 5. Amend proposal if appropriate

Exceedance	ACTION			
	ET	IEC	ER	Contractor
Limit Level	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	1. Check monitoring data submitted by ET 2. Review Contractor's remedial actions to assure their effectiveness and advise the ER &ET accordingly 3. Supervise the implementation of the remedial measures	1. Confirm receipt of notification of exceedance and notify Contractor 2. Check monitoring data trends and Contractor's working methods 3. Discuss with ET, 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	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	• 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.	^
	• A stockpile of dusty materials should not extend beyond the pedestrian barriers, fencing or traffic cones.	^
	• Vehicle washing facilities should be provided at every exit point.	^
	• 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.	^
	• 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.	^
	• Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet.	^
	• 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.	^
	• Any stockpile of dusty materials should be either covered entirely be 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.	^
	• 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.	^
	• 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	• Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works.	^
	• Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	^
	• Plant know to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS.	^
	• Mobile plant should be sited as far away from NSRs as possible.	^
	• Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	^
	• Use quite plant and Working Method	^
	• 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	*Construction Runoff and Drainage*	
	• Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow.	^
	• 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.	^
	• 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	^
	• 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.	^
	• 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
	• Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks.	^
	• 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.	^
	• 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.	^
	• 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.	^
	Tunnelling Work	
	• 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
	• 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
	• 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
	General Construction Activities	
	• 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).	^
	Sewage Effluent	
	• Construction work force sewage discharges form 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 form 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.	N/A
Waste	*General*	
	• 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.	^
	Storage, Collection and Transportation of Waste	
	• 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.	^
	• Maintain records of the quantities of wastes generated, recycled and disposed.	^
	Surplus Excavated Materials	
	• 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.	^
	Construction and Demolition (C&D) Waste	

Types of Impacts	Mitigation Measures	Status
	• 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.	^ N/A ^
	Chemical Waste	
	• 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: 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: 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).	^ ^ ^ ^
	General Refuse	
	• 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.	^ ^

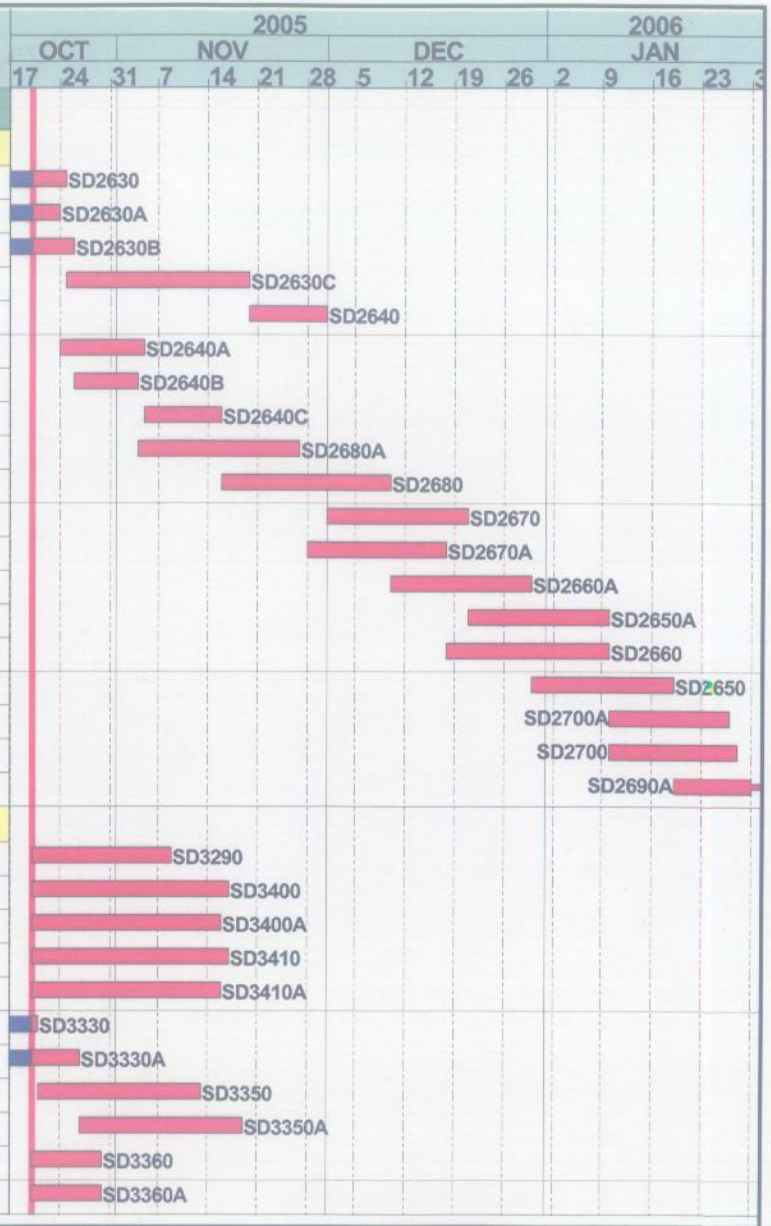
Types of Impacts	Mitigation Measures	Status
Ecology	• A sediment barrier shall be erected to minimize stream sedimentation at downstream of the project boundary of the Toll Plaza. • Conduct a tree survey before commencement of the construction work. • All measures recommended in the approved landscape 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. • Loss of the adjacent woodland due to temporary land take shall be returned to the original status immediately. • 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 ^ ^ N/A ^ N/A
Landscape and Visual Impact	• 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. • 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. • 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
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	19JAN06	09FEB06	30NOV05	17DEC05
Segmental Deck Casting (Type B Units)						
SD3290	PA/L (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



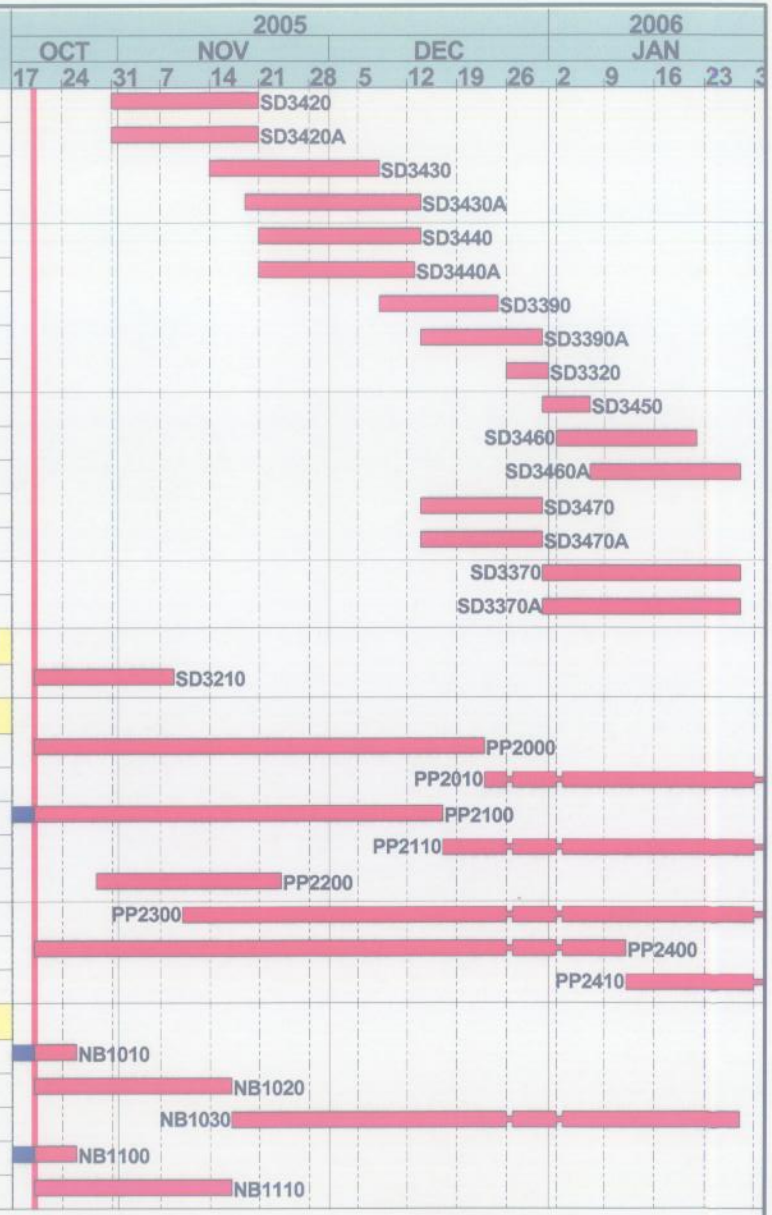
Start Date 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

Sheet 1 of 20

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
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 IIII 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 Encl' - Slip Rd A - Design & Shop Drawings	23	07JUL05A	25OCT05	07JUL05A	14APR05
NB1020	Noise Encl' - Slip Rd A - Eng. Review & Approval	28	20OCT05	16NOV05	09APR05	06MAY05
NB1030	Noise Encl' - Slip Rd A - Materials Purchasing	60	17NOV05	27JAN06	07MAY05	18JUL05
NB1100	Noise Encl' - Slip Rd B - Design & Shop Drawings	23	07JUL05A	25OCT05	07JUL05A	29APR05
NB1110	Noise Encl' - Slip Rd B - Eng. Review & Approval	28	20OCT05	16NOV05	25APR05	22MAY05



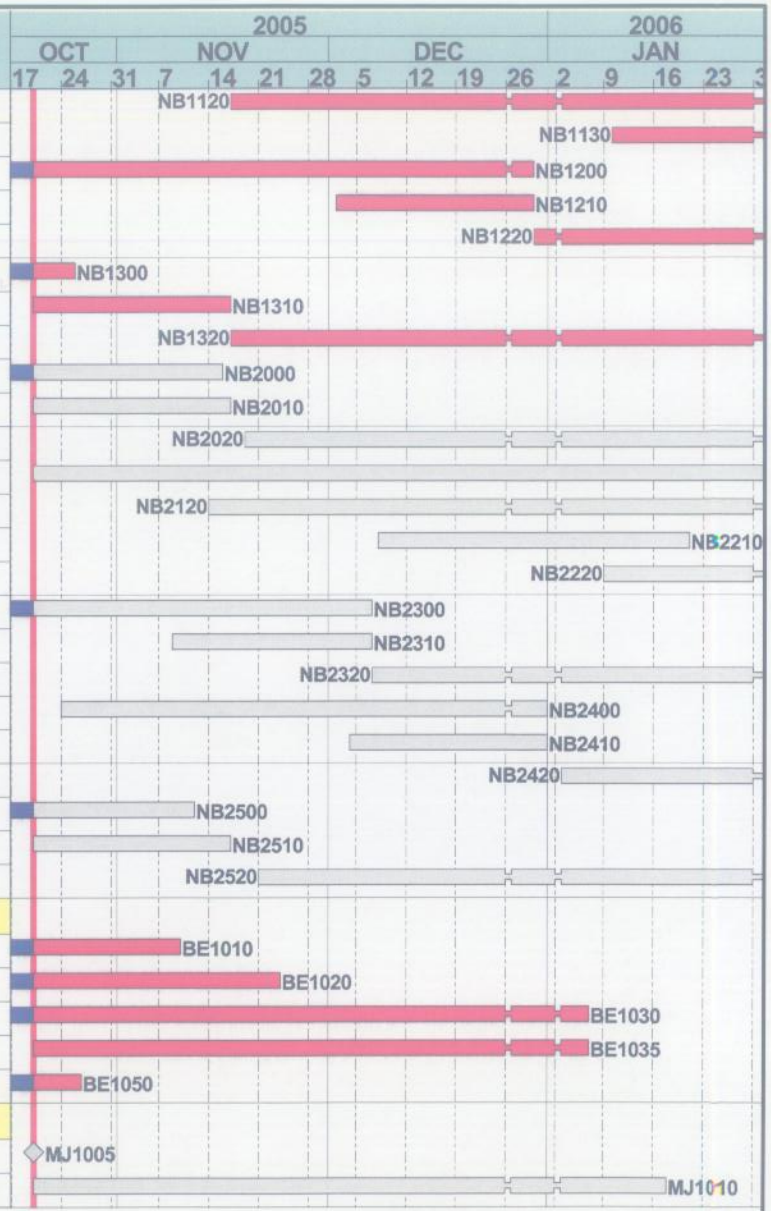
Start Date 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

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

Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
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 & Approv	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 & Approv	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 & Approv	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 & Approv	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



