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)

June 2006

Approved By

(Environmental Team Leader)

REMARKS:

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

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CINOTECH CONSULTANTS LTD

Room 1602-1610, Delta House, 3 On Yiu Street, Shatin, NT, Hong Kong Tel: (852) 2151 2083 Fax: (852) 3107 1388 Email: info@cinotech.com.hk

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ABBREVIATION AND ACRONYM

AL Levels Action and Limit Levels

CEDD Civil Engineering and Development Department

E / ER Engineer/Engineer's Representative

EIA Environmental Impact Assessment

EM&A Environmental Monitoring and Audit

EMIS Environmental Mitigation Implementation Schedule

EP Environmental Permit

EPD Environmental Protection Department

ET Environmental Team

HVS High Volume Sampler

HyD Highways Department

IEC Independent Environmental Checker

NOE Notification of Exceedancee

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 thirty-first 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 June 2006 for Contract No. HY/2003/01, Lai Chi Kok Viaduct (the Project).
- The major site activities undertaken in the reporting month included construction of Pier 21, cross head of column at Pier 21, bulk excavation works, retaining wall construction, drainage works at Hoi Lai Estate and Pier B1, segment erection by lifting crane at Pier D8 and raking drain installation at slope CCR-S1.

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	Action Taken
1 al allietei	Action Level	Limit Level	Due to the Project	Action Taken
1-hr TSP	0	0	0	N/A
24-hr TSP	0	0	0	N/A
Noise	2	0	0	Complaint report was issued to all relevant parties

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). One new CNP was issued to the Project by EPD 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	
Event	Number	r Nature Action Taken		Status	Kemark	
Complaint received	2	Noise	Complaint Investigation	Closed		
Changes to the assumptions and key construction / operation activities recorded	0		N/A	N/A		
Status of submissions under EP	0		N/A	N/A		
Notifications of any summons & prosecutions received	0		N/A	N/A		

Future Key Issues:

Major site activities for the coming month include:

- Construction of Pier P21 and cross head of column at pier.
- Bulk excavation works at slope CCR-S1.
- Soil nail installation at slope CCR-S4.
- Bulk excavation works at slope CCR-S4, CCR-R3, CCR-R4 and CCR-R6.
- Retaining wall construction at CCR-R1 to CCR-R6 and LCK-R1.
- Drainage works at Rest Garden area, Hoi Lai Estate and piers B1.
- Offsite fabrication of pre-cast deck segment moulds and segment casting.
- Segment erection by launching gantry at pier P21.
- Cast in-situ of slip road C
- Cast in-situ and precast segment erection at slip road D.
- Segment erection by lifting crane at pier C6 and Abutment M.
- Parapet installation for Main Viaduct and slip roads A to D.

The anticipated environmental impacts will be mainly on air impact from soil nail installation, noise impact from excavation works and water quality impact during rainy season.

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 HILL Hong Kong Ltd. was appointed as the IEC under Condition 2.1 of the EP. This is the thirty-first monthly EM&A report summarizing the EM&A works for the Project in June 2006.

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) / Engineer's Representative (ER) Maunsell-Hyder Joint Venture
 - Environmental Team (ET) Cinotech Consultants Limited
 - Independent Environmental Checker (IEC) CH2M HILL Hong Kong Limited
 - Contractor Acciona Infraestructuras 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 Pier 21, cross head of column at Per 21;
 - Raking excavation works at CCR-S1, CCR-S4, CCR-R5 and CCR-R6;
 - Retaining wall construction at CCR-R1 to CCR-R6 and LCK-R1 to R3:
 - Drainage works at Hoi Lai Estate and Pier B1;
 - Offsite fabrication of pre-cast deck segment moulds and segment casting;
 - Segment erection by lifting crane at Pier D8;
 - Cast in-situ of slip road C;
 - Cast in-situ at slip road D; and
 - Parapet installation for slip roads A to D and main viaduct.

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.	Fax No.	
		Mr. Kroc Leung	SE2/R8K	2762 3662		
HyD	Permit Holder	Mr. Esther Yung	E1/R8K	2762 3677	2714 5198	
		Mr. LC Chung	E2/R8K	2762 3613		
	Engineer	Mr. Conrad Ng	Project Manager	2605 6262	2691 2649	
MHJV		Mr. D.F. Lilliman	CRE	2959 0010		
IVITIJ V	Engineer's Representative	Mr. Henry Liu	SRE	2991 1068	2959 0290	
		Mr. Joseph Chi	RE	2991 1034		
	Environmental Team	Dr. Priscilla Choy	The ET Leader	2151 2089	3107 1388	
Cinotech		Ms. Attle Hui	Audit Team Leader	2151 2093		
		Mr. Henry Leung	Monitoring Team Leader	2151 2087		
CH2M	Independent	Mr. David Yeung	Independent Environmental Checker	2872 2934	2507 2293	
CHZIVI	Environmental Checker	Mr. Billy Yu	Assistant Independent Environmental Checker	2872 2949	2307 2293	
Acciona	Contractor	Mr. Rafael Rubio	Project Director	2956 3300	2956 3331	
Acciona	Contractor	Mr. Lawrence Kwok	QA/E Manager	2730 3300	4730 3331	
24-hour En	nergency Hotline		2370 9200	-		

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.
- 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 the reporting month.

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

Monitoring Parameters, Frequency and Duration

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

 Table 2.3
 Impact Dust Monitoring Parameters, Frequency and Duration

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

Monitoring Methodology and QA/QC Procedure

Instrumentation

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

Operating/Analytical Procedures

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

- 2.13 The shelter lid was closed and secured with the aluminum strip.
- 2.14 The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number).
- 2.15 After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.
- 2.16 Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±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, except for the noise monitoring at Station NM4 on 13th June 06 due to raining when ET conducted the noise monitoring at this station. The noise monitoring was rescheduled from 13th June 06 to 14th June 06. Besides, all monitoring Stations (NM4, NM8a, NM8b and NM9) on 28th June 06 were also rescheduled on 30th June 06 because Typhoon Signal No.1 was hoisted on 28th June 06.
- 2.19 No Action/Limit Level exceedance was recorded for both 1-hr and 24-hr TSP monitoring in the reporting month.
- 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 L₁₀ and L₉₀ 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				Façade
NM8a	L ₁₀ (30 min.)dB(A) L ₉₀ (30 min.)dB(A) L _{eq} (30 min.)dB(A)	/	Once per	Façade
NM8b		on weekdays	week	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 weightingtime weightingFast

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 Two Action Level (noise complaint) exceedances were recorded on 9th June 2006 and 26th June 2006. No Limit Level exceedance was recorded in the reporting month.
- 3.15 The two complaints were considered the same because the complainants made the complaints to ICC through two channels by phone on 8th June 2006 and through facsimile on 12th June 2006.
- 3.16 The complaints were about the noise generated from rock excavation work from 9 a.m. to 6 a.m. at the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Chuen).
- 3.17 As advised by the RSS, silent rock breaking equipment has been used and noise barriers were erected to minimize the noise impact generated from the breaking activity. According to RSS's information, the excavation and rock breaking activities at the concerned area will likely be completed by end of September 2006.
- 3.18 Ad-hoc inspections were conducted by the ET on 14th, 16th and 30th June 2006 and all the results were well below the noise criteria of 75 dB(A).

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- 3.19 Based on the information collected, the complaints were considered not justifiable. The complaint report was issued on 22nd June 2006 and 5th July 2006 and the detail of the complaint is shown in **Appendix M**.
- 3.20 At Stations NM8a and NM8b, the major noise source identified during the monitoring exercises was mainly the road traffic noise.
- 3.21 At Station NM4 and 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 5th, 14th, 21st, and 28th June 2006 by ET. The audit session on 5th June 2006 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**. One new CNP was 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
refillt No.	From	To	- Details	Status
Environmental Per	mit (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 Che	mical Wast	e Producer	1	1
WPN 5213-261- N2413-04	17/11/03	N/A	N/A	Valid
Water Discharge L		1		T
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 (CN	(P)		ı
GW-RW0844-05 (replaced by GW-RW0258-06)	15/1/06	14/6/06	Location: Butterfly Valley Time Period: Whole day of general holidays (including Sundays) and any other days between 1900-0700 hrs on next day	Expired
GW-RW0867-05	3/2/06	2/8/06	Location: Hing Wah Street West (Jetty Area) Time Period: Whole day of general holidays (including Sundays) and any other days between 1900-0700 hrs on next day	Valid
GW-RW0083-06 (replaced by GW-RW0121-06)	18/2/06	17/8/06	Location: Ching Cheung Road near Mei Foo Sun Chuen Time Period: General holidays (including Sundays) between 0700-2300 hrs and any other days between 1900-2300 hrs	Valid
GW-RW0091-06	19/2/06	13/8/06	Location: Ching Cheung Road near CLP Substation Time Period: General holidays (including Sundays) between 0900-2100 hrs	Valid
GW-RW0121-06	11/3/06	6/9/06	Location: Ching Cheung Road near Castle Peak Road Time Period: Whole day of general holidays (including Sundays) and any other days between 1900-0700 hrs on next day	Valid

Permit No.	Valid	Period	Details	Status
1 er mit 1vo.	From	To	Details	Status
GW-RW0135-06	16/3/06	15/9/06	Location: Butterfly Valley 20/03/06 to 31/03/06 Time Period: Whole day of general holidays (including Sundays) and any other days between 1900- 0700 hrs on next day 1/4/06 to 15/9/06 Time Period: General holidays (including Sundays) between 0900-2300 hrs and any other days between 1900-0700 hrs on next day	Valid
GW-RW0142-06	22/3/06	15/9/06	Location: Lai Wan Road Time Period: Any day not being a general holiday between 2100-0700 hrs on next day	Valid
GW-RW0145-06	31/3/06	30/9/06	Location: Lai Po Road and Yuet Lun Street Time Period: Any day not being a general holiday between 2100-0700 hrs on next day	Valid
GW-RW0146-06	22/3/06	19/9/06	Location: Lai Wan Road Time Period: Whole day of general holidays (including Sundays) and any other days between 1900-0700 hrs on next day	Valid
GW-RW0173-06	31/3/06	30/9/06	Location: Butterfly Valley Road, Lai Chi Kok Time period: General holiday including Sundays between 0000- 2300 hrs and any day not being a general holiday between 1900- 2300	Valid
GW-RW0192-06	7/4/06	6/10/06	Location: Junction of Ching Cheung Road and Castle Peak Road Time Period: General holidays (including Sundays) between 0700-2300 hours and any other days between 1900-2300 hours	Valid
GW-RW0244-06	27/4/06	26/9/06	Location: Ching Cheung Road near Mei Foo Sun Chuen Time Period: General holiday (included Sundays) between 0700-2300 hours and any day not being a general holiday between 1900-2300 hours.	Valid
GW-RW0257-06	4/5/06	3/10/06	Location: Castle Peak Road near Ching Cheung Road Time Period: General holiday (includes Sundays) between 0700- 2300 hours and any day not being a general holiday between 1900-2300 hours.	Valid
GW-RW0258-06	5/5/06	4/10/06	Location: Butterfly Valley Time Period: General holiday (includes Sundays) between 0000- 2400 hours and any day not being a general holiday between 1900-0700 hours.	Valid
GW-RW0269-06	15/5/06	14/11/06	Location: Lai Po Road near Yuet Lun Street Time Period: General holiday (includes Sundays) between 0000- 2400 hours and any day not being a general holiday between 1900-0700 hours.	Valid
GW-RW0270-06	15/5/06	14/11/06	Location: Lai Po Road near Hoi Lai Estate Time Period: General holiday (includes Sundays) between 0000-2400 hours and any day not being a general holiday between 1900-0700 hours.	Valid
GW-RW0271-06	15/5/06	10/11/06	Location: Ching Cheung Road near Butterfly Valley Road <i>Time Period</i> : Any day not being a general holiday between 2100-2400 hours (immediately following a general holiday) and between 2100-0700 hours (not immediately following a general holiday).	Valid

Permit No.	Valid	Period	Details	Status	
From		To	Details	Status	
GW-RW0276-06	15/5/06	11/11/06	Location: Butterfly Valley Road near Lai Chi Kok Interchange Time Period: Any day not being a general holiday between 2100-2400 hours (immediately following a general holiday) and between 2100-0700 hours (not immediately following a general holiday).	Valid	
GW-RW0319-06	30/5/06	26/11/06	Location: Ching Cheung Road near Butterfly Valley Road Time Period: General holiday (includes Sundays) between 0000- 2400 hours and any day not being a general holiday between 1900-0700 hours.		
GW-RW0311-06	6/6/06	5/12/06	Location: Butterfly Valley near O Pui Shan Boys' Home Time Period: General holiday (including Sundays) between 0700-2300 hours and any day not being a general holiday between 1900-2300 hours.	Valid (new)	

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
Water Quality	5-Jun-06	The contractor was recommended to improve the position or the size of existing noise barrier at slope S4 for reducing the noise emitted to Mei Foo Sun Estate.	The situation was found improved / rectified during the audit on 14-Jun-06.
	5-Jun-06	The contractor was also reminded to take attention for the stagnant water after rainy to avoid mosquito breeding.	The situation was found improved / rectified during the audit on 14-Jun-06.
	14-Jun-06	Some yellow water accidentally discharged to the nullah was found at pier P17. Suitable drainage system or other measures should be provided to prevent it directly discharge nullah without treatment.	The situation was found improved / rectified during the audit on 21-Jun-06.
	28-Jun-06	The Contractor was reminded that the exposed slope surface should be entirely covered by the existing tarpaulin at Pier 17L.	The situation would be followed up in July 2006

Summary of Exceedances

1-hr and 24-hr TSP Monitoring

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

Construction Noise Monitoring

- 4.8 Two Action Level (noise complaint) exceedances were recorded on 9th June and 26th June 2006. No Limit Level exceedance was recorded in the reporting month.
- 4.9 The two complaints were considered the same because the complainants made the complaints to ICC through two channels by phone on 8th June 2006 and through facsimile

on 12th June 2006. The complaints were about the noise generated from rock excavation work from 9 a.m. to 6 p.m. at the area between Ching Cheung Road and Mei Lai Road (near Phase 5 Mei Foo Sun Chuen). As advised by the RSS, silent rock breaking equipment has been used and noise barriers were erected to minimize the noise impact generated from the breaking activity. Ad-hoc inspections were conducted by the ET on 14th, 16th and 30th June 2006 and all the results were well below the noise criteria of 75 dB(A). Based on the information collected, the complaint was considered not justifiable. The complaint report was issued on 22nd June 2006 and 5th July 2006 and the detail of the complaint is shown in **Appendix M**.

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 Two public complaints were received on 9th June and 26th June 2006 about construction noise nuisance in the reporting month.
- 4.12 No prosecution was received in the reporting month.
- 4.13 There were 27 environmental complaints referred to the ET and 1 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:
 - Construction noise from excavation, construction of cross head of column, slope works and retaining wall at LCK-R1 and CCR-R1 to CCR-R6;
 - Surface runoff generated at the areas CCR-S3, CCR-S4 and CCR-R1 to CCR-R6;
 - Dust generation from stockpiles of dusty materials, exposed retain wall, excavation works and soil nail installations at CCR- S4; and
 - Stagnant water accumulated on site after rains.

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 Pier P21 and cross head of column at pier.
 - Bulk excavation works at slope CCR-S1.
 - Soil nail installation at slope CCR-S4.
 - Bulk excavation works at slope CCR-S4, CCR-R3, CCR-R4 and CCR-R6.
 - Retaining wall construction at CCR-R1 to CCR-R6 and LCK-R1.
 - Drainage works at Rest Garden area, Hoi Lai Estate and piers B1.
 - Offsite fabrication of pre-cast deck segment moulds and segment casting.
 - Segment erection by launching gantry at pier P21.
 - Cast in-situ of slip road C
 - Cast in-situ and precast segment erection at slip road D.
 - Segment erection by lifting crane at pier C6 and Abutment M.
 - Parapet installation for Main Viaduct and slip roads A to D.
- 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 Action/Limit Level exceedance for 1-hour TSP and 24-hours TSP was recorded in the reporting month.
- 6.3 No Limit Level exceedance for noise monitoring was recorded in the reporting month. Two public complaints were received on 9th June and 26th June 2006 about construction noise nuisance in the reporting month.
- 6.4 No prosecution was received in the reporting month.

Recommendations

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

Water Impact

- To ensure properly maintenance for de-silting facilities
- To review and implement temporary drainage system for the upcoming wet season.
- To review the capacity of de-silting facilities for discharge.
- To avoid stagnant water accumulation on site.

Noise Impact

- To closely observe the more stringent requirement for construction during school examination periods.
- To provide temporary noise barriers for noisy activities, such as breaking works.
- To review the works sequence of site activities so as to reduce the number of noisy equipment in concurrent operation.
- To employ quiet powered mechanical equipment if possible.
- To ensure compliance of CNP conditions during restricted-hour works.

Dust Impact

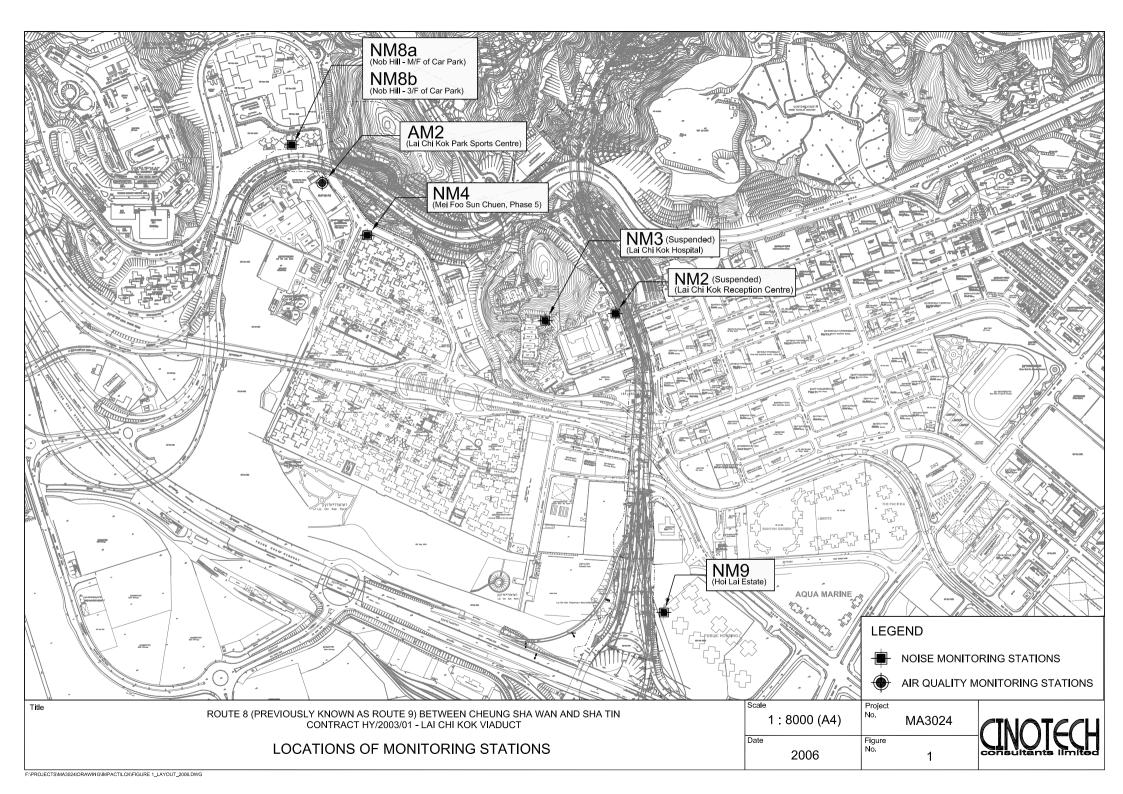
- To ensure water spray is applied for the dust emissive works, such as soil nail installation, loading and unloading of soil materials, excavation works.
- To cover soil stockpiles and exposed slope surface by impervious sheets or other means.
- To ensure that all vehicles carrying dusty material are properly covered before leaving the site.

Waste / Chemical Management

EM&A Report – June 2006

- To ensure the performance of sorting of C&D materials at source (during generation);
- To carry out inspection of dump truck at site exit to ensure inert and non-inert C&D materials are properly segregated before removing off site.
- To ensure proper collection and disposal of rubbish generated on site.
- To avoid any discharge or accidental spillage of chemical waste directly from the site.

FIGURES



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/m³
AM2	301	500

24-Hour TSP

Location	Action Level, μg/m ³	Limit Level, μg/m³
AM2	177	260

Construction Noise

Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays		75 dB(A)
0700-2300 hrs on holidays & 1900-2300 hrs on all other days	When one documented complaint is received	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. MA3024/20/0017 WK Station Lai Chi Kok Sport Centre (AM2) Operator: 23-Jul-06 Next Due Date: Date: 24-May-06 0818 Equipment No.: A-01-20 Serial No. **Ambient Condition** 761.7 301.8 Pressure, Pa (mmHg) Temperature, Ta (K) Orifice Transfer Standard Information 0.0395 A-04-04 0.0575 Intercept, bc Equipment No.: Slope, mc mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ Last Calibration Date: 13-Mar-06 Qstd = $\{ [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} -bc \} / mc$ Next Calibration Date: 12-Mar-07 Calibration of TSP Sampler Orfice HVS Calibration $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2} Y$ ΔH (orifice), Qstd (CFM) ΔW Point $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ in. of water X - axis (HVS), in. of oil axis 12.6 60.72 8.3 2.87 3.53 1 6.9 2 3.22 55.37 2.61 10.5 5.4 2.31 48.85 3 8.2 2.85 1.91 39.52 3.7 4 5.4 2.31 1.44 5 30.26 2.1 3.2 1.78 By Linear Regression of Y on X Slope, mw = 0.04620.0586 Intercept, bw: Correlation coefficient* = *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 x Qstd + bw = $[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ Therefore, Set Point; W = $(mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ Remarks: Conducted by: W. Tawa Signature: Signature: Date: Date:

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

Fax: (852) 2898 7388

TEST REPORT

APPLICANT: Cinotech Consultants Limited

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/06/60502
Date of Issue: 2006-05-02
Date Received: 2006-05-01
Date Tested: 2006-05-01
Date Completed: 2006-05-02

ATTN:

Mr. Henry Leung

Page:

1 of 1

Certificate of Calibration

Item for calibration:

Description

: RS232 Integral Vane Digital Anemometer

Manufacturer'

: AZ Instrument

Model No.

: 451104 : 9020746

Serial No. Equipment No.

: A-03-01

Test conditions:

Room Temperature

: 21 degree Celsius

Relative Humidity

: 66%

Pressure

: 1018.4 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	21.0	21.0

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager

Patricle

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TISCH ENVIROMENTAL, INC. 145 SOUTH MIAMI AVE. VILLAGE OF CLEVES, OH 45002 513.467.9000 877.263.7610 TOLL FREE 513.467.9009 FAX WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Ma Operator		Rootsmeter Orifice I.	The state of the s	9833620	Ta (K) - Pa (mm) -	294 746.76
PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1 2 3 4 5	NA NA NA NA	NA NA NA NA	1.00 1.00 1.00 1.00	1.3890 0.9850 0.8810 0.8410 0.6950	3.2 6.3 7.8 8.6 12.5	2.00 4.00 5.00 5.50 8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9917 0.9876 0.9854 0.9844 0.9792	0.7139 1.0026 1.1185 1.1706 1.4090	1.4113 1.9959 2.2315 2.3405 2.8227		0.9957 0.9916 0.9894 0.9884 0.9832	0.7168 1.0067 1.1231 1.1753 1.4147	0.8874 1.2549 1.4030 1.4715 1.7747
Qstd slop intercept coefficie	t (b) = ent (r) =	2.03154 -0.03970 0.99999	Ta) î	Qa slop intercep coeffici	t (b) =	1.27212 -0.02496 0.99999

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

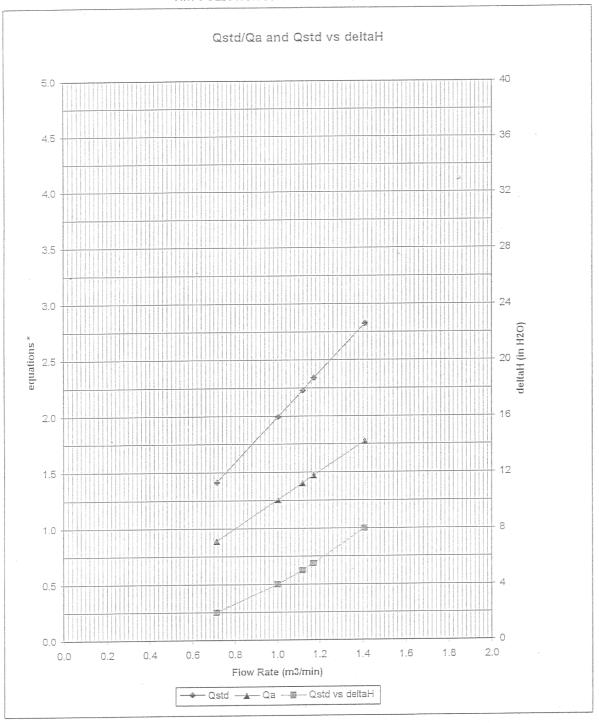
For subsequent flow rate calculations:

Qstd = $1/m\{[SQRT(H2O(Pa/760)(298/Ta))] - b\}$ Qa = $1/m\{[SQRT H2O(Ta/Pa)] - b\}$.



