Highways Department

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

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

Monthly EM&A Report
Part II – Eagle's Nest Tunnel & Associated Works
(Version 1)

September 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.

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

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ABBREVIATION AND ACRONYM

AL Levels	Action and Limit Levels
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
IEC	Independent Environmental Checker
RE	Resident Engineer
RH	Relative Humidity
TSP	Total Suspended Particulates
TDD	Territory Development Department
QA/QC	Quality Assurance / Quality Control
SLM	Sound Level Meter
WMP	Waste Management Plan

EXECUTIVE SUMMARY

Introduction

- This is the thirty-fourth monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the "Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin, Lai Chi Kok Viaduct & Eagle's Nest Tunnel". This report documents the findings of EM&A Works conducted in September 2006 for Contract No. HY/2003/02, Eagle's Nest Tunnel and Associated Works (the Project).

- The major site activities undertaken in the reporting month included soil nailing/rock dowel, drainage work, road works, cut slope, haul road and Tunnel Ventilation System.

Environmental Monitoring and Audit Works

- Environmental monitoring and audit works for the Project was performed regularly as stipulated in the 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 events and actions taken in the reporting month is tabulated in **Table I**.

Table I Summary of Events Recorded in the Reporting Month

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

Environmental Licenses and Permits

- Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, Registration of Chemical Waste Producer (RCWP), Construction Noise Permits (CNPs) and Water Discharge Licenses (WDLs). Two new CNPs were 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
	Number	Nature			
Complaint received	0	---	N/A	N/A	---
Changes to the assumptions and key construction / operation activities recorded	0	---	N/A	N/A	---
Status of submissions under EP	0	---	N/A	N/A	---
Notifications of any summons & prosecutions received	0	---	N/A	N/A	---

Future Key Issues:

Major site activities for the coming month include:

- Cut slope and haul road;
- Drainage works;
- Soil nailing/rock dowel;
- Watermains crossing Tai Po Road;
- Concreting of block wall;
- Duct works;
- Louvre & door installation;
- Plumbing & drainage;
- E&M cabling;
- Concreting of staircase and wing wall;
- Mechanical ventilation air condition; and
- Tunnel Ventilation System

The anticipated environmental impacts will be mainly on dust from slope work, haul roads and stockpiles, noise impact from soil nailing and rock dowel installation.

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 acts 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 of 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 on 15th December 2003 for completion in April 2007.

1.7 "Route 9" was recently re-tiled 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 (previously known as Route 9) 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-fourth monthly EM&A report summarizing the EM&A works for the Project in September 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 / Engineer's Representative (E/ER) – Maunsell-Hyder Joint Venture (MHJV)
- Environmental Team (ET) – Cinotech Consultants Limited
- Independent Environmental Checker (IEC) – CH2M HILL Hong Kong Ltd.
- Contractor – Leighton-Kumagai Joint Venture (LKJV)

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:

- Cut slope and haul road, box culvert/ open channel & Culver A (railing installation), soil nailing/rock dowel, drainage works, DN200 & DN200 twin water-main, noise barrier foundation, utility (Draw pit/ Ducting) and road works at Butterfly Valley.
- HV cable trough sand backfilling activities, E&M cabling and dampers at ENT Tunnel.
- Louvre installation, rendering, plumbing and drainage at South Portal Building.
- Louvre installation, plastering, painting, rendering, plumbing and drainage at North Portal Building.
- Footbridge and Tool Collector construction, utility (draw pit/ ducting), drainage works, louvre, curtain wall & door installation, Mechanical Ventilation Air Condition, plumbing & drainage and fire services at Toll Plaza and Administration Building.
- Concreting of wing wall, louvre door wall & cladding installation, painting, rendering and watermains crossing Tai Po Road at Ventilation Adit Tunnel and Building.
- E&M installation works within SHT/T3 works area.

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.	Fax No.
HyD	Permit Holder	Mr. Kroc Leung	SE2/R8K	2762 3662	2714 5198
		Mr. George Law	E4/R8K	2762 3675	
MHJV	Engineer	Mr. Conrad Ng	Project Manager	2605 6262	2691 2649
	Engineer's Representative	Mr. Peter Poon	CRE	3552 2500	2743 9200
		Mr. Eric Wong	RE (S & EP)	3552 2551	
		Ms. Sammie Chan	TO (EN)	3552 2605	
Cinotech	Environmental Team	Dr. Priscilla Choy	The ET Leader	2151 2089	3107 1388
		Mr. Edmond Wu	Audit Team Leader	2151 2092	
		Mr. Henry Leung	Monitoring Team Leader	2151 2087	
CH2M	Independent Environmental Checker	Mr. David Yeung	Independent Environmental Checker	2507 2203	2507 2293
		Mr. Billy Yu	Assistant Independent Environmental Checker	2872 2949	
LKJV	Contractor	Mr. Ray Brewster	Project Director	9092 6128	2743 1600
		Mr. Danny Cheng	QA/E Manager	3552 2113	
Enquiries Hotline				3552 2226	-
Complaint Hotline				3552 2380	-

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 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. The established Action/Limit Levels for the environmental monitoring works were shown in **Appendix A**.

Monitoring Locations

2.2 Three designated monitoring stations, AM1, AM3 and AM4 was selected for impact dust monitoring for the Project. **Table 2.1** describes the air quality monitoring locations, which are also depicted in **Figure 1a** and **1b**.

Table 2.1 Locations for Air Quality Monitoring

Station	Description	Location
AM1	Yew Chung International School / PLK Choi Kai Yau School	Rooftop
AM3	Slope no. 07SW-D/FR4 near Garden Villa	On Ground
AM4	Government Quarters	Ground Floor[1]

Note: [1]The HVS was installed on the ground floor, which is close to the refuse collection station of the Government Quarters.

Monitoring Equipment

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

Table 2.2 Air Quality Monitoring Equipment

Equipment	Model and Make	Quantity
Calibrator	GMW25; S/N: 1536	1
HVS Sampler	Graseby GMW Model GS2310 High Volume TSP Sampler and associated equipment and shelter	3

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 – 2.4 of the Updated EM&A Manual (1999).

Operating/Analytical Procedures

2.6 Operating/analytical procedures for the operation of HVS were as follows:

- A horizontal platform was provided with appropriate support to secure the samplers against gusty wind.
- No two samplers were placed less than 2 meters apart.
- The distance between the sampler and an obstacle, such as buildings, was at least twice the height that the obstacle protrudes above the sampler.
- A minimum of 2 meters of separation from walls, parapets and penthouses was required for rooftop samples.
- A minimum of 2 meters separation from any supporting structure, measured horizontally was required.
- No furnaces or incineration flues were nearby.
- Airflow around the sampler was unrestricted.
- The sampler was more than 20 meters from the drip line.
- Any wire fence and gate, to protect the sampler, should not cause any obstruction during monitoring.

2.7 Prior to the commencement of the dust sampling, the flow rate of the high volume sampler was properly set (between 1.1 m^3/min. and 1.4 m^3/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50. For TSP sampling, fiberglass filters (G810) were used.

2.8 The power supply was checked to ensure the sampler worked properly. On sampling, the sampler was operated for 5 minutes to establish thermal equilibrium before placing any filter media at the designated air monitoring station.

2.9 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.

2.10 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.

2.11 The shelter lid was closed and secured with the aluminum strip. 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). After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.

2.12 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

2.13 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

2.14 All TSP monitoring was conducted as scheduled during the reporting month.

2.15 No Action/Limit Level exceedance was recorded for both 1-hour TSP and 24-hour TSP of dust monitoring in the reporting month.

2.16 Wind data monitoring equipment has been installed in Shatin Heights for logging wind speed and wind direction. These wind data is summarized in Appendix D.

2.17 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 (L_{eq}). L_{eq} (30min) shall be used as the monitoring parameter for the time period between 0700-1900 hours on normal weekdays. For all other time periods, L_{eq} (5min) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. As supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

3.3 Three designated noise monitoring stations, namely NM1, NM5 & NM6 were selected for impact monitoring in accordance to the EM&A manual (1999) and the subsequent EPD approval of the relocations.

3.4 Noise monitoring is also required to be conducted at station NM7 in accordance with the EM&A Manual (1998). The noise monitoring at the station is required to be conducted under CEDD's construction Contract No. ST 89/02 "Sha Tin Heights Tunnel and Approaches" in accordance with the requirement of Environmental Permit No. EP104/2001/A. The impact noise monitoring results at station NM7 are also presented in this report.

3.5 **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

3.6 Noise monitoring was conducted at four designated monitoring stations as summarized in Table 3.1. Figures 1a & 1b show the locations of these stations.

Table 3.1 Noise Monitoring Stations

Monitoring Station	Description	Location
NM1	Yew Chung International School / PKL Choi Kai Yau School	Rooftop
NM5	Villa Carlton	Ground Floor[1]
NM6	Government Quarters	Rooftop of Refuse Collection Station
NM7	Garden Villa	Rooftop

Note: [1] The noise measurement was taken at 2.3m above the ground floor of Villa Carlton, where has a line of sight of the construction site in the opposite.

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

Station	Parameter	Period[1]	Frequency	Measurement
NM1	L_{10}(30 min.)dB(A) L_{90}(30 min.)dB(A) L_{eq}(30 min.)dB(A)	(a) 0700-1900 hrs. on weekdays (b) 1900-2300 hrs. on weekdays (c) 0700-2300 hrs. on holidays (d) 2300-0700 hrs on any days	Once per week	Façade
NM5				Façade
NM6				Free Field
NM7				Façade

Note: [1](b), (c) and (d) will only be conducted if construction works are undertaken during these periods.

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.
- For free field measurement (if any), the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement : 30 minutes / 5 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.

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

Maintenance and Calibration

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

Results and Observations

3.10 Noise monitoring was performed at the four designated locations during the daytime period (0700-1900 hours) as scheduled in this reporting month. Restricted-hour monitoring was also conducted at NM5, NM6 and NM7.

3.11 All the Construction Noise Levels (CNLs), except the monitoring (0700-1900 on weekdays) at NM1 and NM6, reported in this report were adjusted with the corresponding baseline level, in order to facilitate the interpretation of the noise exceedance.

3.12 Noise monitoring results and graphical presentations are shown in **Appendix G**.

3.13 No Action/Limit Level exceedance for noise monitoring was recorded in the reporting month.

4. ENVIRONMENTAL AUDIT

Site Audits

4.1 Site audits were carried out on a 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 4, 13, 20 and 27 September 2006 by ET. The audit session on 4 September 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**. Two new CNPs were issued to the Project by EPD in the reporting month.

Implementation Status of Environmental Mitigation Measures

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

Table 4.1 Summary of Environmental Licensing and Permit Status

Permit No.	Valid Period		Details	Status
	From	To		
Environmental Permit (EP)				
EP-103/2001/C	22/07/05	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; I The permanent slope works above the northern portal of the Eagle's Nest Tunnel; (d) The architectural works (including fitting out and furnishings) of the portal buildings of the Sha Tin Heights Tunnel.	Valid
Registration of Chemical Waste Producer				
WPN 5213-761-L2595-01	26/01/04	N/A	N/A	Valid
Water Discharge Licence				
EP482/261/0327/I	03/05/04	31/05/09	Discharge of industrial trade effluent and effluent arising from construction activities at the construction site at Ventilation Adit on Tai Po Road (behind Shell Filling Station) opposite Pinehill Development Highways.	Valid
EP482/261/0326/I	01/04/04	30/04/09	Discharge of industrial trade effluent and effluent arising from construction activities at the construction site at Mui Kong Tsuen, Butterfly Valley, Lai Chi Kok, Kowloon.	Valid
No. 3156	23/02/04	22/02/09	Discharge of industrial trade effluent and all other wastewater arising from the works areas at North Portal of Route 9 – Eagle's Nest Tunnel and Associated Works (Contract HY/2003/02).	Valid
Construction Noise Permit (CNP)				
GW-RN0143-06	3/4/06	2/10/06	*Location:* ENT South Portal Site at Butterfly Valley *Time period:* any day between 2300 and 0700 on next day	Valid
GW-RN0150-06	4/04/06	3/10/06	*Location:* ENT Tunnel North Portal Site near Garden Villa *Time period:* Any day not being a general holiday including Sundays between 1900 and 2300	Valid
GW-RN0151-06	3/4/06	2/10/06	*Location:* ENT North Portal Site near Garden Villa *Time period*: Any day between 2300 and 0700 on next day	Valid
GW-RW0178-06	8/4/06	7/10/06	*Location: Butterfly Valley* *Time period:* General holiday (including Sundays) between 0700 and 2300 and any day not being a general holiday between 1900 and 2300	Valid

Permit No.	Valid Period		Details	Status
	From	To		
GW-RN0222-06	11/5/06	10/11/06	*Location:* Toll Plaza Administration Building *Time period:* Normal weekdays between 1900 and 2300 and general holidays included Sunday between 0900 and 2300	Valid
GW-RN0226-06	11/5/06	10/11/06	*Location:* South Portal *Time period:* Normal weekdays between 1900 and 2300 and general holidays included Sunday between 0900 and 2300	Valid
GW-RN0281-06	8/6/06	7/12/06	*Location:* Tunnel North Portal near Tai Po Road and Keng Hau Road *Time period:* Any day between 2300 and 0700 on next day.	Valid
GW-RN0282-06	8/6/06	7/12/06	*Location:* Tunnel South Portal near Garden Villa *Time period:* Any day between 2300 and 0700 on next day.	Valid
GW-RN0283-06	8/6/06	7/12/06	*Location:* Tunnel South Portal near Garden Villa *Time period:* General holiday including Sundays between 0900 and 2300 and any day not being a general holiday including Sundays between 1900 and 2300.	Valid
GW-RN0284-06	8/6/06	7/12/06	*Location:* Tunnel North Portal near Tai Po Road and Keng Hau Road *Time period:* General holiday including Sundays between 0900 and 2300 and any day not being a general holiday including Sundays between 1900 and 2300.	Supersed by GW-RN0473 -06
GW-RW0392-06	6/8/06	5/2/07	*Location:* Tai Po Road Shell Petrol Filling Station and opposite to Villa Carlton *Time Period*: General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300	Valid
GW-RW0422-06	4/8/06	3/2/07	*Location:* Butterfly Valley *Time Period*: General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300	Valid
GW-RN0473-06	25/9/06	24/3/07	*Location:* Tunnel North Portal near Tai Po Road and Keng Hau Road *Time period:* General holiday including Sundays between 0900 and 2300 and any day not being a general holiday including Sundays between 1900 and 2300.	Valid (new)
GW-RW0536-06	20/9/06	19/3/07	*Location:* Butterfly Valley *Time Period*: General holidays including Sundays between 0700-2300 and any day not being a general holiday between 1900-2300	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**.

4.7 Spot checking of truck overloading was also conducted during the environmental audits since June 2006. No overloading incident was observed during site inspection.

Summary of Exceedances

1-hr and 24-hr TSP Monitoring

4.8 No Action/Limit Level exceedance for both 1-hour TSP and 24-hour TSP was recorded in the reporting month.

Construction noise

4.9 No Action/Limit Level exceedance for noise monitoring was recorded in the reporting month.

Table 4.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations / Recommendations	Remedial Actions
Water Quality	4-Sep-06	*Observation* Accumulation of slit and sediment was observed at the u-channel of Toll Plaza Portion D-6. The Contractor was reminded to clean/ remove the silt from the u-channel.	Rectification / improvement was observed during the site inspection on 13 September 06.
.Air Quality	13-Sep-06	*Reminder* A stock of cement bags stored within the Administration Building was observed not being covered with impervious sheeting. Fugitive dust is likely to be produced by wind erosion. The Contractor was recommended to cover the stock in order to prevent dust generation even the stock is stored indoor.	Rectification / improvement was observed during the site inspection on 20 September 06.
Noise	27-Sep-06	*Reminder* Breaking works was carrying out at Ventilation Adit during site inspection. However, no mitigation measures for noise reduction were provided for aforesaid works. As advised by the Contractor, the works would last for 2 days more as such the Contractor was recommended to provide sufficient mitigation measures for noise reduction whenever the works is carrying out.	Rectification / improvement was observed during the site inspection on 4 October 06.
Waste / Chemical Management	4-Sep-06	*Observation* General refuses were scattered on the ground at the area of BVS2. The Contractor was reminded to clean up the refuses and keep site area tidiness.	Rectification / improvement was observed during the site inspection on 13 September 06.

Implementation Status of Event Action Plans

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

Summary of Complaints and Prosecutions

4.11 No environmental related complaint or prosecution was received in the reporting month.

4.12 There were 22 environmental complaints and no prosecution received since the commencement of the Project. The updated Complaint Log is shown in **Appendix M**.

5. FUTURE KEY ISSUES

Key Issues for the Coming Month

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

- Surface runoff at works area during rainy season;
- Potential dust emission from slope works and haul road construction at Butterfly Valley, soil nailing and vehicle movement on haul roads;
- Noise generation from concreting and installation works at South Portal Building and Ventilation Building; and
- Accumulation of standing water after heavy rainfall.

Monitoring Schedule for the Next Month

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

Construction Program for the Next Month

5.3 The tentative construction program for the Project is provided in **Appendix L**. The major construction activities in the coming months include:

ENT Tunnel
- LV cable trough sand backfilling activities, VE Panel, E&M cabling, dampers, Tunnel Ventilation System and fire services

Butterfly Valley
- Cut slope and haul road, soil nailing/rock dowel, road and drainage works, DN200 & DN200 twin water-main, utility (Draw pit/ Ducting), retaining wall (BV-R1 & BV-R2), Kiosk and soft landscaping

South Portal Building
- Louvre installation, screeding, plumbing and drainage, fire services, mechanical ventilation air condition and Tunnel Ventilation System

North Portal Building
- Louvre installation, plastering, painting, rendering, plumbing and drainage, fire services, mechanical ventilation air condition and Tunnel Ventilation System

Toll Plaza's Structures and Administration Building
- Utility (draw pit/ ducting), drainage works, louvre, curtain wall & door installation, plastering, rendering, Mechanical Ventilation Air Condition, plumbing & drainage and fire services.