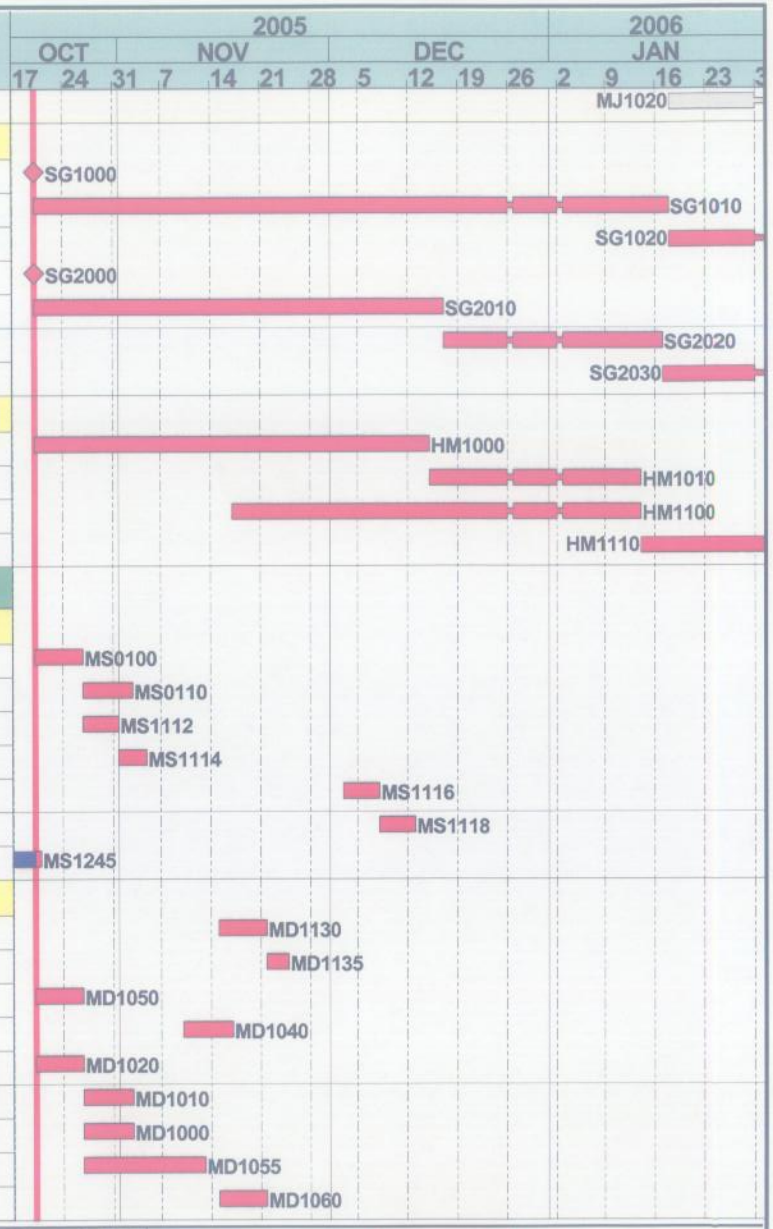
Start Date 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

Sheet 3 of 20

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
MJ1020	Review & Approval of Design & Shop Drawings	24	18JAN06	17FEB06	24APR06	22MAY06
Signage						
SG1000	Sign Gantries - Award of Sub-contract	0	20OCT05		11MAY05	
SG1010	Sign Gantries - Detailed Design & Shop Drawings	75	20OCT05	17JAN06	11MAY05	08AUG05
SG1020	Sign Gantries - Review/Appro of Design & S/Dwgs.	24	18JAN06	17FEB06	09AUG05	05SEP05
SG2000	Signage - Award of Sub-contract	0	20OCT05		01DEC04	
SG2010	Signage - Shop Drawings	50	20OCT05	16DEC05	01DEC04	29JAN05
SG2020	Signage - Review & Approval of Shop Drawings.	24	17DEC05	16JAN06	31JAN05	02MAR05
SG2030	Signage - Off-Site Fabrication of Signs	50	17JAN06	18MAR06	03MAR05	30APR05
High Mast Lighting						
HM1000	High Mast Lighting - Foundation Design	48	20OCT05*	14DEC05	16JUN05	11AUG05
HM1010	High Mast Lighting - Approval of Found'n Design	24	15DEC05	13JAN06	04NOV05	01DEC05
HM1100	High Mast Lighting - Mast Design & Shop Drawings	48	17NOV05	13JAN06	15JUL05	08SEP05
HM1110	High Mast Lighting - Approval of Mast Design	56	14JAN06	10MAR06	09SEP05	03NOV05
Viaduct - Main Line - Piers PA to P6						
Substructure						
MS0100	PA/L - Install Bearings	6	20OCT05	26OCT05	13DEC04	18DEC04
MS0110	PA/R - Install Bearings	6	27OCT05	02NOV05	20DEC04	27DEC04
MS1112	P1/R - Temporary Props for Spans - Founds	4	27OCT05	31OCT05	09DEC04	13DEC04
MS1114	P1/R - Temporary Props for Spans - Towers	4	01NOV05	04NOV05	14DEC04	17DEC04
MS1116	P1/R - Remove Temporary Props for Spans - Towers	4	03DEC05	07DEC05	08JAN05	12JAN05
MS1118	P1/R - Remove Temporary Props for Spans - Towers	4	08DEC05	12DEC05	13JAN05	17JAN05
MS1245	P2/R - Upper Portal Frame - Cure & Strke F/work	14	13SEP05A	20OCT05	13SEP05A	13DEC04
Main Line - Segmental Deck Construction (Crane)						
MD1130	PA/L - 9 Segments Type B on Scaffold	6	15NOV05	21NOV05	30APR05	07MAY05
MD1135	PA/L to P1/L - Insitu Stitch	3	22NOV05	24NOV05	09MAY05	11MAY05
MD1050	P1/R - 1st. Pair - 2 Segments Type C	6	20OCT05	26OCT05	02DEC04	08DEC04
MD1040	P2/R - 1st. Pair - 2 Segments Type C	6	10NOV05	16NOV05	14DEC04	20DEC04
MD1020	P4/R - 1st. Pair - 2 Segments Type C	6	20OCT05	26OCT05	16MAY05	21MAY05
MD1010	P5/R - 1st. Pair - 1 Type C & 1 Type B	6	27OCT05	02NOV05	15SEP05	22SEP05
MD1000	P5 (B4)Slip B - 1st. Pair - 2 Segments Type B	6	27OCT05	02NOV05	14JUN05	20JUN05
MD1055	P1/R - 30 Segments Type C	15	27OCT05	12NOV05	09DEC04	27DEC04
MD1060	PA/R - 9 Segments Type C on Scaffold	6	15NOV05	21NOV05	28DEC04	04JAN05



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

P3 File : LU25

Sheet 4 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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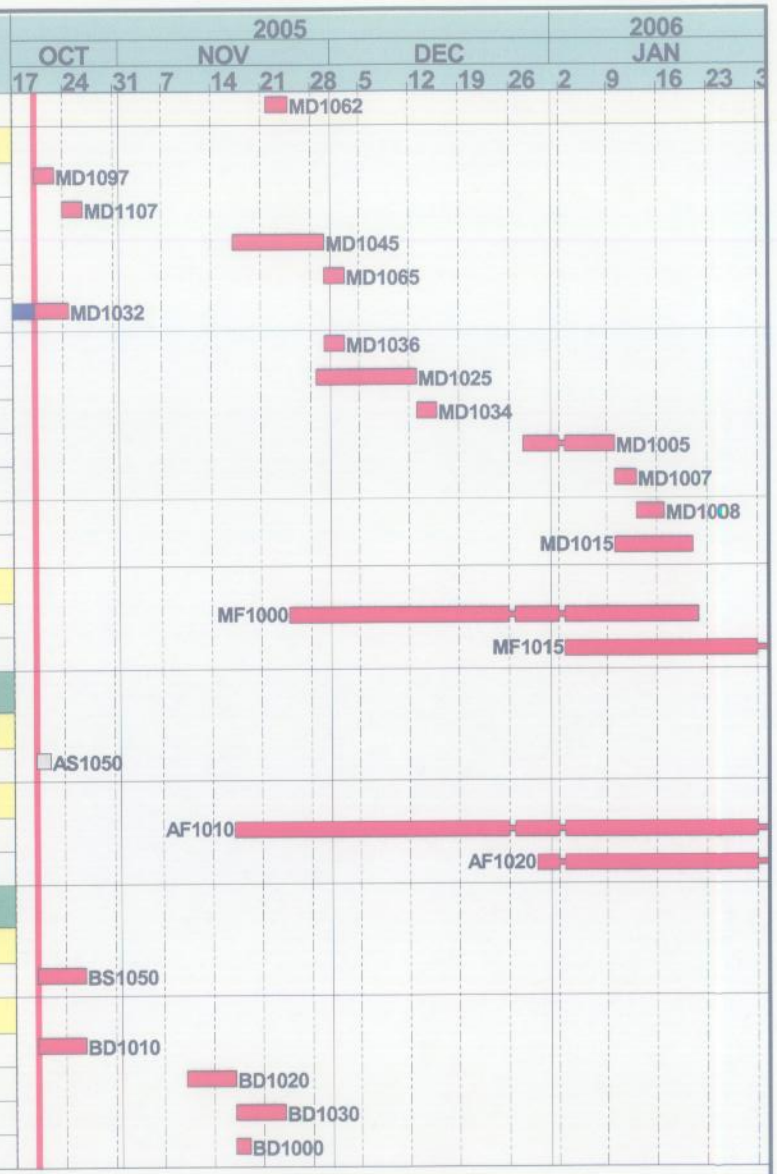
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
MD1062	PA/R to P1/R - Insitu Stitch	3	22NOV05	24NOV05	05JAN05	07JAN05
Main Line - Segmental Deck Const'n (Lift Frames)						
MD1097	P4/L to P5/L - Insitu Stitch	3	20OCT05	22OCT05	05MAY05	07MAY05
MD1107	P3/L to 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 - Instiu 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



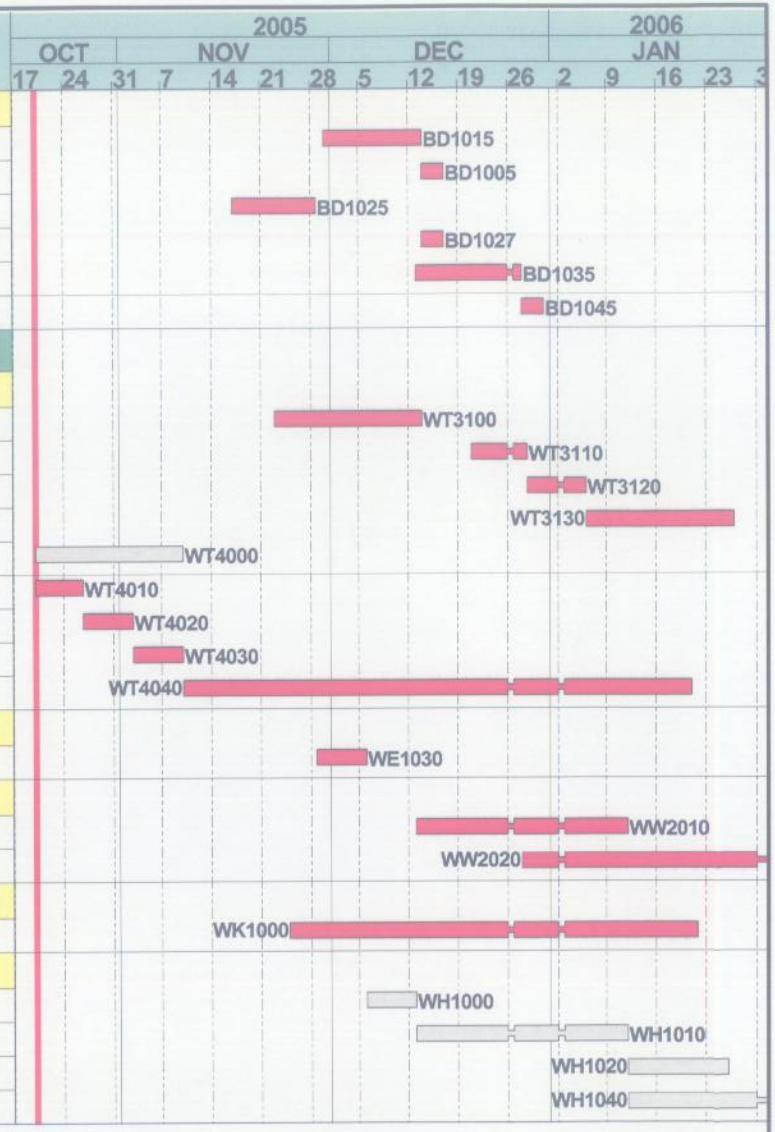
Start Date 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