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VILLAGE OF CLEVES, OH 45002
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513.467.9009 FAX
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT



* y-axis equations:

Qstd series:

$$\sqrt{\Delta H \left(\frac{P a}{P s t d}\right) \left(\frac{T s t d}{T a}\right)}$$

Qa series:

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

#0993

Unit C, 1/F, Goldlion Holdings Center 13-15 Yuen Shun Circuit, Shatin, Hong Kong.

Tel: (852) 2898 7388 Fax: (852) 2898 7076

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/N/51216/1
Date of Issue: 2005-12-16
Date Received: 2005-12-15
Date Tested: 2005-12-15
Date Completed: 2005-12-16

ATTN:

Mr. Henry Leung

Page:

Next Due Date:

1 of 1

2006-12-15

Certificate of Calibration

Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer
Model No.
Serial No.
Microphone No.
Equipment No.

: Brüel & Kjær : B&K 2238 : 2337665

: 2289749 : 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 TSE

Operation Manager

Unit C, 1/F, Goldlion Holdings Center 13-15 Yuen Shun Circuit, Shatin, Hong Kong.

Tel: (852) 2898 7388 Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/N/51116/1
Date of Issue: 2005-11-16
Date Received: 2005-11-15
Date Tested: 2005-11-15
Date Completed: 2005-11-16
Next Due Date: 2006-11-15

ATTN:

Mr. Henry Leung

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1 of 1

Certificate of Calibration

Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer Model No.

: Brüel & Kjær : B&K 2238

Serial No.
Microphone No.

: 2337666 : 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:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Operation Manager

atrick

Unit C, 1/F, Goldlion Holdings Center 13-15 Yuen Shun Circuit, Shatin, Hong Kong.

Tel: (852) 2898 7388 Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/N/50905-1
Date of Issue: 2005-09-06
Date Received: 2005-09-05
Date Tested: 2005-09-06

Date Completed: Next Due Date: 2005-09-06 2006-09-05

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Mr. Henry Leung

Page:

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Certificate of Calibration

Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer Model No.

: Brüel & Kjær : B&K 2238

Serial No. Microphone No.

: 2359311: 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

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Laborary Manager

Patricle

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APPLICANT: Cinotech Consultants Limited

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/N/50905-2
Date of Issue: 2005-09-06
Date Received: 2005-09-05
Date Tested: 2005-09-05
Date Completed: 2005-09-06
Next Due Date: 2006-09-05

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Mr. Henry Leung

Page:

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Certificate of Calibration

Item for calibration:

Description

: Integrating Sound Level Meter

Manufacturer

: Brüel & Kjær

Model No. Serial No.

: B&K 2238 : 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

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For and On Behalf of WELLAB Ltd.

PATRICK TSE

Operation Manager

Patrick

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APPLICANT: Cinotech Consultants Limited

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/N/51015/1
Date of Issue: 2005-10-15
Date Received: 2005-10-13
Date Tested: 2005-10-14
Date Completed: 2005-10-15
Next Due Date: 2006-10-14

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Mr. Henry Leung

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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:

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Operation Manager

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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

ATTN:

Mr. Henry Leung

Page:

1 of 1

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No.

: 4231

Serial No.

: 2326353

Project No.

: C13

Equipment No.

: N-02-01

Test conditions:

Room 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	$94.0 \pm 0.1 \mathrm{dB}$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Operation Manager

Unit C, 1/F, Goldlion Holdings Center 13-15 Yuen Shun Circuit, Shatin, Hong Kong.

Tel: (852) 2898 7388 Fax: (852) 2898 7076

TEST REPORT

APPLICANT: Cinotech Consultants Limited

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/06/60304
Date of Issue: 2006-03-04
Date Received: 2006-03-03
Date Tested: 2006-03-03
Date Completed: 2006-03-04
Next Due Date: 2007-03-04

ATTN:

Mr. Henry Leung

Page:

1 of 1

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No. Serial No.

: 4231 : 2343007

Project No.

: C13

Equipment No.

: N-02-02

Test conditions:

Room Temperatre

: 20 degree Celsius

Relative Humidity

: 71%

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	$94.0 \pm 0.2 \mathrm{dB}$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Operation Manager

Unit C, 1/F, Goldlion Holdings Center 13-15 Yuen Shun Circuit, Shatin, Hong Kong.

Tel: (852) 2898 7388 Fax: (852) 2898 7076

TEST REPORT

APPLICANT:

Cinotech Consultants Limited

1602-1610 Delta House,

3 On Yiu Street, Shatin, N.T. Test Report No.: C/N/50905-1A
Date of Issue: 2005-09-06
Date Received: 2005-09-05
Date Tested: 2005-09-05

Shatin, 11.11

Date Completed:
Next Due Date:

2005-09-06 2006-09-05

ATTN:

Mr. Henry Leung

Page:

1 of 1

Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: Brüel & Kjær

Model No.

: 4231

Serial No.

: 2412367

Equipment No.

: N-02-03

Test conditions:

Room 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	$94.0 \pm 0.1 \mathrm{dB}$
At 114 dB SPL	114.0	$114.0 \pm 0.1 \mathrm{dB}$

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Operation Manager

Patricle

This test document cannot be reproduced in any way, except in full context, without the prior approval in writing of the laboratory.

APPENDIX C ENVIRONMENTAL MONITORING AND AUDIT SCHEDULE

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
28-May	29-May	30-May	31-May	1-Jun	2-Jun	3-Jun
	1 hr TSP	24 hrs TSP		1 hr TSP Noise	1 hr TSP	
4-Jun	5-Jun	6-Jun	7-Jun	8-Jun	9-Jun	10-Jun
	24 hrs TSP	1 hr TSP	1 hr TSP Noise	1 hr TSP		24 hrs TSP
11-Jun	12-Jun	13-Jun	14-Jun	15-Jun	16-Jun	17-Jun
	1 hr TSP	1 hr TSP Noise		1 hr TSP	24 hrs TSP	
18-Jun	19-Jun	20-Jun	21-Jun	22-Jun	23-Jun	24-Jun
	1 hr TSP	1 hr TSP Noise		24 hrs TSP	1 hr TSP	
25-Jun	26-Jun	27-Jun	28-Jun	29-Jun	30-Jun	1-Jul
		1 hr TSP	1 hr TSP Noise 24 hrs TSP	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 July 2006

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

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

AM2 Lai Chi Kok Sports Centre

NM4 Mei Foo Sun Chuen, Phase 5

NM8a M/F of Nob Hill NM8b 3/F of Nob Hill

NM9 G/F, Hoi Fai House, Hoi Lai Estate

APPENDIX D WIND DATA

Date	Time	Wind Speed m/s	Direction
1-Jun-2006	00:00	3.6	NNE
1-Jun-2006	01:00	3.6	NNE
1-Jun-2006	02:00	3.6	NNE
1-Jun-2006	03:00	3.1	NE
1-Jun-2006	04:00	3.1	NNE
1-Jun-2006	05:00	4	NNE
1-Jun-2006	06:00	3.6	NE
1-Jun-2006	07:00	4.5	NNE
1-Jun-2006	08:00	1.8	ENE
1-Jun-2006	09:00	2.2	NE
1-Jun-2006	10:00	1.8	ENE
1-Jun-2006	11:00	2.2	NE
1-Jun-2006	12:00	3.6	NE
1-Jun-2006	13:00	2.7	NE
1-Jun-2006	14:00	3.1	NE
1-Jun-2006	15:00	1.8	NE
1-Jun-2006	16:00	2.7	ENE
1-Jun-2006	17:00	1.3	ENE
1-Jun-2006	18:00	1.8	NE
1-Jun-2006	19:00	0.9	E
1-Jun-2006	20:00	0.9	ENE
1-Jun-2006	21:00	0.9	E E
1-Jun-2006	22:00	1.3	NE
1-Jun-2006	23:00	1.3	NE
2-Jun-2006	00:00	2.7	NE NE
2-Jun-2006 2-Jun-2006	01:00	3.6	NNE
2-Jun-2006	02:00	4	NNE
	03:00	4	NNE
2-Jun-2006		3.1	NE
2-Jun-2006	04:00 05:00	2.7	NE NE
2-Jun-2006			
2-Jun-2006	06:00	3.1	NE ENE
2-Jun-2006	07:00	1.8	ENE
2-Jun-2006	08:00	2.7	ENE
2-Jun-2006	09:00	1.8	NE NNE
2-Jun-2006	10:00	1.3	NNE
2-Jun-2006	11:00	1.3	ESE
2-Jun-2006	12:00	1.3	NE
2-Jun-2006	13:00	0.4	SE
2-Jun-2006	14:00	0	SE
2-Jun-2006	15:00	0	SE
2-Jun-2006	16:00	0	SE
2-Jun-2006	17:00	0.4	W
2-Jun-2006	18:00	0.4	WSW
2-Jun-2006	19:00	0	WSW
2-Jun-2006	20:00	0.4	W
2-Jun-2006	21:00	0	SSW
2-Jun-2006	22:00	0.4	WSW
2-Jun-2006	23:00	0	
3-Jun-2006	00:00	0	WSW
3-Jun-2006	01:00	0	WSW
3-Jun-2006	02:00	1.3	NNE
3-Jun-2006	03:00	3.1	NE
2 1 2006	04:00	4	NE
3-Jun-2006 3-Jun-2006	05:00	4	NNE

3-Jun-2006	Date	Time	Wind Speed m/s	Direction
3-Jun-2006				NE
3-Jun-2006				NE
3-Jun-2006				
3-Jun-2006				
3-Jun-2006				
3-Jun-2006			4	
3-Jun-2006				
3-Jun-2006			3.6	
3-Jun-2006	3-Jun-2006	14:00	3.6	NNE
3-Jun-2006 17:00 2.7 NE 3-Jun-2006 18:00 3.1 NNE 3-Jun-2006 19:00 2.7 NE 3-Jun-2006 20:00 2.7 NE 3-Jun-2006 21:00 1.8 NE 3-Jun-2006 22:00 2.7 NE 3-Jun-2006 02:00 2.7 NE 4-Jun-2006 00:00 2.7 NE 4-Jun-2006 01:00 3.1 NNE 4-Jun-2006 02:00 3.1 NE 4-Jun-2006 03:00 3.6 NE 4-Jun-2006 04:00 2.7 NE 4-Jun-2006 04:00 2.7 NE 4-Jun-2006 05:00 3.1 NE 4-Jun-2006 06:00 3.6 NNE 4-Jun-2006 06:00 3.6 NNE 4-Jun-2006 09:00 3.1 NNE 4-Jun-2006 10:00 4 NE 4-Jun-2006		15:00		NNE
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3-Jun-2006		17:00	2.7	NE
3-Jun-2006	3-Jun-2006	18:00	3.1	NNE
3-Jun-2006	3-Jun-2006	19:00	2.7	NE
3-Jun-2006 22:00 2.7 NE 3-Jun-2006 23:00 2.2 NE 4-Jun-2006 00:00 2.7 NE 4-Jun-2006 01:00 3.1 NNE 4-Jun-2006 02:00 3.1 NE 4-Jun-2006 03:00 3.6 NE 4-Jun-2006 04:00 2.7 NE 4-Jun-2006 05:00 3.1 NE 4-Jun-2006 06:00 3.6 NNE 4-Jun-2006 06:00 3.6 NNE 4-Jun-2006 07:00 3.1 NE 4-Jun-2006 08:00 3.6 NNE 4-Jun-2006 09:00 3.1 NE 4-Jun-2006 09:00 3.1 NNE 4-Jun-2006 10:00 4 NE 4-Jun-2006 11:00 4 NE 4-Jun-2006 12:00 4.9 NNE 4-Jun-2006 15:00 4.9 NNE 4-Jun-2006				NE
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4-Jun-2006 16:00 4 NNE 4-Jun-2006 17:00 3.6 NNE 4-Jun-2006 18:00 3.6 NNE 4-Jun-2006 19:00 3.6 NNE 4-Jun-2006 20:00 3.6 NNE 4-Jun-2006 21:00 4 NE 4-Jun-2006 22:00 4 NE 4-Jun-2006 23:00 3.6 NE 5-Jun-2006 00:00 3.1 NE 5-Jun-2006 01:00 3.6 NNE 5-Jun-2006 02:00 3.6 NE 5-Jun-2006 03:00 3.1 NNE 5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006	4-Jun-2006	14:00	4.9	NNE
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4-Jun-2006 18:00 3.6 NNE 4-Jun-2006 19:00 3.6 NNE 4-Jun-2006 20:00 3.6 NNE 4-Jun-2006 21:00 4 NE 4-Jun-2006 22:00 4 NE 4-Jun-2006 23:00 3.6 NE 5-Jun-2006 00:00 3.1 NE 5-Jun-2006 01:00 3.6 NNE 5-Jun-2006 02:00 3.6 NE 5-Jun-2006 03:00 3.1 NNE 5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 09:00 4.9 NNE	4-Jun-2006	16:00	4	NNE
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4-Jun-2006 22:00 4 NE 4-Jun-2006 23:00 3.6 NE 5-Jun-2006 00:00 3.1 NE 5-Jun-2006 01:00 3.6 NNE 5-Jun-2006 02:00 3.6 NE 5-Jun-2006 03:00 3.1 NNE 5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE			3.6	
4-Jun-2006 23:00 3.6 NE 5-Jun-2006 00:00 3.1 NE 5-Jun-2006 01:00 3.6 NNE 5-Jun-2006 02:00 3.6 NE 5-Jun-2006 03:00 3.1 NNE 5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE				NE
5-Jun-2006 00:00 3.1 NE 5-Jun-2006 01:00 3.6 NNE 5-Jun-2006 02:00 3.6 NE 5-Jun-2006 03:00 3.1 NNE 5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE	4-Jun-2006	22:00	4	NE
5-Jun-2006 01:00 3.6 NNE 5-Jun-2006 02:00 3.6 NE 5-Jun-2006 03:00 3.1 NNE 5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE	4-Jun-2006	23:00	3.6	
5-Jun-2006 02:00 3.6 NE 5-Jun-2006 03:00 3.1 NNE 5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE	5-Jun-2006	00:00		NE
5-Jun-2006 03:00 3.1 NNE 5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE			3.6	
5-Jun-2006 04:00 4 NNE 5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE	5-Jun-2006	02:00	3.6	
5-Jun-2006 05:00 3.6 NNE 5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE	5-Jun-2006	03:00	3.1	NNE
5-Jun-2006 06:00 4.5 NNE 5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE	5-Jun-2006			
5-Jun-2006 07:00 4.9 NNE 5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE	5-Jun-2006	05:00	3.6	
5-Jun-2006 08:00 5.4 NNE 5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE			4.5	
5-Jun-2006 09:00 4.9 NNE 5-Jun-2006 10:00 4 NE	5-Jun-2006	07:00	4.9	
5-Jun-2006 10:00 4 NE	5-Jun-2006	08:00	5.4	NNE
	5-Jun-2006	09:00	4.9	NNE
5-Jun-2006 11:00 4 NE	5-Jun-2006	10:00	4	NE
	5-Jun-2006	11:00	4	NE

Date	Time	Wind Speed m/s	Direction
5-Jun-2006	12:00	3.6	NE
5-Jun-2006	13:00	3.6	NNE
5-Jun-2006	14:00	4.5	NNE
5-Jun-2006	15:00	4	NNE
5-Jun-2006	16:00	4.5	NNE
5-Jun-2006	17:00	4	NE
5-Jun-2006	18:00	3.6	NE
5-Jun-2006	19:00	3.1	NNE
5-Jun-2006	20:00	3.1	NE
5-Jun-2006	21:00	3.1	NNE
5-Jun-2006	22:00	4	NNE
5-Jun-2006	23:00	3.6	NE
6-Jun-2006	00:00	4	NNE
6-Jun-2006	01:00	4.5	NNE
6-Jun-2006	02:00	4	NNE
6-Jun-2006	03:00	4	NNE
6-Jun-2006	04:00	4.5	NNE
6-Jun-2006	05:00	4	NNE
6-Jun-2006	06:00	4.9	NNE
6-Jun-2006	07:00	4	NNE
6-Jun-2006	08:00	4.5	NE
6-Jun-2006	09:00	4.9	NNE
6-Jun-2006	10:00	4.5	NNE
6-Jun-2006	11:00	4.5	NNE
6-Jun-2006	12:00	4	NNE
6-Jun-2006	13:00	3.1	NE
6-Jun-2006	14:00	4	NE
6-Jun-2006	15:00	4.5	NNE
6-Jun-2006	16:00	3.6	NNE
6-Jun-2006	17:00	4.5	NNE
6-Jun-2006	18:00	4	NNE
6-Jun-2006	19:00	4	NNE
6-Jun-2006	20:00	3.6	NNE
6-Jun-2006	21:00	3.1	NNE
6-Jun-2006	22:00	3.1	NNE
6-Jun-2006	23:00	3.6	N
7-Jun-2006	00:00	3.6	NE
7-Jun-2006	01:00	4	NNE
7-Jun-2006	02:00	4	NNE
7-Jun-2006	03:00	3.6	NE
7-Jun-2006	04:00	4.5	NNE
7-Jun-2006	05:00	4.5	NNE
7-Jun-2006	06:00	4	NNE
7-Jun-2006	07:00	4	NE
7-Jun-2006	08:00	4.9	NNE
7-Jun-2006	09:00	4.9	NNE
7-Jun-2006	10:00	4.9	NNE
7-Jun-2006	11:00	4.5	NNE
7-Jun-2006	12:00	4.5	NNE
7-Jun-2006	13:00	4.5	NNE
7-Jun-2006 7-Jun-2006		4.5 3.1	NNE NE
	13:00		
7-Jun-2006	13:00 14:00	3.1	NE

Date	Time	Wind Speed m/s	Direction
7-Jun-2006	18:00	3.6	NNE
7-Jun-2006	19:00	4.5	NNE
7-Jun-2006	20:00	4	NNE
7-Jun-2006	21:00	3.6	NE
7-Jun-2006	22:00	3.6	NE
7-Jun-2006	23:00	3.6	NE
8-Jun-2006	00:00	4	NE
8-Jun-2006	01:00	4.5	NNE
8-Jun-2006	02:00	4.5	NNE
8-Jun-2006	03:00	4.5	NNE
8-Jun-2006	04:00	4.9	NNE
8-Jun-2006	05:00	4.9	NNE
8-Jun-2006	06:00	4.5	NNE
8-Jun-2006	07:00	4.9	NNE
8-Jun-2006	08:00	4.9	NNE
8-Jun-2006	09:00	4.5	NNE
8-Jun-2006	10:00	2.7	NE
8-Jun-2006	11:00	4	NNE
8-Jun-2006	12:00	4.9	NNE
8-Jun-2006	13:00	3.6	NNE
8-Jun-2006	14:00	4	NNE
8-Jun-2006	15:00	3.6	NE
8-Jun-2006	16:00	4.5	NNE
8-Jun-2006	17:00	4	NNE
8-Jun-2006	18:00	2.7	NNE
8-Jun-2006	19:00	2.7	NE NE
8-Jun-2006	20:00	2.2	NE
8-Jun-2006	21:00	0.9	ENE
8-Jun-2006	22:00	1.3	ENE
8-Jun-2006	23:00	1.8	ENE
9-Jun-2006	00:00	1.3	ENE
9-Jun-2006	01:00	1.3	ENE
9-Jun-2006	02:00	1.3	NE
9-Jun-2006	03:00	3.1	NE NE
9-Jun-2006	04:00	3.1	NE NE
9-Jun-2006	05:00	3.1	NE NE
9-Jun-2006	06:00	2.2	NE
9-Jun-2006	07:00	2.2	NE NE
9-Jun-2006	08:00	3.6	NNE
9-Jun-2006	09:00	3.1	NNE
9-Jun-2006	10:00	1.3	NE NE
9-Jun-2006	11:00	0.9	SW
9-Jun-2006	12:00	1.8	NE
9-Jun-2006	13:00	1.3	WNW
9-Jun-2006	14:00	2.2	ENE
9-Jun-2006	15:00	0.9	NNE
9-Jun-2006	16:00	1.3	NE
9-Jun-2006	17:00	0	NNE
9-Jun-2006	18:00	0	
9-Jun-2006	19:00	0	
9-Jun-2006	20:00	0.9	ESE
	21:00	2.7	ENE ENE
9-Jun-2006		2.7	
9-Jun-2006	22:00		NE ENE
9-Jun-2006	23:00	0.4	ENE

Date	Time	Wind Speed m/s	Direction
10-Jun-2006	00:00	0.4	ENE
10-Jun-2006	01:00	1.3	ENE
10-Jun-2006	02:00	0.4	Е
10-Jun-2006	03:00	0.4	Е
10-Jun-2006	04:00	0.4	ENE
10-Jun-2006	05:00	0.9	ENE
10-Jun-2006	06:00	1.3	ENE
10-Jun-2006	07:00	0.9	ENE
10-Jun-2006	08:00	0.4	ENE
10-Jun-2006	09:00	0	ENE
10-Jun-2006	10:00	0.9	W
10-Jun-2006	11:00	1.3	W
10-Jun-2006	12:00	0.4	W
10-Jun-2006	13:00	0.9	W
10-Jun-2006	14:00	0.4	W
10-Jun-2006	15:00	0	W
10-Jun-2006	16:00	0	
10-Jun-2006	17:00	0.4	SE
10-Jun-2006	18:00	0.9	W
10-Jun-2006	19:00	0.9	W
10-Jun-2006	20:00	0	W
10-Jun-2006	21:00	0	
10-Jun-2006	22:00	0	
10-Jun-2006	23:00	0	
11-Jun-2006	00:00	0	W
11-Jun-2006	01:00	0.9	W
11-Jun-2006	02:00	0.0	WSW
11-Jun-2006	03:00	0	
11-Jun-2006	04:00	0	
11-Jun-2006	05:00	0	WSW
11-Jun-2006	06:00	0.9	WNW
11-Jun-2006	07:00	0.0	WNW
11-Jun-2006	08:00	0	W
11-Jun-2006	09:00	0.4	W
11-Jun-2006	10:00	0.4	W
11-Jun-2006	11:00	0.4	ENE
11-Jun-2006	12:00	0.4	W
11-Jun-2006	13:00	0.4	WNW
11-Jun-2006	14:00	1.8	W
11-Jun-2006	15:00	1.3	W
11-Jun-2006	16:00	1.8	W
11-Jun-2006	17:00	2.7	WSW
11-Jun-2006	18:00	3.6	WSW
11-Jun-2006 11-Jun-2006	19:00	3.6	SSW
11-Jun-2006 11-Jun-2006	20:00	4	
11-Jun-2006 11-Jun-2006		-	W
	21:00 22:00	3.6	WSW
11-Jun-2006			WSW
11-Jun-2006	23:00	3.6	
12-Jun-2006	00:00	2.7	WSW
12-Jun-2006	01:00	1.8	WSW
12-Jun-2006	02:00	0.9	SSW
12-Jun-2006	03:00	0.4	WSW
12-Jun-2006	04:00	0	
12-Jun-2006	05:00	0	