Ventilation Adit Tunnel and Building

- Concreting of wing wall, louvre door wall & cladding installation, painting, rendering , earth works, watermains crossing Tai Po Road, plumbing and drainage, fire service, mechanical ventilation air condition, Tunnel Ventilation System and soft landscaping

Other Works Areas

- E&M installation works within SHT/T3 works area.

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 Action/Limit Level exceedance for noise monitoring was recorded in the reporting month.

6.4 No environmental complaint or 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 review and implement temporary drainage system especially for the areas at Butterfly Valley and Toll Plaza.
- To closely monitor the capacity of existing de-silting facility on site, especially for the discharge at the site in Butterfly Valley and Toll Plaza.
- To keep the sedimentation facilities well maintained and perform de-silting regularly.
- To avoid accumulation of stagnant water on site.

Dust Impact

- To ensure that adequate water spray or other dust suppression measures are applied for slope cutting and the haul roads and stockpile on site.
- To cover idle soil slope surface and stockpile of dusty materials to prevent wind erosion.
- To ensure that all vehicles carrying dusty materials are properly covered before leaving the site.

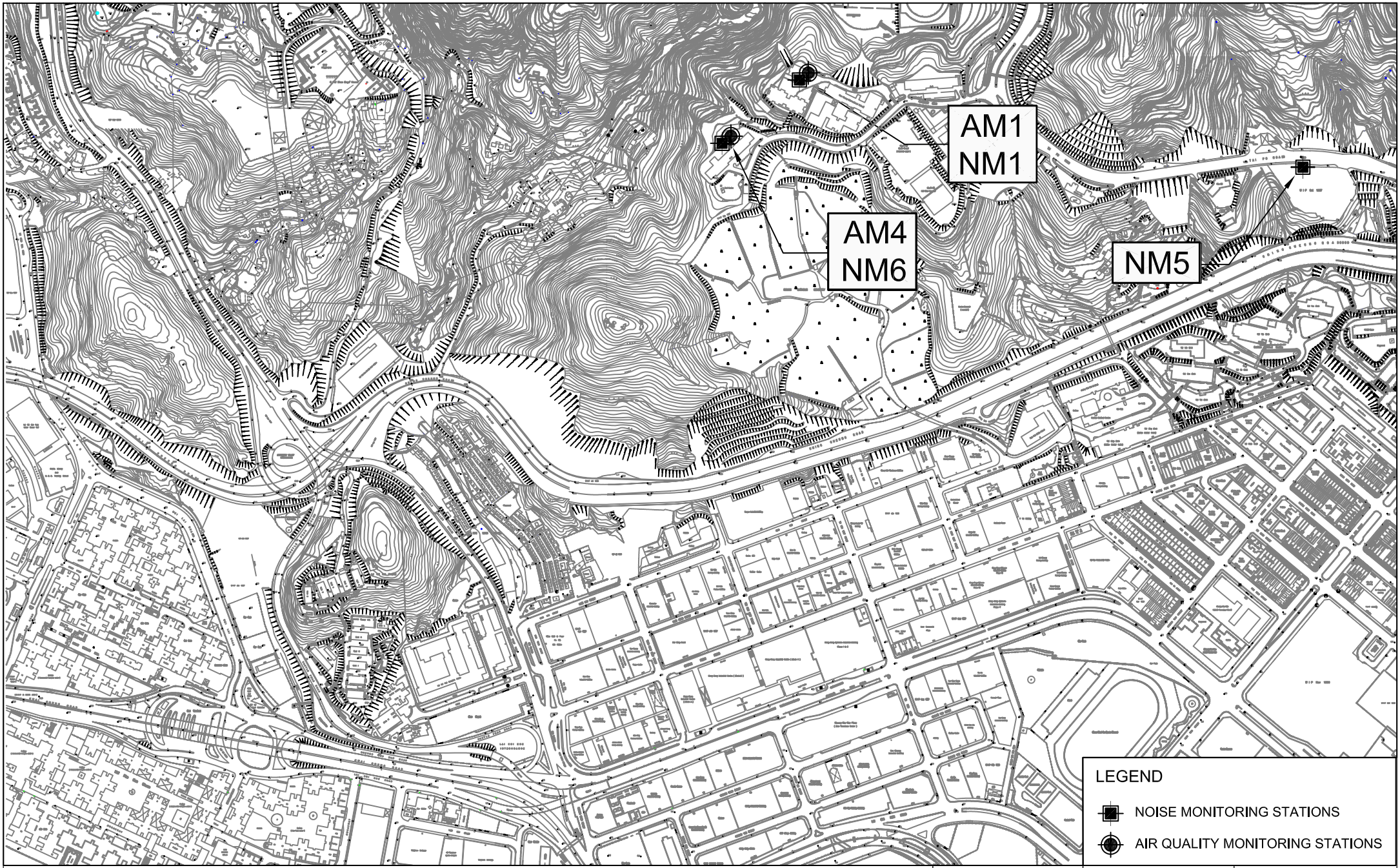
Noise Impact

- To provide temporary noise barriers for noisy activities (such as breaking works).
- To reduce the number of noisy equipment in concurrent operation.

Waste/Chemical Management

- To ensure proper storage of chemical and chemical waste on site.
- To check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly.

FIGURES



Title

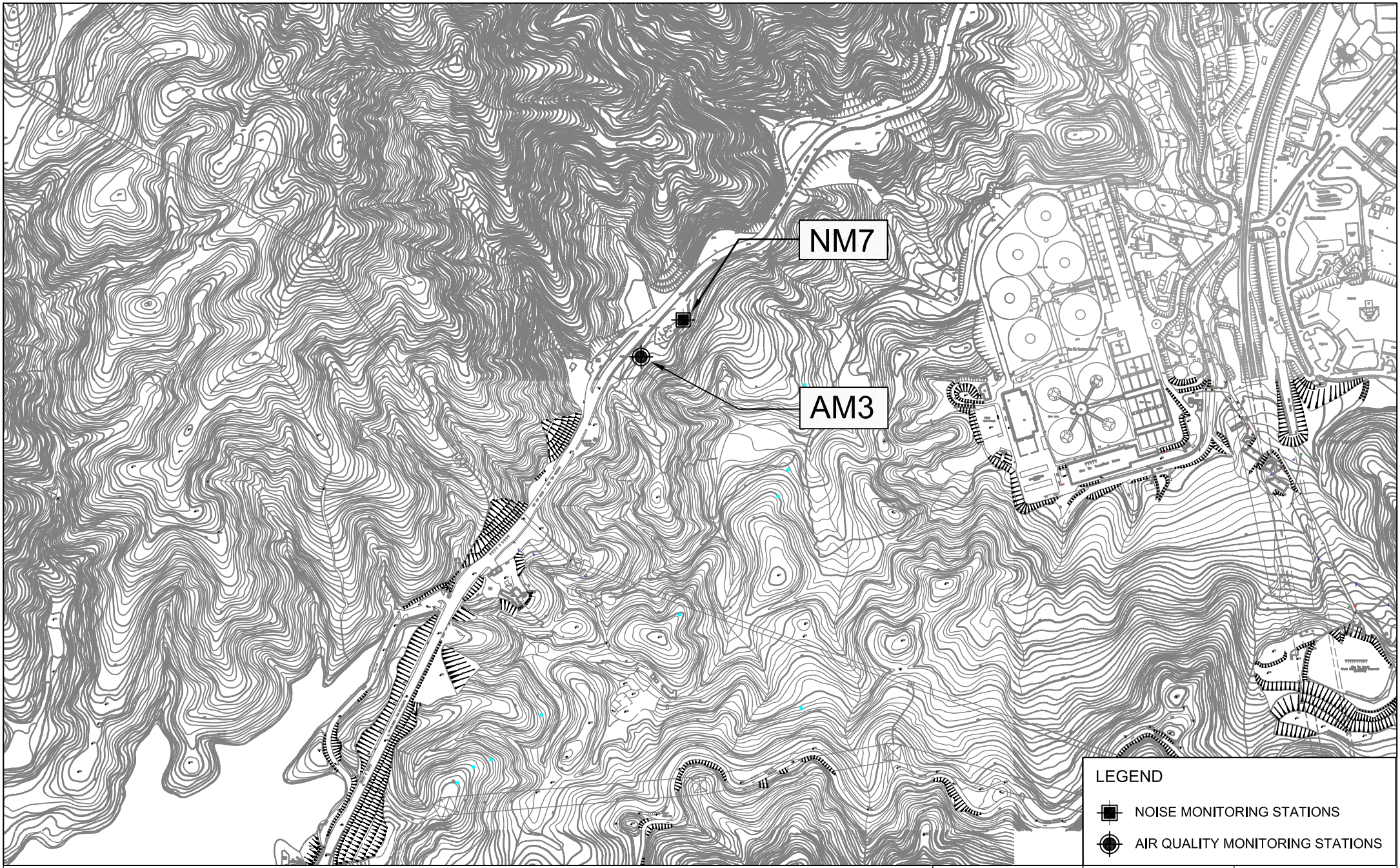
ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
CONTRACT NO. HY/2003/02 - EAGLE'S NEST TUNNEL AND ASSOCIATED WORKS

LOCATIONS OF MONITORING STATIONS

Scale	Project No.
1 : 6500 (A4)	MA3024
Date	Figure No.
2006	1a

CINOTECH consultants limited

F:\PEOJECTS\MA3024\DRAWING\IMPACT\ENT\FIGURE 1a.DWG



Title

ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
CONTRACT NO. HY/2003/02 - EAGLE'S NEST TUNNEL AND ASSOCIATED WORKS

LOCATIONS OF MONITORING STATIONS

Scale	Project No.
1 : 6500 (A4)	MA3024
Date	Figure No.
2006	1b

CINOTECH consultants limited

F:\PEOJECTS\MA3024\DRAWING\IMPACT\ENT\FIGURE 1b.DWG

APPENDIX A
ACTION AND LIMIT LEVELS

Appendix A - Action and Limit Levels (ENT)

1-Hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/m^3
AM1	296	500
AM3	350	
AM4	294	

24-Hour TSP

Location	Action Level, µg/m^3	Limit Level, µg/m^3
AM1	168	260
AM3	200	
AM4	170	

Construction Noise

Period	Action Level	Limit Level, dB(A)			
	for all stations	NM1	NM5	NM6	NM7
0700-1900 hrs on normal weekdays	When one documented complaint is received	70/65*	75	75	75
0700-2300 hrs on holidays & 1900-2300 hrs on all other days		-	70	65	60
2300-0700 hrs of next day		-	55	50	45

(*) Since NM1 is an educational institution, the noise Limit Level (0700-1900 hrs on normal days) is taken as 70 dB(A). The Limit Level will be reduced to 65 dB(A) during school examination periods.

APPENDIX B
COPIES OF CALIBRATION CERTIFCATES

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/18/0018

Station: Po Leung Kuk Choi Kai Yau School
Operator: WK
Date: 20-Jul-06
Next Due Date: 19-Sep-06
Equipment No.: A-01-18
Serial No. 0723

Ambient Condition			
Temperature, Ta (K)	302.9	Pressure, Pa (mmHg)	757

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	**mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$**			
Next Calibration Date:	12-Mar-07	**Qstd = $\{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler					
Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.0	3.57	61.39	7.5	2.71
2	10.7	3.24	55.63	6.1	2.44
3	8.6	2.90	49.80	5.0	2.21
4	5.4	2.30	39.32	3.0	1.71
5	3.0	1.71	29.13	2.0	1.40

By Linear Regression of Y on X

Slope , mw = 0.0413 **Intercept, bw =** 0.1545

Correlation coefficient* = 0.9972

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.80**

Remarks:

Conducted by: Wk. Tang Signature: Date: 20/7/06
Checked by: Signature: Date: 20 July 06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/18/0019

Station: Po Leung Kuk Choi Kai Yau School
Operator: WK
Date: 19-Sep-06
Next Due Date: 18-Nov-06
Equipment No.: A-01-18
Serial No. 0723

Ambient Condition			
Temperature, Ta (K)	303.4	Pressure, Pa (mmHg)	760.6

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	$mc \times Qstd + bc = [\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$			
Next Calibration Date:	12-Mar-07	$Qstd = \{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2} - bc\} / mc$			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	12.4	3.49	60.03	8.6	2.91
2	11.5	3.36	57.79	7.3	2.68
3	7.6	2.73	46.85	5.1	2.24
4	5.3	2.28	39.01	3.0	1.72
5	3.2	1.77	30.16	1.8	1.33

By Linear Regression of Y on X

Slope , mw = 0.0519 **Intercept, bw :** -0.2512

Correlation coefficient* = 0.9961

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.99**

Remarks:

Conducted by: Wk-Tang Signature: Kwan Date: 19/9/06
Checked by: HL Signature: Date: 19 Sep 2006

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/17/0020

Station: Government Quarter
Operator: WK
Date: 20-Jul-06
Next Due Date: 19-Sep-06
Equipment No.: A-01-17
Serial No. 3460

Ambient Condition			
Temperature, Ta (K)	302.9	Pressure, Pa (mmHg)	757

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	**mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$**			
Next Calibration Date:	12-Mar-07	**Qstd = $\{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	12.6	3.51	60.42	7.2	2.66
2	10.7	3.24	55.63	6.4	2.50
3	8.1	2.82	48.31	5.1	2.24
4	4.3	2.05	35.01	3.0	1.71
5	3.2	1.77	30.11	2.1	1.43

By Linear Regression of Y on X

Slope , mw = 0.0398 **Intercept, bw =** 0.2817

Correlation coefficient* = 0.9974

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **4.06**

Remarks:

Conducted by: Wu Tang Signature: Kwan Date: 20/7/06
Checked by: Signature: Date: 20 July 06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/17/0021

Station: Government Quarter
Operator: WK
Date: 19-Sep-06
Next Due Date: 18-Nov-06
Equipment No.: A-01-17
Serial No. 3460

Ambient Condition			
Temperature, Ta (K)	303.4	Pressure, Pa (mmHg)	760.6

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	**mc x Qstd + bc = [ΔH x (Pa/760) x (298/Ta)]$^{1/2}$**			
Next Calibration Date:	12-Mar-07	**Qstd = {[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler					
Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	13.1	3.59	61.72	7.8	2.77
2	11.0	3.29	56.50	6.6	2.55
3	8.4	2.87	49.29	5.4	2.30
4	5.6	2.35	40.12	3.2	1.77
5	3.3	1.80	30.64	1.9	1.37

By Linear Regression of Y on X

Slope , mw = 0.0458 **Intercept, bw =** -0.0308

Correlation coefficient* = 0.9970

*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 = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **3.82**

Remarks:

Conducted by: WK-Tang Signature: Date: 19/9/06
Checked by: Signature: Date: 19 Sep 2006

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA2027/A14/0018

Station: Garden Vilia | Operator: WK
Date: 7-Aug-06 | Next Due Date: 5-Oct-06
Equipment No.: A-01-14 | Serial No. 1354

Ambient Condition			
Temperature, Ta (K)	301.5	Pressure, Pa (mmHg)	755.5

Orifice Transfer Standard Information					
Equipment No.:	A-04-04	Slope, mc	0.0575	Intercept, bc	0.0395
Last Calibration Date:	13-Mar-06	**mc x Qstd + bc = $[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$**			
Next Calibration Date:	12-Mar-07	**Qstd = $\{[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$ -bc} / mc**			

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	12.3	3.48	59.77	7.8	2.77
2	10.0	3.13	53.83	6.5	2.53
3	7.5	2.71	46.52	4.3	2.06
4	5.1	2.24	38.24	3.1	1.75
5	3.2	1.77	30.15	2.0	1.40

By Linear Regression of Y on X

Slope , mw = 0.0469 **Intercept, bw =** -0.0421

Correlation coefficient* = 0.9959

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

From the TSP Field Calibration Curve, take Qstd = 43 CFM

From the Regression Equation, the "Y" value according to

$mw \times Qstd + bw = [\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$

Therefore, Set Point; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.96**

Remarks:

Conducted by: Wk. Tang Signature: Date: 7/8/06

Checked by: Signature: Date: 7 August 2006

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

TEST REPORT

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

ATTN: **Mr. Henry Leung**

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
Page:	1 of 1

Certificate of Calibration

Item for calibration:

Description	: RS232 Integral Vane Digital Anemometer
Manufacturer	: AZ Instrument
Model No.	: 451104
Serial No.	: 9020746
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.