Sheet 5 of 20

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
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
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From 20 October 2005

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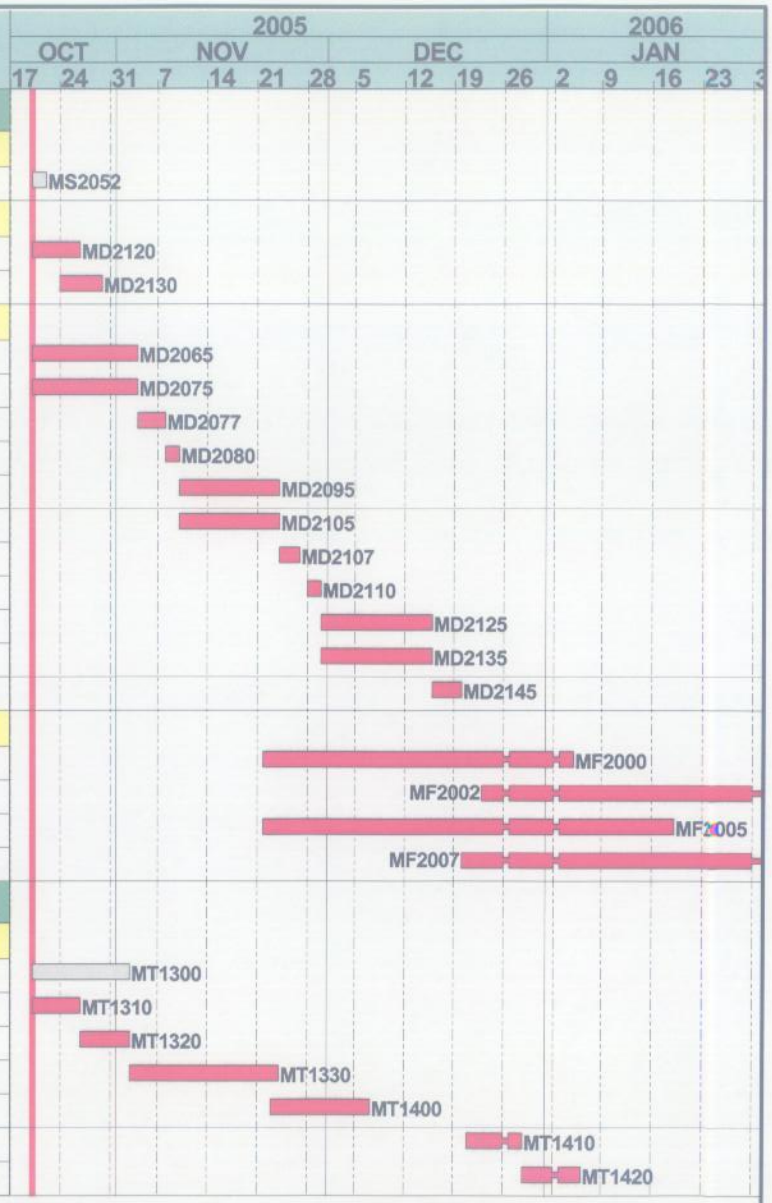
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
Viaduct - Main Line - Piers P7 to P10						
Substructure						
MS2052	P7 Install Bearings	2	20OCT05	21OCT05	07NOV06	08NOV06
Main Line - Segmental Deck Construction (Crane)						
MD2120	P10/L - 1st. Pair - 2 Segments 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



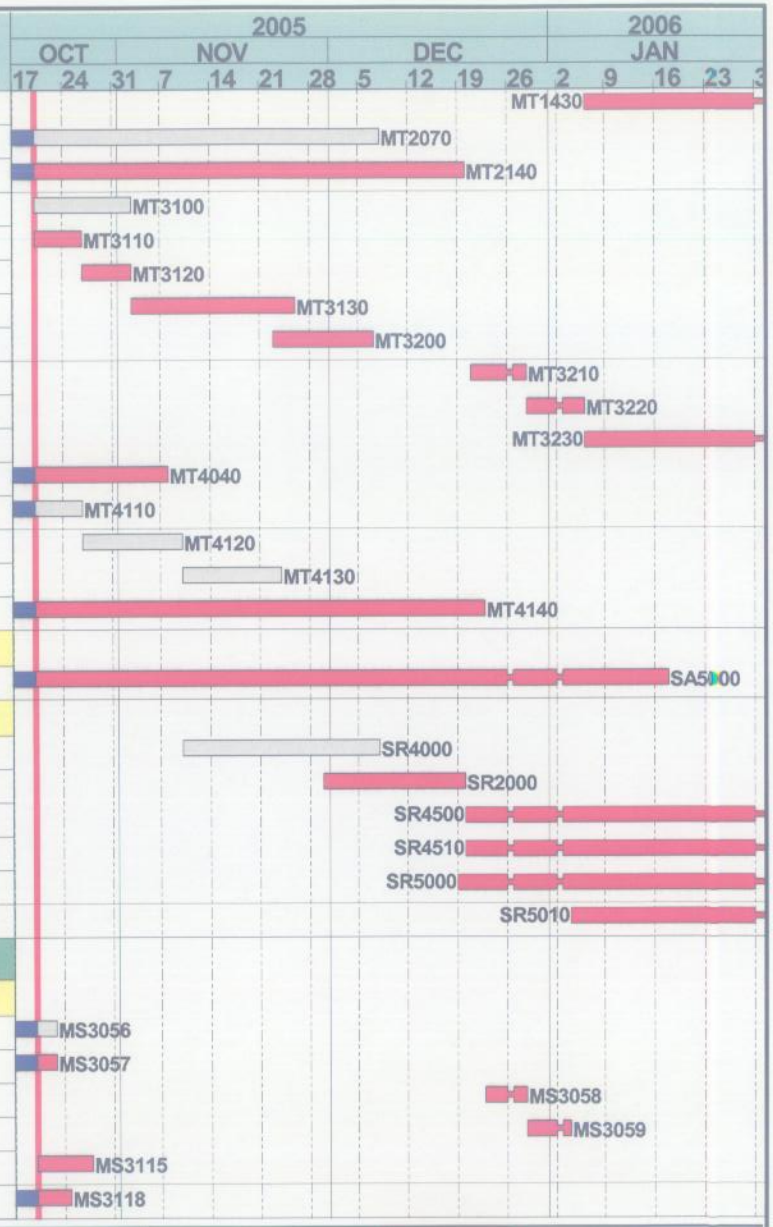
Start Date 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

Sheet 7 of 20

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
MT1430	3rd. TTMS Butterfly Valley Rd - Prepare	24	06JAN06	06FEB06	26SEP05	25OCT05
MT2070	TTMS Case No.027 (P7 Piling) - Implementation	457*	03JUN04A	07DEC05	03JUN04A	18JAN06
MT2140	TTMS for Pier P8/L - Implementation	552*	23FEB04A	19DEC05	23FEB04A	11NOV05
MT3100	2nd. TTMS Kom Tsun Street - Prepare for Review	12	20OCT05	02NOV05	19JUN08	04JUL08
MT3110	2nd. TTMS Kom Tsun Street - CRE Endorsement	6	20OCT05	26OCT05	17MAY05	23MAY05
MT3120	2nd. TTMS Kom Tsun Street - Roadworks Advice	6	27OCT05	02NOV05	24MAY05	30MAY05
MT3130	2nd. TTMS Kom Tsun Street - Site Preparation	20	03NOV05	25NOV05	31MAY05	23JUN05
MT3200	3rd. TTMS Kom Tsun Street - Prepare for Review	12	23NOV05	06DEC05	11MAY05	24MAY05
MT3210	3rd. TTMS Kom Tsun Street - CRE Endorsement	6	21DEC05	28DEC05	03OCT05	08OCT05
MT3220	3rd. TTMS Kom Tsun Street - Roadworks Advice	6	29DEC05	05JAN06	10OCT05	17OCT05
MT3230	3rd. TTMS Kom Tsun Street - Site Preparation	28	06JAN06	10FEB06	18OCT05	18NOV05
MT4040	TTMS Deck Erect'n @ CSWan Rd - Implementation	152*	09MAY05A	07NOV05	09MAY05A	10MAY05
MT4110	TTMS Deck Erect'n @ B.V. Rd - CRE Endorsement	6	19JUL05A	26OCT05	19JUL05A	04JUN08
MT4120	TTMS Deck Erect'n @ B.V. Rd - Roadworks Advice	12	27OCT05	09NOV05	05JUN08	18JUN08
MT4130	TTMS Deck Erect'n @ B.V. Rd - Site Preparation	12	10NOV05	23NOV05	19JUN08	04JUL08
MT4140	TTMS Deck Erect'n @ B.V. Rd - Implementation	69*	02OCT05A	22DEC05	02OCT05A	25JUN05
Drainage Works						
SA5000	Butterfly Valley Rd Stage1 - Stormwater Drainage	54	15JUN05A	17JAN06	15JUN05A	07MAY05
Utilities & Roadworks						
SR4000	Kwai Chung Road (Pier 7) - Reinstatement	24	10NOV05	07DEC05	20DEC05	18JAN06
SR2000	Castle Peak Road - Roadworks Reinstatement	17	30NOV05	19DEC05	24OCT05	11NOV05
SR4500	B.V. Rd. - P8 to P9 - New CLP 11Kv Cable Laying	48	20DEC05	18FEB06	11APR05	06JUN05
SR4510	B.V. Rd. - P9 to P10 - New CLP 11Kv Cable Laying	48	20DEC05	18FEB06	11APR05	06JUN05
SR5000	Butterfly Valley Rd Stage1 - Excav. & Formation	36	19DEC05	03FEB06	11APR05	23MAY05
SR5010	Butterfly Valley Rd Stage1 - Sub-base	36	04JAN06	17FEB06	03MAY05	14JUN05
Viaduct - Main Line - Piers P11 to P15						
Substructure						
MS3056	P11 - Temporary Props for Spans - Foundations	4	28SEP05A	22OCT05	28SEP05A	04JUL08
MS3057	P11 - Temporary Props for Spans - Towers	4	04OCT05A	22OCT05	04OCT05A	13JUN05
MS3058	P11 - Remove Temporary Props for Spans - Towers	4	23DEC05	28DEC05	27JUN05	30JUN05
MS3059	P11 - Remove Temporary Props for Spans - Founds	4	29DEC05	03JAN06	02JUL05	06JUL05
MS3115	P12 - Bearings	7	20OCT05	27OCT05	21JUN05	28JUN05
MS3118	P12 - Cure & Strike Formwork/Falsework	24	03SEP05A	24OCT05	03SEP05A	30MAY05