Date	Time	Wind Speed m/s	Direction
12-Jun-2006	06:00	0	WSW
12-Jun-2006	07:00	0.4	WNW
12-Jun-2006	08:00	0	
12-Jun-2006	09:00	0.4	WNW
12-Jun-2006	10:00	1.3	WNW
12-Jun-2006	11:00	0	
12-Jun-2006	12:00	0	WNW
12-Jun-2006	13:00	0	WNW
12-Jun-2006	14:00	0	
12-Jun-2006	15:00	0.4	E
12-Jun-2006	16:00	1.3	NE
12-Jun-2006	17:00	1.3	NE
12-Jun-2006	18:00	1.3	ENE
12-Jun-2006	19:00	0.4	ENE
12-Jun-2006	20:00	0	
12-Jun-2006	21:00	0	
12-Jun-2006	22:00	0	
12-Jun-2006	23:00	0	
13-Jun-2006	00:00	0	
13-Jun-2006	01:00	0	
13-Jun-2006	02:00	0	
13-Jun-2006	03:00	0.4	SSE
13-Jun-2006	04:00	2.2	E
13-Jun-2006	05:00	0.4	SE
13-Jun-2006	06:00	0.4	
13-Jun-2006	07:00	0	
13-Jun-2006	08:00	0	S
13-Jun-2006	09:00	2.7	N
13-Jun-2006	10:00	3.1	NNE
13-Jun-2006	11:00	3.6	NNE
13-Jun-2006	12:00	3.1	NNE
13-Jun-2006	13:00	3.6	NNE
13-Jun-2006	14:00	3.1	NNE
13-Jun-2006	15:00	3.6	NE
13-Jun-2006	16:00	3.1	NE
13-Jun-2006	17:00	3.1	NE
13-Jun-2006	18:00	3.6	NE
13-Jun-2006	19:00	3.6	NE
13-Jun-2006	20:00	2.7	NE
13-Jun-2006	21:00	1.8	NE
13-Jun-2006	22:00	1.8	NE NE
13-Jun-2006	23:00	1.3	NE NE
14-Jun-2006	00:00	1.8	NE NE
14-Jun-2006 14-Jun-2006	01:00	1.8	NE NE
14-Jun-2006 14-Jun-2006	02:00	1.8	NNE
14-Jun-2006 14-Jun-2006	03:00	2.2	NE NE
14-Jun-2006	03.00	3.1	NE NE
	04:00	2.7	NE NE
14-Jun-2006		2.7	NE NE
14-Jun-2006	06:00 07:00	3.1	NNE NNE
14-Jun-2006			
14-Jun-2006	08:00	3.6	NNE
14-Jun-2006	09:00	3.6	NE NNE
14-Jun-2006	10:00	3.6	NNE
14-Jun-2006	11:00	4	NNE

Date	Time	Wind Speed m/s	Direction
14-Jun-2006	12:00	4.9	NE
14-Jun-2006	13:00	4.9	NNE
14-Jun-2006	14:00	5.4	NNE
14-Jun-2006	15:00	4.9	N
14-Jun-2006	16:00	4.5	NNE
14-Jun-2006	17:00	3.6	NE
14-Jun-2006	18:00	3.1	NE
14-Jun-2006	19:00	3.1	NE
14-Jun-2006	20:00	2.2	NE
14-Jun-2006	21:00	1.8	NE
14-Jun-2006	22:00	1.3	ENE
14-Jun-2006	23:00	1.8	NNE
15-Jun-2006	00:00	2.2	NNE
15-Jun-2006	01:00	2.7	NE
15-Jun-2006	02:00	3.6	N
15-Jun-2006	03:00	2.7	NE
15-Jun-2006	04:00	3.6	NNE
15-Jun-2006	05:00	3.6	NNE
15-Jun-2006	06:00	3.6	N N
15-Jun-2006	07:00	4	NNE
15-Jun-2006	08:00	3.6	NE
15-Jun-2006	09:00	4.9	NE NE
15-Jun-2006	10:00	4.5	NNE
15-Jun-2006	11:00	4	NNE
15-Jun-2006	12:00	4	NNE
15-Jun-2006	13:00	4	NNE
15-Jun-2006	14:00	4.5	NNE
15-Jun-2006	15:00	4	NNE
15-Jun-2006	16:00	2.7	NE NE
15-Jun-2006	17:00	1.8	NE
15-Jun-2006	18:00	2.2	NE
15-Jun-2006	19:00	0.9	ENE
15-Jun-2006	20:00	1.3	NE
15-Jun-2006	21:00	1.3	ENE
15-Jun-2006	22:00	1.8	NE
15-Jun-2006	23:00	2.2	NE
16-Jun-2006	00:00	2.2	NE
16-Jun-2006	01:00	3.1	NE
16-Jun-2006	02:00	3.1	NE
16-Jun-2006	03:00	3.6	NNE
16-Jun-2006	04:00	3.6	NE NE
16-Jun-2006	05:00	3.6	NNE
16-Jun-2006	06:00	3.6	NNE
16-Jun-2006	07:00	3.6	NNE
16-Jun-2006	08:00	2.7	NNE
16-Jun-2006	09:00	2.7	NE
16-Jun-2006	10:00	3.1	NNE
16-Jun-2006	11:00	2.7	NE
16-Jun-2006	12:00	3.1	NE
16-Jun-2006	13:00	3.1	ENE
16-Jun-2006	14:00	3.1	NNE
16-Jun-2006	15:00	3.1	NE
16-Jun-2006	16:00	3.1	NE
16-Jun-2006	17:00	2.2	ENE
10-3411-2000	17.00	۷.۷	LINL

Date	Time	Wind Speed m/s	Direction
16-Jun-2006	18:00	2.7	ENE
16-Jun-2006	19:00	2.2	ENE
16-Jun-2006	20:00	1.8	ENE
16-Jun-2006	21:00	1.8	ENE
16-Jun-2006	22:00	0.4	ENE
16-Jun-2006	23:00	1.3	NE
17-Jun-2006	00:00	1.3	ENE
17-Jun-2006	01:00	1.3	Е
17-Jun-2006	02:00	1.3	Е
17-Jun-2006	03:00	1.3	NE
17-Jun-2006	04:00	2.2	ENE
17-Jun-2006	05:00	0.4	ESE
17-Jun-2006	06:00	0.4	NE
17-Jun-2006	07:00	1.8	ENE
17-Jun-2006	08:00	1.8	NE
17-Jun-2006	09:00	1.8	NE
17-Jun-2006	10:00	2.2	NE
17-Jun-2006	11:00	2.2	NE
17-Jun-2006	12:00	2.7	NE
17-Jun-2006	13:00	3.1	NE
17-Jun-2006	14:00	3.1	NE
17-Jun-2006	15:00	2.7	NE
17-Jun-2006	16:00	1.8	ENE
17-Jun-2006	17:00	1.8	Е
17-Jun-2006	18:00	2.7	ENE
17-Jun-2006	19:00	1.8	E
17-Jun-2006	20:00	1.3	Е
17-Jun-2006	21:00	0	Е
17-Jun-2006	22:00	0	E
17-Jun-2006	23:00	0.4	N
18-Jun-2006	00:00	0	ENE
18-Jun-2006	01:00	0	ENE
18-Jun-2006	02:00	0.9	ENE
18-Jun-2006	03:00	0.9	E
18-Jun-2006	04:00	0.4	E
18-Jun-2006	05:00	0	E
18-Jun-2006	06:00	0	
18-Jun-2006	07:00	0	
18-Jun-2006	08:00	0	
18-Jun-2006	09:00	0.9	NE
18-Jun-2006	10:00	1.3	E
18-Jun-2006	11:00	1.3	NE
18-Jun-2006	12:00	1.3	NE
18-Jun-2006	13:00	2.2	N
18-Jun-2006	14:00	1.8	N
18-Jun-2006	15:00	1.3	W
18-Jun-2006	16:00	0.9	N
18-Jun-2006	17:00	0	WSW
18-Jun-2006	18:00	0.9	W
18-Jun-2006	19:00	0.4	W
18-Jun-2006	20:00	0.4	SW
18-Jun-2006	21:00	0.9	W
10 0an 2000	21.00	0.0	
18-Jun-2006	22:00 23:00	0 0	W

Date	Time	Wind Speed m/s	Direction
19-Jun-2006	00:00	0	SW
19-Jun-2006	01:00	0	
19-Jun-2006	02:00	0	SW
19-Jun-2006	03:00	0	
19-Jun-2006	04:00	0	
19-Jun-2006	05:00	0	SW
19-Jun-2006	06:00	0	SW
19-Jun-2006	07:00	0	
19-Jun-2006	08:00	0.4	WSW
19-Jun-2006	09:00	0	SSE
19-Jun-2006	10:00	0	
19-Jun-2006	11:00	0	
19-Jun-2006	12:00	0.4	E
19-Jun-2006	13:00	0.4	N
19-Jun-2006	14:00	0	NNW
19-Jun-2006	15:00	2.7	W
19-Jun-2006	16:00	1.8	W
19-Jun-2006	17:00	2.7	W
19-Jun-2006	18:00	1.8	W
19-Jun-2006	19:00	1.8	WNW
19-Jun-2006	20:00	0	W
19-Jun-2006	21:00	0	
19-Jun-2006	22:00	0	
19-Jun-2006	23:00	0	
20-Jun-2006	00:00	0	W
20-Jun-2006	01:00	0	W
20-Jun-2006	02:00	0	
20-Jun-2006	03:00	0	
20-Jun-2006	04:00	0	
20-Jun-2006 20-Jun-2006	05:00	0	
	06:00		
20-Jun-2006		0	
20-Jun-2006	07:00	0	 \\\\
20-Jun-2006	08:00	0	W
20-Jun-2006 20-Jun-2006	09:00	0.9 1.8	W
	10:00		N VV
20-Jun-2006	11:00	1.3	
20-Jun-2006	12:00	1.3	N N
20-Jun-2006	13:00	1.8	N
20-Jun-2006	14:00	1.3	ESE
20-Jun-2006	15:00	0.4	NNE
20-Jun-2006	16:00	0	E
20-Jun-2006	17:00	0	
20-Jun-2006	18:00	0	
20-Jun-2006	19:00	0.4	WNW
20-Jun-2006	20:00	0	ENE
20-Jun-2006	21:00	0	<u>E</u>
20-Jun-2006	22:00	0	
20-Jun-2006	23:00	0	SW
21-Jun-2006	00:00	0	
21-Jun-2006	01:00	0	NE
21-Jun-2006	02:00	0	NE
21-Jun-2006	03:00	0	
21-Jun-2006	04:00	0	
21-Jun-2006	05:00	0	

Date	Time	Wind Speed m/s	Direction
21-Jun-2006	06:00	0	
21-Jun-2006	07:00	0	
21-Jun-2006	08:00	0	
21-Jun-2006	09:00	0	W
21-Jun-2006	10:00	1.8	W
21-Jun-2006	11:00	2.7	W
		3.6	W
21-Jun-2006	12:00	3.0	WNW
21-Jun-2006	13:00		
21-Jun-2006	14:00	3.6	WNW
21-Jun-2006	15:00	4.5	WNW
21-Jun-2006	16:00	3.1	W
21-Jun-2006	17:00	2.7	WNW
21-Jun-2006	18:00	1.3	NW
21-Jun-2006	19:00	1.3	WNW
21-Jun-2006	20:00	0.9	W
21-Jun-2006	21:00	0	W
21-Jun-2006	22:00	0.4	W
21-Jun-2006	23:00	0	
22-Jun-2006	00:00	0	SSW
22-Jun-2006	01:00	0	SSW
22-Jun-2006	02:00	0.4	SSW
22-Jun-2006	03:00	0.4	S
22-Jun-2006	04:00	0	S
22-Jun-2006	05:00	0	S
22-Jun-2006	06:00	0	
22-Jun-2006	07:00	0	
22-Jun-2006	08:00	0	
22-Jun-2006	09:00	0	
22-Jun-2006	10:00	0	WSW
22-Jun-2006	11:00	0.9	ESE
22-Jun-2006	12:00	1.3	E
22-Jun-2006	13:00	1.3	W
22-Jun-2006	14:00	1.8	E
22-Jun-2006	15:00	0.4	<u>_</u>
22-Jun-2006	16:00	0.4	
			<u>-</u>
22-Jun-2006	17:00	0.4	E
22-Jun-2006	18:00	0.9	NW
22-Jun-2006	19:00	0	NNE
22-Jun-2006	20:00	0	S
22-Jun-2006	21:00	0	
22-Jun-2006	22:00	0	
22-Jun-2006	23:00	0	<u></u>
23-Jun-2006	00:00	0	E
23-Jun-2006	01:00	0	
23-Jun-2006	02:00	0	
23-Jun-2006	03:00	0	
23-Jun-2006	04:00	0	
23-Jun-2006	05:00	0	
23-Jun-2006	06:00	0	
23-Jun-2006	07:00	0	
23-Jun-2006 23-Jun-2006	07:00 08:00	0	
23-Jun-2006	08:00	0	

Date	Time	Wind Speed m/s	Direction
23-Jun-2006	12:00	1.8	NNE
23-Jun-2006	13:00	3.1	NE
23-Jun-2006	14:00	3.6	NE
23-Jun-2006	15:00	3.1	NE
23-Jun-2006	16:00	2.7	ENE
23-Jun-2006	17:00	3.1	ENE
23-Jun-2006	18:00	2.7	ENE
23-Jun-2006	19:00	2.2	ENE
23-Jun-2006	20:00	1.8	E
23-Jun-2006	21:00	1.8	ENE
23-Jun-2006	22:00	1.3	ENE
23-Jun-2006	23:00	0.9	E
24-Jun-2006	00:00	0.4	<u>=</u> E
24-Jun-2006	01:00	0	<u>=</u> E
24-Jun-2006	02:00	0	<u> </u>
24-Jun-2006	03:00	0.4	ENE
24-Jun-2006	04:00	0.9	E
24-Jun-2006	05:00	0.0	ENE
24-Jun-2006	06:00	0.4	ENE
24-Jun-2006	07:00	0.4	ENE
24-Jun-2006	08:00	1.8	NE
24-Jun-2006	09:00	1.8	NE
24-Jun-2006	10:00	2.2	NE
24-Jun-2006	11:00	3.1	NNE
24-Jun-2006	12:00	3.6	N N
24-Jun-2006	13:00	3.6	NNE
24-Jun-2006	14:00	3.1	NNE
24-Jun-2006	15:00	3.1	NE
24-Jun-2006	16:00	2.7	NE NE
24-Jun-2006	17:00	2.7	ENE
24-Jun-2006	18:00	2.2	ENE
			ENE ENE
24-Jun-2006	19:00	3.1	
24-Jun-2006	20:00	3.1	<u>Е</u> Е
24-Jun-2006	21:00	1.8	E E
24-Jun-2006	22:00		
24-Jun-2006	23:00	1.3	ENE E
25-Jun-2006	00:00	1.3	
25-Jun-2006	01:00	0.9	E
25-Jun-2006	02:00	1.3	<u>E</u>
25-Jun-2006	03:00	0.4	<u> </u>
25-Jun-2006	04:00	0.4	<u> </u>
25-Jun-2006	05:00	0.4	<u> </u>
25-Jun-2006	06:00	0.4	<u> </u>
25-Jun-2006	07:00	0	E
25-Jun-2006	08:00	0.9	NNE
25-Jun-2006	09:00	1.3	NE
25-Jun-2006	10:00	1.8	NNE
25-Jun-2006	11:00	2.7	NNE
25-Jun-2006	12:00	2.2	ENE
25-Jun-2006	13:00	3.1	NE
25-Jun-2006	14:00	3.1	NE
25-Jun-2006	15:00	2.7	NE
25-Jun-2006	16:00	3.1	NE
25-Jun-2006	17:00	2.7	ENE

Date	Time	Wind Speed m/s	Direction
25-Jun-2006	18:00	2.2	ENE
25-Jun-2006	19:00	2.2	ENE
25-Jun-2006	20:00	1.8	ENE
25-Jun-2006	21:00	0.4	Е
25-Jun-2006	22:00	0.4	E
25-Jun-2006	23:00	0	ENE
26-Jun-2006	00:00	0	
26-Jun-2006	01:00	0	E
26-Jun-2006	02:00	0	E
26-Jun-2006	03:00	0	
26-Jun-2006	04:00	0	
26-Jun-2006	05:00	0	
26-Jun-2006	06:00	0	
26-Jun-2006	07:00	0	
26-Jun-2006	08:00	0	WSW
26-Jun-2006	09:00	0	W
26-Jun-2006	10:00	1.3	N
26-Jun-2006	11:00	2.2	N
26-Jun-2006	12:00	1.8	N
26-Jun-2006	13:00	2.7	N N
26-Jun-2006	14:00	1.8	N
26-Jun-2006	15:00	2.2	N N
26-Jun-2006	16:00	2.2	N
26-Jun-2006	17:00	1.3	WNW
26-Jun-2006	18:00	0.9	N
26-Jun-2006	19:00	0.9	WNW
26-Jun-2006	20:00	0.9	W
26-Jun-2006	21:00	0.4	SSW
26-Jun-2006	22:00	0	S
26-Jun-2006	23:00	0.4	<u>S</u>
27-Jun-2006	00:00	1.3	W
27-Jun-2006	01:00	1.3	W
27-Jun-2006	02:00	0.4	W
27-Jun-2006 27-Jun-2006	03:00	0.4	VV
27-Jun-2006 27-Jun-2006	03.00	0	WSW
27-Jun-2006 27-Jun-2006	05:00	0	
			SW
27-Jun-2006 27-Jun-2006	06:00	0	SSW
	07:00	0.9	SSW
27-Jun-2006 27-Jun-2006	08:00 09:00	0.4	W
			W
27-Jun-2006 27-Jun-2006	10:00	0.9 2.7	W
	11:00		
27-Jun-2006	12:00	3.1	WNW
27-Jun-2006	13:00	3.6	WNW
27-Jun-2006	14:00	3.1	WNW
27-Jun-2006	15:00	2.2	W
27-Jun-2006	16:00	3.1	WNW
27-Jun-2006	17:00	3.1	WNW
27-Jun-2006	18:00	3.6	WNW
27-Jun-2006	19:00	2.7	WNW
27-Jun-2006	20:00	1.8	W
27-Jun-2006	21:00	2.2	W
27-Jun-2006	22:00	2.2	W
27-Jun-2006	23:00	1.8	W

Date	Time	Wind Speed m/s	Direction
28-Jun-2006	00:00	2.7	WNW
28-Jun-2006	01:00	2.2	WNW
28-Jun-2006	02:00	3.1	WNW
28-Jun-2006	03:00	3.1	WNW
28-Jun-2006	04:00	3.1	WNW
28-Jun-2006	05:00	2.2	WNW
28-Jun-2006	06:00	1.8	WNW
28-Jun-2006	07:00	4	WNW
28-Jun-2006	08:00	4.9	WNW
28-Jun-2006	09:00	3.6	W
28-Jun-2006	10:00	1.8	N
28-Jun-2006	11:00	3.6	WNW
28-Jun-2006	12:00	2.2	E
28-Jun-2006	13:00	0.4	SSE
28-Jun-2006	14:00	1.3	S
28-Jun-2006	15:00	2.2	SSW
28-Jun-2006	16:00	2.2	N
28-Jun-2006	17:00	0.9	WNW
28-Jun-2006	18:00	2.2	W
28-Jun-2006	19:00	2.2	S
28-Jun-2006	20:00	1.3	SSW
28-Jun-2006	21:00	1.3	WSW
28-Jun-2006	22:00	1.3	WNW
28-Jun-2006	23:00	2.7	WNW
29-Jun-2006	00:00	2.2	WNW
29-Jun-2006	01:00	1.8	WNW
29-Jun-2006	02:00	1.3	WNW
29-Jun-2006	03:00	1.8	WNW
29-Jun-2006 29-Jun-2006	04:00	1.3	W
29-Jun-2006	05:00	2.7	W
	06:00		W
29-Jun-2006		2.7	NNE
29-Jun-2006	07:00	1.3	
29-Jun-2006	08:00	0.9	ENE
29-Jun-2006	09:00 10:00	0.4	ESE ESE
29-Jun-2006 29-Jun-2006			
	11:00	1.8	NW
29-Jun-2006	12:00	2.2	NW
29-Jun-2006	13:00	2.7	NW
29-Jun-2006	14:00	3.1	NW
29-Jun-2006	15:00	2.7	N NANAYA
29-Jun-2006	16:00	1.8	WNW
29-Jun-2006	17:00	2.7	NW
29-Jun-2006	18:00	1.8	N N
29-Jun-2006	19:00	1.3	N N
29-Jun-2006	20:00	1.3	W
29-Jun-2006	21:00	0.9	W
29-Jun-2006	22:00	1.3	WNW
29-Jun-2006	23:00	1.8	WNW
30-Jun-2006	00:00	1.8	W
30-Jun-2006	01:00	1.3	WNW
30-Jun-2006	02:00	2.2	WNW
30-Jun-2006	03:00	2.2	WNW
30-Jun-2006	04:00	1.3	ESE
30-Jun-2006	05:00	1.3	WNW

Date	Time	Wind Speed m/s	Direction
30-Jun-2006	06:00	0.9	SSW
30-Jun-2006	07:00	0.9	NW
30-Jun-2006	08:00	1.3	W
30-Jun-2006	09:00	1.8	WNW
30-Jun-2006	10:00	1.8	WNW
30-Jun-2006	11:00	3.1	W
30-Jun-2006	12:00	4	W
30-Jun-2006	13:00	3.6	W
30-Jun-2006	14:00	4.5	W
30-Jun-2006	15:00	4	W
30-Jun-2006	16:00	4	WNW
30-Jun-2006	17:00	3.6	WNW
30-Jun-2006	18:00	2.7	WNW
30-Jun-2006	19:00	1.8	NW
30-Jun-2006	20:00	1.8	W
30-Jun-2006	21:00	1.3	W
30-Jun-2006	22:00	1.3	N
30-Jun-2006	23:00	1.3	W

APPENDIX E 1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

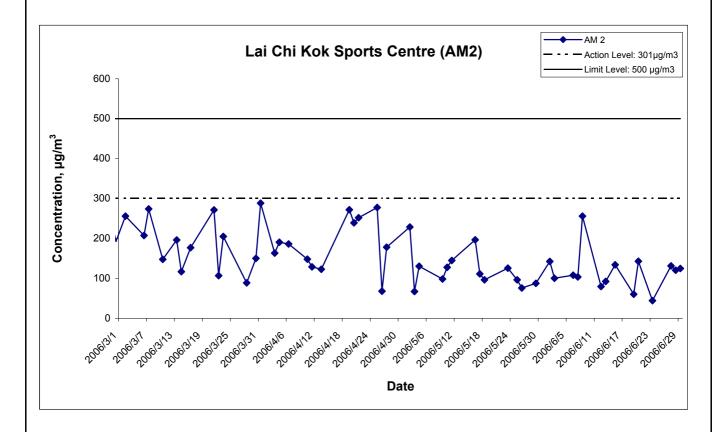
Appendix E - 1-hour TSP Monitoring Results

Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather	Filter We	eight (g)	Flow Rate	e (m³/min.)	Elaps	se Time	Air	Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m ³ /min)	(m ³)	Time(hrs.)	(µg/m ³)
1-Jun-06	Cloudy	2.8476	2.8580	1.22	1.22	4336.1	4337.1	299.0	758.5	0.0104	1.22	73.0	1.0	142.5
2-Jun-06	Rainly	2.8571	2.8644	1.21	1.21	4337.1	4338.1	301.0	758.1	0.0073	1.21	72.7	1.0	100.4
6-Jun-06	Cloudy	2.8403	2.8481	1.21	1.21	4362.1	4363.1	302.9	755.7	0.0078	1.21	72.3	1.0	107.8
7-Jun-06	Cloudy	2.8488	2.8563	1.21	1.21	4363.1	4364.1	302.3	755.4	0.0075	1.21	72.4	1.0	103.6
8-Jun-06	Cloudy	2.8571	2.8756	1.21	1.21	4364.1	4365.1	302.3	754.0	0.0185	1.21	72.3	1.0	255.8
12-Jun-06	Rainly	2.8513	2.8571	1.22	1.22	4389.1	4390.1	298.2	755.9	0.0058	1.22	72.9	1.0	79.5
13-Jun-06	Cloudy	2.8537	2.8604	1.21	1.21	4390.1	4391.1	302.0	756.8	0.0067	1.21	72.5	1.0	92.4
15-Jun-06	Cloudy	2.8236	2.8333	1.21	1.21	4391.1	4392.1	302.1	756.1	0.0097	1.21	72.5	1.0	133.9
19-Jun-06	Cloudy	2.8574	2.8618	1.22	1.22	4418.1	4419.1	299.3	759.7	0.0044	1.22	73.0	1.0	60.3
20-Jun-06	Cloudy	2.8545	2.8649	1.21	1.21	4419.1	4420.1	301.3	759.9	0.0104	1.21	72.8	1.0	143.0
23-Jun-06	Sunny	2.8683	2.8715	1.21	1.21	4444.1	4445.1	302.8	758.1	0.0032	1.21	72.5	1.0	44.2
27-Jun-06	Sunny	2.8506	2.8601	1.21	1.21	4445.1	4446.1	302.7	757.0	0.0095	1.21	72.4	1.0	131.2
28-Jun-06	Cloudy	2.8856	2.8943	1.21	1.21	4446.1	4447.1	303.1	755.9	0.0087	1.21	72.3	1.0	120.3
29-Jun-06	Cloudy	2.8628	2.8718	1.20	1.20	4471.1	4472.1	304.9	416.0	0.0090	1.20	72.1	1.0	124.8
		-					-			-			Min	44.2
													Max	255.8