PATRICK TSE
Laboratory Manager

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

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Mar 13, 2006 Rootsmeter S/N 9833620 Ta (K) - 294
Operator Tisch Orifice I.D. - 0993 Pa (mm) - 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	NA	NA	1.00	1.3890	3.2	2.00
2	NA	NA	1.00	0.9850	6.3	4.00
3	NA	NA	1.00	0.8810	7.8	5.00
4	NA	NA	1.00	0.8410	8.6	5.50
5	NA	NA	1.00	0.6950	12.5	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9917	0.7139	1.4113		0.9957	0.7168	0.8874
0.9876	1.0026	1.9959		0.9916	1.0067	1.2549
0.9854	1.1185	2.2315		0.9894	1.1231	1.4030
0.9844	1.1706	2.3405		0.9884	1.1753	1.4715
0.9792	1.4090	2.8227		0.9832	1.4147	1.7747
Qstd slope (m) =		2.03154		Qa slope (m) =		1.27212
intercept (b) =		-0.03970		intercept (b) =		-0.02496
coefficient (r) =		0.99999		coefficient (r) =		0.99999
y axis = SQRT[H2O(Pa/760)(298/Ta)]				y axis = SQRT[H2O(Ta/Pa)]		

CALCULATIONS

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

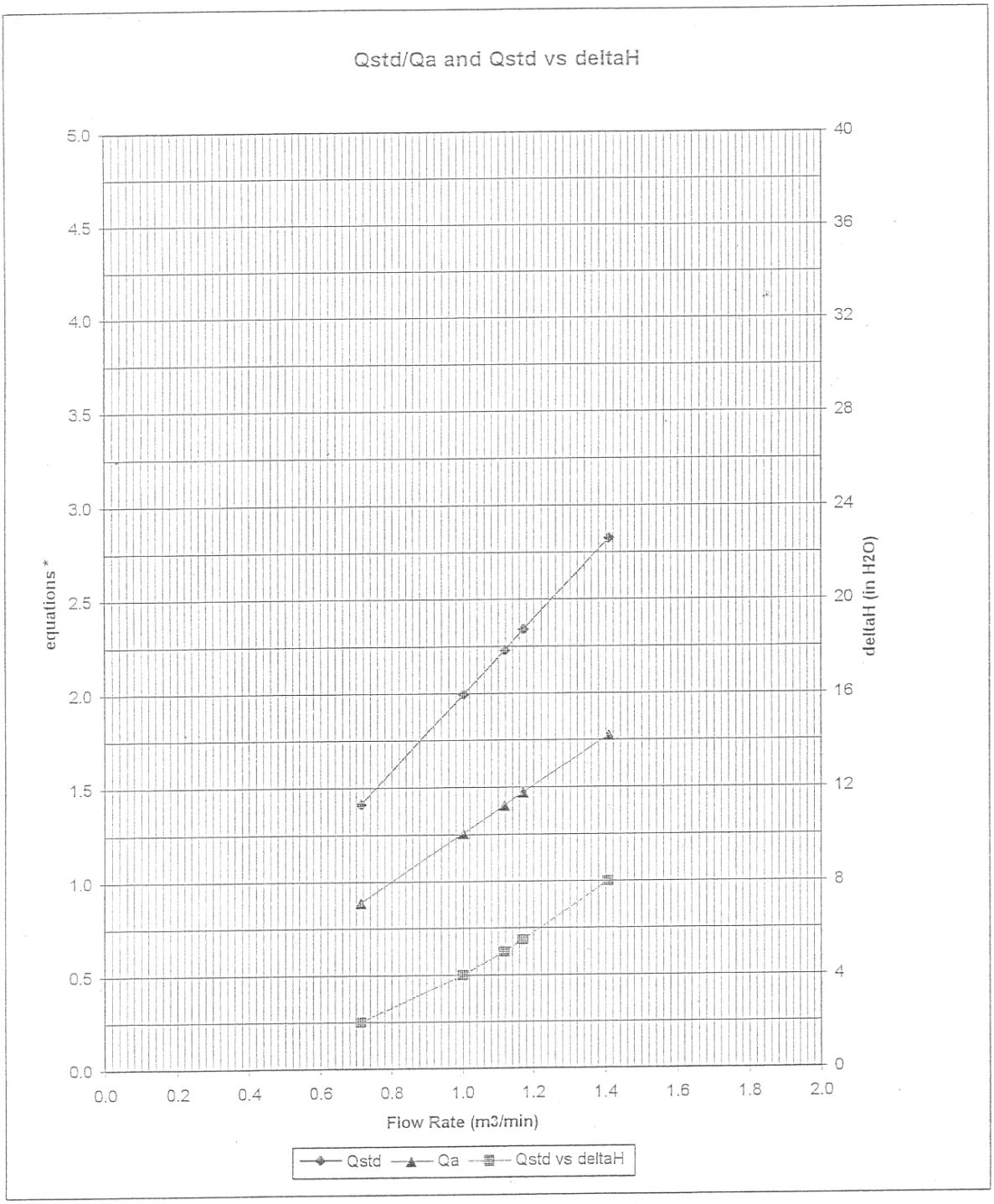
Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

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

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



* y-axis equations:

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

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

#0993

WELLAB LTD.

Unit C, 1/F, Goldlion Holdings Center
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Shatin, Hong Kong.
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TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/51216/1
Date of Issue:	2005-12-16
Date Received:	2005-12-15
Date Tested:	2005-12-15
Date Completed:	2005-12-16
Next Due Date:	2006-12-15
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 20 degree Celsius
Relative Humidity	: 63%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

Patrick

PATRICK TSE
Operation Manager

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

TEST REPORT

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

ATTN: **Mr. Henry Leung**

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 20 degree Celsius
Relative Humidity	: 60%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

Patrick.

PATRICK TSE
Operation Manager

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

TEST REPORT

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

ATTN: **Mr. Henry Leung**

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 22 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

Patrick.

PATRICK TSE
Laborary Manager

WELLAB LTD.

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

TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/60904-1
Date of Issue:	2006-09-04
Date Received:	2006-09-02
Date Tested:	2006-09-02
Date Completed:	2006-09-04
Next Due Date:	2007-09-03
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 23 degree Celsius
Relative Humidity	: 64%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

Patrick.

PATRICK TSE
Laborary Manager

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Fax: (852) 2898 7076

TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/50905-2
Date of Issue:	2005-09-06
Date Received:	2005-09-05
Date Tested:	2005-09-05
Date Completed:	2005-09-06
Next Due Date:	2006-09-05
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

Patrick.

PATRICK TSE
Operation Manager

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/N/60904-2
Date of Issue:	2006-09-04
Date Received:	2006-09-02
Date Tested:	2006-09-02
Date Completed:	2006-09-04
Next Due Date:	2007-09-03
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 23 degree Celsius
Relative Humidity	: 63%
Pressure	: 1006.5hPa

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 22 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

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TEST REPORT

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

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

ATTN: **Mr. Henry Leung**

Item for calibration:

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

Test conditions:

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

Methodology:

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

Results:

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

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

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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/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
Page:	1 of 1

ATTN: **Mr. Henry Leung**

Item for calibration:

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

Test conditions:

Room Temperatre	: 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 ± 0.2 dB

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

Patrick.

PATRICK TSE
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13-15 Yuen Shun Circuit,
Shatin, Hong Kong.
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TEST REPORT

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

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

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 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

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

Patrick.

PATRICK TSE
Operation Manager

WELLAB LTD.

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

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

Test Report No.:	C/N/60904-3
Date of Issue:	2006-09-04
Date Received:	2006-09-02
Date Tested:	2006-09-02
Date Completed:	2006-09-04
Next Due Date:	2007-09-03
Page:	1 of 1

ATTN: **Mr. Henry Leung**

Item for calibration:

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

Test conditions:

Room Temperatre	: 23 degree Celsius
Relative Humidity	: 63%
Pressure	: 1020.1hPa

Methodology:

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

Results:

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

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

Patrick .

PATRICK TSE
Operation Manager

APPENDIX C
ENVIRONMENTAL MONITORING AND AUDIT SCHEDULE

Environmental Monitoring for Eagle's Nest Tunnel
Tentative Air Quality and Noise Monitoring Schedule for September 2006

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

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

AM1	Yew Chung International School /Po Leung Kuk Choi Kai Yau School
AM3	Garden Villa
AM4	Government Quarters

NM1	Yew Chung International School /Po Leung Kuk Choi Kai Yau School
NM5	Villa Carlton
NM6	Government Quarters
NM7	Garden Villa

Environmental Monitoring for Eagle's Nest Tunnel
Tentative Air Quality and Noise Monitoring Schedule for October 2006

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

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

AM1	Yew Chung International School /Po Leung Kuk Choi Kai Yau School
AM3	Garden Villa
AM4	Government Quarters

NM1	Yew Chung International School /Po Leung Kuk Choi Kai Yau School
NM5	Villa Carlton
NM6	Government Quarters
NM7	Garden Villa

APPENDIX D
WIND DATA

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
1-Sep-2006	00:00	0.9	SW
1-Sep-2006	01:00	0.9	SW
1-Sep-2006	02:00	0.9	SW
1-Sep-2006	03:00	1.3	SW
1-Sep-2006	04:00	1.3	SW
1-Sep-2006	05:00	0.9	SW
1-Sep-2006	06:00	0.4	SW
1-Sep-2006	07:00	0	SW
1-Sep-2006	08:00	0.4	SW
1-Sep-2006	09:00	0.4	SW
1-Sep-2006	10:00	0	SW
1-Sep-2006	11:00	0	SW
1-Sep-2006	12:00	0	SW
1-Sep-2006	13:00	0	SW
1-Sep-2006	14:00	0	W
1-Sep-2006	15:00	0	W
1-Sep-2006	16:00	0	W
1-Sep-2006	17:00	0	W
1-Sep-2006	18:00	0	SW
1-Sep-2006	19:00	0.4	SW
1-Sep-2006	20:00	0.9	WSW
1-Sep-2006	21:00	0.9	W
1-Sep-2006	22:00	0.9	WSW
1-Sep-2006	23:00	1.3	NE
2-Sep-2006	00:00	1.8	NE
2-Sep-2006	01:00	1.3	NNE
2-Sep-2006	02:00	1.3	ENE
2-Sep-2006	03:00	0.4	ENE
2-Sep-2006	04:00	0.9	NE
2-Sep-2006	05:00	0.4	N
2-Sep-2006	06:00	0	ENE
2-Sep-2006	07:00	0	NE
2-Sep-2006	08:00	0	NE
2-Sep-2006	09:00	0	NE
2-Sep-2006	10:00	0	W
2-Sep-2006	11:00	0	N
2-Sep-2006	12:00	0	NE
2-Sep-2006	13:00	0	N
2-Sep-2006	14:00	0	N
2-Sep-2006	15:00	0.4	ENE
2-Sep-2006	16:00	0	ENE
2-Sep-2006	17:00	0	ENE
2-Sep-2006	18:00	0	ENE
2-Sep-2006	19:00	0	E
2-Sep-2006	20:00	0.4	ENE
2-Sep-2006	21:00	0.9	SE
2-Sep-2006	22:00	1.3	SSE
2-Sep-2006	23:00	0.9	S
3-Sep-2006	00:00	1.3	SE
3-Sep-2006	01:00	1.3	---
3-Sep-2006	02:00	0.9	SW
3-Sep-2006	03:00	0.9	NNE
3-Sep-2006	04:00	1.3	N
3-Sep-2006	05:00	0.4	NW

Appendix D - Wind Data

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

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
5-Sep-2006	12:00	0.9	WNW
5-Sep-2006	13:00	0.9	W
5-Sep-2006	14:00	0.9	W
5-Sep-2006	15:00	0.9	W
5-Sep-2006	16:00	0.9	W
5-Sep-2006	17:00	0.4	W
5-Sep-2006	18:00	0.4	WSW
5-Sep-2006	19:00	0.4	W
5-Sep-2006	20:00	0.4	SSW
5-Sep-2006	21:00	0.4	---
5-Sep-2006	22:00	0	---
5-Sep-2006	23:00	0	---
6-Sep-2006	00:00	4.5	SSE
6-Sep-2006	01:00	4	---
6-Sep-2006	02:00	2.7	SSE
6-Sep-2006	03:00	2.7	---
6-Sep-2006	04:00	2.2	---
6-Sep-2006	05:00	1.8	SSE
6-Sep-2006	06:00	1.8	SSE
6-Sep-2006	07:00	0.9	---
6-Sep-2006	08:00	0.4	E
6-Sep-2006	09:00	1.3	W
6-Sep-2006	10:00	1.8	SW
6-Sep-2006	11:00	2.2	WSW
6-Sep-2006	12:00	1.3	W
6-Sep-2006	13:00	2.2	W
6-Sep-2006	14:00	0.4	W
6-Sep-2006	15:00	0.4	ENE
6-Sep-2006	16:00	1.3	ENE
6-Sep-2006	17:00	1.8	NE
6-Sep-2006	18:00	1.8	ENE
6-Sep-2006	19:00	1.3	ENE
6-Sep-2006	20:00	1.8	---
6-Sep-2006	21:00	0.9	---
6-Sep-2006	22:00	0.4	SW
6-Sep-2006	23:00	0.9	SW
7-Sep-2006	00:00	3.6	SW
7-Sep-2006	01:00	2.2	SW
7-Sep-2006	02:00	1.8	SW
7-Sep-2006	03:00	0.9	SW
7-Sep-2006	04:00	0.4	SW
7-Sep-2006	05:00	1.3	SW
7-Sep-2006	06:00	0	SW
7-Sep-2006	07:00	0.9	---
7-Sep-2006	08:00	1.3	E
7-Sep-2006	09:00	4	W
7-Sep-2006	10:00	5.8	WNW
7-Sep-2006	11:00	5.8	W
7-Sep-2006	12:00	6.7	W
7-Sep-2006	13:00	7.6	W
7-Sep-2006	14:00	7.6	N
7-Sep-2006	15:00	8.5	N
7-Sep-2006	16:00	7.2	NNE
7-Sep-2006	17:00	6.7	NNE