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

P3 File : LU25

Sheet 8 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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Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
MS3176	P13 - Remove Temporary Props for Spans - Towers	2	12JAN06	13JAN06	13OCT05	14OCT05
MS3178	P13 - Remove Temporary Props for Spans - Founds	2	14JAN06	16JAN06	15OCT05	17OCT05
MS3290	P15 - Pier Insitu Deck Segment	66	20SEP05A	27OCT05	20SEP05A	15JUN05
MS3295	P15 - Pier Head - Cure & Strike Form/Falsework	24	28OCT05	24NOV05	16JUN05	14JUL05
Main Line - Segmental Deck Construction (Crane)						
MD3040	P12/L & R - 1st. Pairs - 4 Segments Type A	6	25OCT05	31OCT05	22JUN05	28JUN05
MD3080	P14/L & R - 1st. Pairs - 4 Segments Type A	7	01NOV05	08NOV05	04JUL05	11JUL05
Main Line - Segmental Deck Const'n (Lift Frames)						
MD3028	Move Frames to P11	4	17OCT05A	20OCT05	17OCT05A	02JUN05
MD3015	P11/R - 24 Segments Type A	16	21OCT05	08NOV05	03JUN05	22JUN05
MD3025	P11/L - 28 Segments Type A	16	21OCT05	08NOV05	03JUN05	22JUN05
MD3066	Move frames to P12	4	09NOV05	12NOV05	24JUN05	28JUN05
MD3045	P12/L & R - 22 Segments Type A	6	14NOV05	19NOV05	29JUN05	06JUL05
MD3047	P11/L&R to P12/L&R - Insitu Stitches	2	21NOV05	22NOV05	07JUL05	08JUL05
MD3067	P12/L&R to P13/L&R - Insitu Stitches	2	21NOV05	22NOV05	15AUG05	16AUG05
MD3027	P10/L&R to P11/L&R - Insitu Stiches	3	20DEC05	22DEC05	23JUN05	25JUN05
Main Line - Segmental Deck Construction (Gantry)						
MD3000	Launch Gantry to P10/11	1	23DEC05	23DEC05	06JUL05	06JUL05
MD3030	Launch Gantry to P11/P12	1	24DEC05	24DEC05	07JUL05	07JUL05
MD3070	Launch Gantry to P13/P14/P15	1	27DEC05	27DEC05	08JUL05	08JUL05
MD3100	P15/L & R - 1st. Pairs - 4 Segments Type A	6	28DEC05	04JAN06	09JUL05	15JUL05
MD3050	Launch Gantry back to P12/P13/14	1	30DEC05	30DEC05	12JUL05	12JUL05
MD3085	P14/L & R - 38 Segments Type A	7	31DEC05	09JAN06	13JUL05	20JUL05
MD3087	P13/L&R to P14/L&R - Insitu Stitches	2	10JAN06	11JAN06	21JUL05	22JUL05
MD3090	Launch Gantry to P14/P15/P16	1	17JAN06	17JAN06	22JUL05	22JUL05
Superstructure Finishing Works Required for TCSS						
MF3015	P11 to P15 - Insitu Slab to Under Median Barrier	48	19JAN06	18MAR06	17AUG05	14OCT05
At Grade Works - Wai Man Tsuen						
Temporary Traffic Management Schemes						
VT2000	Temporary Slow Lane on Top of Slope CCR-R5	12	04JAN06	17JAN06	07JUL05	20JUL05
VT2100	TTMS MainLine Deck@ CC Rd W/B-Prepare for Review	12	20OCT05	02NOV05	12APR05	25APR05
VT2110	TTMS MainLine Deck@ CC Rd W/B - CRE Endorsement	6	23NOV05	29NOV05	23JUN05	29JUN05
VT2120	TTMS MainLine Deck@ CC Rd W/B - Roadworks Advice	12	30NOV05	13DEC05	30JUN05	14JUL05

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

P3 File : LU25

Sheet 9 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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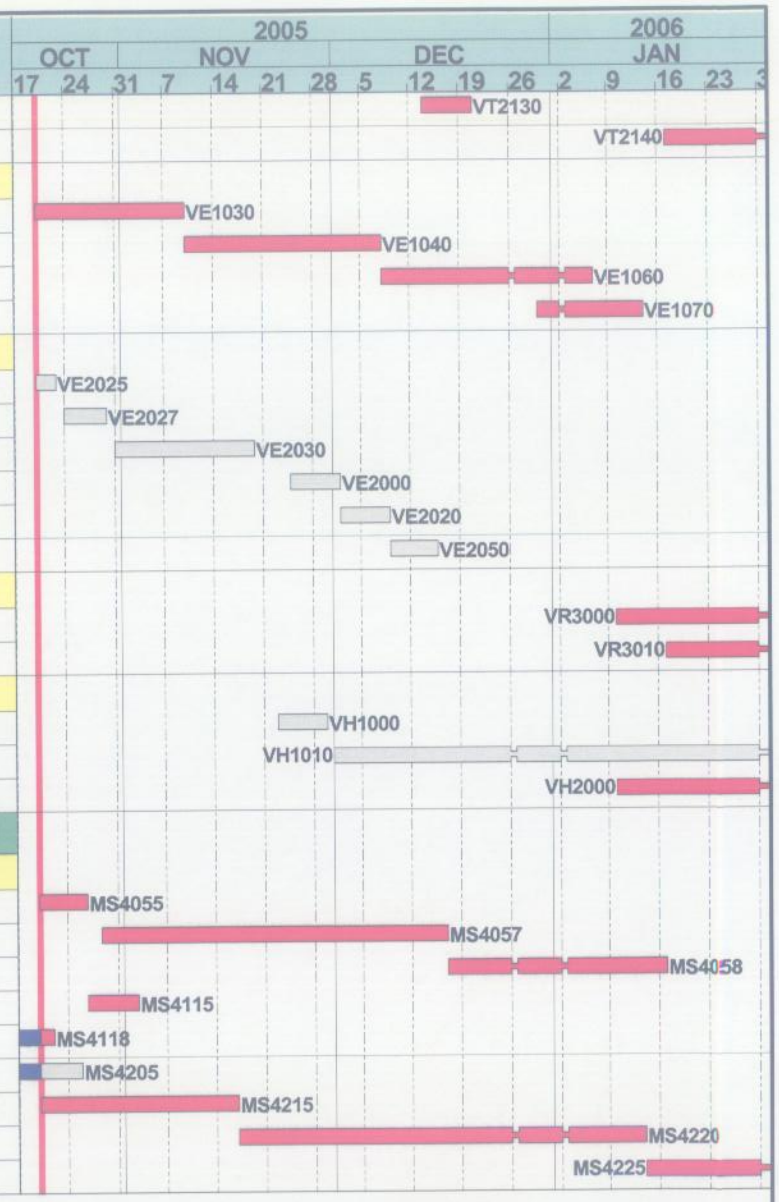
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
VT2130	TTMS MainLine Deck@ CC Rd W/B - Site Preparation	6	14DEC05	20DEC05	15JUL05	21JUL05
VT2140	TTMS MainLine Deck@ CC Rd W/B - Implementation	22*	17JAN06	14FEB06	22JUL05	16AUG05
Earthworks & Slope Works						
VE1030	Slope CCR-S5 - Excavate Existing Slope	18	20OCT05	09NOV05	17MAY05	06JUN05
VE1040	Slope CCR-S5 - Compacted Filling	24	10NOV05	07DEC05	07JUN05	06JUL05
VE1060	Slope CCR-S5 - Slope Drainage & Finishes	24	08DEC05	06JAN06	01NOV05	28NOV05
VE1070	Slope CCR-S5 - Landscaping & Hydroseeding	12	30DEC05	13JAN06	22NOV05	05DEC05
Earthworks & Slope Works - 11NW-A/C678 & CR679						
VE2025	Slope 11NW-A/C678 & CR679 - Platform for S.Nails	3	20OCT05	22OCT05	25NOV05	28NOV05
VE2027	Slope 11NW-A/C678 & CR679 - Test Soil Nail	6	24OCT05	29OCT05	29NOV05	05DEC05
VE2030	Slope 11NW-A/C678 & CR679 - Soil Nails	18	31OCT05	19NOV05	06DEC05	27DEC05
VE2000	Slope 11NW-A/C678 & CR679 - Remove Temp Platform	6	25NOV05	01DEC05	28DEC05	04JAN06
VE2020	Slope 11NW-A/C678 & CR679 - Trim Original Slope	6	02DEC05	08DEC05	05JAN06	11JAN06
VE2050	Slope 11NW-A/C678 & CR679 -Landscape & Hydroseed	6	09DEC05	15DEC05	12JAN06	18JAN06
Utilities & Roadworks						
VR3000	Drainage Maintenance Access Rd. - Formation	24	10JAN06	09FEB06	10OCT05	07NOV05
VR3010	Drainage Maintenance Access Rd. - Sub-base	24	17JAN06	16FEB06	18OCT05	14NOV05
Wai Man Tsuen Fire Hydrant Pump House						
VH1000	Wai Man Tsuen F/H Pump House - Plate Load Test	6	23NOV05	29NOV05	28MAR06	04APR06
VH1010	Wai Man Tsuen F/H Pump House - Structure	60	01DEC05	14FEB06	05APR06	14JUN06
VH2000	Fire Main - Pipework Along Maintenance Road	18	10JAN06	02FEB06	10OCT05	31OCT05
Viaduct - Main Line - Piers P16 to P18						
Substructure						
MS4055	P16/L - Install Bearings	6	20OCT05	26OCT05	25MAR05	31MAR05
MS4057	P16/L - Insitu Deck at Movement Joint	42	29OCT05	16DEC05	01APR05	21MAY05
MS4058	P16/L - Cure & Strike Formwork & Falsework	24	17DEC05	16JAN06	23MAY05	20JUN05
MS4115	P16/R - Install Bearings	6	27OCT05	02NOV05	16JUL05	22JUL05
MS4118	P16/R - Cure & Strike Formwork & Falsework	14	08SEP05A	21OCT05	08SEP05A	24MAR05
MS4205	P17 - Form Platform for Pier/Portal Construction	18	05SEP05A	25OCT05	05SEP05A	04JUL08
MS4215	P17/R - Pierhead	24	20OCT05	16NOV05	25FEB05	24MAR05
MS4220	P17/L & P17/R - Portal Frame	48	17NOV05	13JAN06	25MAR05	21MAY05
MS4225	P17/L & P17/R - Cure & Strike Form/Falsework	24	14JAN06	14FEB06	23MAY05	20JUN05



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

P3 File : LU25

Sheet 10 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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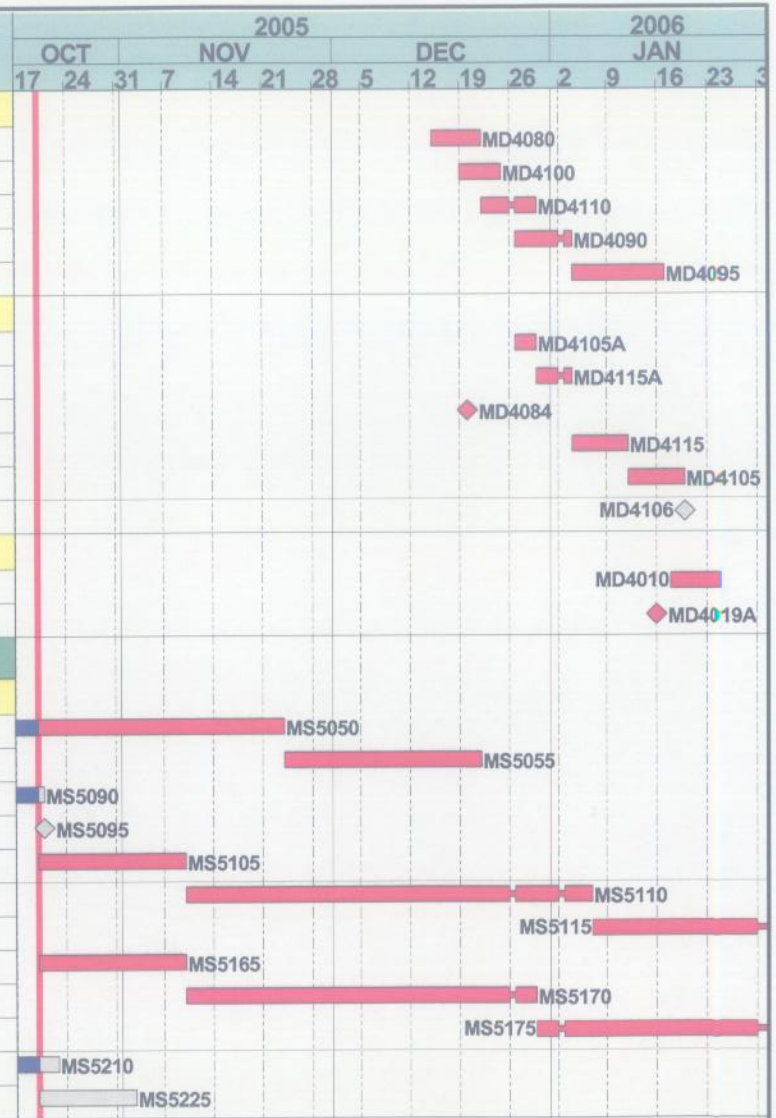
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
Main Line - Segmental Deck Construction (Crane)						
MD4080	P18/R - 1st. Pair - 2 Segments Type A	6	15DEC05	21DEC05	12AUG05	18AUG05
MD4100	P18/L - 1st. Pair - 2 Segments Type A	6	19DEC05	24DEC05	16AUG05	22AUG05
MD4110	P18 Slip C - 1st. Pair - 2 Segments Type B	6	22DEC05	29DEC05	19AUG05	25AUG05
MD4090	P18 Slip D - 1st. Pair - 2 Segments Type B	6	27DEC05	03JAN06	23AUG05	29AUG05
MD4095	P18 Slip D - 22 Segments Type B	11	04JAN06	16JAN06	30AUG05	10SEP05
Main Line - Segmental Deck Const'n (Lift Frames)						
MD4105A	P18/L - 2nd-4th. Pairs - 6 Segments Type A	3	27DEC05	29DEC05	23SEP05	26SEP05
MD4115A	P18 Slip C - 2nd-4th. Pairs -6 Segments Type B	3	30DEC05	03JAN06	27SEP05	29SEP05
MD4084	CLP SHUT DOWN POWER - O/HEAD LINES NORTH &	0	20DEC05*		30SEP05	
MD4115	P18 Slip C - 5th-14th Pairs - 20 Segments Type B	7	04JAN06	11JAN06	30SEP05	08OCT05
MD4105	P18/L - 5th-14th. Pairs - 20 Segments Type A	7	12JAN06	19JAN06	10OCT05	18OCT05
MD4106	CLP RESUME POWER - O/HEAD LINES NORTH &	0		19JAN06*		04JUL08
Main Line - Segmental Deck Construction (Gantry)						
MD4010	P16 - 1st. Pair - 2 Segments Type A	6	18JAN06	24JAN06	23JUL05	29JUL05
MD4019A	CLP SHUT DOWN POWER - O/HEAD LINES NORTH &	0	16JAN06*		03NOV05	
Viaduct - Main Line - Piers 19 to Abutment M						
Substructure						
MS5050	P19 - Pier Insitu Deck Segment	48	26SEP05A	23NOV05	26SEP05A	08SEP05
MS5055	P19 - Pier Head - Cure & Strip Falsework	24	24NOV05	21DEC05	09SEP05	08OCT05
MS5090	P20 - Backfill & Remove Temporary Works	4	03SEP05A	20OCT05	03SEP05A	04JUL08
MS5095	P20 - 3rd. Site Access from ENT Contractor	0	21OCT05*		05JUL08	
MS5105	P20 - Pier Hammer Head	18	20OCT05	09NOV05	21SEP05	13OCT05
MS5110	P20 - Pier Insitu Deck Segment	48	10NOV05	06JAN06	14OCT05	08DEC05
MS5115	P20 - Pier Head - Cure & Strip Falsework	24	07JAN06	07FEB06	09DEC05	07JAN06
MS5165	P21 - Pier Hammer Head	18	20OCT05	09NOV05	08OCT05	29OCT05
MS5170	P21 - Pier Insitu Deck Segment	42	10NOV05	29DEC05	31OCT05	17DEC05
MS5175	P21 - Pier Head - Cure & Strip Falsework	30	30DEC05	07FEB06	19DEC05	24JAN06
MS5210	Abutment M - Backfill & Remove Temporary Works	8	17OCT05A	22OCT05	17OCT05A	04JUL08
MS5225	Abutment M - Slope Reinstatement	12	20OCT05	02NOV05	20FEB06	04MAR06