117.1 Average

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 Pr

Project No. MA3024

Date Appendix
Jun 06 E



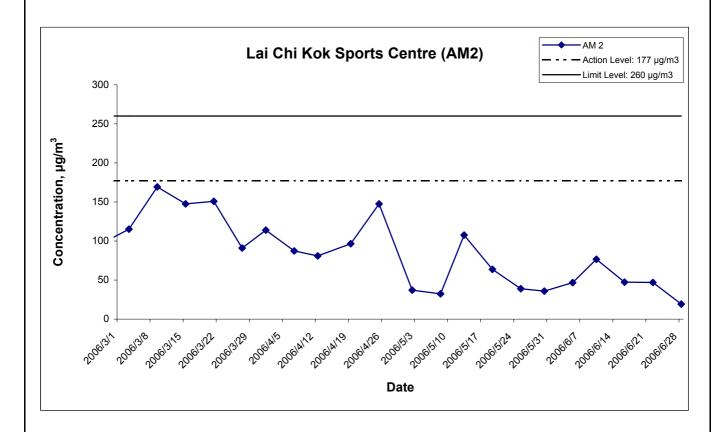
APPENDIX F 24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - 24-hour TSP Monitoring Results

Location AM 2 - Lai Chi Kok Sports Centre

Date	Weather	Filter W	eight (g)	Flow Rate	Flow Rate (m ³ /min.)		Elapse Time		Atmospheric	Particulate	Av. flow	Total vol.	Sampling	Conc.
	Condition	Initial	Final	Initial	Final	Initial	Final	Temp. (K)	Pressure(Pa)	weight(g)	(m ³ /min)	(m ³)	Time(hrs.)	$(\mu g/m^3)$
5-Jun-06	Cloudy	2.8660	2.9475	1.21	1.21	4338.1	4362.1	302.5	756.2	0.0815	1.21	1745.5	24.0	46.7
10-Jun-06	Cloudy	2.8304	2.9648	1.22	1.22	4365.1	4389.1	296.1	754.6	0.1344	1.22	1755.4	24.0	76.6
16-Jun-06	Cloudy	2.8514	2.9336	1.21	1.21	4394.1	4418.1	302.4	756.5	0.0822	1.21	1739.4	24.0	47.3
22-Jun-06	Sunny	2.8796	2.9614	1.21	1.21	4420.1	4444.1	301.9	758.1	0.0818	1.21	1742.8	24.0	46.9
28-Jun-06	Rainy	2.8746	2.9082	1.21	1.21	4447.1	4471.1	303.1	755.9	0.0336	1.21	1735.9	24.0	19.4
													Min	19.4
													Max	76.6
													Average	47.4

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 Project
No. MA3024

Appendix
Jun 06



APPENDIX G NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix G - Noise Monitoring Results

Location NM4 - Mei Foo Sun Chuen, Phase 5									
						Unit: dB (A) (30			
Date	Time	Weather	Measured Noise Level			Baseline Level	Construction Noise Level	Remarks	
			L _{eq}	L ₁₀	L 90	L _{eq}	L _{eq}		
1-Jun-06	15:20	Cloudy	75.8	78.0	71.5		71.5		
7-Jun-06	10:00	Cloudy	75.8	77.5	73.5		71.5	Road traffic noise from Ching	
14-Jun-06	14:48	Cloudy	75.0	76.5	72.5	73.8	68.8	Cheung Road was identified as the	
20-Jun-06	10:00	Fine	75.1	76.5	73.0		69.2	major noise source.	
30-Jun-06	11:15	Cloudy	76.5	77.5	73.5		73.2		

Location NM8a - M/F of Nob Hill									
Date	Time	Weather	Unit: dB (A) (30-min)			Remarks			
			L _{eq}	L ₁₀	L 90				
1-Jun-06	13:45	Cloudy	74.4	76.0	70.0				
7-Jun-06	10:43	Cloudy	73.1	77.0	70.0	Road traffic noise from Ching Cheung Road			
13-Jun-06	09:10	Cloudy	74.3	77.5	70.0	was identified as the major noise source.			
20-Jun-06	11:00	Fine	73.7	75.5	68.5	was identified as the major hoise source.			
30-Jun-06	09:45	Cloudy	73.9	75.5	71.5				

Location NM8b - 3/F of Nob Hill									
Date	Time	e Weather Unit: dB (A) (30-min		0-min)	Remarks				
			L _{eq}	L ₁₀	L 90				
1-Jun-06	14:30	Cloudy	78.7	81.5	74.0	This Station (NM8b) which is strongly			
7-Jun-06	11:25	Cloudy	76.6	78.5	74.0	influenced by road traffic noise from Ching			
13-Jun-06	09:55	Cloudy	77.3	79.5	73.5	Cheung Road. The measurement at this station			
20-Jun-06	13:00	Fine	75.4	78.0	70.5	is for reference purpose, but not for compliance			
30-Jun-06	10:30	Cloudy	76.2	77.5	73.0	check for construction noise.			

Location NM9 - Hoi Lai Estate								
Date	Time Weather Unit: dB (A) (0-min)	Remarks		
			L _{eq}	L ₁₀	L 90			
1-Jun-06	16:25	Cloudy	68.3	70.0	65.5			
7-Jun-06	09:00	Cloudy	66.7	68.5	63.5			
13-Jun-06	15:00	Cloudy	70.6	73.5	64.5	-		
20-Jun-06	13:50	Cloudy	71.8	73.5	68.0			
30-Jun-06	09:00	Cloudy	71.5	73.0	68.5			

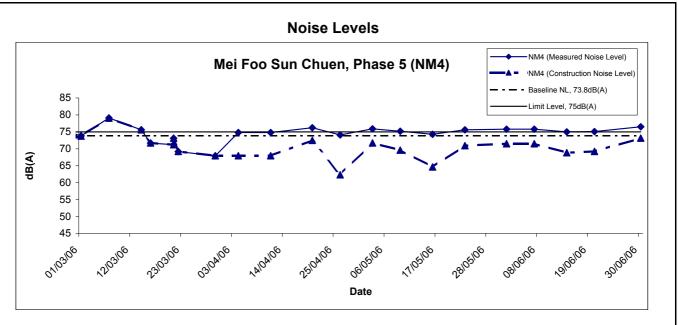
[#] Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

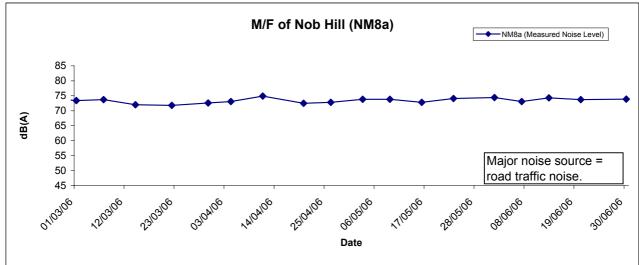
Appendix G - Noise Monitoring Results

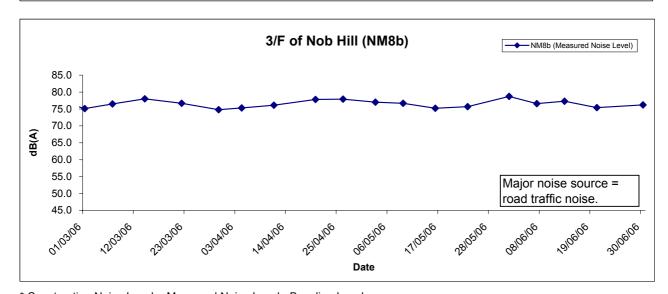
Restricted Hours - 19:00 to 23:00 on normal weekdays

Location NM9 - Hoi Lai Estate								
Data	Time	Moothor	dB (A) (5-min)					
Date	Time	Weather	L _{eq}	L ₁₀	L 90	Average L _{eq}		
	19:05		63.7	68.0	59.0			
6-Jun-06	19:10	Cloudy	63.8	68.0	59.5	63.9		
	19:15		64.1	68.5	60.0			
	19:00		64.7	68.5	60.0	64.6		
13-Jun-06	19:05	Cloudy	64.5	68.5	60.0			
	19:10		64.6	68.5	60.0			
	19:30		64.0	69.0	60.0			
20-Jun-06	19:35	Cloudy	64.5	69.5	61.0	64.4		
	19:40		64.7	69.5	61.0			
	19:00		63.5	67.5	59.0			
30-Jun-06	19:05	Fine	62.0	67.0	58.0	62.6		
	19:10		62.2	67.0	58.0			

[#] Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)







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

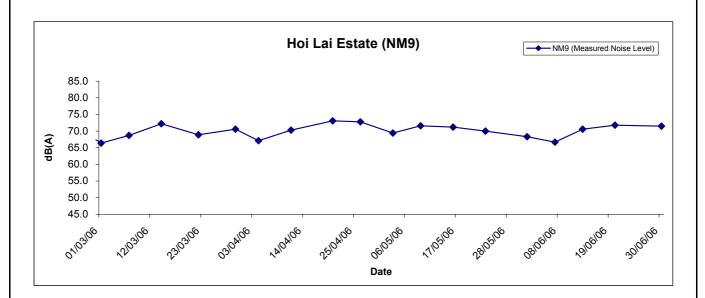
Title
Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin
Contract HY/2003/01 - Lai Chi Kok Viaduct

Graphical Presentation of Construction Noise Monitoring Results

Scale		Project		
	N.T.S	No. MA3024		
Date		Appendix		
	Jun 06	G		



Noise Levels



Title

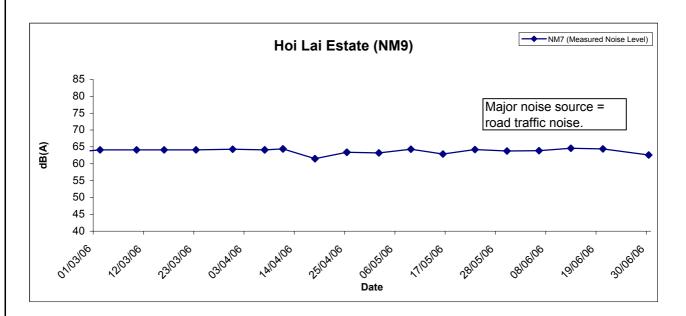
Route 8 (previously known as Route 9) between Cheung Sha Wan and Sha Tin Contract HY/2003/01 - Lai Chi Kok Viaduct

Graphical Presentation of Construction Noise Monitoring Results

Scale		Project		
	N.T.S	No.	MA3024	
Date		Append	dix	
	Jun 06		G	



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
 Project No.

 N.T.S
 MA3024

 Date Jun 06
 Appendix G



APPENDIX H SUMMARY OF EXCEEDANCE

Summary of Exceedances Recorded in the Reporting Month

- a) Exceedance Report for 1-hr TSP (NIL)
- b) Exceedance Report for 24-hr TSP (NIL)
- c) Exceedance Report for Construction Noise
 - Two Action Level exceedances were recorded due to noise complaints received on 9th June and 26th June 2006.
 - No noise Limit Level exceedance was recorded in the reporting monthly.

APPENDIX I SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary

Inspection Information	
Checklist Reference Number	60605-LCKV
Date	05 June 2006 (Mon)
Time	0930 – 1145

Ref. No.	Non-Compliance	Related Item No.
1-1-1	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	
60605L-1O	• The contractor was recommended to improve the position or the size of existing noise barrier at slope S4 for reducing the noise emitted to Mei Foo Sun Estate.	D8
	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	
60605L-2R	• The contractor was also reminded to take attention for the stagnant water after rainy to avoid mosquito breeding.	
	The environmental deficiency identified during last audit (ref. 60529-LCKV) May 2006, was rectified / improved by the Contractor.	

	Name	Signature	Date
Recorded by	Tommy Ho	7	5 June 2006
Checked by	Attle Hui	1-1200	5 June 2006

CINOTECH MA3024 60605_LCKV.doc

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60614-LCKV
Date	14 June 2006 (Wed)
Time	0930 – 1145

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

Ref. No.	Remarks/Observations	Related Item No.
60614E-01	 A. Water Quality Some yellow water accidentally discharged to the nullah was found at pier P17. Suitable drainage system or other measures should be provided to prevent it directly discharge nullah without treatment. 	B1,B7i
*	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 	
	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. 60605-LCKV) 5 June 2006, was rectified / improved by the Contractor. 	

	Name	Signature	Date
Recorded by	Tommy Ho	Tom	14 June 2006
Checked by	Attle Hui	Mille	14 June 2006

CINOTECH MA3024 60614_LCKV

Weekly Site Inspection Record Summary

Inspection Information

Inspection into mation	
Checklist Reference Number	60621-LCKV
Date	21 June 2006 (Wed)
Time	1330 – 1615

Ref. No.	Non-Compliance	Related Item No.
-	None identified	Letter suitch muture, merchant

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 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. 60614-LCKV) 14 June 2006, was rectified / improved by the Contractor.	

Name	Signature	Date
Tommy Ho	1/2	21 June 2006
•	Alphi	21 June 2006
	Name Tommy Ho Attle Hui	Tommy Ho

CINOTECH MA3024 60621_LCKV

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60628-LCKV	
Date	28 June 2006 (Wed)	
Time	1330 – 1600	- 10

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

Ref. No.	Remarks/Observations	Related Item No.
60628L-01 R	A. Water Quality The contractor was reminded that the exposed slope surface should be entirely covered by the existing tarpaulin at Pier 17L	B11
	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	
	No environmental deficiency was identified during the site inspection.	
	E. Permit/Licenses	
	No environmental deficiency was identified during the site inspection.	
	F. Others	
	No environmental deficiency was identified during last audit (ref. 60621-LCKV) 21 June 2006.	

Name	Signature	Date
Tommy Ho	To	28 June 2006
Attle Hui	attale	28 June 2006
	Tommy Ho	Tommy Ho

CINOTECH MA3024 60628_LCKV

APPENDIX J EVENT ACTION PLANS

Appendix J - Event Action Plans

Event/Action Plan for Air Quality

EVENT		ACTION			
EVENI	ET	IEC	ER	Contractor	
ACTION LEVEL					
1. Exceedance for one	1. Identify source	1. Check monitoring data submitted by ET	1. Notify Contractor	Rectify any unacceptable practice	
sample	2. Inform ER & IEC	2. Check Contractor's working methods	2. Check monitoring data and Contractor's	2. Amend working methods if	
	3. Repeat measurement to confirm finding		working methods	appropriate	
	4. Increase monitoring frequency to daily				
2. Exceedance for two or	1. Identify source	1. Checking monitoring data submitted by	1. Confirm receipt of notification of failure	Submit proposals for remedial	
more consecutive samples	2. Inform ER & IEC	ET	in writing	actions to ER within 3 working days	
	3. Repeat measurement to confirm findings	2. Check Contractor's working methods	2. Notify Contractor	of notification	
	4. Increase monitoring frequency to daily	3. Discuss with ET and Contractor on	3. Check Contractor's working methods	2. Implement the agreed proposals	
	5. Discuss with ER & for remedial actions	possible remedial measure	4. Discuss with ET, IEC and Contractor on	3. Amend proposal if appropriate	
	required	4. Advise the ER & ET on the effectiveness	proposed remedial actions		
	6. If exceedance continues, arrange	of the proposed remedial measures	5. Ensure remedial actions properly		
	meeting with ER & IEC	5. Supervise the implementation of the	implemented		
	7. If exceedance stops, cease additional	remedial measures			
	monitoring				
LIMIT LEVEL					
1. Exceedance for one	1. Identify source	1. Checking monitoring data submitted by	1. Confirm receipt of notification of failure	1. Take immediate action to avoid	
sample	2. Inform ER & IEC and EPD	ET	in writing	further exceedance	
	3. Repeat measurement to confirm finding	2. Check Contractor's working methods	2. Notify Contractor	2. Submit proposals for remedial	
	4. Increase monitoring frequency to daily	3. Discuss with ET and Contractor on	3. Check Contractor's working methods	actions to ER within 3 working days	
	5. Assess effectiveness of Contractor's	possible remedial measure	4. Discuss with ET, IEC and Contractor on	of notification	

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

Event/Action Plan for Construction Noise

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

Exceedance	ACTION				
Exceedance	ET	IEC	ER	Contractor	
Limit Level	1. Repeat measurement to confirm findings	1. Check monitoring data submitted by ET	1. Confirm receipt of notification of	1. Take immediate action to avoid	
			exceedance and notify Contractor	further exceedance	
	2. Investigate the cause of the exceedance	2. Review Contractor's remedial actions to	2. Check monitoring data trends and	2. Submit proposals for remedial	
	and identify the main source(s) of impact	assure their effectiveness and advise the	Contractor's working methods	actions to ER immediately not more	
		ER &ET accordingly		than 3 working days of notification	
	3. Inform ER&IEC and EPD in writing	3. Supervise the implementation of the	3. Discuss with ET, IEC and Contractor on	3. Amend proposals if required by	
		remedial measures	proposed remedial actions to be	the ER	
			implemented		
	4. Discuss remedial actions required with		4. Assess the efficacy of remedial actions	4. Implement remedial actions	
	ER&IEC		and keep the Contractor informed	immediately upon instruction	
	5. Increase monitoring frequency to		5. If exceedance continuous, consider what	5. Liaise with the ER to optimize the	
	demonstrate efficacy of remedial measures		portion of the work is responsible and	effectiveness of the agreed	
			instruct the Contractor to stop that portion	mitigation	
			of work until the exceedance is aborted		
	6. Assess efficacy of remedial actions and			6. Resubmit proposals if problem	
	keep ER & IEC informed of the results			still not under control	
	7. If exceedance continues, meet with			7. Stop the relevant portion of works	
	ER&IEC to identify appropriate mitigation			as determined by the ER until the	
	measures			exceedance is aborted	
	8. If exceedance stops, cease additional				
	monitoring				

APPENDIX K ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Appendix K - Summary of Environmental Mitigation Implementation Schedule

Types of Impacts	Mitigation Measures	Status
	 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. 	۸
	 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.	۸
	• 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.	^
Construction Dust	 Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet. 	۸
Dust	• 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.	۸
	• 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.	^
	Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works.	٨
	 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.	^
Construction	Mobile plant should be sited as far away from NSRs as possible.	^
Noise	 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.	٨
	 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 	۸
	• 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.	٨
	 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. 	۸
	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
<u>-</u>	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.	٨
	• 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	l .
	Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage.	٨
	• Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits.	٨
	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. 	٨
	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.	٨
	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. 	N/A
	• 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.	^
	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. 	٨
	 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
•	 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. 	N/A
Fallana	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.	^
Ecology	 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 	N/A
	• Fences shall be erected along the boundary of the construction sites at the Toll Plaza before commencement of works, to prevent tipping, vehicle movements, and encroachment of personnel onto adjacent wooded areas.	N/A
	• Landscape 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 and Visual Impact	• 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; Not Applicable; \wedge N/A

X

Non-compliance of mitigation measure; Non-compliance but rectified by the contractor •

APPENDIX L CONSTRUCTION PROGRAMME

4 -41 -74 -	Antivity	Orig.	Early	Early	Late	Late		NEWL				2006						
Activity	Activity Description	Durn.	Start	Finish	Start	Finish		MAR		APR		1 8	MAY		20		JUN	1 2
ID		Duiti.	Otart	I milon	Otare	Tillion	13	20 27	3 1	0 1	7 24	1 8	15	22	29	3	12 19	-
relimina	ries & General Requirments					The same of the sa												
Portion Ac	cess Dates																	
PD1140	Access to Portion F1	0	17APR06*		17APR06*						PD1140	1 3						
PD1150	Access to Portion F2	0	17APR06*		17APR06*					→ F	PD1150							
PD1160	Anticipated Access to Portion F3	0	20MAR06*		08DEC05*			PD1160										-
Design of 1	Temporary Works																	
TW1280	Design of Temp Works for Retaining Wall CCR-R4	36	20MAR06	02MAY06	13APR06	25MAY06		1	7			TWI						
TW1370	Design of Temp Works for Feature 11NW-A/C66	36	20MAR06	02MAY06	27APR06	08JUN06			7			TW1	and the same					
TW1380	Design of Temp Works for Feature 11NW-A/FR54&55	36	20MAR06	02MAY06	06JUN05	19JUL05	1					TW1						1
TW1440	Design of Temporary Works for Pumping Stations	36	20MAR06	02MAY06	21FEB06	04APR06			1	-	- 1	TW1	140					
TW1450	Design of T/Works for Erection of Noise Encl'res	36	20MAR06	02MAY06	28SEP05	10NOV05						TW1						
TW1460	Design of T/Works for Erection of Noise Barriers	36	20MAR06	02MAY06	09JUN06	22JUL06			7			TW1	160					
Monitoring	& Instrumentation - New Works																	
M3010	Install Instrumentation @ Cut Slope CCR-S1	12	20MAR06	01APR06	16MAY08	29MAY08			IM3010									
M3015	Monitoring @ Cut Slope CCR-S1	387*	20MAR06	03JUL07	16MAY08	15MAY08			H			7					7.	
M3020	Install Instrumentation @ Cut Slope CCR-S2	12	18APR06	02MAY06	16MAY08	29MAY08						- IM30	20					
M3025	Monitoring @ Cut Slope CCR-S2	363*	18APR06	03JUL07	16MAY08	15MAY08			IIVI	3025		Ĭ-					H.	
M3030	Install Instrumentation @ Cut Slope CCR-S3	12	20MAR06	01APR06	16MAY08	29MAY08			IM3030									
IM3035	Monitoring @ Cut Slope CCR-S3	387*	20MAR06	03JUL07	16MAY08	15MAY08			7		-	Ĭ ;		7/1		-	- , 7	
IM3050	Install Instrumentation @ Cut Slope CCR-S5	12	20MAR06	01APR06	16MAY08	29MAY08			IM3050	i								
IM3055	Monitoring @ Cut Slope CCR-S5	387*	20MAR06	03JUL07	16MAY08	15MAY08			H			4						
IM3060	Install Instrumentation @ Cut Slope CCR-S6	12	20MAR06	01APR06	16MAY08	29MAY08			IM3060									
IM3065	Monitoring @ Cut Slope CCR-S6	387*	20MAR06	03JUL07	16MAY08	15MAY08			H-			7					X	
IM3080	Install Instrumentation @ Slope 11NW-A/C26	12	20MAR06	01APR06	16MAY08	29MAY08			EM3080									
IM3085	Monitoring @ Slope 11NW-A/C26	387*	20MAR06	03JUL07	16MAY08	15MAY08			4			× i					7	
IM3130	Install Instrumentation @ Piers P1 to P6	12	20MAR06	01APR06	16MAY08	29MAY08			IM3130									
IM3135	Monitoring @ Piers P1 to P6	387*	20MAR06	03JUL07	16MAY08	15MAY08			7			7					- K	
IM3140	Install Instrumentation @ Piers P7 to P10	12	20MAR06	01APR06	16MAY08	29MAY08			IM3140									
IM3145	Monitoring @ Piers P7 to P10	387*	20MAR06	03JUL07	16MAY08	15MAY08			ř			ř					, X	
IM3150	Install Instrumentation @ Piers P11 to P15	12	20MAR06	01APR06	16MAY08	29MAY08			IM3150									
IM3155	Monitoring @ Piers P11 to P15	387*	20MAR06	03JUL07	16MAY08	15MAY08			ř.			×					, ř	
IM3160	Install Instrumentation @ Piers P16 to P18	12	20MAR06	01APR06	16MAY08	29MAY08			IM3160									
IM3165	Monitoring @ Piers P16 to P18	387*	20MAR06	03JUL07	16MAY08	15MAY08			4	-		K					, K	
art Date nish Date ata Date	23SEP03 P3 Fi 29MAY08 20MAR06		Rout 3 Mo	partment C e 8 - Lai C onth Rollin from 20 M	hi Kok Via ng Progran			et 1 of 21	1	1	710	ac	C	ic				