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
12-Sep-2006	06:00	0	N
12-Sep-2006	07:00	0	N
12-Sep-2006	08:00	0	E
12-Sep-2006	09:00	0	W
12-Sep-2006	10:00	0.9	W
12-Sep-2006	11:00	1.8	W
12-Sep-2006	12:00	3.1	WNW
12-Sep-2006	13:00	2.2	W
12-Sep-2006	14:00	1.8	W
12-Sep-2006	15:00	1.3	W
12-Sep-2006	16:00	1.3	W
12-Sep-2006	17:00	0.9	W
12-Sep-2006	18:00	1.3	W
12-Sep-2006	19:00	0	WSW
12-Sep-2006	20:00	0	W
12-Sep-2006	21:00	0	W
12-Sep-2006	22:00	0	W
12-Sep-2006	23:00	0	W
13-Sep-2006	00:00	0	W
13-Sep-2006	01:00	0	W
13-Sep-2006	02:00	0	WNW
13-Sep-2006	03:00	0	W
13-Sep-2006	04:00	0	W
13-Sep-2006	05:00	0	WNW
13-Sep-2006	06:00	0	W
13-Sep-2006	07:00	0	W
13-Sep-2006	08:00	0	WSW
13-Sep-2006	09:00	0.9	WSW
13-Sep-2006	10:00	2.2	W
13-Sep-2006	11:00	3.1	WNW
13-Sep-2006	12:00	2.7	W
13-Sep-2006	13:00	0.9	WNW
13-Sep-2006	14:00	0.9	W
13-Sep-2006	15:00	1.3	W
13-Sep-2006	16:00	0.9	W
13-Sep-2006	17:00	0.9	SW
13-Sep-2006	18:00	0	W
13-Sep-2006	19:00	0.9	W
13-Sep-2006	20:00	1.8	WSW
13-Sep-2006	21:00	0.9	W
13-Sep-2006	22:00	0	W
13-Sep-2006	23:00	0.4	W
14-Sep-2006	00:00	0.4	NNE
14-Sep-2006	01:00	0.9	WSW
14-Sep-2006	02:00	1.3	S
14-Sep-2006	03:00	0.4	S
14-Sep-2006	04:00	0	S
14-Sep-2006	05:00	0.4	S
14-Sep-2006	06:00	0.4	S
14-Sep-2006	07:00	0.4	---
14-Sep-2006	08:00	0.4	SW
14-Sep-2006	09:00	1.8	SSW
14-Sep-2006	10:00	1.3	W
14-Sep-2006	11:00	2.2	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
14-Sep-2006	12:00	2.7	SW
14-Sep-2006	13:00	2.7	SSW
14-Sep-2006	14:00	1.3	SSW
14-Sep-2006	15:00	1.8	W
14-Sep-2006	16:00	2.2	WNW
14-Sep-2006	17:00	2.2	W
14-Sep-2006	18:00	2.2	W
14-Sep-2006	19:00	2.2	WSW
14-Sep-2006	20:00	1.3	W
14-Sep-2006	21:00	1.3	WSW
14-Sep-2006	22:00	1.8	SSW
14-Sep-2006	23:00	1.8	SSW
15-Sep-2006	00:00	1.8	SSW
15-Sep-2006	01:00	1.8	WSW
15-Sep-2006	02:00	1.3	WSW
15-Sep-2006	03:00	1.8	W
15-Sep-2006	04:00	1.3	WSW
15-Sep-2006	05:00	0.4	WSW
15-Sep-2006	06:00	0	W
15-Sep-2006	07:00	0.4	W
15-Sep-2006	08:00	0.9	W
15-Sep-2006	09:00	1.3	WSW
15-Sep-2006	10:00	1.8	W
15-Sep-2006	11:00	1.8	W
15-Sep-2006	12:00	2.7	W
15-Sep-2006	13:00	3.1	WSW
15-Sep-2006	14:00	2.2	WSW
15-Sep-2006	15:00	2.2	W
15-Sep-2006	16:00	1.8	SSE
15-Sep-2006	17:00	1.8	SSE
15-Sep-2006	18:00	0.9	ENE
15-Sep-2006	19:00	0	NE
15-Sep-2006	20:00	0	E
15-Sep-2006	21:00	0	S
15-Sep-2006	22:00	0.4	S
15-Sep-2006	23:00	0	WSW
16-Sep-2006	00:00	0.4	WSW
16-Sep-2006	01:00	1.3	SW
16-Sep-2006	02:00	0.4	WSW
16-Sep-2006	03:00	0.4	W
16-Sep-2006	04:00	0	W
16-Sep-2006	05:00	0	W
16-Sep-2006	06:00	0	SW
16-Sep-2006	07:00	0	W
16-Sep-2006	08:00	0	WSW
16-Sep-2006	09:00	0.9	WSW
16-Sep-2006	10:00	2.2	W
16-Sep-2006	11:00	2.2	WSW
16-Sep-2006	12:00	1.8	WSW
16-Sep-2006	13:00	2.2	W
16-Sep-2006	14:00	1.3	W
16-Sep-2006	15:00	0.9	WNW
16-Sep-2006	16:00	2.7	W
16-Sep-2006	17:00	2.7	WSW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
16-Sep-2006	18:00	0.9	WSW
16-Sep-2006	19:00	0	S
16-Sep-2006	20:00	0.4	WSW
16-Sep-2006	21:00	2.7	SSW
16-Sep-2006	22:00	0.4	W
16-Sep-2006	23:00	0	S
17-Sep-2006	00:00	0	S
17-Sep-2006	01:00	0	W
17-Sep-2006	02:00	0	WSW
17-Sep-2006	03:00	0	WSW
17-Sep-2006	04:00	0	SW
17-Sep-2006	05:00	0	SW
17-Sep-2006	06:00	0	SSW
17-Sep-2006	07:00	0	SW
17-Sep-2006	08:00	0	WSW
17-Sep-2006	09:00	0	W
17-Sep-2006	10:00	1.8	W
17-Sep-2006	11:00	2.2	WSW
17-Sep-2006	12:00	2.2	W
17-Sep-2006	13:00	1.3	WSW
17-Sep-2006	14:00	0.9	W
17-Sep-2006	15:00	2.2	W
17-Sep-2006	16:00	1.3	W
17-Sep-2006	17:00	0.4	WNW
17-Sep-2006	18:00	0.4	WNW
17-Sep-2006	19:00	0.4	W
17-Sep-2006	20:00	0.4	W
17-Sep-2006	21:00	0.4	W
17-Sep-2006	22:00	0	W
17-Sep-2006	23:00	0	WNW
18-Sep-2006	00:00	0	W
18-Sep-2006	01:00	0	W
18-Sep-2006	02:00	0	W
18-Sep-2006	03:00	0	W
18-Sep-2006	04:00	0	WNW
18-Sep-2006	05:00	0	W
18-Sep-2006	06:00	0	W
18-Sep-2006	07:00	0	W
18-Sep-2006	08:00	0	W
18-Sep-2006	09:00	1.3	WNW
18-Sep-2006	10:00	2.2	W
18-Sep-2006	11:00	2.2	WNW
18-Sep-2006	12:00	2.7	W
18-Sep-2006	13:00	3.1	WNW
18-Sep-2006	14:00	3.6	WNW
18-Sep-2006	15:00	4	W
18-Sep-2006	16:00	4	WNW
18-Sep-2006	17:00	4	WNW
18-Sep-2006	18:00	3.6	S
18-Sep-2006	19:00	3.6	SSW
18-Sep-2006	20:00	2.7	SSW
18-Sep-2006	21:00	3.6	WNW
18-Sep-2006	22:00	4.5	SW
18-Sep-2006	23:00	4.9	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
19-Sep-2006	00:00	3.6	W
19-Sep-2006	01:00	4	WNW
19-Sep-2006	02:00	3.6	W
19-Sep-2006	03:00	3.1	W
19-Sep-2006	04:00	3.1	WNW
19-Sep-2006	05:00	2.7	W
19-Sep-2006	06:00	2.7	S
19-Sep-2006	07:00	1.8	SW
19-Sep-2006	08:00	1.3	SSE
19-Sep-2006	09:00	2.7	S
19-Sep-2006	10:00	2.7	W
19-Sep-2006	11:00	2.7	W
19-Sep-2006	12:00	4	W
19-Sep-2006	13:00	4	W
19-Sep-2006	14:00	4.5	W
19-Sep-2006	15:00	4	W
19-Sep-2006	16:00	4	W
19-Sep-2006	17:00	3.1	W
19-Sep-2006	18:00	3.6	W
19-Sep-2006	19:00	3.6	W
19-Sep-2006	20:00	3.6	W
19-Sep-2006	21:00	3.1	W
19-Sep-2006	22:00	2.2	W
19-Sep-2006	23:00	2.7	ENE
20-Sep-2006	00:00	1.3	---
20-Sep-2006	01:00	0.9	---
20-Sep-2006	02:00	0.9	---
20-Sep-2006	03:00	0.4	---
20-Sep-2006	04:00	0	---
20-Sep-2006	05:00	0	ENE
20-Sep-2006	06:00	0	---
20-Sep-2006	07:00	0	ENE
20-Sep-2006	08:00	0.9	---
20-Sep-2006	09:00	2.2	NNE
20-Sep-2006	10:00	1.8	NW
20-Sep-2006	11:00	3.1	NW
20-Sep-2006	12:00	4.5	E
20-Sep-2006	13:00	4.5	NNE
20-Sep-2006	14:00	3.6	NE
20-Sep-2006	15:00	3.1	ENE
20-Sep-2006	16:00	3.1	ENE
20-Sep-2006	17:00	2.2	N
20-Sep-2006	18:00	2.2	ENE
20-Sep-2006	19:00	2.2	ENE
20-Sep-2006	20:00	1.8	---
20-Sep-2006	21:00	2.2	ENE
20-Sep-2006	22:00	2.2	ENE
20-Sep-2006	23:00	1.8	E
21-Sep-2006	00:00	2.7	---
21-Sep-2006	01:00	1.8	E
21-Sep-2006	02:00	3.1	---
21-Sep-2006	03:00	2.7	---
21-Sep-2006	04:00	2.7	---
21-Sep-2006	05:00	2.7	---

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
21-Sep-2006	06:00	3.1	---
21-Sep-2006	07:00	2.7	---
21-Sep-2006	08:00	2.2	E
21-Sep-2006	09:00	2.7	W
21-Sep-2006	10:00	3.1	NE
21-Sep-2006	11:00	2.7	NE
21-Sep-2006	12:00	3.1	ENE
21-Sep-2006	13:00	2.7	N
21-Sep-2006	14:00	2.7	ENE
21-Sep-2006	15:00	1.8	ENE
21-Sep-2006	16:00	1.3	NE
21-Sep-2006	17:00	1.3	ENE
21-Sep-2006	18:00	0.9	E
21-Sep-2006	19:00	0.4	NE
21-Sep-2006	20:00	0	---
21-Sep-2006	21:00	0.4	ENE
21-Sep-2006	22:00	0.4	ENE
21-Sep-2006	23:00	1.8	ENE
22-Sep-2006	00:00	1.8	---
22-Sep-2006	01:00	1.3	---
22-Sep-2006	02:00	1.8	---
22-Sep-2006	03:00	2.7	ENE
22-Sep-2006	04:00	2.7	---
22-Sep-2006	05:00	3.1	---
22-Sep-2006	06:00	2.2	---
22-Sep-2006	07:00	3.1	---
22-Sep-2006	08:00	2.7	---
22-Sep-2006	09:00	4	ENE
22-Sep-2006	10:00	3.6	W
22-Sep-2006	11:00	3.6	SW
22-Sep-2006	12:00	4	WSW
22-Sep-2006	13:00	3.1	WSW
22-Sep-2006	14:00	2.7	SW
22-Sep-2006	15:00	3.1	SW
22-Sep-2006	16:00	3.6	WSW
22-Sep-2006	17:00	2.7	S
22-Sep-2006	18:00	2.2	S
22-Sep-2006	19:00	2.7	SSW
22-Sep-2006	20:00	1.3	SSW
22-Sep-2006	21:00	1.3	SSW
22-Sep-2006	22:00	2.2	NW
22-Sep-2006	23:00	1.8	NW
23-Sep-2006	00:00	1.8	NW
23-Sep-2006	01:00	3.1	NW
23-Sep-2006	02:00	3.6	NW
23-Sep-2006	03:00	3.6	NW
23-Sep-2006	04:00	3.1	NW
23-Sep-2006	05:00	3.1	NW
23-Sep-2006	06:00	3.1	NW
23-Sep-2006	07:00	4	NW
23-Sep-2006	08:00	4	NW
23-Sep-2006	09:00	5.4	NW
23-Sep-2006	10:00	5.4	NW
23-Sep-2006	11:00	7.2	NW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
23-Sep-2006	12:00	8.5	NW
23-Sep-2006	13:00	8	W
23-Sep-2006	14:00	7.2	SW
23-Sep-2006	15:00	5.4	SSW
23-Sep-2006	16:00	6.7	SW
23-Sep-2006	17:00	5.4	SW
23-Sep-2006	18:00	4.5	WSW
23-Sep-2006	19:00	4.9	SW
23-Sep-2006	20:00	4.9	SW
23-Sep-2006	21:00	4	SW
23-Sep-2006	22:00	5.4	SSW
23-Sep-2006	23:00	4.5	SW
24-Sep-2006	00:00	4	SW
24-Sep-2006	01:00	4.5	WSW
24-Sep-2006	02:00	3.6	SW
24-Sep-2006	03:00	4.5	SW
24-Sep-2006	04:00	6.3	WSW
24-Sep-2006	05:00	6.3	WSW
24-Sep-2006	06:00	6.3	SW
24-Sep-2006	07:00	4.9	SW
24-Sep-2006	08:00	5.8	SW
24-Sep-2006	09:00	5.4	SW
24-Sep-2006	10:00	6.7	SW
24-Sep-2006	11:00	7.2	SSW
24-Sep-2006	12:00	5.8	SW
24-Sep-2006	13:00	5.8	SW
24-Sep-2006	14:00	4.5	SW
24-Sep-2006	15:00	5.4	SW
24-Sep-2006	16:00	4.9	SW
24-Sep-2006	17:00	4.5	SW
24-Sep-2006	18:00	2.7	W
24-Sep-2006	19:00	2.2	W
24-Sep-2006	20:00	2.2	W
24-Sep-2006	21:00	3.1	W
24-Sep-2006	22:00	1.8	W
24-Sep-2006	23:00	3.6	W
25-Sep-2006	00:00	4	W
25-Sep-2006	01:00	4.9	W
25-Sep-2006	02:00	3.6	WSW
25-Sep-2006	03:00	2.7	W
25-Sep-2006	04:00	3.1	WNW
25-Sep-2006	05:00	2.2	W
25-Sep-2006	06:00	0.4	W
25-Sep-2006	07:00	0.9	WNW
25-Sep-2006	08:00	0.9	WNW
25-Sep-2006	09:00	0.4	W
25-Sep-2006	10:00	2.2	WNW
25-Sep-2006	11:00	3.1	W
25-Sep-2006	12:00	3.1	W
25-Sep-2006	13:00	3.1	WNW
25-Sep-2006	14:00	3.6	WNW
25-Sep-2006	15:00	4.5	WNW
25-Sep-2006	16:00	4	WNW
25-Sep-2006	17:00	3.6	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
25-Sep-2006	18:00	2.2	W
25-Sep-2006	19:00	1.8	WNW
25-Sep-2006	20:00	0.4	WNW
25-Sep-2006	21:00	0	W
25-Sep-2006	22:00	1.8	WNW
25-Sep-2006	23:00	0.4	W
26-Sep-2006	00:00	0	WNW
26-Sep-2006	01:00	0	WNW
26-Sep-2006	02:00	0	WNW
26-Sep-2006	03:00	0	WNW
26-Sep-2006	04:00	0	W
26-Sep-2006	05:00	0	WNW
26-Sep-2006	06:00	0	WNW
26-Sep-2006	07:00	0	WNW
26-Sep-2006	08:00	0	WNW
26-Sep-2006	09:00	0.4	WNW
26-Sep-2006	10:00	0.4	W
26-Sep-2006	11:00	0.4	W
26-Sep-2006	12:00	0.9	W
26-Sep-2006	13:00	0.9	W
26-Sep-2006	14:00	0.4	W
26-Sep-2006	15:00	0.4	W
26-Sep-2006	16:00	0.4	WNW
26-Sep-2006	17:00	0	WNW
26-Sep-2006	18:00	0	WNW
26-Sep-2006	19:00	0	WNW
26-Sep-2006	20:00	0	WNW
26-Sep-2006	21:00	0	WNW
26-Sep-2006	22:00	0	WNW
26-Sep-2006	23:00	0.4	WNW
27-Sep-2006	00:00	0	W
27-Sep-2006	01:00	0	WNW
27-Sep-2006	02:00	0	W
27-Sep-2006	03:00	0	W
27-Sep-2006	04:00	0	W
27-Sep-2006	05:00	0	W
27-Sep-2006	06:00	0	WNW
27-Sep-2006	07:00	0	W
27-Sep-2006	08:00	0	W
27-Sep-2006	09:00	0	NW
27-Sep-2006	10:00	0.9	WNW
27-Sep-2006	11:00	0.4	WNW
27-Sep-2006	12:00	1.3	WNW
27-Sep-2006	13:00	0.9	W
27-Sep-2006	14:00	0.9	WNW
27-Sep-2006	15:00	1.3	WNW
27-Sep-2006	16:00	0.4	WNW
27-Sep-2006	17:00	0.4	WNW
27-Sep-2006	18:00	0	W
27-Sep-2006	19:00	0	W
27-Sep-2006	20:00	0	W
27-Sep-2006	21:00	0	WSW
27-Sep-2006	22:00	0	WSW
27-Sep-2006	23:00	0	SW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
28-Sep-2006	00:00	0	SW
28-Sep-2006	01:00	0	WSW
28-Sep-2006	02:00	0	SSW
28-Sep-2006	03:00	0	WSW
28-Sep-2006	04:00	0	W
28-Sep-2006	05:00	0	W
28-Sep-2006	06:00	0	SSW
28-Sep-2006	07:00	0	W
28-Sep-2006	08:00	0	W
28-Sep-2006	09:00	0	WSW
28-Sep-2006	10:00	0.9	WNW
28-Sep-2006	11:00	1.8	WNW
28-Sep-2006	12:00	1.8	WNW
28-Sep-2006	13:00	2.2	WNW
28-Sep-2006	14:00	2.2	NW
28-Sep-2006	15:00	2.2	WNW
28-Sep-2006	16:00	1.8	W
28-Sep-2006	17:00	1.8	W
28-Sep-2006	18:00	0.9	W
28-Sep-2006	19:00	1.3	W
28-Sep-2006	20:00	1.8	ESE
28-Sep-2006	21:00	1.8	S
28-Sep-2006	22:00	1.8	---
28-Sep-2006	23:00	3.6	N
29-Sep-2006	00:00	2.7	N
29-Sep-2006	01:00	2.2	N
29-Sep-2006	02:00	1.8	N
29-Sep-2006	03:00	2.7	N
29-Sep-2006	04:00	4	---
29-Sep-2006	05:00	4.5	---
29-Sep-2006	06:00	4.5	---
29-Sep-2006	07:00	4.5	---
29-Sep-2006	08:00	4	---
29-Sep-2006	09:00	4.5	W
29-Sep-2006	10:00	4.9	W
29-Sep-2006	11:00	4.5	NE
29-Sep-2006	12:00	4	NE
29-Sep-2006	13:00	4	NE
29-Sep-2006	14:00	2.7	NE
29-Sep-2006	15:00	2.7	NE
29-Sep-2006	16:00	3.1	NE
29-Sep-2006	17:00	4	NE
29-Sep-2006	18:00	4.5	NE
29-Sep-2006	19:00	4.5	NE
29-Sep-2006	20:00	4	NE
29-Sep-2006	21:00	3.1	NE
29-Sep-2006	22:00	2.7	NE
29-Sep-2006	23:00	3.6	NE
30-Sep-2006	00:00	4	---
30-Sep-2006	01:00	3.6	---
30-Sep-2006	02:00	4.5	SSW
30-Sep-2006	03:00	4.5	---
30-Sep-2006	04:00	4	---
30-Sep-2006	05:00	4.5	---

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
30-Sep-2006	06:00	4.5	---
30-Sep-2006	07:00	4	---
30-Sep-2006	08:00	4	SSW
30-Sep-2006	09:00	4.5	WNW
30-Sep-2006	10:00	4.9	W
30-Sep-2006	11:00	6.3	W
30-Sep-2006	12:00	6.7	WNW
30-Sep-2006	13:00	6.7	WNW
30-Sep-2006	14:00	7.2	NE
30-Sep-2006	15:00	6.3	NE
30-Sep-2006	16:00	6.3	NE
30-Sep-2006	17:00	6.7	NE
30-Sep-2006	18:00	7.2	ENE
30-Sep-2006	19:00	8	NE
30-Sep-2006	20:00	8.5	ESE
30-Sep-2006	21:00	8.5	E
30-Sep-2006	22:00	9.8	---
30-Sep-2006	23:00	9.4	E

APPENDIX E
1-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix E - 1-hour TSP Monitoring Results