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

P3 File : LU25

Sheet 11 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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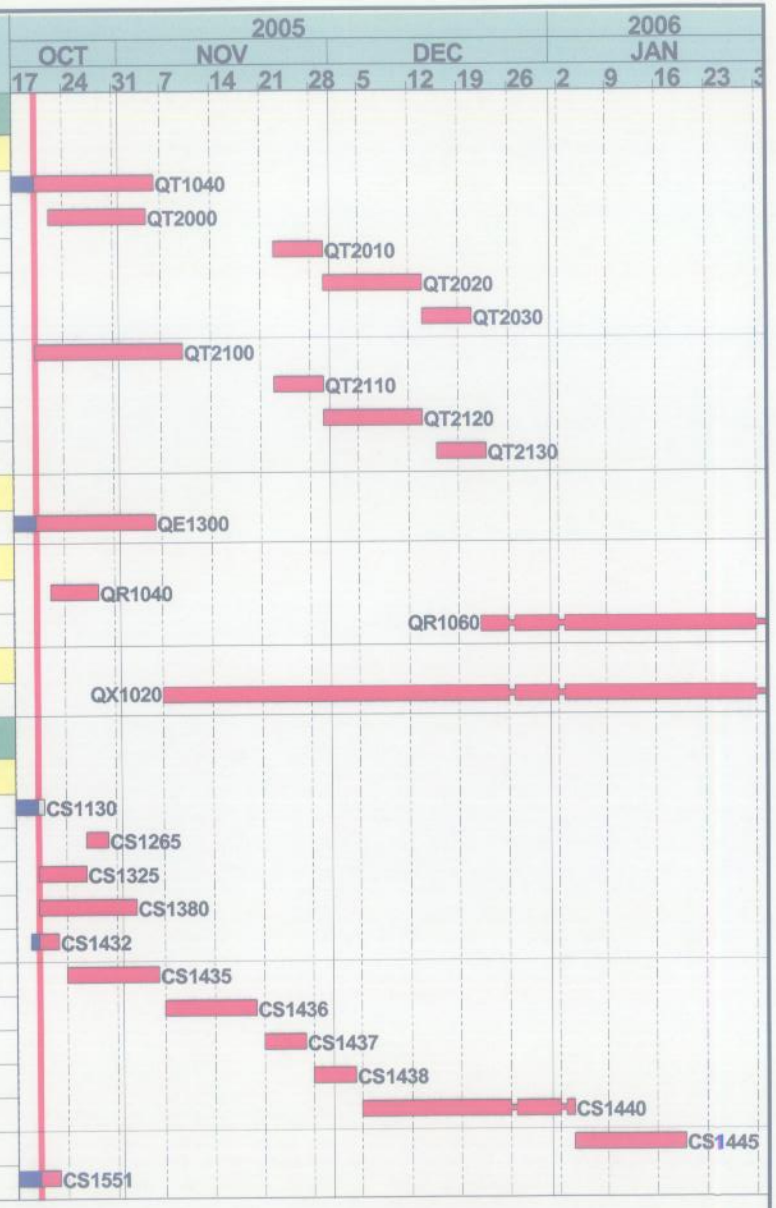
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
At Grade Works - Butterfly Valley						
Temporary Traffic Management Schemes						
QT1040	TTA Butterfly Valley (CCR-S6) - Implementation	528*	07FEB04A	05NOV05	07FEB04A	20OCT05
QT2000	TTMS MainLine Deck@ CC Rd E/B-Prepare for Review	12	22OCT05	04NOV05	19APR05	03MAY05
QT2010	TTMS MainLine Deck@ CC Rd E/B - CRE Endorsement	6	23NOV05	29NOV05	20JUL05	26JUL05
QT2020	TTMS MainLine Deck@ CC Rd E/B - Roadworks Advice	12	30NOV05	13DEC05	27JUL05	09AUG05
QT2030	TTMS MainLine Deck@ CC Rd E/B - Site Preparation	6	14DEC05	20DEC05	10AUG05	16AUG05
QT2100	TTMS Slip RdD Deck@ CC Rd E/B-Prepare for Review	18	20OCT05	09NOV05	12APR05	03MAY05
QT2110	TTMS Slip Rd D Deck@ CC Rd E/B - CRE Endorsement	6	23NOV05	29NOV05	17AUG05	23AUG05
QT2120	TTMS Slip RdD Deck@ CC Rd E/B - Roadworks Advice	12	30NOV05	13DEC05	24AUG05	06SEP05
QT2130	TTMS Slip RdD Deck@ CC Rd E/B - Site Preparation	6	16DEC05	22DEC05	09SEP05	15SEP05
Earthworks & Slope Works - CCR-S6						
QE1300	Slope CCR-S6 - Slope Finishes	75	04MAR05A	05NOV05	04MAR05A	20OCT05
Utilities & Roadworks						
QR1040	WSD Acces Road - Divert Junction to Clear P16/L	6	22OCT05	28OCT05	25MAR05	31MAR05
QR1060	WSD Access Road - Permanent C/Way P18 to P19	36	22DEC05	07FEB06	10OCT05	21NOV05
Landscape Works						
QX1020	Landscaping - Soiling & Planting on Slope CCR-S6	75	07NOV05*	07FEB06	21OCT05	18JAN06
Viaduct - Slip Road C						
Substructure						
CS1130	Abutment C - Backfill & Remove Temporary Works	4	21SEP05A	20OCT05	21SEP05A	24JUL06
CS1265	C2 - Install Bearings	3	27OCT05	29OCT05	20JUL05	22JUL05
CS1325	C3 - Install Bearings	6	20OCT05	26OCT05	16JUL05	22JUL05
CS1380	C4 - Pier Head	12	20OCT05	02NOV05	30JUN05	14JUL05
CS1432	C5/R - Install Sheet Temporary Piles	5	19OCT05A	22OCT05	19OCT05A	22APR05
CS1435	C5/R - Excavate, Strut & Break Down Piles	12	24OCT05	05NOV05	23APR05	07MAY05
CS1436	C5/R - Pile Cap & Pier Kicker	12	07NOV05	19NOV05	09MAY05	21MAY05
CS1437	C5/R - Backfill & Remove Temporary Works	6	21NOV05	26NOV05	23MAY05	28MAY05
CS1438	C5/R - Pier	6	28NOV05	03DEC05	30MAY05	04JUN05
CS1440	C5/L - C5/R Portal	24	05DEC05	03JAN06	06JUN05	05JUL05
CS1445	C5/L - C5/R Portal - Cure & Strike Form/Falsewk	14	04JAN06	19JAN06	06JUL05	21JUL05
CS1551	C6/R & C6/L - Portal Frame - Cure & Strike F/wk	14	06SEP05A	22OCT05	06SEP05A	20JUN05



Start Date 23SEP03
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P3 File : LU25

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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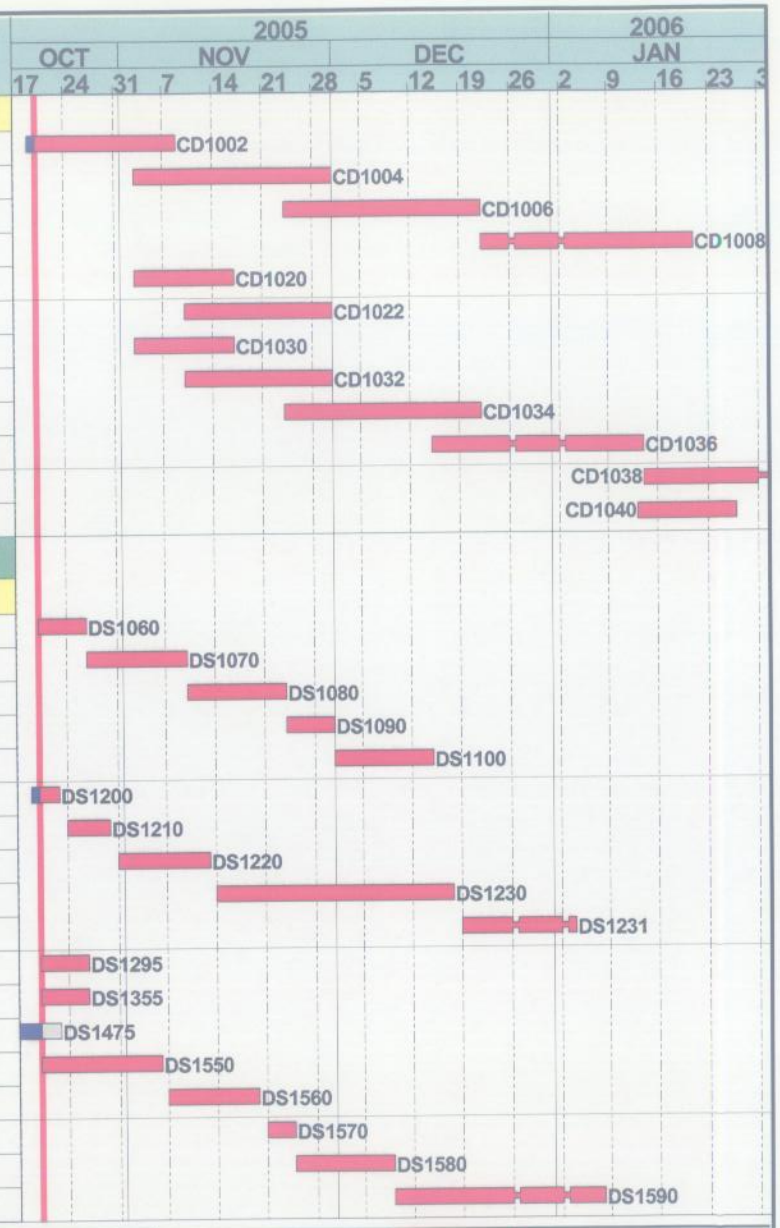
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
Slip Road C - Insitu Deck Construction						
CD1002	Slip Rd. C - Deck Span C2 to C3 - Falsework	18	19OCT05A	08NOV05	19OCT05A	29JUL05
CD1004	Slip Rd. C - Deck Span C2 to C3 - Soffit	24	03NOV05	30NOV05	23JUL05	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
Data Date 20OCT05