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Activity	Activity	Orig.	Early	Early	Late	Late		VIAR		APR		2006	MAY		T	JU	N
ID	Description	Durn.	Start	Finish	Start	Finish	13		3	10 17	24	1 8	15	22 2	9 5		19
M3170	Install Instrumentation @ Piers P19 to Abut. M	12	20MAR06	01APR06	16MAY08	29MAY08			IM317								
M3175	Monitoring @ Piers P19 to Abut. M	387*	20MAR06	03JUL07	16MAY08	15MAY08			т_			H-		7			
M3180	Install Instrumentation @ Piers on Slip Road A	12	20MAR06	01APR06	16MAY08	29MAY08			IM318	0							
IM3185	Monitoring @ Piers on Slip Road A	387*	20MAR06	03JUL07	16MAY08	15MAY08			-7-			H		1			7
IM3190	Install Instrumentation @ Piers on Slip Road B	12	20MAR06	01APR06	16MAY08	29MAY08			IM319	0							
IM3195	Monitoring @ Piers on Slip Road B	387*	20MAR06	03JUL07	16MAY08	15MAY08			-4-			H					×
IM3200	Install Instrumentation @ Piers on Slip Road C	12	20MAR06	01APR06	16MAY08	29MAY08			M320	0							
IM3205	Monitoring @ Piers on Slip Road C	387*	20MAR06	03JUL07	16MAY08	15MAY08			14			4					ň
IM3210	Install Instrumentation @ Piers on Slip Road D	12	20MAR06	01APR06	16MAY08	29MAY08			M321	0							
IM3215	Monitoring @ Piers on Slip Road D	387*	20MAR06	03JUL07	16MAY08	15MAY08			-			7					74
SIMILARE VICE.	The second Columns													1 1			
Temporary TT1245	30th. TMLG Meeting	1	17APR06	17APR06	05MAR05	05MAR05				III	1245						
TT1245	31st. TMLG Meeting	1	22MAY06	22MAY06	04FEB06	04FEB06								BTT12	50		
A TALL DESCRIPTION	32nd. TMLG Meeting	1	19JUN06	19JUN06	11MAR06	11MAR06											BTT1
TT1255		THE RES		THE PARTY OF					11								
Procuren																	
Segmental	I Deck Casting (Type A Units)	00	09MAR06A	30MAR06	09MAR06A	04FEB06		i	SD2720		F						
SD2720	P20/L (North)-Down - Cast 13 seg Type A	22		The State of the S	12MAR06A	11JAN06		SD272									
SD2720A	P20/L (North)-Up - Cast first 6 seg Type A	9	12MAR06A	21MAR06	03MAR06A	28JAN06		SD2									
SD2715	P20/R (South)-Down - Cast 12 seg Type A	20	03MAR06A	23MAR06		04FEB06		002	, 19	SD271	0						
SD2710	P20/R (South)-Up - Cast 12 seg Type A	19	22MAR06	11APR06	12JAN06	(2000 (2000 (2000))	-			SD2720B							
SD2720B	P20/L (North)-Up - Cast last 7 seg Type A	14	24MAR06	08APR06	06FEB06	20FEB06				0.100	2740	٨					
SD2740A	P21/R (South)-Up - Cast 9 seg Type A	16	31MAR06	17APR06	06FEB06	22FEB06	-			31		D2740					
SD2740	P21/R (South)-Down - Cast 9 seg Type A	16	09APR06	26APR06	01MAR06	17MAR06						SD2730	Δ.				
SD2730A	P21/L (North)-Up - Cast 8 seg Type A	15	12APR06	28APR06	23FEB06	11MAR06					T	SUZISI					
SD2730	P21/L (North)-Down - Cast 8 seg Type A	15	18APR06	05MAY06	23FEB06	11MAR06							SD275	0			
SD2750	Abutment M/L (South) - Cast 5 seg Type A	12	27APR06	10MAY06	22MAR06	04APR06							SD2760				
SD2760	Abutment M/R (North) - Cast 4 seg Type A	9	29APR06	09MAY06	25MAR06	04APR06							302700	,			-
Segmenta	al Deck Casting (Type B Units)																
SD3490A	P20 Slip C-Down - Cast 13 Segments Type B	20	04MAR06A	28MAR06	04MAR06A	22NOV05			SD3490/								
SD3480	P20 Slip D-Up - Cast 12 Segments Type B	19	03MAR06A	20MAR06	03MAR06A	19JAN06		SD348	1								
SD3480A	P20 Slip D-Down - Cast 12 Segments Type B	19	06MAR06A	25MAR06	06MAR06A	11NOV05			3480A								
	PA/L (North) - Cast 8 seg Type B	16	03MAR06A	20MAR06	03MAR06A	25OCT05		SD329	0								
SD3290			21MAR06	11APR06	20JAN06	14FEB06				SD349	00			1			

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Highways Department Contract No. HY/2003/01 Route 8 - Lai Chi Kok Viaduct 3 Month Rolling Programme from 20 March 2006 acciona

Activity	Activity	Orig.	Early	Early	Late	Late	MAR	APR	2006 MAY			JUN
ID	Description	Durn.	Start	Finish	Start	Finish	13 20 27 3			22 29	5	12 19
SD3380	D7-Up - Cast 12 segments Type B	19	21MAR06	10APR06	26OCT05	16NOV05		SD3380				
SD3380A	D7-Down - Cast 9 segments Type B	16	27MAR06	12APR06	12NOV05	29NOV05	-	SD3380A				
SD3370	D8-Up - Cast 12 Segments Type B	19	29MAR06	18APR06	23NOV05	14DEC05		SD3370				
SD3370A	D8-Down - Cast 12 Segments Type B	19	11APR06	03MAY06	17NOV05	07DEC05			ISD3370A			
SD3500	P21 Slip C-Down - Cast 8 Segments Type B	15	11APR06	27APR06	07MAR06	22MAR06		SD3	500			
SD3510	P21 Slip D-Down - Cast 8 Segments Type B	15	13APR06	29APR06	06MAR06	21MAR06		SI	03510			
Precast Par	rapet Panel Casting											
PP2000	Casting Type I & VII Parapet Units 1 - 150	55	20OCT05A	06APR06	20OCT05A	19OCT05		PP2000				
PP2010	Casting Type I & VII Parapet Units 151 - 350	35	07APR06	18MAY06	01NOV05	10DEC05			PF	2010		
PP2020	Casting Type I & VII Parapet Units 351 - 550	35	19MAY06	29JUN06	23DEC05	07FEB06			PP2020			*
PP2110	Casting Type II Parapet Units 266 - 515	55	11FEB06A	13APR06	11FEB06A	16NOV05		PP2110				
PP2120	Casting Type II Parapet Units 516 - 765	45	14APR06	06JUN06	17NOV05	10JAN06					PP	2120
PP2130	Casting Type II Parapet Units 766 - 1099	60	07JUN06	18AUG06	11JAN06	24MAR06				PP:	2130	<u> </u>
PP2200	Casting Type IIII Parapet Units 1 - 22	22	20MAR06	14APR06	23SEP05	20OCT05		PP2200				
PP2300	Casting Type IV Parapet Units 1 - 227	80	200CT05A	10JUN06	200CT05A	15OCT05						PP2300
PP2310	Casting Type IV Parapet Units 228 - 455	75	12JUN06	09SEP06	17OCT05	13JAN06					PP2310	X
PP2400	Casting Type V & VI Parapet Units 1 - 260	65	210CT05A	04MAY06	210CT05A	13OCT05			PP2400			
PP2410	Casting Type V & VI Parapet Units 2611 - 520	65	05MAY06	21JUL06	14OCT05	29DEC05		PP241	0			<u> </u>
PP2420	Casting Type V & VI Parapet Units 521 - 780	65	19MAY06	05AUG06	28OCT05	13JAN06			PP2420			X
Noise Barri	iers & Enclosures											
NB1020	Noise Encl' - Slip Rd A - Eng. Review & Approval	28	20MAR06	16APR06	24OCT05	20NOV05		NB1020				
NB1030	Noise Encl' - Slip Rd A - Materials Purchasing	23	28FEB06A	21MAR06	28FEB06A	28SEP05	NB1030					
NB1040	Noise Encl' - Slip Rd A - Off-site Fabrication	64	22MAR06	06JUN06	29SEP05	14DEC05		4			NB	1040
NB1050	Noise Encl' - Slip Rd A - Delivery to Site	45	26APR06	17JUN06	04NOV05	27DEC05				4		NB10
NB1070	Erection of Noise barrier Mock Up Sample	18	04MAY06	24MAY06	14NOV05	03DEC05				NB10	70	
NB1110	Noise Encl' - Slip Rd B - Eng. Review & Approval	28	20MAR06	16APR06	26NOV05	23DEC05		NB1110				
NB1120	Noise Encl' - Slip Rd B - Materials Purchasing	26	20MAR06	21MAR06	29SEP05	30SEP05	NB1120					
NB1130	Noise Encl' - Slip Rd B - Off-site Fabrication	70	22MAR06	13JUN06	03OCT05	23DEC05						NB1130
NB1140	Noise Encl' - Slip Rd B - Delivery to Site	65	27APR06	14JUL06	08NOV05	24JAN06		NB1140				-
NB1200	Noise Encl' - P8 to P11 - Design & Shop Drawings	74	10SEP05A	19MAY06	10SEP05A	08NOV05			N	B1200		
NB1210	Noise Encl' - P8 to P11 - Eng. Review & Approval	28	20MAY06	16JUN06	09NOV05	06DEC05						NB121
NB1220	Noise Encl' - P8 to P11 - Materials Purchasing	30	28FEB06A	20APR06	28FEB06A	27SEP05		NB1220				
NB1230	Noise Encl' - P8 to P11 - Off-site Fabrication	78	21APR06	24JUL06	28SEP05	30DEC05		NB1230			4	- X

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Activity	Activity	Orig.	Early	Early	Late	Late		MAR	APR		20	MAY	,		JU	INI
ID	Description	Durn.	Start	Finish	Start	Finish		20 27 3	10 1		1	8 15		29	5 12	
B1240	Noise Encl' - P8 to P11 - Delivery to Site	41	13JUN06	02AUG06	21NOV05	09JAN06								NE	B1240	
IB1300	Noise Encl' - ENT Approach - Design & Shop Dwgs.	23	07JUL05A	24MAR06	07JUL05A	15NOV05		NB1300								
IB1310	Noise Encl' - ENT Approach - Eng. Review & Appro	28	25MAR06	21APR06	16NOV05	13DEC05				NB1	1310					
NB1320	Noise Encl' - ENT Approach - Material Purchasing	27	28FEB06A	10MAY06	28FEB06A	29OCT05					-	NB132	20			
IB1330	Noise Encl' - ENT Approach - Off-site Fabricat'n	57	11MAY06	18JUL06	31OCT05	06JAN06					NB1	330	_	-	- y	-1
IB1340	Noise Encl' - ENT Approach - Delivery to Site	41	15JUN06	04AUG06	05DEC05	23JAN06								1	NB1340	
IB2000	Noise Barriers - PA to P4 - Design & Shop Dwgs.	147	19AUG05A	29MAR06	19AUG05A	24JUN06		NB200)							
IB2010	Noise Barriers - PA to P4 - Eng. Review & Appro'	28	30MAR06	26APR06	25JUN06	22JUL06					NB2010)				
NB2020	Noise Barriers - PA to P4 - Materials Purchasing	39	28FEB06A	20APR06	28FEB06A	22MAR06				NB2	020					
NB2030	Noise Barriers - PA to P4 - Off-site Fabrication	120	21APR06	12SEP06	23MAR06	15AUG06			NB203	0	-					×
NB2100	Noise Barriers - P5 to P8 - Design & Shop Dwgs.	147	05SEP05A	22MAR06	05SEP05A	11JUL06		NB2100								
VB2110	Noise Barriers - P5 to P8 - Eng. Review & Appro'	47	23MAR06	08MAY06	12JUL06	27AUG06						NB2110				
NB2120	Noise Barriers - P5 to P8 - Materials Purchasing	40	28FEB06A	20APR06	28FEB06A	11MAY06				NB2	120					
IB2130	Noise Barriers - P5 to P8 - Off-site Fabrication	110	21APR06	31AUG06	12MAY06	20SEP06			NB213	0	¥		-			- L
NB2200	Noise Barriers - P11 to P13 - Design & Shop Dwgs	82	20JUL05A	29APR06	20JUL05A	12JUN06					NB2	200				
NB2210	Noise Barriers - P11 to P13 -Eng Review & Approv	28	30APR06	27MAY06	13JUN06	10JUL06								NB221	10	
NB2220	Noise Barriers - P11 to P13 - Materials Purchase	28	28FEB06A	10MAY06	28FEB06A	21JUN06					-	NB222	20			
NB2230	Noise Barriers - P11 to P13 - Off-site Fabric'n	35	11MAY06	21JUN06	22JUN06	03AUG06					NB2	230				7
VB2300	Noise Barriers - ENT Approach -Des'n & Shop Dwgs	82	24AUG05A	12APR06	24AUG05A	03JUL06		-	NB2	300						
NB2310	Noise Barriers - ENT Approach -Eng Rev & Approv	28	13APR06	10MAY06	04JUL06	31JUL06						NB231	10			
NB2320	Noise Barriers - ENT Approach -Material Purchase	65	28FEB06A	30MAY06	28FEB06A	27JUN06					<u> </u>			NB2	2320	
NB2330	Noise Barriers - ENT Approach -Off-site Fabric'n	48	31MAY06	27JUL06	28JUN06	24AUG06							NB23	330		H
NB2400	Noise Barriers - Slip Rd. C - Design & Shop Dwgs	10	20MAR06	30MAR06	20MAY06	31MAY06		NB240	0							
NB2410	Noise Barriers - Slip Rd. C - Eng Rev & Approv	28	31MAR06	27APR06	01JUN06	28JUN06					NB241	0				
NB2420	Noise Barriers - Slip Rd. C - Material Purchase	29	28FEB06A	20APR06	28FEB06A	06JUN06				NB2	420					
NB2430	Noise Barriers - Slip Rd.C - Off-site Fabricat'n	38	21APR06	05JUN06	07JUN06	22JUL06			1		-				NB2430)
NB2440	Noise Barriers - Slip Rd. C - Delivery to Site	17	25MAY06	13JUN06	20JUL06	09AUG06									N	IB244
NB2500	Noise Barriers - Slip Rd. D - Design & Shop Dwgs	82	11JUL05A	22MAR06	11JUL05A	10MAY06		NB2500								
NB2510	Noise Barriers - Slip Rd. D - Eng Rev & Approv	125	23MAR06	25JUL06	11MAY06	12SEP06										
NB2520	Noise Barriers - Slip Rd. D - Material Purchase	90	28FEB06A	20MAY06	28FEB06A	21AUG06							NB2	520		
32/2	TOTO SELECTOR OF THE STATE OF						4									
Bearings BE1040	Shipping of Bearings to Site	72	12JAN05A	12APR06	12JAN05A	31MAR05			BE10	040						

23SEP03 29MAY08 20MAR06

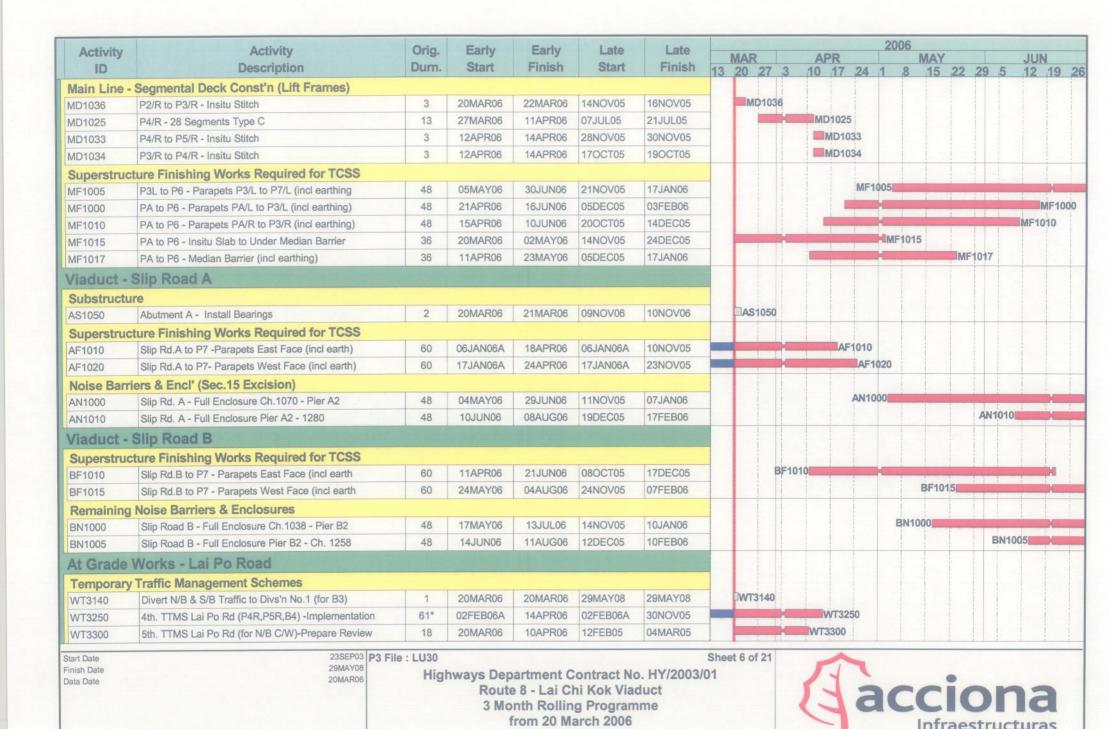
23SEP03 P3 File : LU30

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Activity	Activity	Orig.	Early	Early	Late	Late		BAAD			DE		200		,			11.15.1	
ID	Description	Durn.	Start	Finish	Start	Finish	13	MAR 20	27 3		PR 17	24	1 1	MAY 8 15	22	29		JUN 12 1	9
Movement							10			10				10					_
MJ1005	Engineer's approval of Proprietary Type of M.J	0	20MAR06		04FEB06			♦ MJ10	005										
MJ1010	Detailed Design & Shop Drawings	75	20MAR06	16JUN06	04FEB06	04MAY06			-						1			M	1101
MJ1020	Review & Approval of Design & Shop Drawings	24	17JUN06	17JUL06	05MAY06	01JUN06											MJ1	020	
Signage																			
SG1010	Sign Gantries - Detailed Design & Shop Drawings	50	17NOV05A	10APR06	17NOV05A	06SEP05				SG	1010								
SG1020	Sign Gantries - Review/Appro of Design & S/Dwgs.	24	11APR06	09MAY06	07SEP05	06OCT05					100			SG1020)				
SG1030	Sign Gantries - Off-Site Fabrication of Gantries	75	10MAY06	08AUG06	07OCT05	05JAN06						S	G103	0					
SG1050	Sign Gantries - FADS7 - Design, Fab'n & Delivery	48	200CT05A	17APR06	200CT05A	22MAY08					SG	1050							
SG2010	Signage - Shop Drawings	50	20OCT05A	19APR06	20OCT05A	13AUG05				-	S	G2010							
SG2020	Signage - Review & Approval of Shop Drawings.	24	20APR06	18MAY06	15AUG05	10SEP05								5	G2020)			
SG2030	Signage - Off-Site Fabrication of Signs	50	19MAY06	18JUL06	12SEP05	11NOV05							1	SG2030					
High Mast																			
HM1000	High Mast Lighting - Foundation Design	48	210CT05A	16MAY06	210CT05A	08SEP05								Н	W1000				
HM1010	High Mast Lighting - Approval of Found'n Design	24	17MAY06	13JUN06	18NOV05	15DEC05												■нм10	010
HM1100	High Mast Lighting - Mast Design & Shop Drawings	48	20MAR06	16MAY06	15JUL05	08SEP05								Н	W1100				
HM1110	High Mast Lighting - Approval of Mast Design	56	17MAY06	11JUL06	09SEP05	03NOV05							HI	M1110					
	Main Line - Piers PA to P6	WHITE SERVICE	Establish Control		THE REAL PROPERTY.	THE PARTY													
Substructi																			
MS0100	PA/L - Install Bearings	3	13APR06	15APR06	26NOV05	29NOV05					MS01	100							
MS0110	PA/R - Install Bearings	6	20MAR06	25MAR06	09MAR05	15MAR05		N	150110										
MS1116	P1/R - Remove Temp. Props for Up Span - Towers	4	07APR06	11APR06	26JAN05	29JAN05				MS	51116	i							
MS1117	P1/R - Remove Temp. Props for Up Span - Founds	4	12APR06	15APR06	31JAN05	03FEB05					MS11	17							
MS1118	P1/R - Remove Temp. Props for Down Span - Tower		14APR06	18APR06	26MAR05	30MAR05					MS	1118							
MS1119	P1/R - Remove Temp. Props for Down Span - Found		19APR06	22APR06	31MAR05	04APR05						MS111	9						
Main Line																			
MD1130	PA/L - 9 Segments Type B on Scaffold	6	11APR06	17APR06	24NOV05	30NOV05					MD	1130							
MD1135	PA/L to P1/L - Insitu Stitch	3	18APR06	20APR06	01DEC05	03DEC05					- N	ID1135							
MD1020	P4/R - 1st. Pair - 2 Segments Type C	6	20MAR06	25MAR06	29JUN05	06JUL05		L N	ID1020										
MD1020	P1/R - 30 Segments Type C	15	16MAR06A	01APR06	16MAR06A	21JAN05			MD	1055									
MD1060	PA/R - 9 Segments Type C on Scaffold	6	04APR06	10APR06	16MAR05	22MAR05				MD	1060								
MD1065	P1/R to P2/R - Institu Stitch	3	04APR06	06APR06	22JAN05	25JAN05				MD106	35								
MD1063	PA/R to P1/R - Insitu Stitch	3	11APR06	13APR06	23MAR05	25MAR05					ID106	2							
		3 File : LU30	111111111111111111111111111111111111111	107 11 100	3011111100	2011011100	Short	et 5 of	21	1									
tart Date inish Date ata Date	29MAY08 20MAR06		Route 3 Mo	e 8 - Lai C	Contract No hi Kok Viad g Program arch 2006	duct		, J 01		1	H	a		C			nucti		