Location AM1 - Po Leung Kuk Choi Kai Yau School

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
1-Sep-06	Sunny	2.8543	2.8565	1.22	1.22	4755.6	4756.6	302.3	756.7	0.0022	1.22	73.1	1.0	30.1
5-Sep-06	Sunny	2.8677	2.8717	1.22	1.22	4756.6	4757.6	302.3	757.7	0.0040	1.22	73.1	1.0	54.7
7-Sep-06	Rainy	2.8548	2.8592	1.22	1.22	4781.6	4782.6	301.9	758.1	0.0044	1.22	73.2	1.0	60.1
8-Sep-06	Sunny	2.8377	2.8470	1.22	1.22	4782.6	4783.6	302.3	757.8	0.0093	1.22	73.1	1.0	127.2
12-Sep-06	Cloudy	2.8749	2.8794	1.24	1.24	4783.6	4784.6	294.2	759.0	0.0045	1.24	74.3	1.0	60.6
13-Sep-06	Cloudy	2.8550	2.8625	1.23	1.23	4808.6	4809.6	298.7	758.7	0.0075	1.23	73.6	1.0	101.8
14-Sep-06	Cloudy	2.8472	2.8537	1.23	1.23	4809.6	4810.6	298.9	759.9	0.0065	1.23	73.7	1.0	88.2
19-Sep-06	Sunny	2.8501	2.8543	1.23	1.23	4834.6	4835.6	299.3	761.6	0.0042	1.23	73.7	1.0	57.0
20-Sep-06	Sunny	2.8255	2.8367	1.23	1.23	4842.1	4843.1	298.9	761.5	0.0112	1.23	73.6	1.0	152.1
21-Sep-06	Sunny	2.8269	2.8328	1.23	1.23	4836.6	4837.6	299.3	760.9	0.0059	1.23	73.6	1.0	80.2
25-Sep-06	Sunny	2.8175	2.8232	1.22	1.22	4861.6	4862.6	1652.3	761.0	0.0057	1.22	73.4	1.0	77.6
26-Sep-06	Sunny	2.8286	2.8330	1.23	1.22	4862.6	4863.6	299.7	761.0	0.0044	1.23	73.5	1.0	59.9
28-Sep-06	Sunny	2.8642	2.8700	1.23	1.23	4863.6	4864.6	299.4	760.9	0.0058	1.23	73.5	1.0	78.9
													Min	30.1
													Max	152.1
													Average	79.1

Location AM 3 - Garden Villa

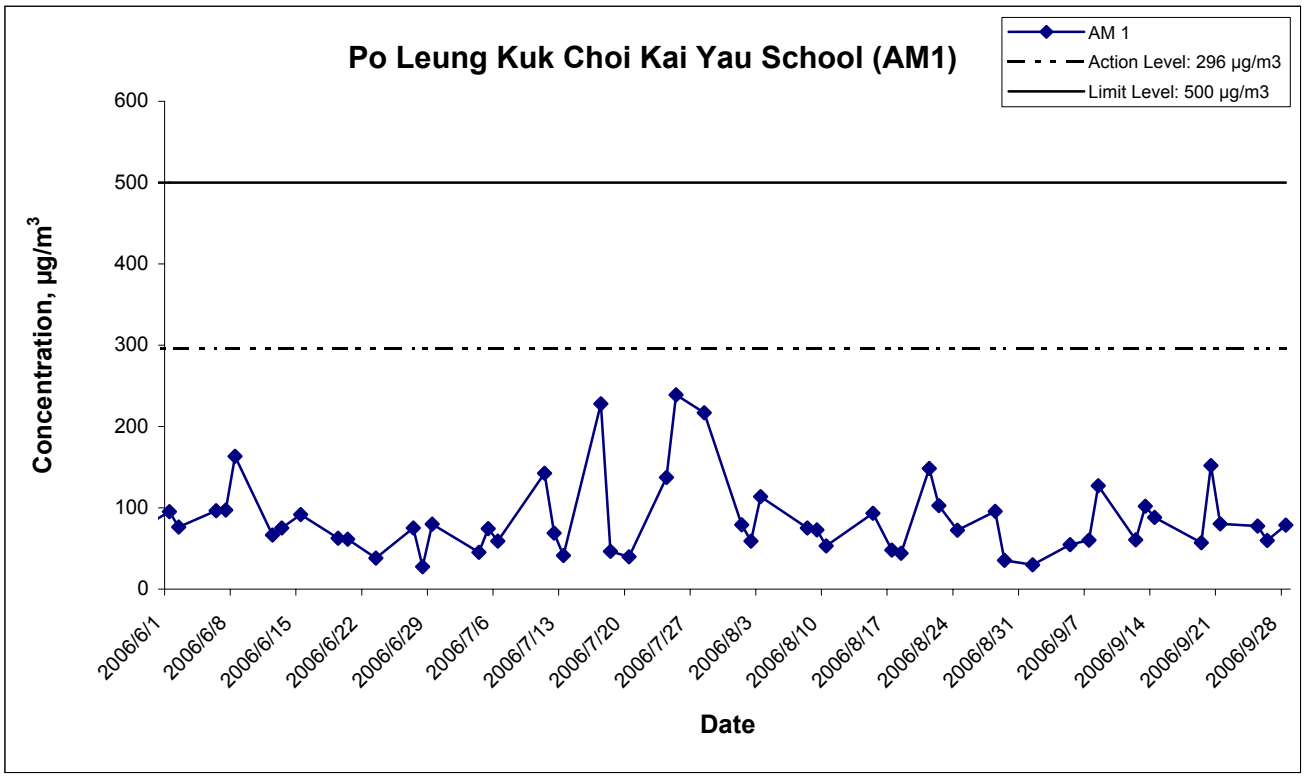
Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
1-Sep-06	Sunny	2.8440	2.8472	1.22	1.22	5097.1	5098.1	302.3	757.7	0.0032	1.22	73.3	1.0	43.7
5-Sep-06	Sunny	2.9048	2.9089	1.22	1.22	5098.1	5099.1	302.3	757.7	0.0041	1.22	73.3	1.0	55.9
7-Sep-06	Rainy	2.8824	2.8879	1.22	1.22	5123.1	5124.1	301.9	758.1	0.0055	1.22	73.4	1.0	75.0
8-Sep-06	Sunny	2.8627	2.8725	1.22	1.22	5124.1	5125.1	302.3	757.8	0.0098	1.22	73.3	1.0	133.7
12-Sep-06	Cloudy	2.8402	2.8502	1.24	1.24	5125.1	5126.1	294.2	759.0	0.0100	1.24	74.4	1.0	134.5
13-Sep-06	Cloudy	2.8342	2.8428	1.23	1.23	5150.1	5151.1	298.5	758.9	0.0086	1.23	73.8	1.0	116.5
14-Sep-06	Cloudy	2.8712	2.8768	1.23	1.23	5151.1	5152.1	298.9	759.9	0.0056	1.23	73.8	1.0	75.9
19-Sep-06	Sunny	2.8484	2.8568	1.23	1.23	5176.1	5177.1	299.1	761.8	0.0084	1.23	73.9	1.0	113.7
20-Sep-06	Sunny	2.8597	2.8692	1.23	1.23	5177.1	5178.1	298.9	761.5	0.0095	1.23	73.9	1.0	128.6
21-Sep-06	Sunny	2.9231	2.9330	1.23	1.23	5178.1	5179.1	299.3	760.9	0.0099	1.23	73.8	1.0	134.1
25-Sep-06	Sunny	2.9084	2.9129	1.23	1.23	5203.1	5204.1	300.3	761.3	0.0045	1.23	73.7	1.0	61.0
26-Sep-06	Sunny	2.8298	2.8356	1.23	1.23	5204.1	5205.1	299.7	761.0	0.0058	1.23	73.8	1.0	78.6
28-Sep-06	Sunny	2.8401	2.8465	1.23	1.23	5205.1	5206.1	299.4	760.9	0.0064	1.23	73.8	1.0	86.7
													Min	43.7
													Max	134.5
													Average	95.2

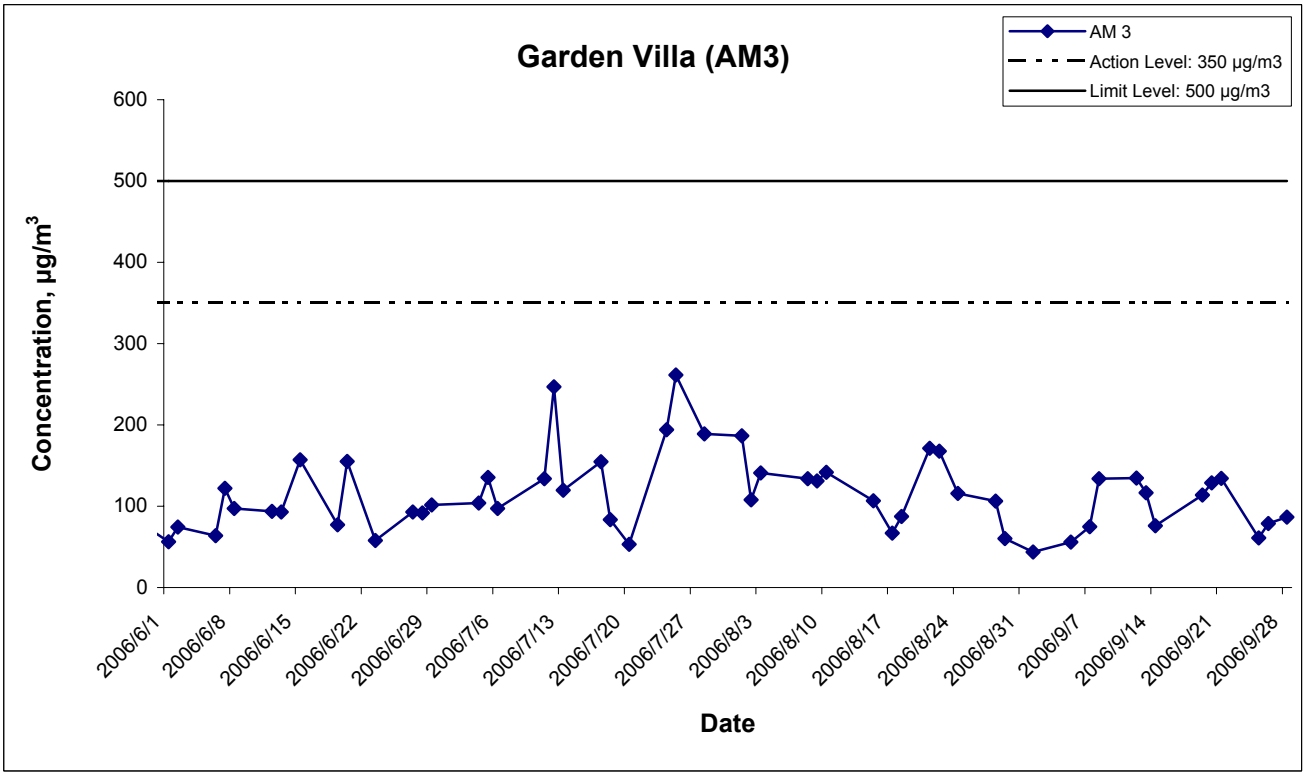
Appendix E - 1-hour TSP Monitoring Results

Location AM 4 - Government Quarters

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. (μg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
1-Sep-06	Sunny	2.8538	2.8546	1.23	1.23	4709.5	4710.5	302.3	756.7	0.0008	1.23	73.6	1.0	10.9
5-Sep-06	Sunny	2.8903	2.8934	1.23	1.23	4710.5	4711.5	302.3	757.7	0.0031	1.23	73.6	1.0	42.1
7-Sep-06	Sunny	2.8627	2.8674	1.23	1.23	4735.5	4736.5	301.9	758.1	0.0047	1.23	73.7	1.0	63.8
8-Sep-06	Sunny	2.8415	2.8467	1.23	1.23	4736.5	4737.5	302.3	4167.5	0.0052	1.23	73.6	1.0	70.6
12-Sep-06	Cloudy	2.8940	2.8971	1.25	1.25	4737.5	4738.5	294.2	759.0	0.0031	1.25	74.9	1.0	41.4
13-Sep-06	Cloudy	2.8526	2.8573	1.24	1.24	4762.5	4763.5	298.7	758.7	0.0047	1.24	74.2	1.0	63.3
14-Sep-06	Cloudy	2.8458	2.8489	1.24	1.24	4763.5	4764.5	298.9	759.9	0.0031	1.24	74.2	1.0	41.8
19-Sep-06	Sunny	2.8519	2.8559	1.24	1.24	4788.5	4789.5	299.3	761.6	0.0040	1.24	74.3	1.0	53.9
20-Sep-06	Sunny	2.8149	2.8229	1.22	1.22	4789.5	4790.5	298.9	761.5	0.0080	1.22	73.4	1.0	109.0
21-Sep-06	Sunny	2.8253	2.8322	1.22	1.22	4790.5	4791.5	299.3	760.9	0.0069	1.22	73.3	1.0	94.1
25-Sep-06	Sunny	2.8425	2.8476	1.22	1.22	4815.5	4816.5	300.3	761.3	0.0051	1.22	73.2	1.0	69.7
26-Sep-06	Sunny	2.8261	2.8308	1.22	1.22	4816.5	4817.5	299.7	761.0	0.0047	1.22	73.3	1.0	64.2
28-Sep-06	Sunny	2.8122	2.8184	1.22	1.22	4817.5	4818.5	299.4	760.9	0.0062	1.22	73.3	1.0	84.6
													Min	10.9
													Max	109.0
													Average	62.3

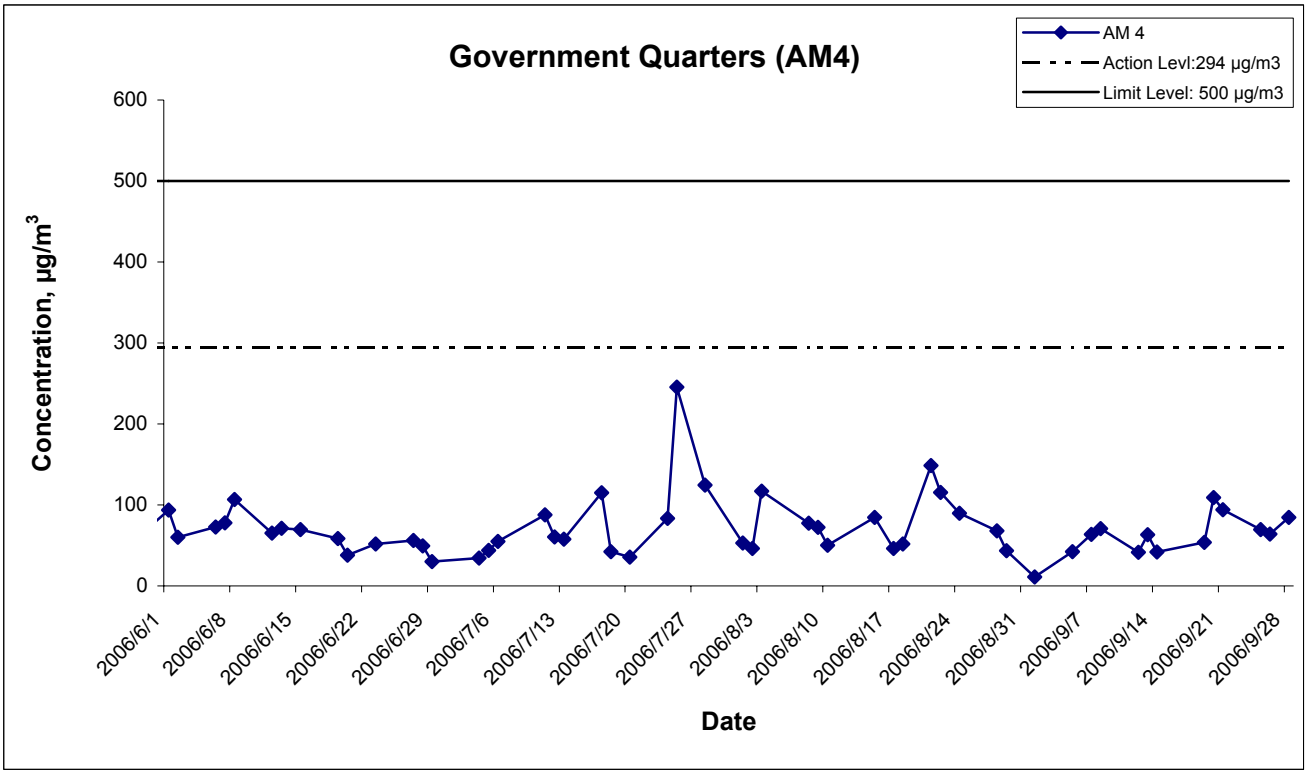
1-hr TSP Levels





Title: Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of 1-hour TSP Impact Monitoring Results	Scale: N.T.S	Project No.: MA3024	CINOTECH
	Date: Sep 06	Appendix: E	

1-hr TSP Levels



Title: Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of 1-hour TSP Impact Monitoring Results	Scale: N.T.S Date: Sep 06	Project No.: MA3024 Appendix: E	CINOTECH

APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - 24-hour TSP Monitoring Results

Location AM1 - Po Leung Kuk Choi Kai Yau School

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
6-Sep-06	Sunny	2.9097	2.9802	1.23	1.23	4757.6	4781.6	301.3	757.9	0.0705	1.23	1766.8	24.0	39.9
12-Sep-06	Cloudy	2.8700	2.9466	1.24	1.24	4784.6	4808.6	294.4	758.8	0.0766	1.24	1781.2	24.0	43.0
18-Sep-06	Sunny	2.8271	2.8982	1.23	1.23	4810.6	4834.6	298.5	760.5	0.0711	1.23	1770.0	24.0	40.2
23-Sep-06	Sunny	2.8347	2.9427	1.22	1.22	4837.6	4861.6	300.7	760.7	0.1080	1.22	1761.3	24.0	61.3
29-Sep-06	Sunny	2.8480	2.9317	1.22	1.22	4864.6	4888.0	300.8	760.1	0.0837	1.22	1718.0	23.4	48.7
													Min	39.9
													Max	61.3
													Average	46.6