P3 File : LU25

Sheet 13 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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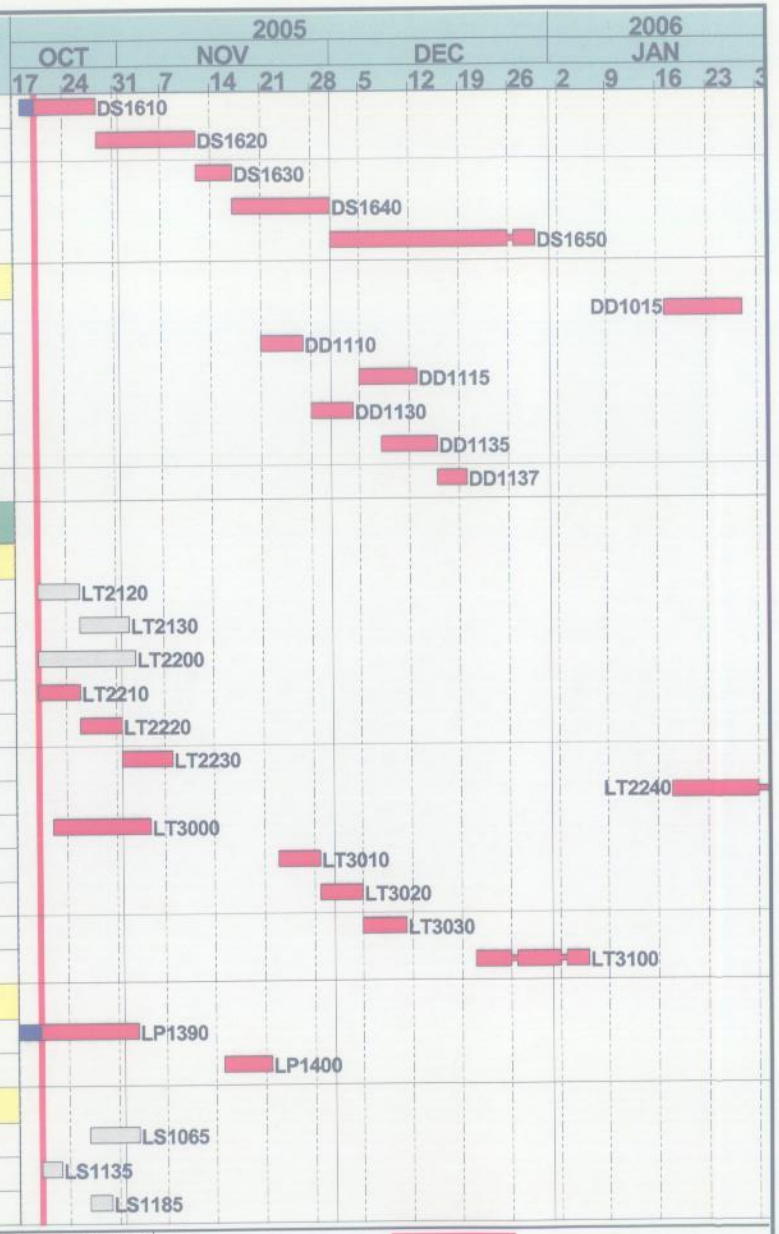
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
DS1610	D10 - Excavate, Strut & Break Down Piles	12	18OCT05A	28OCT05	18OCT05A	02JUL05
DS1620	D10 - Pile Cap & Pier Kicker	12	29OCT05	11NOV05	04JUL05	16JUL05
DS1630	D10 - Backfill & Remove Temporary Works	4	12NOV05	16NOV05	18JUL05	21JUL05
DS1640	D10 - Pier	12	17NOV05	30NOV05	22JUL05	04AUG05
DS1650	D10 - Pier Head	24	01DEC05	29DEC05	05AUG05	01SEP05
Slip Road D - Segmental Deck Const'n (Crane)						
DD1015	D10 - 22 seg Type B	10	17JAN06	27JAN06	12SEP05	23SEP05
DD1110	D5 - Pierhead Segment - 1 Segment Type B	6	21NOV05*	26NOV05	15AUG05	20AUG05
DD1115	D5 - 28 seg Type B	7	05DEC05	12DEC05	25OCT05	01NOV05
DD1130	D4 - Pierhead Segment - 1 Segment Type B	6	28NOV05	03DEC05	22AUG05	27AUG05
DD1135	D4 - 28 Segments Type B	7	08DEC05	15DEC05	01SEP05	08SEP05
DD1137	D4 to D5 - Insitu Stitch	3	16DEC05	19DEC05	02NOV05	04NOV05
Lai Wan Road Overpass						
Temporary Traffic Management Schemes						
LT2120	TTMS LW Rd (for W/B Deck) - Roadworks Advice	6	20OCT05	25OCT05	21JUN08	26JUN08
LT2130	TTMS LW Rd (for W/B Deck) - Site Preparation	6	26OCT05	01NOV05	27JUN08	04JUL08
LT2200	TTMS LW Rd (for E/B Deck) - Prepare for Review	12	20OCT05	02NOV05	19JUN08	04JUL08
LT2210	TTMS LW Rd (for E/B Deck) - CRE Endorsement	6	20OCT05	25OCT05	08JUL05	13JUL05
LT2220	TTMS LW Rd (for E/B Deck) - Roadworks Advice	6	26OCT05	31OCT05	14JUL05	19JUL05
LT2230	TTMS LW Rd (for E/B Deck) - Site Preparation	6	01NOV05	07NOV05	20JUL05	26JUL05
LT2240	TTMS LW Rd (for E/B Deck) - Implementation	143*	18JAN06	11JUL06	27JUL05	07FEB06
LT3000	TTMS CC Rd (on W/B Deck) - Prepare for Review	12	22OCT05	04NOV05	12APR05	25APR05
LT3010	TTMS CC Rd (on W/B Deck) - CRE Endorsement	6	23NOV05	28NOV05	24OCT05	29OCT05
LT3020	TTMS CC Rd (on W/B Deck) - Roadworks Advice	6	29NOV05	04DEC05	30OCT05	04NOV05
LT3030	TTMS CC Rd (on W/B Deck) - Site Preparation	6	05DEC05	10DEC05	05NOV05	11NOV05
LT3100	TTMS CC Rd (on E/B Deck) - Prepare for Review	12	21DEC05	05JAN06	29AUG05	10SEP05
West Bound - Enabling & Piling Works						
LP1390	D14 - Piling (2No. @ 1500mm dia.)	20	26SEP05A	02NOV05	26SEP05A	18JUN05
LP1400	D14 - Pile Testing	6	15NOV05	21NOV05	02JUL05	08JUL05
West Bound - Substructure						
LS1065	Abutment DA1 - Install Bearings	6	27OCT05	02NOV05	27JUN08	04JUL08
LS1135	D11 - Bearings	3	20OCT05	22OCT05	02JUL08	04JUL08
LS1185	D12 - Install Bearings	3	27OCT05	29OCT05	02JUL08	04JUL08



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

P3 File : LU25

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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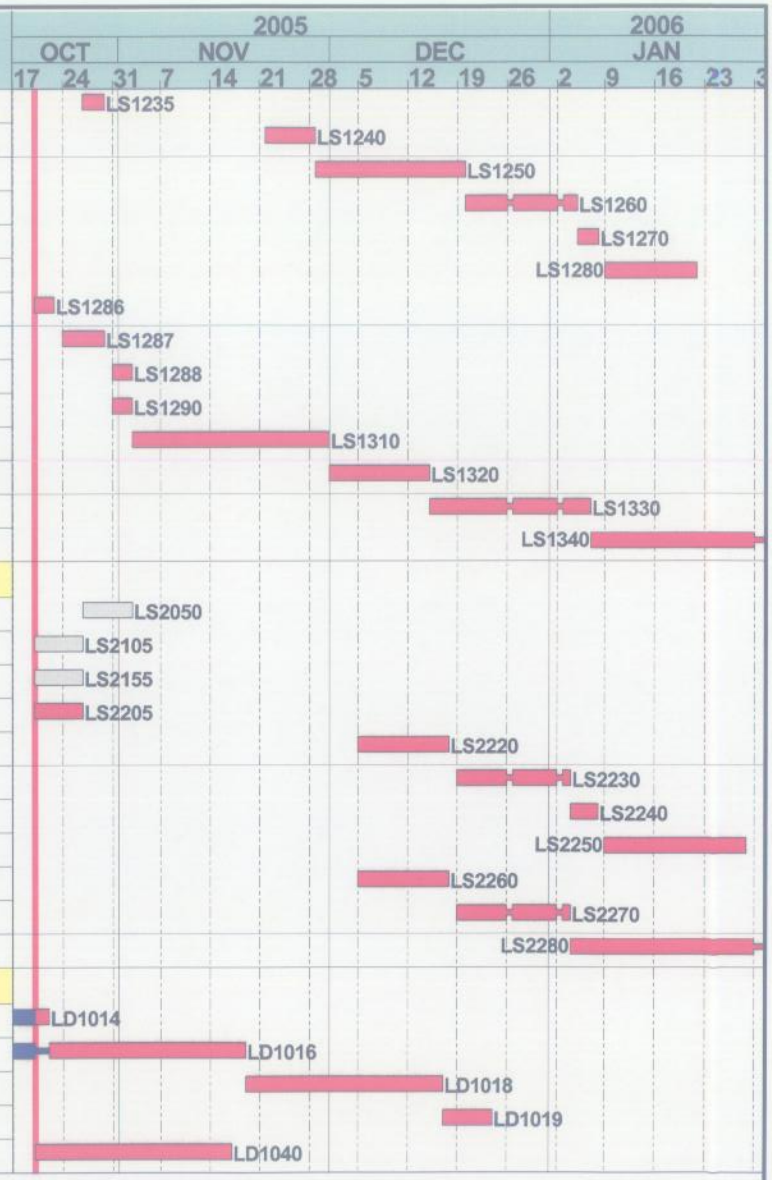
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
LS1235	D13 - Install Bearings	3	27OCT05	29OCT05	10SEP05	13SEP05
LS1240	D14 - Install Sheet Temporary Piles	6	22NOV05	28NOV05	09JUL05	15JUL05
LS1250	D14 - Excavate, Strut & Break Down Piles	18	29NOV05	19DEC05	16JUL05	05AUG05
LS1260	D14 - Pile Cap & Pier Kicker	12	20DEC05	04JAN06	06AUG05	19AUG05
LS1270	D14 - Backfill & Remove Temporary Works	3	05JAN06	07JAN06	20AUG05	23AUG05
LS1280	D14 - Pier (incl. Pier Head)	12	09JAN06	21JAN06	24AUG05	06SEP05
LS1286	Abutment DA2 - Remove Existig Rockfall Fence	3	20OCT05	22OCT05	04APR05	07APR05
LS1287	Abutment DA2 - Remove Existing Footpath	6	24OCT05	29OCT05	08APR05	14APR05
LS1288	Abutment DA2 - Re-instate Rockfall Fence	3	31OCT05	02NOV05	15APR05	18APR05
LS1290	Abutment DA2 - Utility Trial Trenches	3	31OCT05	02NOV05	15APR05	18APR05
LS1310	Abutment DA2 - Excavation in Rock for Footing	24	03NOV05	30NOV05	19APR05	17MAY05
LS1320	Abutment DA2 - Mass Concrete Fill Under Footing	12	01DEC05	14DEC05	18MAY05	31MAY05
LS1330	Abutment DA2 - Footing	18	15DEC05	06JAN06	01JUN05	22JUN05
LS1340	Abutment DA2 - Bearing Shelf & Walls	24	07JAN06	07FEB06	23JUN05	21JUL05
East Bound - Substructure						
LS2050	Abutment CA1 - Install Bearings	6	27OCT05	02NOV05	27JUN08	04JUL08
LS2105	C11 - Install Bearings	6	20OCT05	26OCT05	27JUN08	04JUL08
LS2155	C12 - Install Bearings	6	20OCT05	26OCT05	27JUN08	04JUL08
LS2205	C13 - Install Bearings	6	20OCT05	26OCT05	10AUG05	16AUG05
LS2220	C14 - Excavate for Footing	12	05DEC05	17DEC05	16JUN05	29JUN05
LS2230	C14 - Footing & Pier Kicker	12	19DEC05	03JAN06	30JUN05	14JUL05
LS2240	C14 - Backfill & Remove Temporary Works	4	04JAN06	07JAN06	15JUL05	19JUL05
LS2250	C14 - Pier (incl. Pier Head)	18	09JAN06	28JAN06	20JUL05	09AUG05
LS2260	Abutment CA2 - Excavation in Rock for Footing	12	05DEC05	17DEC05	14JUN05	27JUN05
LS2270	Abutment CA2 - Footing	12	19DEC05	03JAN06	28JUN05	12JUL05
LS2280	Abutment CA2 - Bearing Shelf & Walls	24	04JAN06	03FEB06	13JUL05	09AUG05
West Bound - Insitu Deck						
LD1014	Lai Wan O/pass W/B - Span St. 2 - Soffit	24	22JUN05A	21OCT05	22JUN05A	06SEP05
LD1016	Lai Wan O/pass W/B - Span St. 2 - 1st. Pour	36	26SEP05A	18NOV05	26SEP05A	06OCT05
LD1018	Lai Wan O/pass W/B - Span St. 2 - 2nd. Pour	24	19NOV05	16DEC05	07OCT05	04NOV05
LD1019	Lai Wan O/pass W/B - Span St. 2 - Stressing	6	17DEC05	23DEC05	05NOV05	11NOV05
LD1040	Lai Wan O/pass W/B - Demolish F/p for Stage 3	24	20OCT05	16NOV05	03AUG05	30AUG05