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Activity	Activity	Orig.	Early	Early	Late	Late	2006
ID	Description	Durn.	Start	Finish	Start	Finish	MAR APR MAY JUN 13 20 27 3 10 17 24 1 8 15 22 29 5 12 1
VT3310	5th. TTMS Lai Po Rd (for N/B C/W) -CRE Endorsm't	6	18APR06	24APR06	07MAR05	12MAR05	13 20 27 3 10 17 24 1 8 15 22 29 3 12 WT3310
VT3320	5th. TTMS Lai Po Rd (for N/B C/W) -Roadwk Advice	6	25APR06	02MAY06	14MAR05	19MAR05	WT3320
VT3330	5th. TTMS Lai Po Rd (for N/B C/W) - Site Prepare	24	27MAY06	24JUN06	21MAR05	18APR05	WT3330
VT3400	6th. TTMS Lai Po Rd (for S/B C/W)-Prepare Review	18	20MAR06	10APR06	12FEB05	04MAR05	WT3400
VT3410	6th. TTMS Lai Po Rd (for S/B C/W) - CRE Endors't	6	18APR06	24APR06	28JUL05	03AUG05	WT3410
VT3420	6th. TTMS Lai Po Rd (for S/B C/W) -Roadwk Advice	6	25APR06	02MAY06	04AUG05	10AUG05	■ WT3420
	Wall LCK-R2						
VW2020	Ret. Wall LCK-R2 - Walls	60	17APR06	27JUN06	04FEB05	19APR05	WW2020
ALT MANAGEMENT	d (D3) Roadworks - Stage 1						
VR1210	Lai Po Rd N/B Ch.1+250 - 1+360 - Formation	18	20MAR06	10APR06	03FEB05	26FEB05	WR1210
VR1230	Lai Po Rd N/B Ch.1+250 - 1+360 - Sub-base	12	04APR06	17APR06	21FEB05	05MAR05	WR1230
VR1240	Lai Po Rd N/B Ch.1+250 - 1+360 - Kerbs	12	11APR06	24APR06	28FEB05	12MAR05	WR1240
VR1250	Lai Po Rd N/B Ch.1+250 - 1+360- Utilities	24	25APR06	23MAY06	17SEP05	18OCT05	WR1250
VR1260	Lai Po Rd N/B Ch.1+250 - 1+360 - Road Pavement	6	25APR06	02MAY06	14MAR05	19MAR05	WR1260
VE1040	Lai Po Rd S/B - Temporary Ramp at Slip Road B	18	03JUN06	24JUN06	26MAR05	16APR05	WE1040
ai Po Roa	d (D3) Roadworks - Stage 2						
WE1035	Reduce Segment Storage Area for Temp Road Divs'n	6	27MAY06	02JUN06	12APR05	18APR05	WE1035
ai Po Roa	d (D3) Roadworks - Stage 3						
NA3200	Lai Po Rd S/B Ch.1+300 - 1+360 - Drainage	12	20MAR06	01APR06	07MAR05	19MAR05	WA3200
VR2300	Lai Po Rd S/B Ch.1+300 - 1+360 - Formation	6	04APR06	10APR06	21MAR05	26MAR05	WR2300
VR2310	Lai Po Rd S/B Ch.1+300 - 1+360 - Sub-base	6	11APR06	17APR06	28MAR05	02APR05	WR2310
VR2320	Lai Po Rd S/B Ch.1+300 - 1+360 - Kerbs	6	18APR06	24APR06	04APR05	11APR05	WR2320
WR2330	Lai Po Rd S/B Ch.1+300 - 1+360 - Pavement	6	25APR06	02MAY06	12APR05	18APR05	IWR2330
Lai Po Roa	d (D3) Roadworks - Stage 5						
WE1030	Lai Po Rd S/B - Remove Segment Storage Area	6	12APR06	18APR06	22JUL05	28JUL05	WE1030
/iaduct -	Main Line - Piers P7 to P10						
Substructu	ire						
MS2052	P7 Install Bearings	2	20MAR06	21MAR06	28SEP05	29SEP05	MS2052
Superstruc	cture Finishing Works Required for TCSS						
MF2000	P7 to P10 - Parapets P7 to P8 (incl earthing)	36	22MAR06	04MAY06	30SEP05	12NOV05	MF2000
MF2002	P7 to P10 - Parapets P8 to P10 (incl earthing)	36	18APR06	30MAY06	24OCT05	03DEC05	MF2002
MF2005	P7 to P10 - Insitu Slab to Under Median Barrier	48	20MAR06	16MAY06	08SEP05	05NOV05	MF2005

23SEP03 P3 File : LU30 29MAY08 20MAR06 Hig Sheet 7 of 21



Activity	Activity	Orig.	Early	Early	Late	Late	MAD			DD		2006	85034				
ID	Description	Durn.	Start	Finish	Start	Finish	MAR 20 2	7 3		PR 17	24	1 8	MAY 15	22 2	9 5	JUI 12	
1F2007	P7 to P10 - Median Barrier (incl earthing)	48	18APR06	13JUN06	08OCT05	03DEC05					-		150	(firedby) (fire			200
Remaining	Superstructure Finishing Works																
/F2040	P7 to P10 - Deck Drainage	48	14JUN06	11AUG06	26SEP06	23NOV06									MF2	040	×
At Grade	Works - Lai Chi Kok Interchange					PARTY LINE											
emporary	Traffic Management Schemes																
1T1300	2nd. TTMS Butterfly Valley Rd-Prepare for Review	12	20MAR06	01APR06	19FEB05	04MAR05		MT	1300								
AT1310	2nd. TTMS Butterfly Valley Rd - CRE Endorsement	6	18APR06	24APR06	16JUN05	22JUN05					MT1	310					
/T1320	2nd. TTMS Butterfly Valley Rd - Roadworks Advice	6	25APR06	02MAY06	23JUN05	29JUN05						HMT13	320				
1T1330	2nd. TTMS Butterfly Valley Rd - Prepare	18	03MAY06	23MAY06	30JUN05	21JUL05								MT13	30		
T1400	3rd TTMS Butterfly Valley Rd -Prepare for Review	12	20MAR06	01APR06	12FEB05	25FEB05		MT	1400								
1T1410	3rd. TTMS Butterfly Valley Rd - CRE Endorsement	6	18APR06	24APR06	10SEP05	16SEP05					MT1	410					
1T1420	3rd. TTMS Butterfly Valley Rd - Roadworks Advice	6	25APR06	02MAY06	17SEP05	24SEP05		li				HMT14	120				
1T1430	3rd. TTMS Butterfly Valley Rd - Prepare	24	03MAY06	30MAY06	26SEP05	25OCT05									MT143	0	
MT2070	TTMS Case No.027 (P7 Piling) - Implementation	563*	03JUN04A	17APR06	03JUN04A	18JAN06		-		MT2	070						
/T2140	TTMS for Pier P8/L - Implementation	641*	23FEB04A	08APR06	23FEB04A	11NOV05		-	MT2	140							
IT3100	2nd. TTMS Kom Tsun Street - Prepare for Review	12	20MAR06	01APR06	19FEB05	04MAR05		MT:	3100								
T3110	2nd. TTMS Kom Tsun Street - CRE Endorsement	6	04APR06	10APR06	23MAY05	28MAY05			MT	3110							
T3120	2nd. TTMS Kom Tsun Street - Roadworks Advice	6	11APR06	17APR06	30MAY05	04JUN05				МТ3	120						
T3130	2nd. TTMS Kom Tsun Street - Site Preparation	20	18APR06	11MAY06	06JUN05	29JUN05						4	MT313	0			
1T3140	2nd. TTMS Kom Tsun Street - Implementation	117*	15MAY06	03OCT06	14SEP05	18NOV05						MT3	140				×
T3200	3rd. TTMS Kom Tsun Street - Prepare for Review	12	20MAR06	01APR06	12FEB05	25FEB05		MT:	3200								
1T3210	3rd. TTMS Kom Tsun Street - CRE Endorsement	6	04APR06	10APR06	03OCT05	08OCT05			MT:	3210							
1T3220	3rd. TTMS Kom Tsun Street - Roadworks Advice	6	11APR06	17APR06	10OCT05	17OCT05				MT3	220						
T3230	3rd. TTMS Kom Tsun Street - Site Preparation	28	18APR06	20MAY06	18OCT05	18NOV05						H		MT3230			
rainage W	Vorks																
A5000	Butterfly Valley Rd Stage1 - Stormwater Drainage	54	15JUN05A	06MAY06	15JUN05A	23MAY05		-				- SA	A5000				
A2000	Kom Tsun St. & Bus Terminal - St/water Drainage	54	14FEB05A	13MAY06	14FEB05A	29JUN05		-				4	SA20	00			
Itilities & F	Roadworks	1/6															
R4000	Kwai Chung Road (Pier 7) - Reinstatement	24	20MAR06	17APR06	20DEC05	18JAN06		H		SR4	000						
R2000	Castle Peak Road - Roadworks Reinstatement	17	20MAR06	08APR06	24OCT05	11NOV05		-	SR20	00							
SR5000	Butterfly V. Rd (LCKI) Stage1-Excav. & Formation	36	08APR06	20MAY06	25APR05	06JUN05								SR5000			
R5010	Butterfly V. Rd (LCKI) Stage 1 - Sub-base	36	22APR06	03JUN06	10MAY05	21JUN05									SR50	010	
R5020	Butterfly V. Rd (LCKI) Stage 11 - Kerbs	24	22MAY06	17JUN06	07JUN05	06JUL05											SR5
rt Date sh Date a Date	23SEP03 P 29MAY08 20MAR06	3 File : LU30 Hig	Route 3 Mo	8 - Lai Cl	hi Kok Viad g Program		8 of 2	1	1	Î	1	IC	C	Caest	ruci	la	S

Activity	Activity	Orig.	Early	Early	Late	Late								200					
ID	Description	Durn.	Start	Finish	Start	Finish		MAR 20		2		PR 47	24	4	MA' 8 15		29		UN 2 19 2
SR5030	Butterfly V. Rd (LCKI) Stage 1 - Pavement	9	19JUN06	29JUN06	07JUL05	16JUL05	13	20	41	3	10	11/	24		0 10		23		030
SR3200	Kom Tsun Street Bus Stn Excavate & Formation	18	15MAY06	03JUN06	30JUN05	21JUL05											S	R3200	
SR3210	Kom Tsun Street bus Stn Sub-base	18	29MAY06	17JUN06	15JUL05	04AUG05													SR321
SR3220	Kom Tsun Street Bus Stn Kerbs	24	12JUN06	11JUL06	29JUL05	25AUG05											SR	3220	
SR3000	Kom Tsun Street L/H C/Way - Excavate & Formation	12	15MAY06	27MAY06	14SEP05	28SEP05											SR300	00	
SR3010	Kom Tsun Street L/H C/Way - Sub-base	12	29MAY06	10JUN06	29SEP05	14OCT05												SF	R3010
SR3020	Kom Tsun Street L/H C/Way - Kerbs	18	12JUN06	04JUL06	15OCT05	04NOV05											SR	3020	X
/iaduct -	Main Line - Piers P11 to P15																		
Substructu																			
MS3115	P12 - Bearings	7	20MAR06	27MAR06	29SEP05	07OCT05			MS	3115									
	ture Finishing Works Required for TCSS																		
MF3000	P11 to P15 - Parapets P10 to P12 (incl earthing)	30	28MAR06	03MAY06	08OCT05	12NOV05				H				ME	3000				
MF3005	P11 to P15 - Parapets P12 to P14 (incl earthing)	24	04MAY06	31MAY06	14NOV05	10DEC05											ME	3005	
MF3010	P11 to P15 - Parapets P14 to P16 (incl earthing)	24	01JUN06	29JUN06	12DEC05	10JAN06										MF3	010		
MF3015	P11 to P15 - Insitu Slab to Under Median Barrier	48	20MAR06	16MAY06	08SEP05	05NOV05				X				H	M	F3015			
MF3017	P11 to P15 - Median Barrier (incl earthing)	48	18APR06	13JUN06	08OCT05	03DEC05								-					MF3017
MF3020	P11 to P15 - Provision for E & M and TCSS	24	14JUN06	13JUL06	18JAN06	17FEB06											M	F3020	X
Remaining	Superstructure Finishing Works																		
MF3040	P11 to P15 - Deck Drainage	72	17MAY06	11AUG06	29AUG06	23NOV06								M	F3040				H
	Works - Wai Man Tsuen	THE REAL PROPERTY.			TO BUILD														
	Traffic Management Schemes																		
VT2000	Temporary Slow Lane on Top of Slope CCR-R5	12	07APR06	20APR06	22JUL05	04AUG05					-	V	T2000						
VT2010	B.V. Rd - Divert Traffic to Slow & Fast Lanes	1	21APR06	21APR06	05AUG05	05AUG05							VT201	0					
VT2200	TTMS Slip RdD Deck@ CC Rd W/B-Prepare for Review	18	20MAR06	10APR06	12FEB05	04MAR05				4	VT2	2200							
VT2210	TTMS Slip Rd D Deck@ CC Rd W/B -CRE Endorsement	6	18APR06	24APR06	09NOV05	15NOV05							VT2	210					
VT2220	TTMS Slip Rd D Deck@ CC Rd W/B -Roadworks Advice	12	25APR06	09MAY06	16NOV05	29NOV05									VT2220				
VT2230	TTMS Slip Rd D Deck@ CC Rd W/B -Site Preparation	6	10MAY06	16MAY06	30NOV05	06DEC05									V	T2230			
VT2240	TTMS Slip Rd D Deck@ CC Rd W/B - Implementation	22*	10JUN06	07JUL06	07DEC05	03JAN06	1										VT22	240	X.
	s & Slope Works																		
VE1040	Slope CCR-S5 - Compacted Filling	24	27FEB06A	06APR06	27FEB06A	21JUL05				H	E104	0							
VE1060	Slope CCR-S5 - Slope Drainage & Finishes	24	07APR06	05MAY06	01NOV05	28NOV05						-		VE	E1060				
VE1070	Slope CCR-S5 - Landscaping & Hydroseeding	12	28APR06	12MAY06	22NOV05	05DEC05									VE10	70			

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Activity	Activity	Orig.	Early	Early	Late	Late	1110		200				
ID	Description	Durn.	Start	Finish	Start	Finish	MAR 13 20 27 3	APR 10 17 2	4 1 4	MAY	22 2	0 5	JUN 12 19
Earthworks	& Slope Works - 11NW-A/C678 & CR679					- A CONTRACTOR OF THE PARTY OF	15 20 21 5	10 17 2	-	0 13	44 4	9 5	12 13
VE2025	Slope 11NW-A/C678 & CR679 - Platform for S.Nails	3	20MAR06	22MAR06	25NOV05	28NOV05	VE2025						
VE2027	Slope 11NW-A/C678 & CR679 - Test Soil Nail	6	23MAR06	29MAR06	29NOV05	05DEC05	VE202	7					
VE2030	Slope 11NW-A/C678 & CR679 - Soil Nails	18	30MAR06	20APR06	06DEC05	27DEC05		VE2	2030				
/E2000	Slope 11NW-A/C678 & CR679 - Remove Temp Platform	6	10JUN06	16JUN06	28DEC05	04JAN06							VE2
/E2020	Slope 11NW-A/C678 & CR679 - Trim Original Slope	6	17JUN06	24JUN06	05JAN06	11JAN06						VI	E2020
Drainage W	/orks												
/A1000	Butterfly Valley Rd Stage3 - Stormwater Draiange	48	22APR06	17JUN06	06AUG05	03OCT05			4			-	VA
Utilities & R	Roadworks												
/R3000	Drainage Maintenance Access Rd Formation	24	02MAR06A	17APR06	02MAR06A	07NOV05		VR300	00				
/R3010	Drainage Maintenance Access Rd Sub-base	24	27MAR06	24APR06	18OCT05	14NOV05		1	/R3010				
/R3020	Drainage Maintenance Access Rd Kerbs	24	04APR06	02MAY06	25OCT05	21NOV05			VR3	020			
/R3030	Drainage Maintenance Access Rd Pavement	48	04APR06	30MAY06	22NOV05	18JAN06						VR303	0
/R3040	Drainage Maintenance Access Rd Street Lights	12	17MAY06	30MAY06	05JAN06	18JAN06						VR304	0
/R2100	Butterfly V. Rd (WMT) Stage3- Excav. & Formation	18	05JUN06	26JUN06	17SEP05	10OCT05					VR2	100	
/R2110	Butterfly V. Rd (WMT) Stage 3 - Sub-base	18	12JUN06	04JUL06	26SEP05	18OCT05						VR211	10
/R2120	Butterfly V. Rd (WMT) Stage 3 - Kerbs	18	19JUN06	11JUL06	04OCT05	25OCT05						١	/R2120
Nai Man Ts	suen Fire Hydrant Pump House												
/H1000	Wai Man Tsuen F/H Pump House - Plate Load Test	6	20MAR06	25MAR06	28MAR06	04APR06	VH1000						
/H1010	Wai Man Tsuen F/H Pump House - Structure	60	03MAY06	13JUL06	05APR06	14JUN06		VH	1010				X
/H2000	Fire Main - Pipework Along Maintenance Road	18	20MAR06	10APR06	10OCT05	31OCT05		VH2000					
/H2005	Fire Main - Pipework to Piers P10/R & P14	18	11APR06	02MAY06	04JAN06	24JAN06			-IVH20	005			
/H2010	Fire Main - Valves & Connections	18	03MAY06	23MAY06	25JAN06	17FEB06					VH20	10	
andscape	Works												
VX1000	Landscaping - Earthworks & Formation	24	03MAY06	30MAY06	22NOV05	19DEC05						VX1000)
VX1040	Landscaping - Soiling & Planting	24	31MAY06	28JUN06	20DEC05	18JAN06				V	X1040		X
/iaduct - I	Main Line - Piers P16 to P18												
Substructu													
MS4055	P16/L - Install Bearings	6	20MAR06	25MAR06	04JAN06	10JAN06	MS4055						
MS4115	P16/R - Install Bearings	6	20MAR06	25MAR06	05DEC05	10DEC05	MS4115						
MS4225	P17/L & P17/R - Cure & Strike Form/Falsework	24	21DEC05A	23MAR06	21DEC05A	20JUN05	MS4225						

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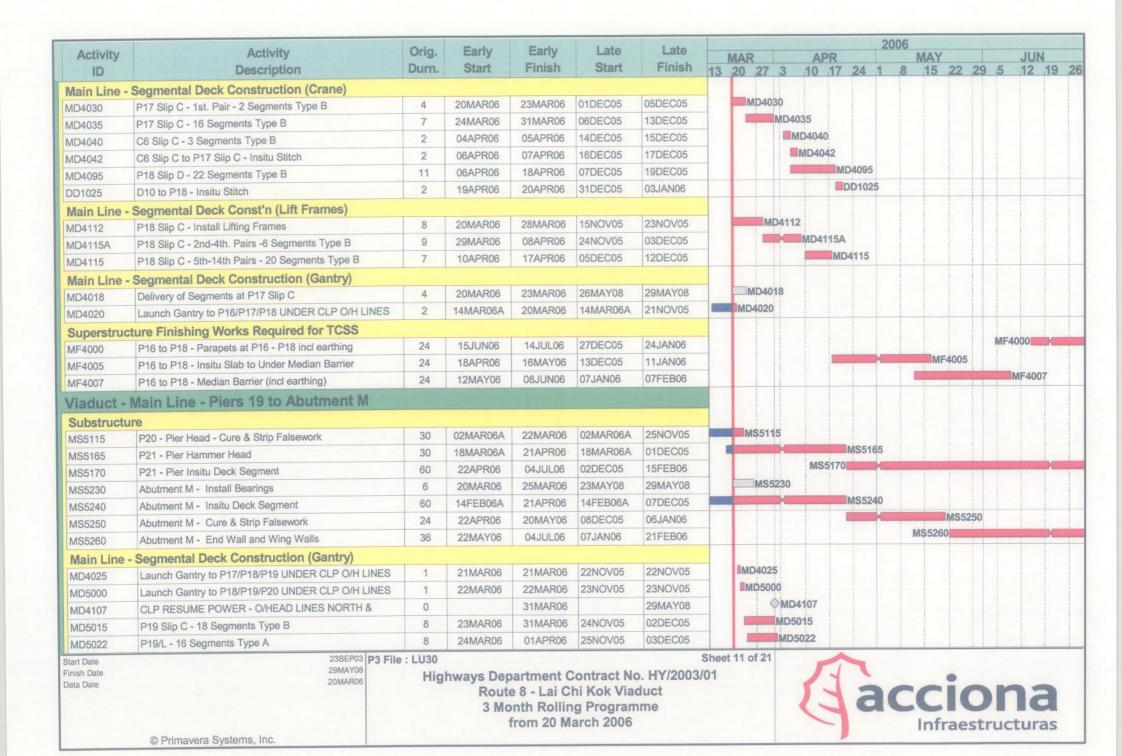
20MAR06

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Highways Department Contract No. HY/2003/01 Route 8 - Lai Chi Kok Viaduct 3 Month Rolling Programme from 20 March 2006



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Activity	Activity	Orig.	Early	Early	Late	Late					-	2006						
	Description	Durn.	Start	Finish	Start	Finish	MAF	2		PR	04 4	0	MAY	20	20		JUN 2 19	2
ID		8	24MAR06	01APR06	25NOV05	03DEC05	13 20		5035	17	24 1	8	15	44	29	3	2 19	2
MD5035	P19/R - 18 Segments Type A	8	23MAR06	31MAR06	25NOV05	03DEC05		MDS						-				
MD5045	P19 Slip D - 14 Segments Type B	2	04APR06	05APR06	05DEC05	06DEC05			MD505	5								
MD5055	P19/L&R to P18/L&R - Insitu Stitches	_							MID 303		MD5060	0						
MD5060	P20 Slip D - 1st. Pair - 2 Segments Type B	4	19APR06	22APR06	11FEB06	15FEB06	- 1		MD5		MDSOOC							
MD5070	P20/R - 1st. Pair - 2 Segments Type A	4	05APR06	08APR06	25JAN06	28JAN06												
MD5080	P20/L - 1st. Pair - 2 Segments Type A	4	10APR06	13APR06	02FEB06	06FEB06				/D5080								
ND5090	P20 Slip C - 1st. Pair - 2 Segments Type A	4	14APR06	18APR06	07FEB06	10FEB06			-	MD	5090							
MD5065	P20 Slip D - 22 Segments Type B	15	24APR06	11MAY06	16FEB06	04MAR06							MD506	4				
MD5075	P20/R - 22 Segments Type A	15	24APR06	11MAY06	16FEB06	04MAR06					-		MD507	1				
MD5085	P20/L - 24 Segments Type A	15	25APR06	12MAY06	17FEB06	06MAR06							MD50	85				
MD5095	P20 Slip C - 24 Segments Type B	15	25APR06	12MAY06	17FEB06	06MAR06							MD509	95				
MD5097	P20/L&R to P19/L&R - Insitu Stitches	3	12MAY06	15MAY06	21MAR06	23MAR06							MD:	5097				
MD5100	Launch Gantry to P20/P21/Abut M	2	22MAY06	23MAY06	07MAR06	08MAR06								MD	5100			
	Main Line - Tunnel Approaches riers & Encl' (Sec.10 Excision)															MNG	5100 H	
MN6100	Semi Enclosure S/B Ch.2005 - 2200 - Frame	60	19JUN06	30AUG06	08DEC05	21FEB06							-	į.		IVINC	100	
t Grade	Works - Butterfly Valley									i								
Temporar	y Traffic Management Schemes																	
QT2130	TTMS Slip RdD Deck@ CC Rd E/B - Site Preparation	2	20MAR06	21MAR06	28MAY08	29MAY08	□Q.	T2130										
QT2140	TTMS Slip Rd D Deck @ CC Rd E/B - Implementation	18*	28FEB06A	20MAR06	28FEB06A	30DEC05	QT	2140										
Earthwork	ks & Slope Works - 11NW-A/FR54 & F55	*//																
QE2000	Slope 11NW-A/FR54 & FR55 - Remove Temp. Platform	18	24MAR06	14APR06	21JUN05	12JUL05				QE200	0							
QE2002	Slope 11NW-A/FR54 & FR55 - Retaining Wall -Bases	36	15APR06	27MAY06	13JUL05	23AUG05			1		H				QE20	02		
QE2004	Slope 11NW-A/FR54 & FR55 - Retaining Wall -Walls	48	15MAY06	11JUL06	10AUG05	06OCT05						QE20	04				-	
QE2010	Slope 11NW-A/FR54 & FR55 - Install Temp Works	48	03MAY06	28JUN06	20JUL05	13SEP05				C	E2010			1			-	
Manager Colors	Roadworks																	
QR2000	WSD Access Road - New CLP 11Kv Cable Laying	36	20MAR06	02MAY06	17APR08	29MAY08					K	QR200	00					
Landscap																		
QX1020	Landscaping - Soiling & Planting on Slope CCR-S6	75	20MAR06*	16JUN06	21OCT05	18JAN06		+ *						1			QX1	10
QX1100	Landscape Establishment Works	301	17JUN06	18JUN07	04NOV06	03NOV07										QX11	00	