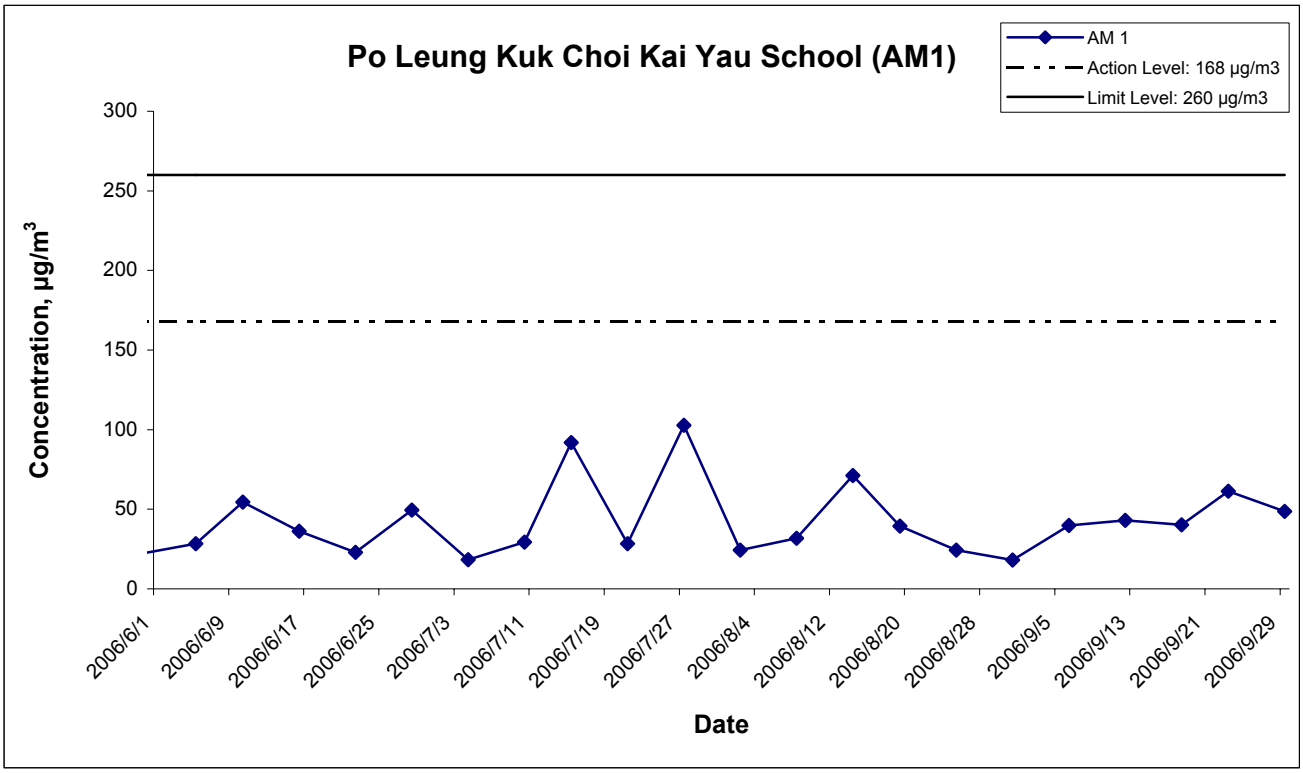
Location AM 3 - Garden Villa

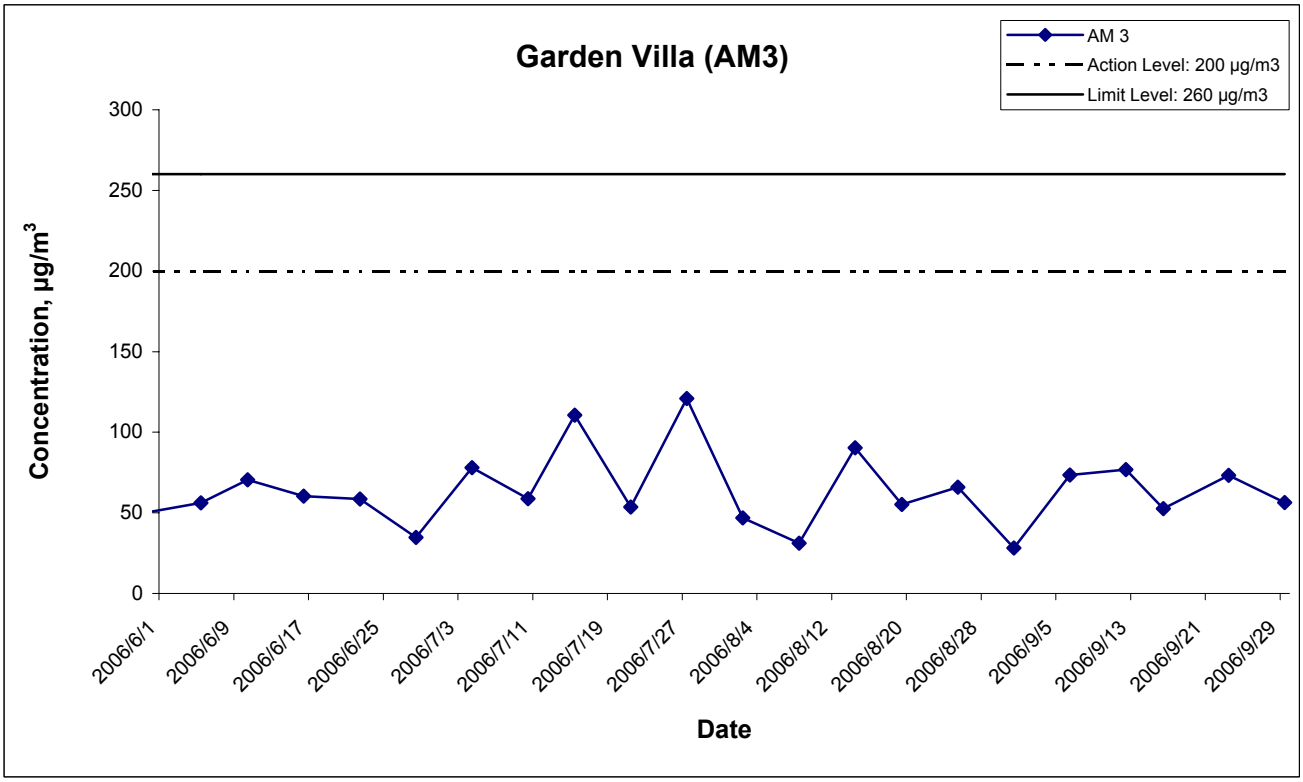
Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
6-Sep-06	Sunny	2.8905	3.0201	1.22	1.22	5099.1	5123.1	301.3	757.9	0.1296	1.22	1762.4	24.0	73.5
12-Sep-06	Cloudy	2.8328	2.9700	1.24	1.24	5126.1	5150.1	294.3	759.0	0.1372	1.24	1784.3	24.0	76.9
16-Sep-06	Sunny	2.8735	2.9667	1.23	1.23	5152.1	5176.1	298.5	760.5	0.0932	1.23	1773.5	24.0	52.6
23-Sep-06	Sunny	2.8568	2.9863	1.23	1.23	5179.1	5203.1	300.5	760.9	0.1295	1.23	1768.2	24.0	73.2
29-Sep-06	Sunny	2.8414	2.9411	1.23	1.23	5206.1	5230.1	300.8	760.1	0.0997	1.23	1766.6	24.0	56.4
													Min	52.6
													Max	76.9
													Average	66.5

Location AM 4 - Government Quarters

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
6-Sep-06	Sunny	2.8919	2.9835	1.23	1.23	4711.5	4735.5	301.3	757.9	0.0916	1.23	1770.5	24.0	51.7
12-Sep-06	Cloudy	2.8456	2.9323	1.25	1.25	4738.5	4762.5	294.4	758.8	0.0867	1.25	1795.8	24.0	48.3
18-Sep-06	Sunny	2.8422	2.9238	1.24	1.24	4764.5	4788.5	298.5	760.5	0.0816	1.24	1783.7	24.0	45.7
23-Sep-06	Sunny	2.8445	3.0097	1.22	1.22	4791.5	4815.5	300.7	760.7	0.1652	1.22	1754.9	24.0	94.1
29-Sep-06	Sunny	2.8332	2.9273	1.22	1.22	4818.5	4842.5	300.8	760.1	0.0941	1.22	1754.1	24.0	53.6
													Min	45.7
													Max	94.1
													Average	58.7

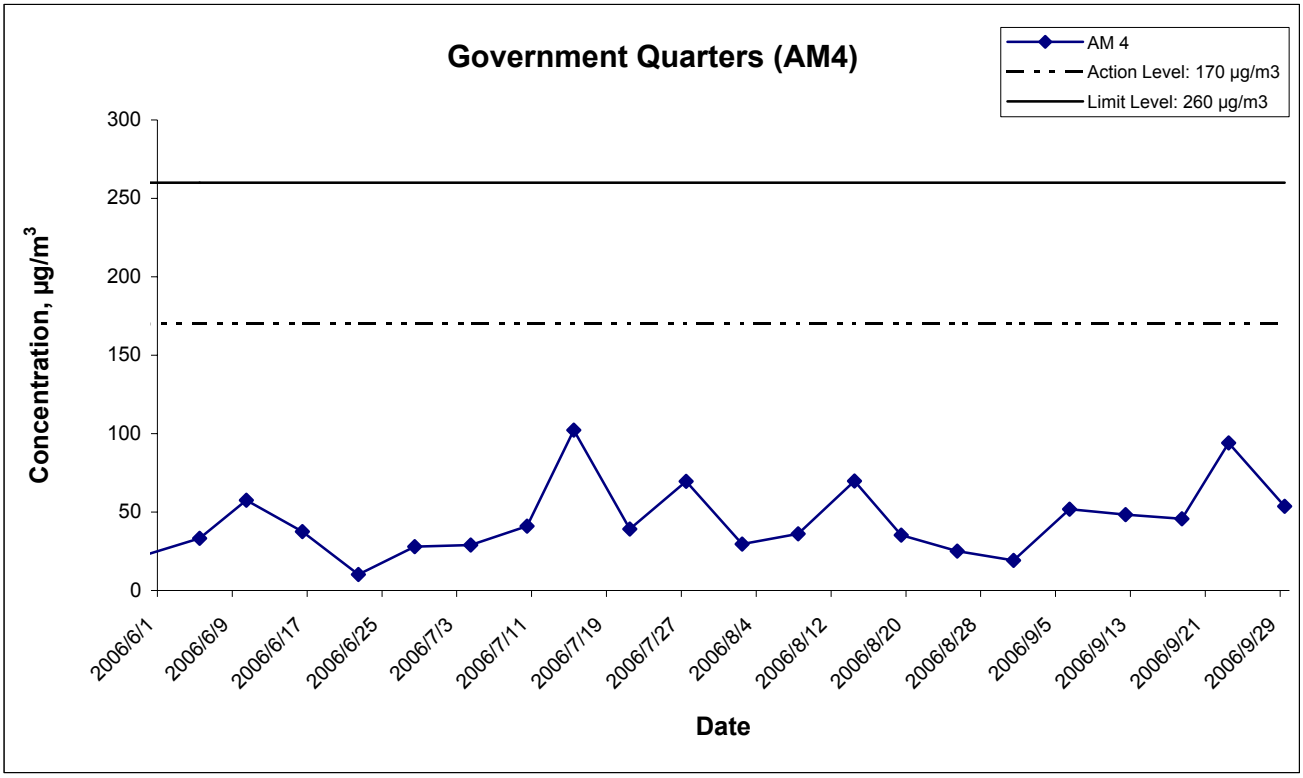
24-hr TSP Levels





Title: Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of 24-hour TSP Impact Monitoring Results	Scale: N.T.S Date: Sep 06	Project No.: MA3024 Appendix: F	CINOTECH

24-hr TSP Levels



Title Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of 24-hour TSP Impact Monitoring Results	Scale N.T.S	Project No. MA3024	CINOTECH
	Date Sep 06	Appendix F	

APPENDIX G
NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix G - Noise Monitoring Results

Location NM1 - Po Leung Kuk Choi Kai Yau School						
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Remarks
			L_{eq}	L_{10}	L_{90}	
5-Sep-06	10:15	Sunny	64.9	66.5	57.5	-
12-Sep-06	10:00	Cloudy	64.2	68.0	61.0	
19-Sep-06	10:30	Fine	64.8	69.0	61.5	
25-Sep-06	13:30	Sunny	64.4	69.0	61.5	

Location NM5 - Villa Carlton								
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}	
5-Sep-06	11:00	Sunny	76.4	78.5	70.0	77.1	76.4, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
12-Sep-06	11:25	Cloudy	76.4	79.5	72.0		76.4, Measured ≤ Baseline	
19-Sep-06	11:15	Fine	76.9	79.5	72.5		76.9, Measured ≤ Baseline	
25-Sep-06	15:00	Sunny	77.2	80.5	74.0		60.8	

Location NM6 - Government Quarters						
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Remarks
			L_{eq}	L_{10}	L_{90}	
5-Sep-06	13:00	Sunny	63.8	65.5	58.5	-
12-Sep-06	13:15	Cloudy	67.0	70.0	63.5	
19-Sep-06	13:30	Fine	67.1	72.0	63.5	
25-Sep-06	16:15	Sunny	65.8	69.5	61.5	

Location NM7 - Garden Vilia								
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}	
5-Sep-06	16:45	Sunny	67.3	69.5	62.5	59.0	66.6	-
12-Sep-06	09:00	Cloudy	70.6	74.5	67.0		70.3	
19-Sep-06	09:00	Sunny	71.6	74.0	68.5		71.4	
25-Sep-06	09:15	Sunny	70.6	72.5	67.0		70.3	

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

*Bolded value indicated limit level exceedance

Appendix G - Noise Monitoring Results

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

Location NM5 - Villa Carlton									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
5-Sep-06	19:00	Fine	73.2	77.5	71.0	73.3	75.8	73.3, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	19:05		73.4	77.5	71.0				
	19:10		73.3	77.5	71.0				
12-Sep-06	19:05	Cloudy	73.6	77.5	70.5	73.8		73.8, Measured ≤ Baseline	
	19:10		73.7	77.5	71.0				
	19:15		74.0	78.0	71.0				
19-Sep-06	19:15	Fine	73.6	77.5	71.0	73.4		73.4, Measured ≤ Baseline	
	19:20		73.4	77.0	71.0				
	19:25		73.2	77.0	70.5				
25-Sep-06	19:15	Cloudy	73.6	77.5	71.0	73.4		73.4, Measured ≤ Baseline	
	19:20		73.4	77.5	71.0				
	19:25		73.1	77.0	70.5				

Location NM6 - Government Quarters									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
5-Sep-06	20:00	Fine	54.3	57.5	51.0	54.5	56.1	54.5, Measured ≤ Baseline	-
	20:05		54.6	58.0	51.5				
	20:10		54.7	58.0	51.5				
12-Sep-06	20:00	Cloudy	54.6	59.0	51.5	54.6		54.6, Measured ≤ Baseline	
	20:05		54.7	58.5	51.5				
	20:10		54.6	58.0	51.0				
19-Sep-06	19:55	Fine	54.2	57.0	51.0	54.4		54.4, Measured ≤ Baseline	
	20:00		54.3	57.0	51.5				
	20:05		54.6	58.0	51.5				
25-Sep-06	20:05	Cloudy	54.1	57.0	50.5	54.3		54.3, Measured ≤ Baseline	
	20:10		54.3	57.0	50.5				
	20:15		54.6	57.5	51.0				

Location NM7 - Garden Villa									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
5-Sep-06	19:00	Cloudy	59.1	61.5	57.0	59	58.3	50.7	The major noise source was identified as traffic noise from Tai Po Road.
	19:05		58.6	61.0	56.0				
	19:10		59.4	61.5	57.0				
12-Sep-06	19:00	Cloudy	58.4	61.0	56.0	58.5		45.0	
	19:05		58.7	62.5	56.0				
	19:10		58.3	61.0	55.5				
19-Sep-06	19:45	Cloudy	57.6	60.5	54.5	57.7		57.7, Measured ≤ Baseline	
	19:50		58.0	60.5	54.5				
	20:00		57.5	60.5	54.0				
25-Sep-06	19:00	Cloudy	57.4	60.5	53.5	57.6		57.6, Measured ≤ Baseline	
	19:05		57.6	60.5	54.0				
	19:10		57.7	60.5	54.0				

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

*Bolded value indicated limit level exceedance

Appendix G - Noise Monitoring Results

Restricted Hours - 23:00 to 07:00 on normal weekdays

Location NM5 - Villa Carlton									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
5-Sep-06	23:50	Cloudy	72.6	77.5	70.5	72.6	74.3	72.6, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	23:55		72.7	77.5	70.5				
	00:00		72.5	77.5	70.0				
12-Sep-06	23:50	Cloudy	72.4	77.5	71.5	72.5		72.5, Measured ≤ Baseline	
	23:55		72.5	77.5	71.5				
	00:00		72.7	78.0	72.0				
19-Sep-06	23:50	Cloudy	72.4	77.5	71.0	72.5		72.5, Measured ≤ Baseline	
	23:55		72.5	77.5	71.0				
	00:00		72.5	77.5	71.5				
25-Sep-06	23:50	Cloudy	73.3	77.5	71.0	73.5		73.5, Measured ≤ Baseline	
	23:55		73.4	77.5	71.5				
	00:00		73.8	78.0	71.5				