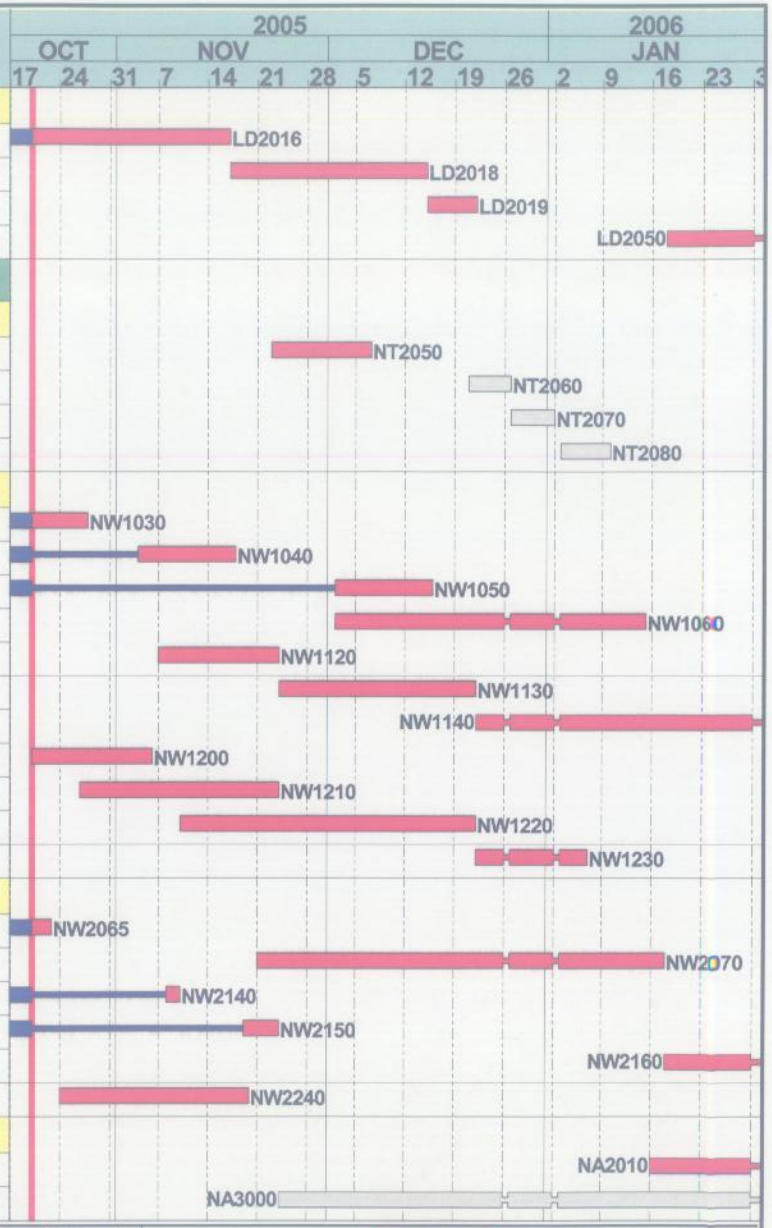
Start Date 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

Sheet 15 of 20

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
East Bound - Insitu Deck						
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



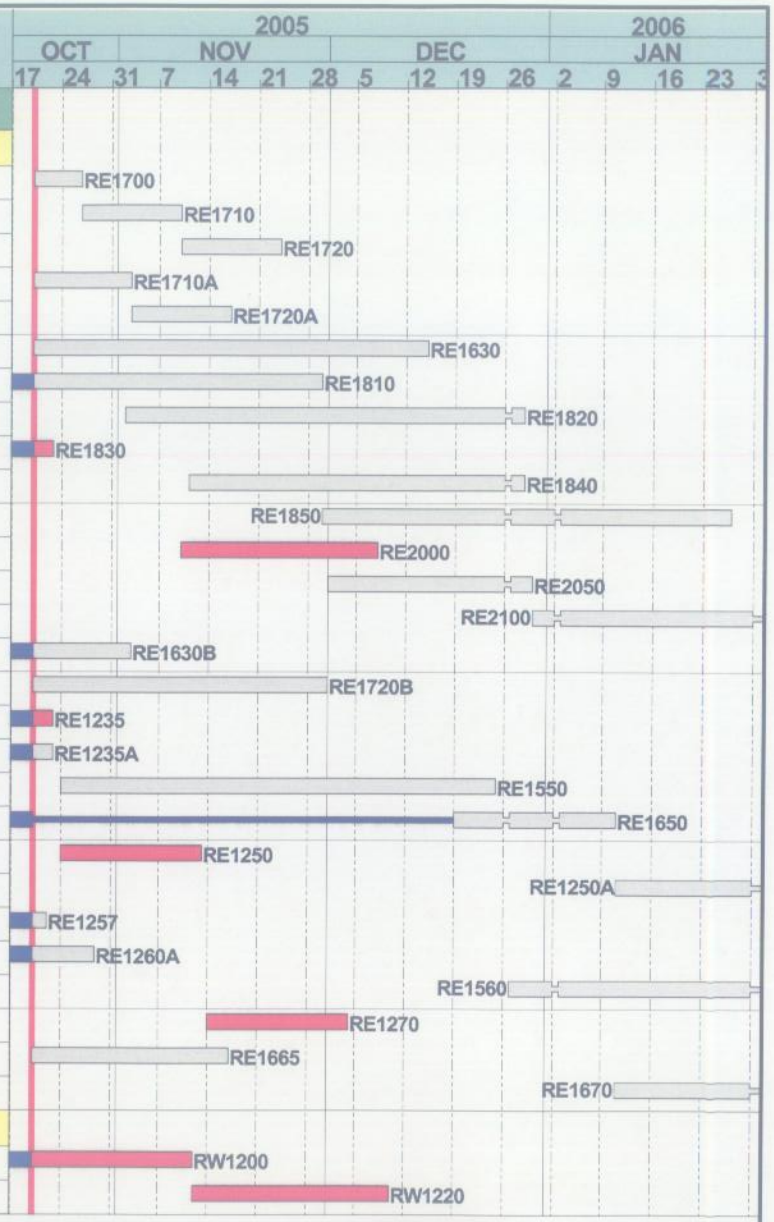
Start Date 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

Sheet 16 of 20

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
At Grade Work - Ching Cheung Road - Main Section						
Earthworks & Slope Works - CCR-S1, S2 & S3						
RE1700	Slope CCR-S1E - Finish Seed & Planting +62.3mPD	6	20OCT05*	26OCT05	09OCT06	14OCT06
RE1710	Slope CCR-S1E - Finish Seed & Planting +54.8mPD	12	27OCT05	09NOV05	16OCT06	30OCT06
RE1720	Slope CCR-S1E - Finish Seed & Planting +47.3mPD	12	10NOV05	23NOV05	31OCT06	13NOV06
RE1710A	Slope CCR-S1C- Finish Seed & Planting +54.9mPD	12	20OCT05	02NOV05	16OCT06	30OCT06
RE1720A	Slope CCR-S1C - Finish Seed & Planting +47.3mPD	12	03NOV05	16NOV05	31OCT06	13NOV06
RE1630	Slope CCR-S1E&C - Drainage to level +39.8mPD	48	20OCT05	14DEC05	08MAY08	04JUL08
RE1810	Slope CCR-S1E&C - Rock Stabilisation to +32.3mPD	48	22AUG05A	29NOV05	22AUG05A	03AUG06
RE1820	Slope CCR-S1E&C - Drainage to Level +32.3mPD	48	02NOV05	28DEC05	08MAY08	04JUL08
RE1830	Slope CCR-S1E&C -Excavate Rock to Level +25.4mPD	36	08AUG05A	22OCT05	08AUG05A	03OCT05
RE1840	Slope CCR-S1E&C- Rock Stabilisation to +25.4mPD	48	11NOV05	28DEC05	15JUL06	31AUG06
RE1850	Slope CCR-S1E&C - Drainage to Level +25.4mPD	48	30NOV05	26JAN06	04AUG06	29SEP06
RE2000	Slope CCR-S2 -Excavate Rock to Formation	24	10NOV05	07DEC05	29SEP05	28OCT05
RE2050	Slope CCR-S2 - Rock Stabilisation	24	01DEC05	29DEC05	06MAY06	02JUN06
RE2100	Slope CCR-S2 - Drainage	42	30DEC05	21FEB06	03JUN06	24JUL06
RE1630B	Slope CCR-S1W - Drainage to Levell +39.95mPD	24	05SEP05A	02NOV05	05SEP05A	23OCT06
RE1720B	Slope CCR-S1W - Seed & Planting to +39.95mPD	36	20OCT05	30NOV05	30SEP06	13NOV06
RE1235	Slope CCR-S1W - Bulk Excavate to Level +24.9mPD	18	10AUG05A	22OCT05	10AUG05A	29APR05
RE1235A	Slope CCR-S1W -Detailed Excavate to Level +24.9m	12	10AUG05A	22OCT05	10AUG05A	25OCT05
RE1550	Slope CCR-S1W - Rock Stabilisation to 24.9mPD	54	24OCT05	24DEC05	23MAY06	26JUL06
RE1650	Slope CCR-S1W - Drainage to Level +24.9mPD	24	30SEP05A	10JAN06	30SEP05A	10AUG06
RE1250	Slope CCR-S1W - Bulk Excavate to Level +19.0mPD	18	24OCT05	12NOV05	30APR05	21MAY05
RE1250A	Slope CCR-S1W -Detailed Excavate to Level +19.0m	18	11JAN06	03FEB06	11AUG06	31AUG06
RE1257	Slope CCR-S1W -Platform for Soil Nail R. 1 & 2	6	12OCT05A	21OCT05	12OCT05A	04JUL08
RE1260A	Slope CCR-S1W - Soil Nails (R. 1 & 2) Working	12	17OCT05A	28OCT05	17OCT05A	21SEP06
RE1560	Slope CCR-S1W - Rock Stabilisation to 19.0mPD	48	27DEC05	24FEB06	27JUL06	21SEP06
RE1270	Slope CCR-S1W - Excavate to Lai Wan Road O/pass	18	14NOV05	03DEC05	23MAY05	13JUN05
RE1665	Slope CCR-S1W - Seed & Planting to +32.4mPD	24	20OCT05	16NOV05	11AUG06	07SEP06
RE1670	Slope CCR-S1W - Seed & Planting to +24.9mPD	24	11JAN06	10FEB06	08SEP06	07OCT06
Retaining Wall CCR-R2 (Value Engineering Design)						
RW1200	Ch 02.13 to 41.71 -Excavate & Rock Stabilisation	36	04APR05A	11NOV05	04APR05A	28FEB05
RW1220	Ch 02.13 to 41.71 - Mass Concrete Facing Wall	24	12NOV05	09DEC05	01MAR05	28MAR05