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Activity	Activity	Orig.	Early	Early	Late	Late	MAR APR MAY JUN
ID	Description	Durn.	Start	Finish	Start	Finish	13 20 27 3 10 17 24 1 8 15 22 29 5 12 19
/iaduct -	Slip Road C						
Substruct	ure						
CS1150	Abutment C - Install Bearings	6	20MAR06	18MAR06	26OCT05	25OCT05	CS1150
CS1447	C5/L - C5/R Portal - Install Bearings	6	20MAR06	25MAR06	06OCT05	13OCT05	CS1447
CS1555	C6/R & C6/L - Install Bearings on Portal Frame	6	27MAR06	01APR06	14OCT05	20OCT05	CS1555
Slip Road	C - Insitu Deck Construction						
D1032	Slip Rd. C - Deck Span C3 to C4 - Falsework	12	27JAN06A	21MAR06	27JAN06A	26AUG05	CD1032
CD1034	Slip Rd. C - Deck Span C3 to C4 - Soffit	6	22MAR06	28MAR06	27AUG05	02SEP05	CD1034
CD1036	Slip Rd. C - Deck Span C3 to C4 - 1st. Pour	20	29MAR06	21APR06	03SEP05	27SEP05	GD1036
CD1038	Slip Rd. C - Deck Span C3 to C4 - 2nd. Pour	20	22APR06	16MAY06	28SEP05	22OCT05	CD1038
CD1039	Slip Rd. C - Deck Span C3 to C4 - Stressing	4	17MAY06	20MAY06	24OCT05	27OCT05	CD1039
CD1041	Slip Rd. C - Deck Span C3 to C4 - Cure & Strip	6	22MAY06	27MAY06	28OCT05	03NOV05	CD1041
CD1040	Slip Rd. C - Deck Span C4 to C5 - Ground Prep.	9	20MAR06	29MAR06	16SEP05	27SEP05	CD1040
D1042	Slip Rd. C - Deck Span C4 to C5 - Falsework	10	30MAR06	11APR06	30SEP05	13OCT05	CD1042
CD1044	Slip Rd. C - Deck Span C4 to C5 - Soffit	6	12APR06	18APR06	21OCT05	27OCT05	CD1044
CD1046	Slip Rd. C - Deck Span C4 to C5 - 1st. Pour	20	19APR06	12MAY06	28OCT05	19NOV05	CD1046
CD1048	Slip Rd. C - Deck Span C4 to C5 - 2nd. Pour	20	13MAY06	05JUN06	21NOV05	13DEC05	CD1048
CD1049	Slip Rd. C - Deck Span C4 to C5 - Stressing	4	06JUN06	09JUN06	14DEC05	17DEC05	CD1049
CD1051	Slip Rd. C - Deck Span C4 to C5 - Cure & Strip	6	10JUN06	16JUN06	11JAN06	17JAN06	CD10
CD1050	Slip Rd. C - Deck Span C5 to C6 - Ground Prep.	12	30MAR06	13APR06	28SEP05	13OCT05	CD1050
CD1052	Slip Rd. C - Deck Span C5 to C6 - Falsework	18	14APR06	05MAY06	14OCT05	03NOV05	CD1052
CD1054	Slip Rd. C - Deck Span C5 to C6 - Soffit	6	29MAY06	03JUN06	04NOV05	10NOV05	CD1054
CD1056	Slip Rd. C - Deck Span C5 to C6 - 1st. Pour	20	05JUN06	28JUN06	11NOV05	03DEC05	CD1056
Superstru	cture Finishing Works Required for TCSS						
CF1010	Slip Rd. C - Parapets C2 to C4 (incl earthing)	48	15APR06	10JUN06	24OCT05	17DEC05	CF1010
CF1000	Slip Rd. C - Parapets - Abut. C to C2 + earthing	24	12JUN06	11JUL06	19DEC05	17JAN06	CF1000
/iaduct	- Slip Road D						
Substruct	ure		.,.				
DS1045	Abutment D - Install Bearings	6	20MAR06	25MAR06	26OCT05	01NOV05	DS1045
DS1115	D1 - Install Bearings	6	20MAR06	25MAR06	29OCT05	04NOV05	DS1115
DS1175	D2 - Install Bearings	6	20MAR06	25MAR06	05NOV05	11NOV05	DS1175
DS1295	D4 - Install Bearings	6	20MAR06	25MAR06	23MAY08	29MAY08	DS1295

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Activity	Activity	Orig.	Early	Early	Late	Late	2006	
ID	Description	Durn.	Start	Finish	Start	Finish		JN 2 19
DS1355	D5 - Install Bearings	6	20MAR06	25MAR06	23MAY08	29MAY08	DS1355	. 19
DS1530	D8 - Pier Head	24	03MAR06A	13APR06	03MAR06A	10OCT05	D\$1530	
DS1530A	D8 - Pier Head - Insitu Segment	36	14APR06	26MAY06	12OCT05	22NOV05	DS1530A	
DS1531	D8 - Pier Head - Cure & Strike Form/Falsework	12	27MAY06	09JUN06	23NOV05	06DEC05	DS1	531
DS1592	D9 - Install Bearings	6	20MAR06	25MAR06	23MAY08	29MAY08	DS1592	
DS1655	D10 - Install Bearings	6	20MAR06	25MAR06	23MAY08	29MAY08	DS1655	
	O - Segmental Deck Const'n (Crane)				1			
DD1035	D9 - 6 seg Type B	5	28FEB06A	20MAR06	28FEB06A	30DEC05	DD1035	
DD1033	D9 to D10 - Insitu Stitch	2	21MAR06	22MAR06	31DEC05	03JAN06	■DD1037	
DD1057	D8 - 1st. Pair - 2 Segments Type B	6	10JUN06	16JUN06	07DEC05	13DEC05		DD105
DD1055	D8 - 28 Segments Type B	14	17JUN06	05JUL06	14DEC05	30DEC05	DD105	
DD1035	D5 - 26 seg Type B	7	17MAR06A	24MAR06	17MAR06A	25NOV05	DD1115	
DD1113	D4 to D5 - Insitu Stitch	3	25MAR06	28MAR06	08DEC05	10DEC05	DD1137	
DD1137	Install Segment Sliding System Abut. D to D3	24	09MAR06A	10APR06	09MAR06A	01NOV05	DD1172	
DD1172	Abut D - 3 Segments Type B on scaff	3	11APR06	13APR06	02NOV05	04NOV05	DD1200	
DD1200	D1 - 21 Segments Type B (incl. Pierhead Seg)	6	14APR06	20APR06	05NOV05	11NOV05	DD1195	
DD1195	D1 to Abut D - Insitu Stitch	3	21APR06	24APR06	21DEC05	23DEC05	DD1205	
DD1203	D2 - 27 Segments Type B (incl. Pier Head Seg)	10	21APR06	03MAY06	12NOV05	23NOV05	IDD1175	
DD1173	D1 to D2 - Insitu Stitch	3	04MAY06	06MAY06	08DEC05	10DEC05	DD1197	
DD1157	D3 - 1st. Pair - 2 Segments Type B	6	04MAY06	10MAY06	24NOV05	30NOV05	DD1150	
DD1155	D3 - 18 Segments Type B	6	11MAY06	17MAY06	01DEC05	07DEC05	DD1155	
DD1167	D3 to D4 - Institu Stitch	3	18MAY06	20MAY06	08DEC05	10DEC05	■DD1167	
DD1107	D2 to D3 - Insitu Stitch	3	18MAY06	20MAY06	08DEC05	10DEC05	DD1177	
DD1177	Dismantle Segment Sliding System (Abut. D to D3)	12	08MAY06	20MAY06	24JUN06	08JUL06	DD1179	
	D - Segmrntal Deck Const'n (L/Frames)		001111100	201101100	2.00.100	0000200		
DD1095	D6 - 16 seg Type B	7	25MAR06	01APR06	26NOV05	03DEC05	DD1095	
DD1093	D5-D6 Insitu Stitch	2	04APR06	05APR06	16DEC05	17DEC05	DD1117	
DD1117	D7 - 1st. pair - 2 seg Type B	6	10APR06	15APR06	28NOV05	03DEC05	DD1070	
DD1070	D7 - 16 seg Type B	8	18APR06	26APR06	05DEC05	13DEC05	DD1075	
March Land Comp.	D7-16 seg Type B	2	27APR06	28APR06	16DEC05	17DEC05	DD1077	
DD1077	THE A PROPERTY OF THE PROPERTY	2	27APR06	28APR06	16DEC05	17DEC05	DD1097	
DD1097	D6-D7 Insitu Stitch		27AF100	ZOAFINOO	TODECOS	17DE000	20100	
-	cture Finishing Works Required for TCSS	40	221441/00	44 11 11 00	12DEC05	0255000	DF1005	
DF1005	Slip Rd. D -Parapets D4 to Abut D (incl earthing	42	22MAY06	11JUL06	12DEC05	03FEB06	DF 1003	-

23SEP03 **P3** 29MAY08 20MAR06



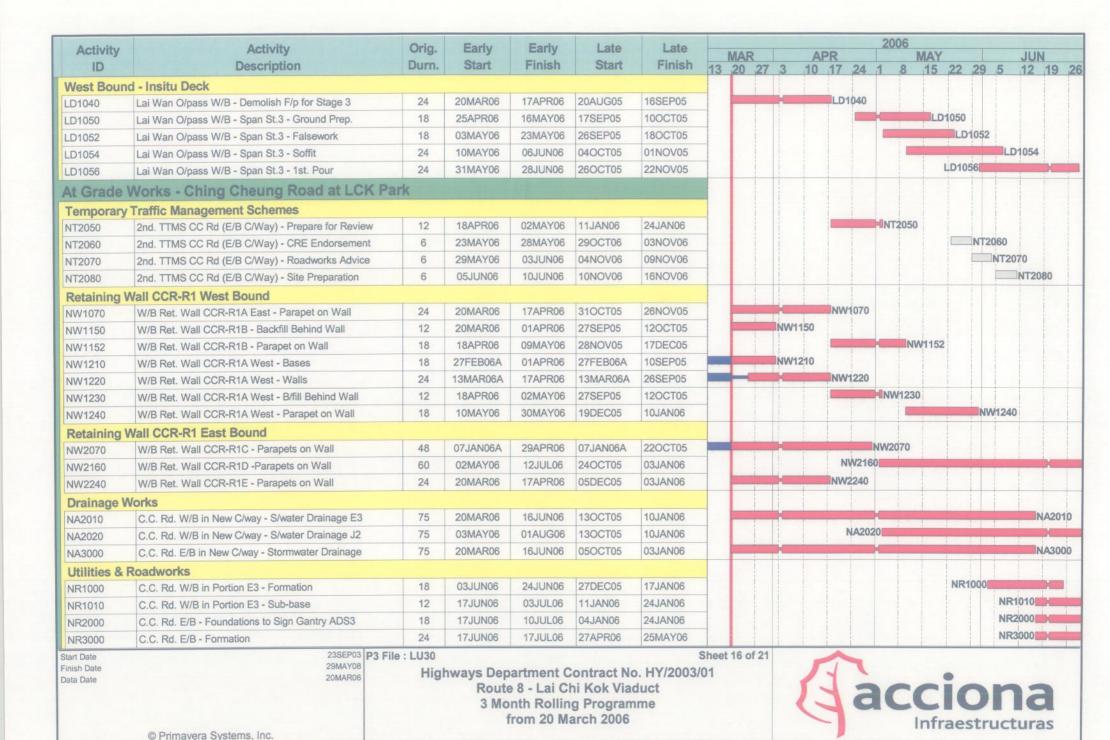
Activity	Activity	Orig.	Early	Early Finish	Late Start	Late Finish		2006											
ID	Description	Durn.	Start					MAR	27 3		PR 17	24 1	8	MAY	22	20	J 5	UN 2 19	
F1007	Slip Rd. D -Parapets D4 to D8 (incl earthing)	36	15JUN06	28JUL06	19DEC05	03FEB06	10	20 2	1 3	10	11/	24	0	110	44	29	DF1007	7 19	
-	Road Overpass	S. Maria	F-10 10 10 10 10 10 10 10 10 10 10 10 10 1	Alexand.		THE REAL PROPERTY.													
	Traffic Management Schemes																i		
T2120	TTMS LW Rd (for W/B Deck) - Roadworks Advice	6	20MAR06	25MAR06	17MAY08	22MAY08			T2120										
_T2130	TTMS LW Rd (for W/B Deck) - Site Preparation	6	27MAR06	01APR06	23MAY08	29MAY08		ļ	LT	2130									
LT2140	TTMS LW Rd (for W/B Deck) - Implementation	121*	25APR06	16SEP06	17SEP05	11FEB06			LT2	T214	0								
LT2210	TTMS LW Rd (for E/B Deck) - CRE Endorsement	6	20MAR06	25MAR06	11MAY08	16MAY08			T2210										
LT2220	TTMS LW Rd (for E/B Deck) - Roadworks Advice	6	26MAR06	31MAR06	17MAY08	22MAY08			LT2	220									
LT2230	TTMS LW Rd (for E/B Deck) - Site Preparation	6	01APR06	08APR06	23MAY08	29MAY08			H	LT22	30								
LT3010	TTMS CC Rd (on W/B Deck) - CRE Endorsement	6	20MAR06	25MAR06	11NOV05	16NOV05			T3010										
LT3020	TTMS CC Rd (on W/B Deck) - Roadworks Advice	6	26MAR06	31MAR06	17NOV05	22NOV05			LT3020										
LT3030	TTMS CC Rd (on W/B Deck) - Site Preparation	6	01APR06	08APR06	23NOV05	29NOV05		1	H	■LT30	30								
LT3100	TTMS CC Rd (on E/B Deck) - Prepare for Review	12	23MAY06	05JUN06	18FEB06	03MAR06		1									LT310	0	
LT3110	TTMS CC Rd (on E/B Deck) - CRE Endorsement	6	20JUN06	25JUN06	28JUL06	02AUG06											LT:	3110	
West Boun	d - Substructure																		
LS1235	D13 - Install Bearings	3	20MAR06	22MAR06	29SEP05	03OCT05		ELS1	235										
LS1285	D14 - Install Bearings	6	20MAR06	25MAR06	26SEP05	03OCT05		L	LS1285										
LS1310	Abutment DA2 - Excavation in Rock for Footing	12	20MAR06	01APR06	13AUG05	26AUG05			LS	1310									
LS1320	Abutment DA2 - Mass Concrete Fill Under Footing	6	04APR06	10APR06	27AUG05	02SEP05		i		LS1	320								
LS1330	Abutment DA2 - Footing	12	11APR06	24APR06	03SEP05	16SEP05					-	LS13	30			-			
LS1340	Abutment DA2 - Bearing Shelf & Walls	18	25APR06	16MAY06	17SEP05	10OCT05								LS1	340				
LS1350	Abutment DA2 - Install Bearings	3	17MAY06	19MAY06	22OCT05	25OCT05									S1350)			
East Bound	d - Substructure																		
LS2220	C14 - Excavate for Footing	12	17APR06	29APR06	10SEP05	24SEP05						L	\$2220						
LS2230	C14 - Footing & Pier Kicker	12	02MAY06	15MAY06	26SEP05	10OCT05						1		LS2	230				
LS2240	C14 - Backfill & Remove Temporary Works	4	16MAY06	19MAY06	12OCT05	15OCT05									S2240)			
LS2250	C14 - Pier (incl. Pier Head)	18	20MAY06	09JUN06	17OCT05	05NOV05	*						- 1				LS	2250	
LS2255	C14 - Install Bearings	2	10JUN06	12JUN06	07NOV05	08NOV05							-					S2255	
LS2260	Abutment CA2 - Excavation in Rock for Footing	12	17APR06	29APR06	07SEP05	21SEP05				1 6 11			52260						
LS2270	Abutment CA2 - Footing	12	02MAY06	15MAY06	22SEP05	06OCT05						1		LS2	270				
LS2280	Abutment CA2 - Bearing Shelf & Walls	24	16MAY06	12JUN06	07OCT05	04NOV05												S2280	
LS2290	Abutment CA2 - Install Bearings	3	13JUN06	15JUN06	05NOV05	08NOV05												LS229	

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20MAR06

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Activity	Activity	Orig.	Early	Early	Late	Late				_	20	06			-	
ID	Description	Durn.	Start	Finish	Start	Finish		MAR 20 27 3	AP	17 2	1 1	8 15	Y 22	20		UN 2 19
	Work - Ching Cheung Road - Main Sec						13	20 21 3	10	11 2	9 1	0 1) declar	lin U	3 12	113
	/ Traffic Management Schemes															
RT2240	3rd. TTMS CC Rd (Slewing) - Implementation	385*	28DEC04A	10APR06	28DEC04A	23NOV06			RT2	240						
	s & Slope Works - CCR-S1, S2 & S3	10000														
RE1700	Slope CCR-S1E - Finish Seed & Planting +62.3mPD	6	20MAR06*	25MAR06	19OCT06	26OCT06		RE1700								
RE1710	Slope CCR-S1E - Finish Seed & Planting +54.8mPD	12	27MAR06	10APR06	27OCT06	09NOV06			RE1	710						
RE1720	Slope CCR-S1E - Finish Seed & Planting +47.3mPD	12	11APR06	24APR06	10NOV06	23NOV06				F	E1720					
RE1710A	Slope CCR-S1C- Finish Seed & Planting +54.9mPD	12	20MAR06	01APR06	27OCT06	09NOV06		RE1	1710A							
RE1720A	Slope CCR-S1C - Finish Seed & Planting +47.3mPD	12	04APR06	17APR06	10NOV06	23NOV06				RE172	0A					
RE1840	Slope CCR-S1E&C- Rock Stabilisation to +25.4mPD	48	24OCT05A	07APR06	24OCT05A	11SEP06			RE184	0						
RE1850	Slope CCR-S1E&C - Drainage to Level +25.4mPD	48	24JAN06A	06MAY06	24JAN06A	11OCT06					- H	RE1850				
RE1860	Slope CCR-S1E&C- Finish Seed & Planting to +25.4	36	08MAY06	17JUN06	12OCT06	23NOV06										RE
RE2000	Slope CCR-S2 -Excavate Rock to Formation	24	20MAR06	17APR06	20OCT05	16NOV05				RE200	0					
RE2050	Slope CCR-S2 - Rock Stabilisation	48	04APR06	30MAY06	08APR06	03JUN06						1 1		RE	2050	
RE2100	Slope CCR-S2 - Drainage	42	31MAY06	20JUL06	05JUN06	25JUL06							RE210	00		X
RE1720B	Slope CCR-S1W - Seed & Planting to +39.95mPD	36	20MAR06	02MAY06	12OCT06	23NOV06					- RE	1720B				
RE1550	Slope CCR-S1W - Rock Stabilisation to 24.9mPD	54	24OCT05A	04MAY06	24OCT05A	29MAY08					- FOR	RE1550				
RE1250	Slope CCR-S1W - Bulk Excavate to Level +19.0mPD	18	25NOV05A	24MAR06	25NOV05A	16AUG05		RE1250								
RE1250A	Slope CCR-S1W -Detailed Excavate to Level +19.0m	18	20MAR06	28MAR06	08NOV05	16NOV05		RE125	0A							
RE1560	Slope CCR-S1W - Rock Stabilisation to 19.0mPD	48	25MAR06	22MAY06	08AUG06	04OCT06					-		RE1	560		
RE1660	Slope CCR-S1W - Drainage to Level +19.0mPD	24	09MAY06	05JUN06	19SEP06	18OCT06									RE1660	0
RE1270	Slope CCR-S1W - Excavate to Lai Wan Road O/pass	18	25MAR06	15APR06	17AUG05	06SEP05				RE1270						
RE16604	Slope CCR-S1W - Drainage to Level +16.8mPD	18	06JUN06	27JUN06	19OCT06	09NOV06							RE	16604		-Y
RE1665	Slope CCR-S1W - Seed & Planting to +32.4mPD	24	20MAR06	17APR06	22AUG06	18SEP06				RE166	5					
RE1670	Slope CCR-S1W - Seed & Planting to +24.9mPD	24	18APR06	16MAY06	19SEP06	18OCT06					- K	F	E1670			
RE1675	Slope CCR-S1W - Seed & Planting to +19.0mPD	18	06JUN06	27JUN06	19OCT06	09NOV06							R	E1675		7
RE3200	Slope CCR-S3 - Additional Soil Nails (VO166)	24	20MAR06	17APR06	27OCT06	23NOV06				RE320	0					
Retaining	Wall CCR-R2 (Value Engineering Design)															
RW1200	Ch 02.13 to 41.71 -Excavate & Rock Stabilisation	36	04APR05A	30MAR06	04APR05A	29MAY08		RW12	200							-
RW1220	Ch 02.13 to 41.71 - Mass Concrete Facing Wall	24	24OCT05A	28MAR06	24OCT05A	29MAY08		RW122	20							
RW1230	Ch 02.13 to 41.71 - Retaining Wall Base Slabs	12	06FEB06A	28MAR06	06FEB06A	27AUG05		RW123	00							
RW1240	Ch 02.13 to 41.71 - Retaining Wall Stem & Coping	27	29MAR06	29APR06	29AUG05	29SEP05					RW1	240				
RW1300	Ch 50.71 to 78.27 -Excavate & Rock Stabilisation	24	210CT05A	30MAR06	21OCT05A	29MAY08		RW1	300							

Finish Date Data Date

20MAR06



Activity	Activity	Orig.	Early	Early	Late	Late Finish		MAR APR MAY JUN											
ID	Description	Durn.	Start	Finish	Start			MAR 20 27	7 3			24 1	8 15	22 ;	9 5	JUN 12			
RW1320	Ch 50.71 to 78.27 - Mass Concrete Facing Wall	27	12NOV05A	11APR06	12NOV05A	25JAN06	10	E-O MAI			V1320		- 10			1.00	10		
RW1330	Ch 50.71 to 78.27 - Retaining Wall Base Slabs	12	12APR06	25APR06	26JAN06	11FEB06						RW1330)						
RW1340	Ch 50.71 to 78.27 - Retaining Wall Stem & Coping	24	26APR06	24MAY06	13FEB06	11MAR06								RW	1340				
RW1400	Ch 00.00 to 02.13 -Excavate & Rock Stabilisation	12	20MAR06	01APR06	06MAR06	18MAR06			RW	1400				1 1					
RW1420	Ch 00.00 to 02.13 - Mass Concrete Facing Wall	6	04APR06	10APR06	20MAR06	25MAR06				RW	1420								
RW1430	Ch 00.00 to 02.13 - Retaining Wall Base Slabs	6	11APR06	17APR06	27MAR06	01APR06					RW1	430				1			
RW1440	Ch 00.00 to 02.13 - Retaining Wall Stem & Coping	16	18APR06	06MAY06	04APR06	21APR06							RW1440						
Slope Worl	ks Above Retaining Wall CCR-R2																		
RE4000	Ch 00.00 to 78.27 - Excavate in Benches	48	02MAY06	27JUN06	30SEP05	26NOV05					R	E4000	-						
RE4010	Ch 00.00 to 78.27 - Filter Layer	48	16MAY06	12JUL06	17OCT05	10DEC05						F	RE4010				X		
RE4020	Ch 02.13 to 41.71 - General Filling & Compaction	36	06JUN06	19JUL06	07NOV05	17DEC05								RE	4020				
RE4022	Ch 50.71 to 78.27 - General Filling & Compaction	36	06JUN06	19JUL06	19JAN06	04MAR06								RE	4022	-			
RE4025	Ch 00.00 to 2.13 - General Filling & Compaction	6	08MAY06	13MAY06	22APR06	28APR06							RE4	025			1		
RE4027	Excavate & Demolish Existing Retaining Wall	12	15MAY06	27MAY06	29APR06	13MAY06								R	E4027		1		
RE4028	Fill & Compact to Form Toe of Berm	6	29MAY06	03JUN06	15MAY06	20MAY06									RE4	028			
	Wall CCR-R3 Type D, E & F																		
RW2190	Ret. Wall CCR-R3F - Break Down Top of Piles	36	03NOV05A	22MAR06	03NOV05A	27FEB06		RW2	190										
RW2200	Ret. Wall CCR-R3F - Capping beam	42	12NOV05A	08APR06	12NOV05A	09MAR06			-	RW2	200								
RW2210	Ret. Wall CCR-R3F - Stem Walls	48	30NOV05A	22APR06	30NOV05A	23MAR06		-			R	W2210							
RW2070	Ret. Wall CCR-R3E - Break Down Top of Piles	12	07FEB06A	21MAR06	07FEB06A	09MAR06		RW20	70										
RW2090	Ret. Wall CCR-R3E - Capping beam	18	27FEB06A	28MAR06	27FEB06A	16MAR06		F	RW209	00									
RW2110	Ret. Wall CCR-R3E - Stem Walls	18	06MAR06A	05APR06	06MAR06A	23MAR06			-	RW211	0								
RW2590	Ret. Wall CCR-R3D - Erect Noise Barriers	12	20MAR06	01APR06	16MAY08	29MAY08			RW	2590					H				
RW2600	Ret. Wall CCR-R3D - Break Down Top of Piles	24	25FEB06A	10APR06	25FEB06A	06JUN06				RW	2600								
RW2610	Ret. Wall CCR-R3D - Capping beam	12	11APR06	24APR06	07JUN06	21JUN06						RW2610							
RW2630	Ret. Wall CCR-R3D - Stem Walls	24	20APR06	18MAY06	16JUN06	15JUL06						- K	F	RW2630					
	Wall CCR-R3 Type A																		
RW3040	Ret. Wall CCR-R3A - Backfill & Form Platform	18	20MAR06	10APR06	15SEP05	07OCT05				RW	3040								
	Wall CCR-R3 Type B																		
RW4040	Ret. Wall CCR-R3B - Backfill & Form Platform	18	20MAR06	10APR06	28NOV05	17DEC05				RW	4040								
	Wall CCR-R3 Type C																1		
RW5010	Ret. Wall CCR-R3C - Temporay Works & Excavation	24	25JAN06A	24MAR06	25JAN06A	23NOV06		RW	5010										
RW5020	Ret. Wall CCR-R3C - Bases	24	22MAY06	17JUN06	10JUL06	07AUG06											RW50		