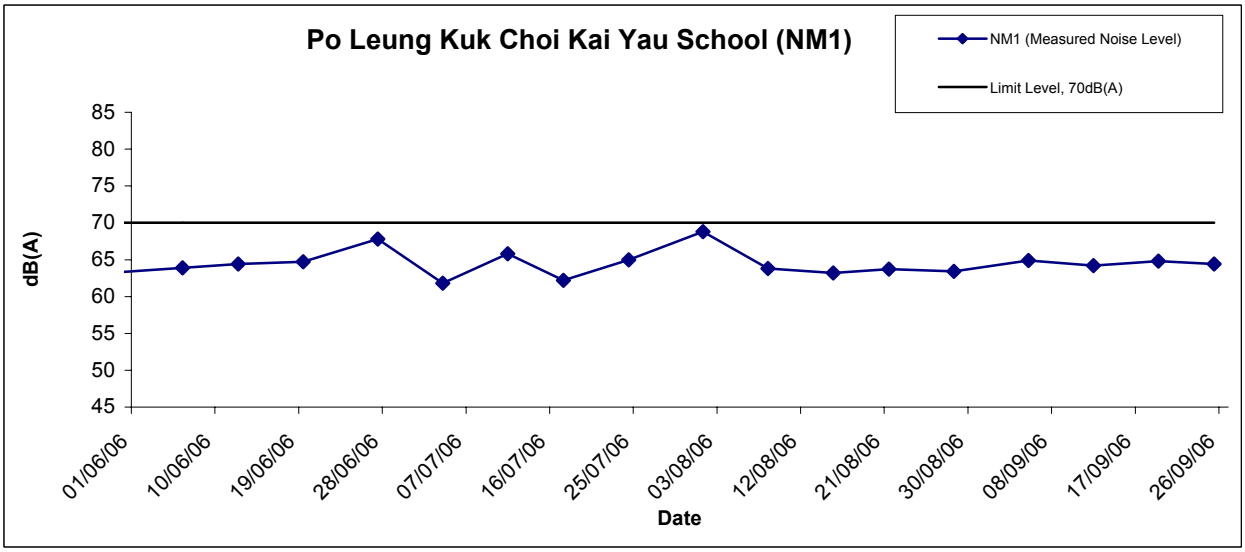
Location NM6 - Government Quarters									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
5-Sep-06	23:25	Cloudy	50.2	54.5	47.5	50.4	52.8	50.4, Measured ≤ Baseline	The noise monitoring results are well within the range of Baseline Monitoring Level and there is no evidence showing that the dominant noise was generated from the construction activities.
	23:30		50.4	54.5	48.0				
	23:35		50.6	54.5	48.0				
12-Sep-06	23:25	Cloudy	50.4	53.5	47.5	50.4		50.4, Measured ≤ Baseline	
	23:30		50.7	54.0	48.0				
	23:35		50.2	53.5	47.5				
19-Sep-06	23:25	Cloudy	50.3	53.5	47.5	50.3		50.3, Measured ≤ Baseline	
	23:30		50.6	54.0	48.5				
	23:35		50.1	53.0	47.5				
25-Sep-06	23:25	Cloudy	50.6	53.5	4.0	50.6		50.6, Measured ≤ Baseline	
	23:30		50.7	53.5	48.0				
	23:35		50.4	53.0	47.5				

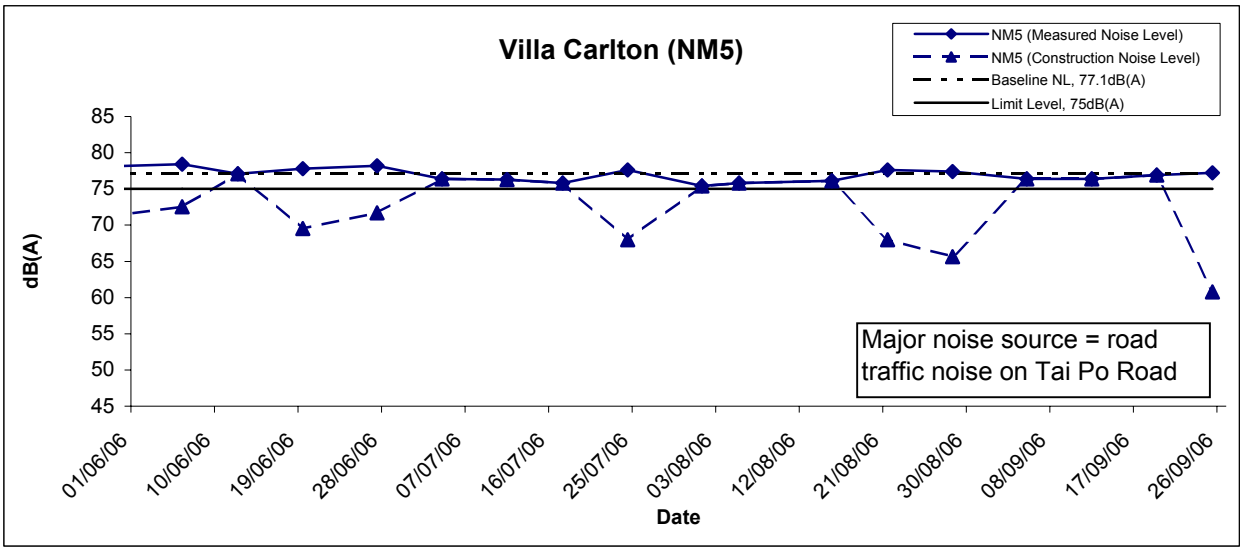
Location NM7 - Garden Villa									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
5-Sep-06	23:00	Cloudy	54.6	59.0	50.5	54.5	56.5	54.5, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	23:05		54.2	58.0	50.5				
	23:10		54.6	59.0	50.5				
12-Sep-06	23:00	Cloudy	54.7	58.5	51.0	54.5		54.5, Measured ≤ Baseline	
	23:05		54.5	58.5	50.5				
	23:10		54.3	58.0	50.5				
19-Sep-06	23:00	Cloudy	54.6	58.0	51.0	54.4		54.4, Measured ≤ Baseline	
	23:05		54.2	58.0	51.0				
	23:10		54.4	58.0	50.5				
25-Sep-06	23:00	Cloudy	54.8	57.5	51.0	54.8		54.8, Measured ≤ Baseline	
	23:05		54.7	58.5	51.5				
	23:10		54.8	57.0	51.0				

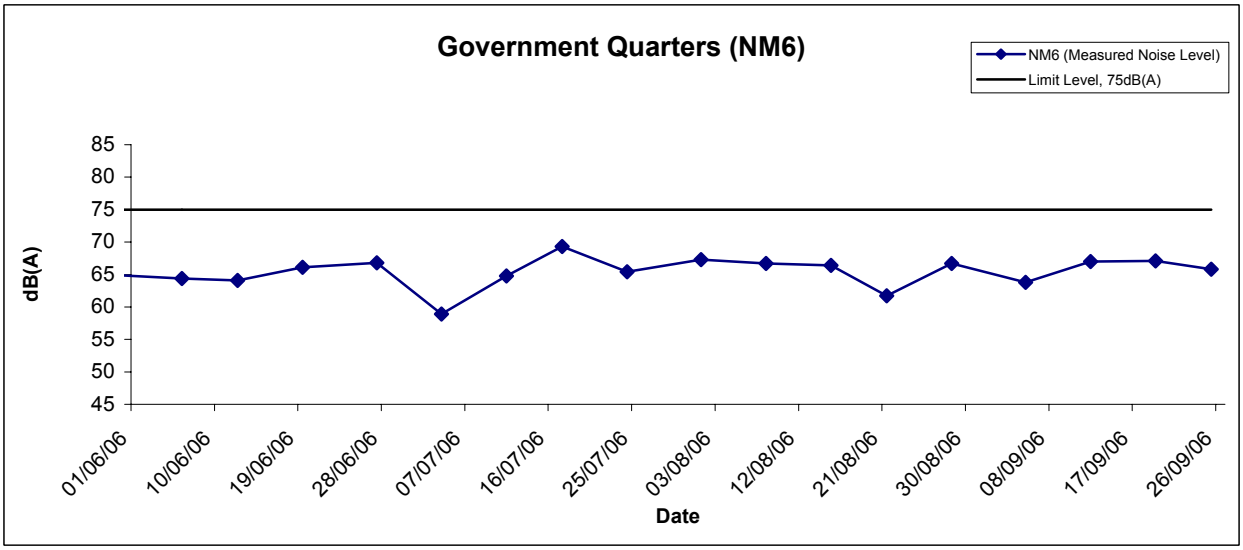
Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

*Bolded value indicated limit level exceedance

Noise Levels



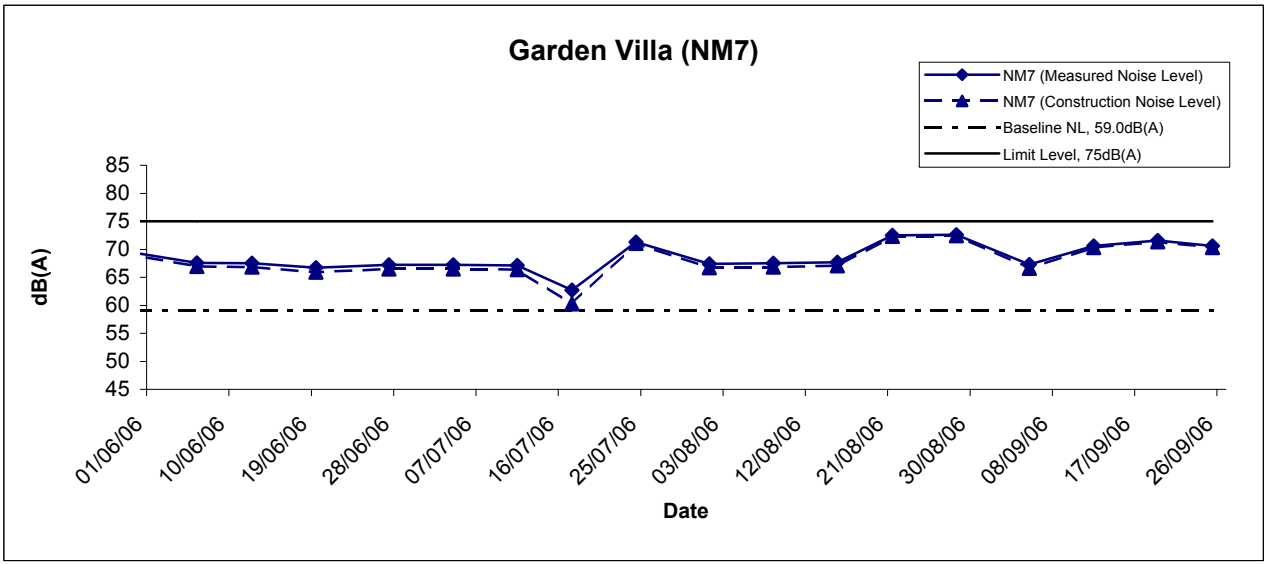




* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

Title: Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S	Project No.: MA3024	CINOTECH
	Date: Sep 06	Appendix: G	

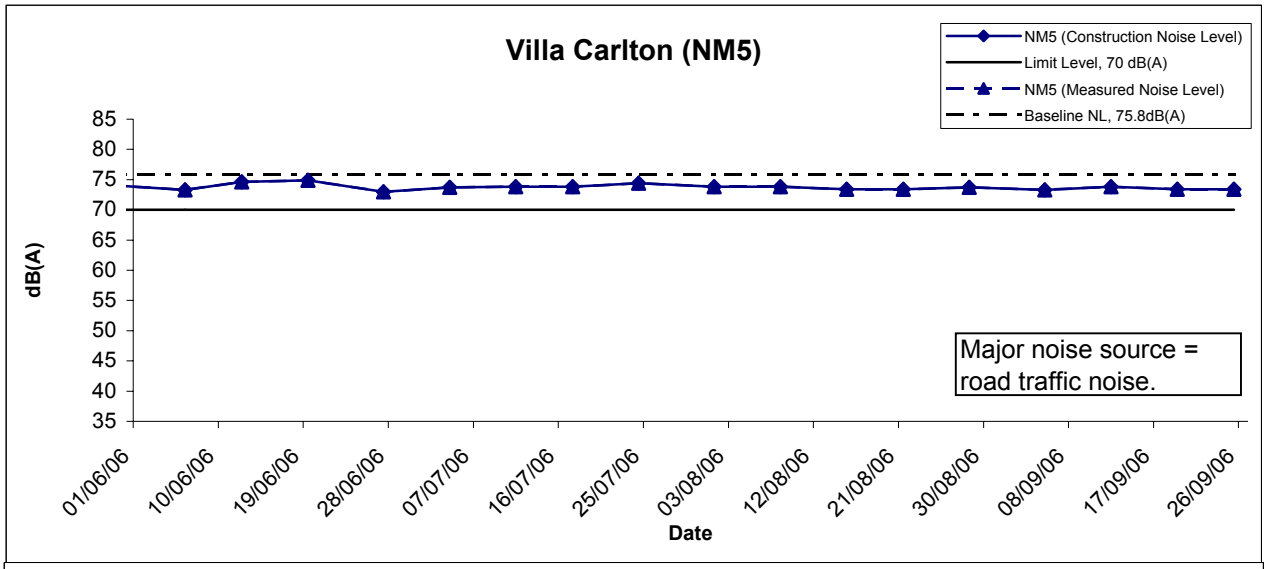
Noise Levels

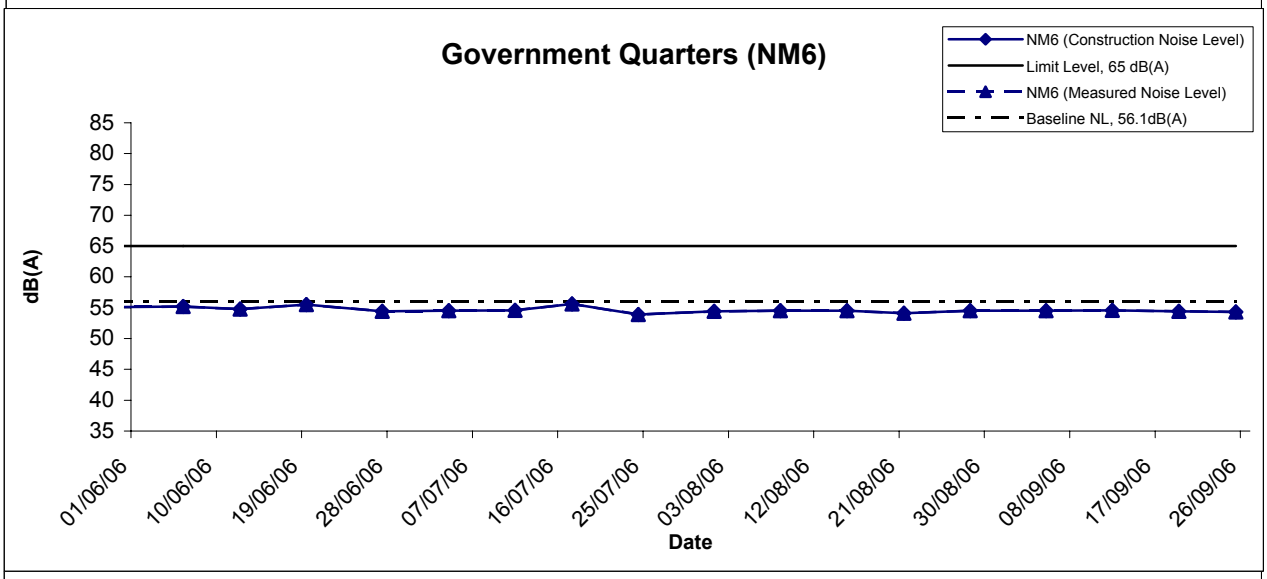


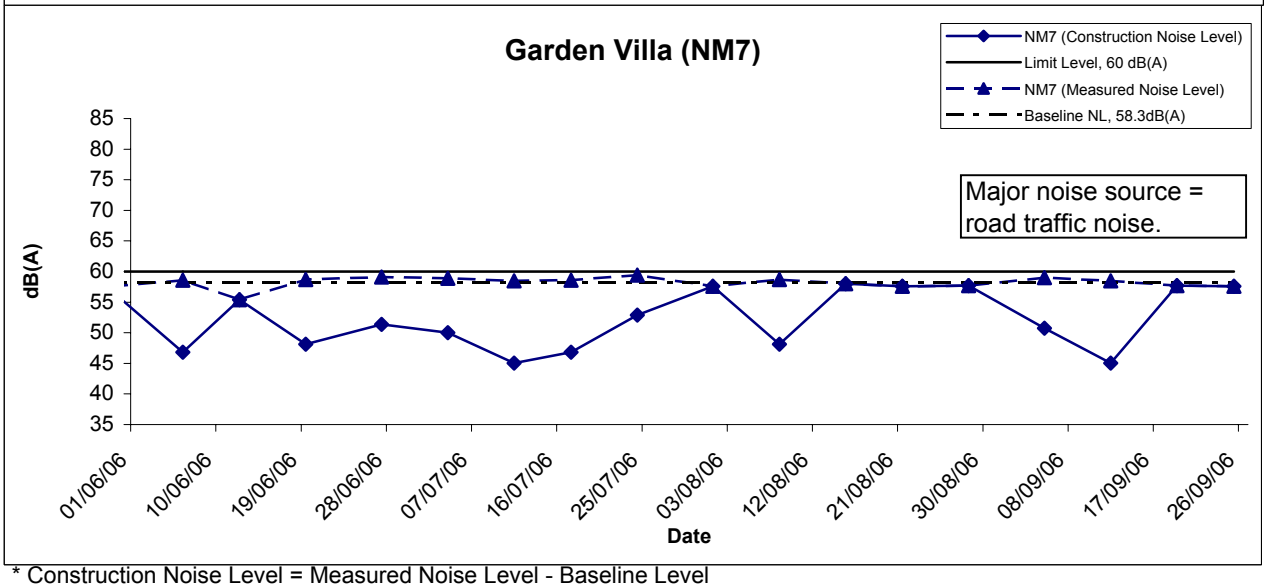
* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

Title: Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S Date: Sep 06	Project No.: MA3024 Appendix: G	CINOTECH