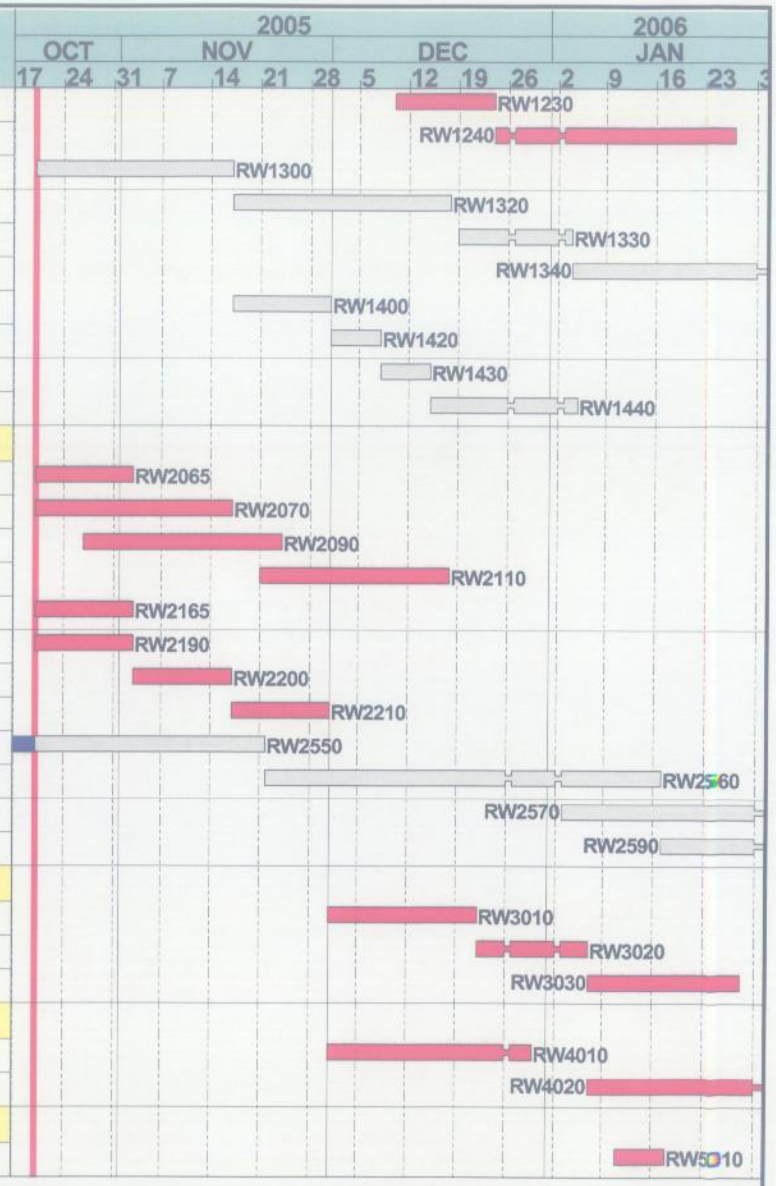
Start Date 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

Sheet 17 of 20

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
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	06SEP05A	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 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

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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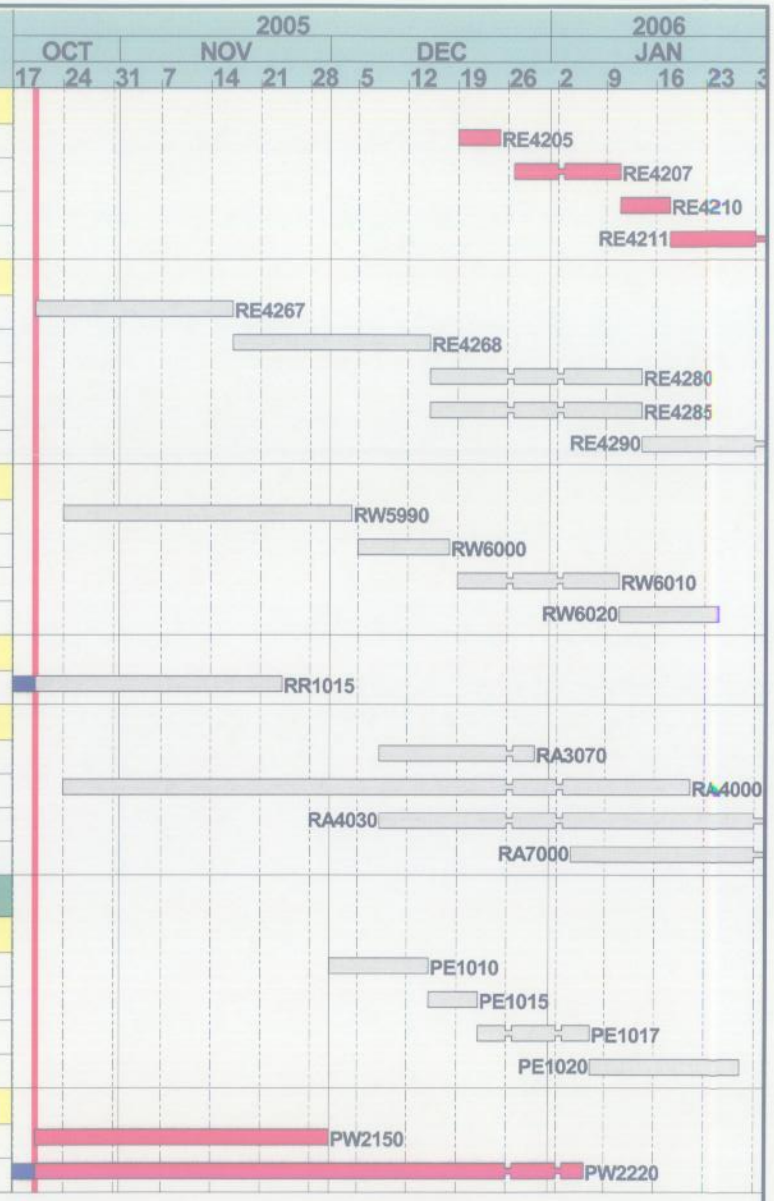
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
Slope Works Above Retaining Walls CCR-R3D, E & F						
RE4205	Slope above CCR-R3E&F -Remove Piling Platform	6	19DEC05	24DEC05	21JUL05	27JUL05
RE4207	Slope above CCR-R3E&F -Excavate Slope	12	27DEC05	10JAN06	28JUL05	10AUG05
RE4210	Slope above CCR-R3E&F- Filter - Btm. to 1st Berm	6	11JAN06	17JAN06	11AUG05	17AUG05
RE4211	Slope above CCR-R3E&F -Rockfill-Bt'm to 1st Berm	12	18JAN06	03FEB06	18AUG05	31AUG05
Earthworks & Slope Works - CCR-S4						
RE4267	Slope CCR-S4 - Relocate Tem Rock Fence	24	20OCT05	16NOV05	12DEC05	10JAN06
RE4268	Slope CCR-S4 - Excavate & Bench Upper Slope	24	17NOV05	14DEC05	11JAN06	10FEB06
RE4280	Slope CCR-S4 - Fill and Compact	24	15DEC05	13JAN06	11FEB06	10MAR06
RE4285	Slope CCR-S4 - Form New Access Road at Footpath	24	15DEC05	13JAN06	11FEB06	10MAR06
RE4290	Slope CCR-S4 - Upper Slope Drainage	18	14JAN06	07FEB06	04JUL06	24JUL06
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
RW6020	NNTM Wall A - Drainage & Fill Behind Walls	12	11JAN06	24JAN06	26JUN06	10JUL06
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 Founds	18	08DEC05	29DEC05	10DEC05	31DEC05
RA4000	Ching Cheung Rd. New E/B Slip Road - E&M +TCSS	75	24OCT05	20JAN06	26OCT05	23JAN06
RA4030	Ching Cheung Rd. New E/B - N/B Founds Base	75	08DEC05	10MAR06	05MAY06	03AUG06
RA7000	Lai Wan Road - Watermains & Hydrants FH4 & FH5	24	04JAN06	03FEB06	11FEB06	10MAR06
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
PE1020	Slope 11NW-A/C26 - Soil Nails (incl. Testing)	18	07JAN06	27JAN06	15SEP06	07OCT06
Retaining Wall CCR-R5 (Pre-bored "H" Piles)						
PW2150	Ret. Wall CCR-R5 - R.C. Wall CCR-R5A	48	20OCT05	30NOV05	05AUG05	15SEP05
PW2220	Ret. Wall CCR-R5 - Coping & Facing to Ret Wall	90	05SEP05A	05JAN06	05SEP05A	08OCT05



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

P3 File : LU25

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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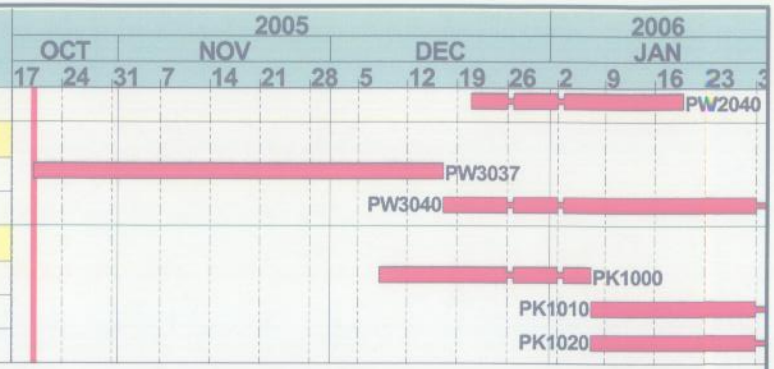
Activity ID	Activity Description	Orig. Durn.	Early Start	Early Finish	Late Start	Late Finish
PW2040	Ret. Wall CCR-R5 - Stage 1 - Fill Behind Wall	24	21DEC05	19JAN06	24SEP05	24OCT05
Retaining Wall CCR-R6 (Pre-bored "H" Piles)						
PW3037	Ret. Wall CCR-R6 -Temporary Piling Platform	50	20OCT05	16DEC05	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 23SEP03
Finish Date 04JUL08
Data Date 20OCT05

P3 File : LU25

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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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	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. The complaint was raised by the Citybase Property Management Ltd. (the management company of Nob Hill) and the Secretarty 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.	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: ▪ 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) 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. 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. 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. 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. 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	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				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). 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: • 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. 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.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40330	Site Areas near Nob Hill	30 March 2004	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. 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.	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. 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: • 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	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. NECSO referred the complaint to the RSS and subsequently referred to the ET Leader of the Project on 6 April 2004	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. 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. 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	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Road in front of Nob Hill. 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. 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). 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 • 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	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. 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.	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. 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. 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	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			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.	also noted that the back of profile barriers along the site boundary had been sealed up by cement as preventive measures. 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. 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. Nevertheless, the Contractor was recommended to adopt the following measures to avoid re-occurrence of similar incidents: • 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	22-Jul-04 (by EPD) 09-Aug-04 (by ET Leader)	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. 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: 1. **Area A**: Works area between Nob	***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. **Area A:** ▪ 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) **Area B:** No construction activity was undertaken in the concerned period. ***Review of Environmental Monitoring Results***	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			Hill and Lai Chi Kok Park Swimming Pool 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.	The routine monitoring stations, which are in the vicinity of the concerned works areas, include: <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 <u>Air Quality (1-hr TSP / 24-hr TSP) Monitoring</u> AM2: R/F of Lai Chi Kok Sports Centre No Action / Limit level exceedance was identified in July 2004. ***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. ***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: • 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)	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. 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.	***Construction Activities*** 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. 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. ***Environmental Monitoring*** 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)). 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). ***Conclusions*** 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. Nevertheless, the Contractor was recommended to adopt good site practice to minimize the construction noise impacts.	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)	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. 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.	***Construction Activities*** 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. 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. ***Environmental Monitoring*** 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. ***Conclusion*** 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.	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)	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.	***Construction Activities*** 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. ***Environmental Monitoring*** 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. ***Conclusion*** 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. ***Mitigation*** 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).	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 1st 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 4th April 2005.	***Construction Activities*** 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. ***Environmental Monitoring*** According to the EM&A Manual, Mei Foo Sun Chuen, Phase 5 (NM4) is designated as one of the noise monitoring stations. Since the commencement of the impact monitoring programme, the construction noise levels recorded at this station were all below the noise criterion. ***Conclusion*** 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. ***Mitigation*** 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.	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)	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. The complainant was particularly concerned about the fugitive dust emission during rock / concrete breaking activities.	*Site Activities* 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. *Observations* 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. 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. 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. ***Conclusion*** 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. However, corrective action had been taken by the Contractor and the situation was found improved during the follow-up inspections.	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)	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. 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. 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.	*Site Activities* 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. 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. *Noise Measurement* Ad-hoc measurements were carried out on the roof of Hei Lai House on 25 July 2005. 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. *Conclusion* Since the noise measurement results at Wah Lai Estate were below 75 dB(A), the complaint was considered not justifiable. Nevertheless, noise mitigation measures have been implemented by the Contractor to minimize the noise impact arising from the breaking activities: 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)	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. 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.	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. ***Site Inspection*** After receipt of the complaint, an ad-hoc site inspection was carried by ET on 9 November 2005 and the following observations were made: 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. *Environmental Monitoring* 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. *Conclusion* Based on the ad-hoc site inspection and the environmental monitoring results, this complaint was considered not justifiable.	Closed