Finish Date
Data Date

20MAR06

Highways Department Contract No. HY/2003/01

Route 8 - Lai Chi Kok Viaduct 3 Month Rolling Programme

from 20 March 2006



Activity	Activity	Orig.	Early	Early	Late	Late	244	-	AP		2	006	437			ILIMI
ID	Description	Durn.	Start	Finish	Start	Finish	13 20	27 3	AP	17 24	1 1	8 1	5 2	2 29		JUN 12 19
W5030	Ret. Wall CCR-R3C - Walls	30	05JUN06	11JUL06	24JUL06	28AUG06	10 20		10					RW503		12 13
	ks Above Retaining Walls CCR-R3D, E & F															
RE4107	Slope above CCR-R3D-Excavate Slope	12	19MAY06	01JUN06	17JUL06	31JUL06									RE4107	
RE4110	Slope above CCR-R3D- Filter - Bottom to 1st Berm	6	02JUN06	08JUN06	01AUG06	07AUG06								1	RE	E4110
RE4111	Slope above CCR-R3D- Rockfill - Bt'm to 1st Berm	12	09JUN06	23JUN06	08AUG06	21AUG06								RE	4111	Y.
RE4205	Slope above CCR-R3E&F -Remove Piling Platform	6	24APR06	29APR06	24MAR06	30MAR06					RE	4205				
RE4207	Slope above CCR-R3E&F -Excavate Slope	12	02MAY06	15MAY06	31MAR06	14APR06							RE420	7		
RE4210	Slope above CCR-R3E&F- Filter - Btm. to 1st Berm	6	16MAY06	22MAY06	15APR06	21APR06							F	RE4210		
RE4211	Slope above CCR-R3E&F -Rockfill-Bt'm to 1st Berm	12	23MAY06	05JUN06	22APR06	06MAY06									RE42	211
RE4213	Slope above CCR-R3E&F -Filter-1st Berm to +24mPD	6	06JUN06	12JUN06	15AUG06	21AUG06										RE4213
RE4214	Slope above CCR-R3E&F-Rockfil-1st Berm to +24mPD	12	13JUN06	27JUN06	22AUG06	04SEP06									RE4214	- K
	s & Slope Works - CCR-S4															
RE4268	Slope CCR-S4 - Excavate & Bench Upper Slope	48	03JAN06A	10APR06	03JAN06A	11FEB06		H	RE4	268						
RE4280	Slope CCR-S4 - Fill and Compact	24	23MAY06	19JUN06	13FEB06	11MAR06						RE	4280			
RE4285	Slope CCR-S4 - Form New Access Road at Footpath	24	23MAY06	19JUN06	13FEB06	11MAR06						RE	4285	-		
	ung Road NTMM Retaining Wall A															
RW5990	NNTM Wall A - Excavate to Formation	36	09JAN06A	30MAR06	09JAN06A	20MAY06		RW59	990							
RW6000	NNTM Wall A - Bases	12	31MAR06	14APR06	22MAY06	03JUN06			R	W6000						
RW6010	NNTM Wall A - Walls	18	15APR06	06MAY06	05JUN06	26JUN06					-	RW601	0			
RW6020	NNTM Wall A - Drainage & Fill Behind Walls	12	08MAY06	20MAY06	27JUN06	11JUL06							RV	V6020		
RW6030	NNTM Wall A - Excavate to +20.5mPD	12	22MAY06	03JUN06	12JUL06	25JUL06									RW603	30
RW6040	NNTM Wall A - Debris Callection Area Drainage	12	05JUN06	17JUN06	26JUL06	09AUG06										- RW6
RW6050	NNTM Wall A - Debris Callection Area Access Ramp	12	19JUN06	04JUL06	10AUG06	23AUG06									RW	6050
Drainage V	Vorks															
RR3100	Ching Cheung Rd. E/B -S/Water S300-01 to S300-07	60	13JUN06	24AUG06	22MAR06	01JUN06									RR3100	H_
Utilities &	Roadworks															
RA2000	Lai Wan Road - Footpath below Slope CCR-S4	24	19MAY06	15JUN06	27OCT06	23NOV06										RA200
RA2100	CLP Cable Trough - CC Rd. Rest Garden to CCR-R3D	48	20MAR06	16MAY06	10MAR06	06MAY06							RA210	00		
RA2110	CLP Cable Trough - Behind CCR-R3D	24	06JUN06	05JUL06	08MAY06	03JUN06								RA21	10	- 1
RA3000	Ching Cheung Rd. W/B New C/Way -N/B Founds Bases	60	16DEC05A	25MAR06	16DEC05A	05NOV05		RA3000								
RA3002	Ching Cheung Rd. W/B New C/Way -N/B Founds Walls	72	07FEB06A	05JUN06	07FEB06A	03DEC05					×				RA30	02
RA3003	Ching Cheung Rd. W/B New C/Way - Filling	60	11APR06	21JUN06	08OCT05	17DEC05		RA30	03	-	-				4	X
RA3005	Ching Cheung Rd. W/B - S/Gantry FADS4 Founds	18	31MAY06	21JUN06	22DEC05	13JAN06		1					RA	3005		H

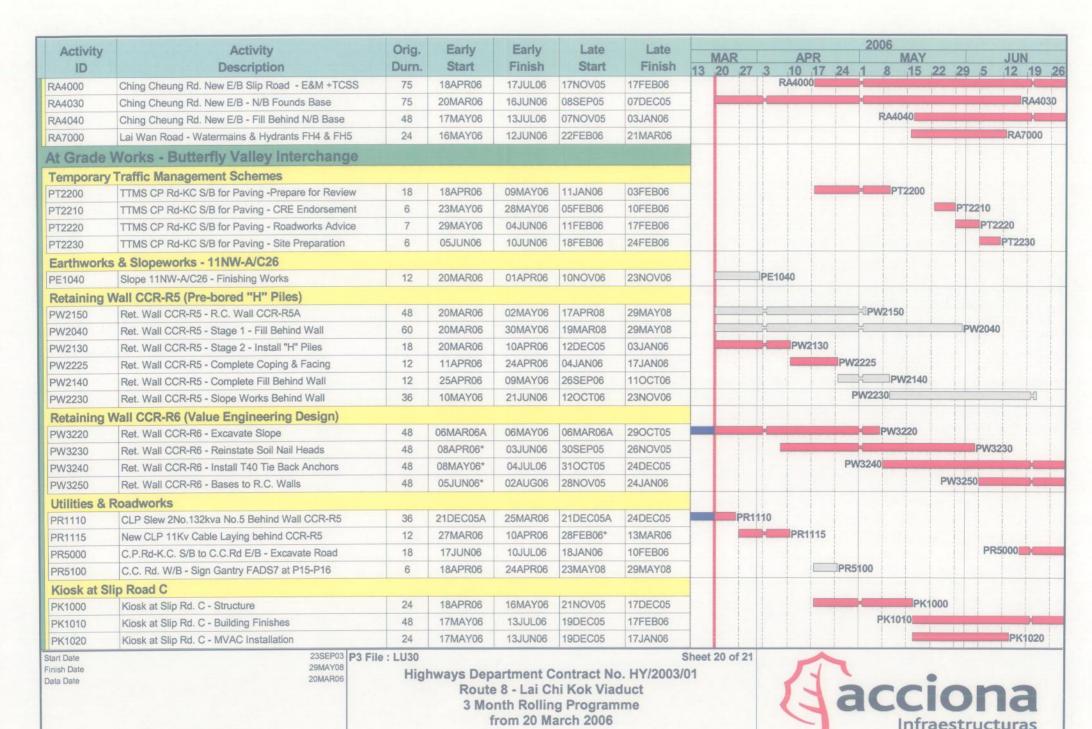
Data Date

20MAR06

Highways Department Contract No. HY/2003/01 Route 8 - Lai Chi Kok Viaduct 3 Month Rolling Programme from 20 March 2006

acciona Infraestructuras

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Ambiguitas	Activity	Orig.	Early	Early	Late	Late								20	06						
Activity		_						MAF	3		AF	PR				MAY				JUN	
ID	Description	Durn.	Start	Finish	Start	Finish	13	20	27	3	10	17	24	1	8	15	22	29	5	12 1	19 26
PK1030	Kiosk at Slip Rd. C - Electrical Works	24	31MAY06	28JUN06	04JAN06	03FEB06											PK10	30	-		
PK1040	Kiosk at Slip Rd. C - Drainage Works	24	14JUN06	13JUL06	18JAN06	17FEB06													PK10	10	

Start Date Finish Date Data Date 23SEP03 29MAY08 20MAR06

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Highways Department Contract No. HY/2003/01 Route 8 - Lai Chi Kok Viaduct 3 Month Rolling Programme from 20 March 2006



APPENDIX M COMPLAINT LOG

Appendix M - Complaint Log

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			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.	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 predrilling (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)	
			Citybase Property Management Ltd. (the management company of Nob Hill) and the Secretarty of Nob Hill	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.	
40318	Nob Hill	from the R8-LCKV Project at the work oscillator was started on 19 March 2004, which was	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.	Closed	
			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	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.	
			residents living in the vicinity.	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	

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
Ket.				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 30 th 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 3 rd July 2004 and subsequently referred to the ET Leader of the Project on 10 th 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 5 th July 2004. During ET's weekly environmental site inspection on 14 th 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	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 &	
			Project onto Lai Chi Kok Road. The washout caused nuisance to the drivers utilizing the road, and may also cause danger to the motorbikes.	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.	
		20 1 1 04	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	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;	
40809	Ching Cheung Road area near Nob Hill	22-Jul-04 (by EPD) 09-Aug-04 (by ET Leader)	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:	 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. 	Closed
			1. Area A: Works area between Nob	Review of Environmental Monitoring Results	

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: Noise Monitoring NM4: R/F of Mei Foo Sun Chuen (Phase 5) NM8a: M/F of Nob Hill NM8b: 3/F of Nob Hill Air Quality (1-hr TSP / 24-hr TSP) Monitoring 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 8 th 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 14 th Feb 2005 and subsequently referred to the ET Leader of the Project on 15 th 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.	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	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
S 50322 Hou	eung Lai se, 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 30 th , 31 st March, 4 th and 7 th April 2005, respectively.	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.	Closed

Log Ref. Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50404- Mei Foo Sun Chuen	4-Apr-05 (by ET Leader via RSS)	A public complaint was raised on 1 st April 2005 regarding construction noise from the site area of the Route 8 – Lai Chi Kok Viaduct (R8-LCKV) Project near Mei Foo Sun Chuen. The complaint was referred to the Resident Site Staff and the ET Leader on 4 th April 2005.	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
	Location 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	Status
				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.	

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.	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	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
	ai Po Road ear Hoi Lai Estate	18-Jan-06 (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 18 January 2006. According to EPD, the complaint was lodged by a resident of Hoi Ming House of Hoi Lai Estate. The complaint was about construction noise nuisance caused by construction work of R8-LCKV carried out at Lai Po Road near Hoi Lai Estate. The noise nuisance was noted since 14 January 2006 during the periods from 2330 hrs to 0600 hrs.	According to the RSS's records, night works were carried out by the Contractor between 2000 hrs on 14 January 2006 and 0530 hrs on 15 January 2006: Delivery of segment from storage yard near Pier P5/L to Pier 15 for erection; Stressing to temporary PT bars of segments at Pier B3. The above night works, which involved operation of tractor, mobile crane, lifting frame and generator, were undertaken under the two construction noise permits CNP no. GW-RW0739-05 and GW-RW0740-05. Environmental Monitoring In order to evaluate the noise impact onto the residents of Hoi Lai Estate, nighttime noise monitoring was carried out on 18 January 2006 at 23:00. The above monitoring results revealed that the measured noise levels were close to the reference background levels. After correction of the mean background level, all corrected noise levels were below the noise criterion of 55 dB(A). Conclusion Based on the information collected and the monitoring results, the complaint is considered not justifiable. Nevertheless, the Contractor was reminded to take sufficient noise mitigation measures to minimize the environmental impact on the nearby community.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60119	Mei Foo Sun Chuen (Phase 5)	18-Jan-06 (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 19 January 2006. According to EPD, the complaint was raised by a resident of Mei Foo Sun Chuen via a Sham Shui Po District Council Member's Office. The complaint mentioned that residents of Mei Foo Sun Chuen Stage 5 were adversely affected by construction dust caused by the Route 8 work carried out at the slopes adjacent to Ching Cheung Road.	The site of concern was likely to be CCR-S4, CCR-R2 and CCR-R3. According to RSS's records, site activities included: • Trimming of existing rock slope at CCR-S4; • Excavation and rock dowel installation at CCR-R2; and • Construction of cable trough at CCR-R3 by CLP's contractor. Site Inspection After receipt of the complaint, an ad-hoc site inspection was carried by ET on 19 January 2006. No environmental deficiency regarding construction dust was identified during the inspection. Environmental Monitoring All monitoring results in Jan 06 revealed that no exceedance was recorded for the air quality (1-hr and 24-hr TSP) criteria. Contractor's Action The Contractor of R8-LCKV had implemented several dust mitigation measures: • Haul roads, exposed slope surface and soil stockpiles were watered regularly by hose pipes and sprinklers; • Idled exposed slope were shot-creted; and • Watering was applied for the dust emissive activities, such as loading and unloading of dusty materials, excavation and breaking works. Conclusion Based on the ad-hoc site inspection and the environmental monitoring results, this complaint was considered not justifiable. Nevertheless, the Contractor was reminded to keep on the dust mitigation measures being implemented and step up the measures if necessary.	Closed

Log Ref. Location	n Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60213 60216 60220 (Lai Po Ro 60222	77 Heb 06	Four environmental complaints were received in this reporting month. Three of them were referred by EPD on 13 th , 20 th and 22 nd Feb 06 and the other one was referred by HyD via MHJV on 16 th Feb 06. All about construction noise due to night works at Lai Po Road near Hoi Lai Estate.	Site Activities Since around mid-January 2006, segments were transported to Piers P15 and B4, under the permission of construction noise permit (CNP). It was suspected that the sound of concern was generated from tractors for precast segment transportation. In view of the safety of workers, an alert sound and flashing are maintained during backing action of the tractors. Site Inspection An ad-hoc inspection was carried out by the ET on 16 Feb 06 from 00:30 to 02:30 am. Noise measurement was carried out during the inspection to evaluate the noise impact onto the residents of Hoi Lai Estate. During the monitoring, the major noise source identified was the road traffic noise from Sham Mong Road and Lai Po Road. No alarm sound or alike from the construction equipment was noted. The above monitoring results revealed that the measured noise levels were close to the reference baseline level. After correction of the mean background level, most of data were below the noise criterion of 55 dB(A). Conclusion Based on the information collected and the monitoring results, the complaints are considered not justifiable. It was suspected that the nuisance was caused by the alert sound of tractors during backward movement which servers as a safety measure. However, the RSS and the Contractor are considering the possibility of lowering the alert sound level or replacing by a less disturbing pitch in order to minimize the noise nuisance to residents of Hoi Lai Estate.	Closed

Log Ref. Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Near both Hoi Lai Estate and West Kowloon Highway	20-Apr-06 (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 ET Leader on 20 April 2006. The complaint is about construction noise nuisance caused by construction work of night works at location near both Hoi Lai Estate and West Kowloon Highway between 14 and 17 April 2006.	According to the Resident Site Staff (RSS)'s records, the	Close

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Based on the information collected and the monitoring results, the complaints are considered not justified. It was suspected that the nuisance was caused by loading and unloading of materials, hammering and/or dropping of materials on ground during the stressing works and transportation of precast segment by tractors. The Contractor has strictly complied with PME allowed in the CNP No. GW-RW0172-06. Besides, night work at the concerned location was completed. No further construction work at night at this location is anticipated.	
60428	Between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Chuen)	28-Apr-06 (by the ET Leader)	Environmental Protection Department (EPD) received a public complaint about tree cutting in the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Chuen). EPD subsequently referred the complaint to the ET Leader on 28 April 2006. The complaint was about the Contractor cu trees in the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Chuen). This had removed the traffic noise barrier effect of the trees and hence made the residents of Mei Foo Sun Chuen becoming being seriously affected by the traffic noise nuisance.	Site Activities According to the Resident Site Staff (RSS)'s records, current construction activities included segment erection works for Slip Road D, excavation works for cut slope CCR-S4 and retaining wall construction at CCR-R2 and CCR-R3. Since excavation for cut slopes and construction of slip road D are required at this area, tree cutting is unavoidable. Tree felling application was approved by DLO/KW. Contractor Action Under the EP condition and EIA, there is no need for this project to mitigate the traffic noise barrier effect due to the removal of tress. No follow up action was required for this complaint. Conclusion Under the EP conditions and EIAO, there is no need for this	Close

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				project to mitigate the traffic noise barrier effect due to the removal of trees.	
				Based on the information collected, the complaint is considered not justifiable.	
				Since excavation for cut slopes and construction of slip road D are required at this area, tree cutting is unavoidable. Tree felling application was approved by DLO/KW.	
				Compensatory planting will be provided at the concerned area after completion of the construction works in order to improve the landscape and visual impacts.	
				No follow up action will be required for this complaint.	
60522	Hoi Lai Estate (Hoi Fai House)	22-May-06 (by ET Leader)	Environmental Protection Department (EPD) received a public complaints about noise nuisance generated from Route 8 – Lai Chi Kok Viaduct Project. EPD subsequently referred the complaint to ET Leader on 22 May 2006. The complaint was concerned about the noise produced from construction work during the period between 2300 hours and 0100 hours every night since 3 weeks ago. The complaint described the noise being like sound of poring concrete.	transportation works at the concerned area which was used as the	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
Keī.				Site Inspection An ad-hoc inspection was carried out by the ET at 2300 on 26 May 2006. During the inspection, no construction activities were carried out at the concerned area, where the tractor and mobile crane were throttled down. Conclusion According to RSS's information, no concreting activities were carried out at the concerned area. Therefore, the major noise nuisance (pouring concrete) might not be generated from the abovementioned area. Besides, the Contractor strictly complied with PME allowed in the CNP No. GW-RW0172-06. In addition, the Contractor had turned off the alert sound of tractors during backward movement. Based on the information collected, the complaint is considered not justifiable. However, the Contractor was reminded to continuously implement their practice to prevent noise nuisance generation due to the construction works. The site situation will be continuously reviewed by ET and RSS also.	
60609	Near Phase 5 of Mei Foo Sun Chuen	9-Jun-06 (by ET Leader)	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint about environment nuisance generated from Route 8 – Lai Chi Kok Viaduct (R8-LVKC). Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 9 June 2006. The complaint was about the noise generated from rock excavation work from 9 a.m. to 6 p.m. at the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun	As advised by the RSS, the site of concerned area was likely to be CCR-S4. According to the RSS's records, 1 number of excavator mounted breaker was unsed to carry out rock breaking work at CCR-S4 during the period between 9 a.m. and 6 p.m. The excavation and rock breaking activities at the concerned area will likely be completed by end of September 2006.	Closed

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			Cheun).	Contractor Action	
				The silent rock breaking equipment has been used and noise barriers were erected to minimize the noise impact generated from the breaking activity.	
				Site Inspection and Environmental Monitoring	
				An ad-hoc inspection was carried out by ET on 14 June 2006 from 1:30 p.m. to 4:30 p.m. and 16 June 2006 from 4:00 p.m. to 4:45 p.m.	
				During the inspections, the construction activities at CCR-S4 included handheld breaking, excavation and rock breaking activities were carried out at CCR-S4. However, the temporary noise barriers were erected at the abovementioned location as same as RSS's mentioned.	
				Noise measurement was carried out during the inspection to evaluate the noise impact onto the residents of Mei Foo Sun Chuen. The monitoring location was original monitoring location NM4 (Mei Foo Sun Chuen Phase 5).	
				The measured monitoring results were close to the reference baseline level. After correction of the mean background level, the monitoring data were below the noise criterion of 75 dB(A).	
				Conclusion	
				Base on the information collection and the monitoring result, the complaint was considered not justifiable.	
				The Contractor had implemented noise mitigation measures to minimize the noise impact. Besides, the monitoring result were below the noise criteria of 75dB(A). However, the Contractor was still reminded to continuously implement their practice to prevent noise nuisance generation from the construction works.	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
	Location	Received Date	The Integrated Complaint Centre (ICC) of HKSAR received a public complaint through a facsimile on 12 June 2006 about an environmental nuisance generated from Route 8 – Lai Chi Kok Viaduct 9R8-LCKV) Project. Resident Site Staff (RSS) subsequently referred the complaint to the ET Leader on 26 June 2006. According to the explanation from the RSS, this complaint was indeed the	Investigation/Mitigation Action The environmental conditions of the site will be continuously reviewed by the RSS and the ET. Site Activities As advised by the RSS, the site of concerned area was likely to be CCR-S4. According to the RSS's records, 1 number of excavator mounted breaker was unsed to carry out rock breaking work at CCR-S4 during the period between 9 a.m. and 6 p.m. The excavation and rock breaking activities at the concerned area will likely be completed by end of September 2006.	Status
60626	Near Phase 5 of Mei Foo Sun Chuen	26-Jun-06 (by ET Leader)		Contractor Action The silent rock breaking equipment has been used and noise barriers were erected to minimize the noise impact generated from the breaking activity. Site Inspection and Environmental Monitoring	
			The complaint was about the noise generated from rock excavation work from 9 a.m. to 6 p.m. at the area between Ching Cheung Road and Mei Lai Road (near Phase 5 of Mei Foo Sun Cheun).	As the complaint was identical to the one received on 9 June 06 by the ET, the ad-hoc inspections carried out on 14 June 2006 from 1:30 p.m. to 4:30 p.m. and 16 June 2006 from 4:00 p.m. to 4:45 p.m. were still applicable to this report. In addition, further ad-hoc inspections were carried out on 28 June 2006 from 1:30 p.m. to 4:00 p.m. and 3 July 2006 from 9:30 a.m. to 11:30 a.m.	
			This complaint was made by the same complainant to the ICC through two different channels (by phone and by facsimile) and the ET of the Project was firstly notified on 9 June 2006. A complaint investigation report was issued on 22 June 06.	During the aforesaid inspections, the construction activities at CCR-S4 included handheld breaking, excavation and rock breaking activities were carried out at CCR-S4. However, the temporary noise barriers were erected at the abovementioned location. In addition to the noise measurement conducted on 14 and 16 June 2006, further noise measurement was carried out on 30	

Log Ref.	Location	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			As the ET received this separate complaint after the issue of the complaint investigation report and considered the nature of the complained event (general construction during daytime but not single event at a particular moment), the complaint investigation procedures were initiated.	June 2006 to evaluate the noise impact onto the residents of Mei Foo Sun Chuen. The monitoring location was original monitoring location NM4 (Mei Foo Sun Chuen Phase 5). Noise measurement carried out on 30 June 06, after correction of the mean background level, the monitoring data were below the noise criterion of 75 dB(A) Conclusion	
				This complaint was identical to the one received by the ET on 9 June 06 because the complainant addressed the complaint to the ICC through two different channels (by phone and by facsimile). The facsimile was transferred to the RSS on 12 June 06 and eventually reached the ET on 26 June 06.	
				Base on the information collection and the monitoring result, the complaint was considered not justifiable.	
				The Contractor had implemented noise mitigation measures to minimize the noise impact. Besides, the monitoring result were below the noise criteria of 75dB(A). However, the Contractor was still reminded to continuously implement their practice to prevent noise nuisance generation from the construction works.	
				The environmental conditions of the site will be continuously reviewed by the RSS and the ET.	