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



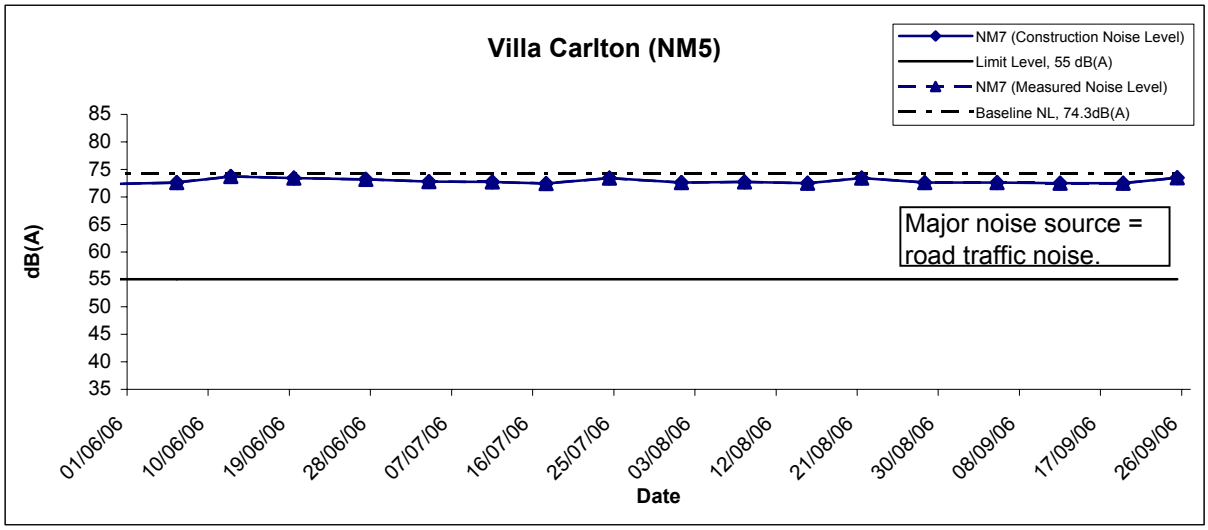


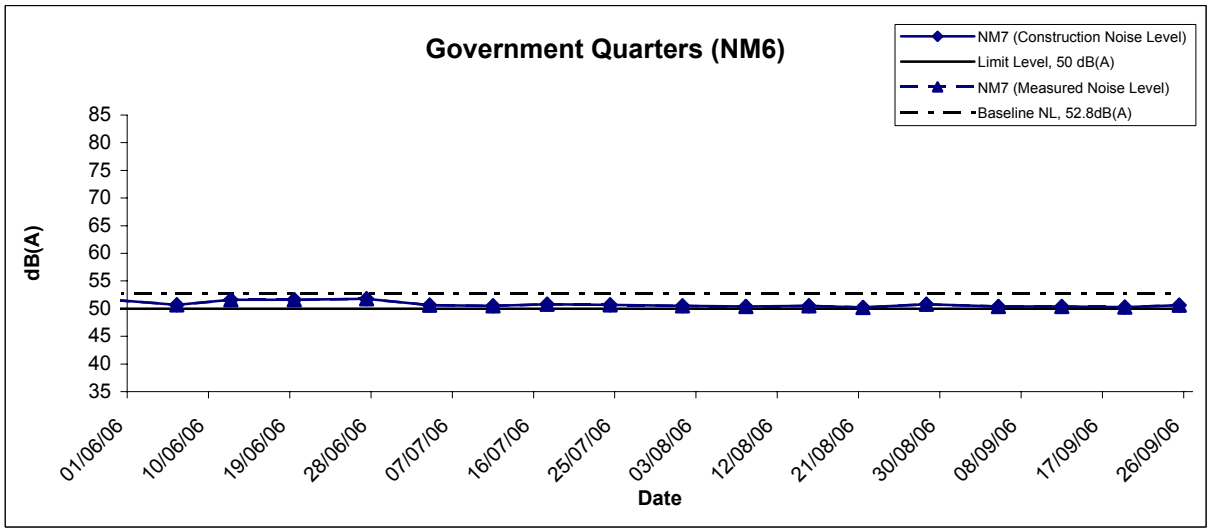


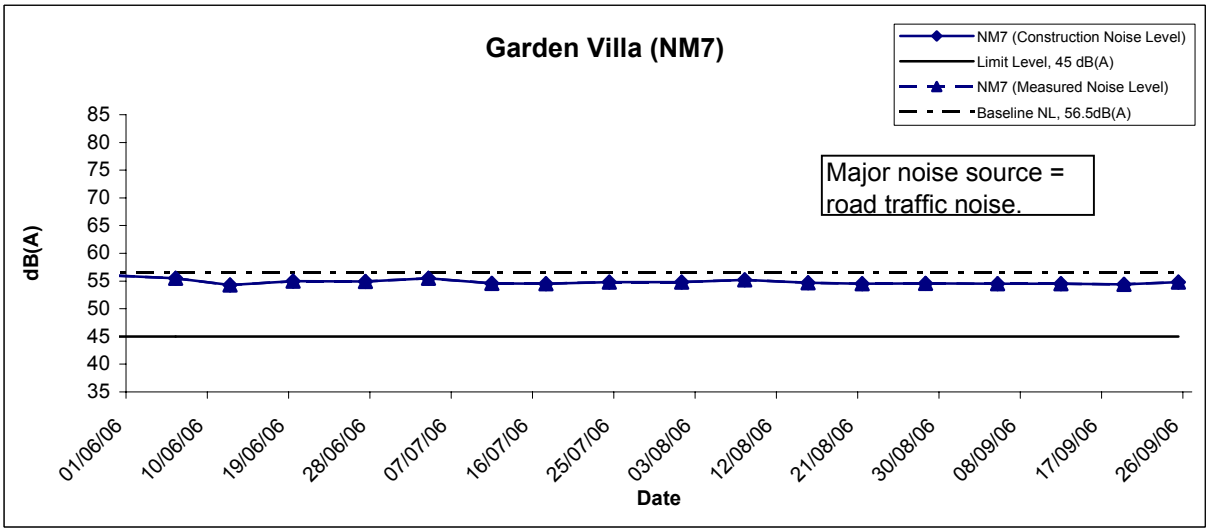
* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

Title: Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of Construction Noise Monitoring Results	Scale: N.T.S	Project No.: MA3024	CINOTECH
	Date: Sep 06	Appendix: G	

Restricted Hours (23:00 to 07:00) - Noise Levels







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

Title: Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works	Scale: N.T.S	Project No.: MA3024	CINOTECH
Graphical Presentation of Construction Noise Monitoring Results	Date: Sep 06	Appendix: G	

APPENDIX H
SUMMARY OF EXCEEDANCE

Summary of Exceedance Recorded in the Reporting Month

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

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

c) Exceedance Reports for Construction Noise

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

APPENDIX I
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60904-ENT
Date	4 Sep 2006 (Mon)
Time	0930 – 1145

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

Ref. No.	Remarks/Observations	Related Item No.
60904E-01O	***A. Water Quality*** • Accumulation of slit and sediment was observed at the u-channel of Toll Plaza Portion D-6. The Contractor was reminded to clean/ remove the silt from the u-channel. ***B. Air Quality*** • No environmental deficiency was identified during the site inspection. ***C. Noise*** • No environmental deficiency was identified during the site inspection.	B9
60904E-02E	***D. Waste / Chemical Management*** • General refuses were scattered on the ground at the area of BVS2. The Contractor was reminded to clean up the refuses and keep site area tidiness. ***E. Permit / Licenses*** • No environmental deficiency was identified during the site inspection. ***F. Others*** • No environmental deficiency was identified in last audit (ref. 60830-ENT) 30 August 2006. • Spot checking for loaded truck leaving the site was conducted between 0915 and 1145. The number of the truck observed was 1 and it is covered before leaving the site.	E1

	Name	Signature	Date
Recorded by	Edmond Wu		4 September 2006
Checked by	Attle Hui		4 September 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60913-ENT
Date	13 Sep 2006 (Wed)
Time	09:30 – 12:00

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

Ref. No.	Remarks/Observations	Related Item No.
60913E-01R	***A. Water Quality*** • No environmental deficiency was identified during the site inspection. ***B. Air Quality*** • A stock of cement bags stored within the Administration Building was observed not being covered with impervious sheeting. Fugitive dust is likely to be produced by wind erosion. The Contractor was recommended to cover the stock in order to prevent dust generation even the stock is stored indoor. ***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 deficiencies identified in last audit (Ref. No.: 60904-ENT) on 4 September 2006 were rectified by the Contractor. • Spot checking for loaded truck leaving the site was conducted between 0930 and 1200. The number of the truck observed was zero.	C17

	Name	Signature	Date
Recorded by	Ray Yan		14 September 2006
Checked by	Edmond Wu		14 September 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60920-ENT
Date	20 Sep 2006 (Wed)
Time	09:30 – 12:00

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality • No environmental deficiency was identified during the site inspection. ***B. Air Quality*** • No environmental deficiency was identified during the site inspection. ***C. Noise*** • No environmental deficiency was identified during the site inspection. ***D. Waste / Chemical Management*** • 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 deficiencies identified in last audit (Ref. No.: 60920-ENT) on 20 September 2006 were rectified by the Contractor. • Spot checking for loaded truck leaving the site was conducted between 0930 and 1200. The number of the truck observed was zero.	

	Name	Signature	Date
Recorded by	Tommy Ho		20 September 2006
Checked by	Edmond Wu		20 September 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60927-ENT
Date	27 September 2006 (Wed)
Time	09:30 – 11:45 a.m.

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

Ref. No.	Remarks/Observations	Related Item No.
60927E-01R	***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*** • Breaking works was carrying out at Ventilation Adit during site inspection. However, no mitigation measures for noise reduction/reflection were provided for aforesaid works. As advised by the Contractor, the works would last for 2 days more as such the Contractor was recommended to provide sufficient mitigation measures for noise reduction/reflection whenever the works is carrying out. ***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 in last audit (Ref. No.: 60920-ENT) on 20 September 2006. • Spot checking for loaded truck leaving the site was conducted between 0930 and 1145. The number of the truck leaving the site was zero.	D8

	Name	Signature	Date
Recorded by	Ray Yan	Ray.	27 September 2006
Checked by	Ray Yip	Ray	27 September 2006

APPENDIX J
EVENT ACTION PLANS

Appendix J - Event Action Plans

Event/Action Plan for Air Quality

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

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

Event/Action Plan for Construction Noise

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

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

APPENDIX K
ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

Appendix K - Summary of Environmental Mitigation Implementation Schedule

Types of Impacts	Mitigation Measures	Status
Construction Dust	• Any stockpile of dusty materials or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet.	^
	• A stockpile of dusty materials should not extend beyond the pedestrian barriers, fencing or traffic cones.	^
	• Vehicle washing facilities should be provided at every exit point.	^
	• The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	^
	• Where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4m high from ground level should be provided along the entire length of that portion of the site boundary except for a site entrance or exit.	^
	• Every main haul road should be sprayed with water or a dust suppression chemical so as to maintain the entire road surface wet.	^
	• The portion of any road leading only to a construction site that is within 30m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials.	^
	• Any stockpile of dusty materials should be either covered entirely be impervious sheeting, placed in an area sheltered on the top and the 3 sides or sprayed with water or a dust suppression chemical so as to maintain the entire surface wet.	^
	• All dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet.	^
	• Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site.	^
	• The working area of any excavation should be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet.	^
Construction Noise	• Only well-maintained plant should be operated on –site and plant should be serviced regularly during the construction works.	^
	• Machines and plant that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	^
	• Plant know to emit noise strongly in one direction, should where possible, be orientated to direct noise away from the NSRS.	^
	• Mobile plant should be sited as far away from NSRs as possible.	^
	• Material stockpiles and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	^
	• Use quite plant and Working Method	^
	• Reduce the number of plant operating in critical areas close NSRs.	^

Types of Impacts	Mitigation Measures	Status
	• Construct temporary and movable noise barriers	^
Water Quality	*Construction Runoff and Drainage*	
	• Use of sediment traps and the adequate maintenance of drainage systems to prevent flooding and overflow.	^
	• Boundaries of critical areas of earthworks should be marked and surrounded by dykes or embankments for flood protection. Temporary ditches should be provided to facilities runoff discharge into the appropriate watercourses, via a silt retention pond. Permanent drainage channels should incorporate sediment basins or traps and baffles to enhance deposition rates.	^
	• All temporary and permanent drainage pipes and culverts provided to facilitate runoff discharge should be adequately designed for the controlled release of storm flows. All sediment traps should be regularly cleaned and maintained. The temporarily diverted drainage should be reinstated to its original condition when the construction works has finished or the temporary diversion is no longer required	^
	• Sand silt in the wash water from the wheel washing facilities, which ensure no earth, mud and debris is deposited on roads, should be settled out the removed before discharging into storm drains. A section of the road between the wheel washing bay and the public road should be paved with backfill to prevent wash water or other site runoff form entering public road drains.	^
	• Oil interceptors should be provided in the drainage system and regularly emptied to prevent the release of oils and grease into the storm water drainage system after accidental spillage. The interceptor should have a bypass to prevent flushing during periods of heavy rain.	^
	• Catchpits and perimeter channels shall be constructed in advance of site formation works and earthworks.	^
	• Silt removal facilities, channels and manholes shall be suitably maintained with the deposited silt and grit being removed at least once a week, and at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times.	^
	• Earthworks final surfaces shall be well compacted and the subsequent permanent work or surface protection shall be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate intercepting channels shall be provided along the site boundary or at the locations agreed with the ET Leader. Rainwater pumped out from trenches or foundation excavations shall be discharged into silt removal facilities before discharge into storm drains.	^
	• All generators, fuel and oil storage shall be within bunded areas. Drainage from the areas shall be connected to storm drains via a petrol interceptor.	^
	Tunnelling Work	
	• Temporary open storage of excavated materials should be covered with tarpaulin or similar fabric during rainstorms. Any washout of construction or excavated materials form the drill and blast tunnelling work should be diverted to the drainage system via appropriate sediment traps.	^
	• 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.	^

Types of Impacts	Mitigation Measures	Status
	• 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
	General Construction Activities	
	• Debris and rubbish on site should be collected, handled and disposed of properly to avoid entering the water column and cause water quality impacts. • All fuel tanks and storage areas will be provided with locks and be located on sealed areas (within bunds of a capacity equal to 110% of the storage capacity of the largest tank or 20% by volume of the fuel stored in that areas, whichever in the greatest).	^ ^
	Sewage Effluent	
	• Construction work force sewage discharges form fixed toilet facilities on-site should be connected to the nearby existing trunk sewer wherever feasible. However, for areas where existing trunk sewer is not available, it is recommended that appropriate and adequate on site portable chemical toilets should be provided by a licensed contractor who will be responsible for appropriate disposal and maintenance of these facilities. • It is considered that sewage discharges could also be treated by on-site septic tanks and soakaway. Minimum clearance away form streams and catchments and other requirements for the proposed septic tank and soakaway should be referred to EPD's Practice Note for Professional Persons, Drainage Plans.	^ N/A
Waste	*General*	
	• Training and instruction shall be given at a site to construction staff to increase awareness and draw attention to waste management issues and the need to minimise waste generation. The training requirement shall be included in the site waste management plan.	^
	Storage, Collection and Transportation of Waste	
	• Wastes shall be handled and stored in a manner to ensure that they are held securely without loss or leakage. • Authorised or licensed waste hauliers shall be used and they shall only collect wastes prescribed by their permits. • Waste shall be removed on a daily basis. • Waste storage area shall be maintained and cleaned on a daily basis. • Windblown litter and dust during transportation shall be minimised by either covering trucks or transporting wastes in enclosed containers. • Obtain necessary waste disposal permits from the appropriate authorities if they are required. • Wastes shall be disposed of at licensed waste disposal facilities. • Develop procedure such as ticketing system to facilitate tracking of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur. • Maintain records of the quantities of wastes generated, recycled and disposed.	^ ^ ^ ^ ^ ^ ^ ^ ^

Types of Impacts	Mitigation Measures	Status
	Surplus Excavated Materials	
	• Due to the high risk of loose material being washed into the existing nullah, stockpile materials should be properly compacted and covered from water erosion and located at least 10m away from the nullah wall.	^
	Construction and Demolition (C&D) Waste	
	• 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 Code of Practice on the Packaging, Handling and Storage of Chemical Wastes.	^
	• Containers used for the storage of chemical wastes should: a. Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed; b. Have a capacity of less than 450 litres unless the specifications have been approved by the EPD; c. Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste Regulations.	^
	• The storage area for chemical wastes should: a. Be clearly labelled and used solely for the storage of chemical waste; b. Be enclosed on at least 3 sides; c. Have an impermeable floor and bunding of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in the area, whichever is largest; d. Have adequate ventilation; e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary); f. Be arranged so that incompatible materials are adequately separated.	^
	• Disposal of chemical waste shall be via a licensed waste collector; and to a facility licensed to receive chemical waste; or a reuser of the waste (under approval from EPD).	^

Types of Impacts	Mitigation Measures	Status
	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.	^
Ecology	• A sediment barrier shall be erected to minimize stream sedimentation at downstream of the project boundary of the Toll Plaza.	N/A
	• Conduct a tree survey before commencement of the construction work.	^
	• All measures recommended in the approved landscape proposals under Condition 2.4 in EP above shall be fully implemented in accordance with the details and time schedule set out in the submission.	N/A
	• Loss of the adjacent woodland due to temporary land take shall be returned to the original status immediately.	N/A
	• Wild and uncontrolled fire shall be strictly prohibited	^
	• Fences shall be erected along the boundary of the construction sites at the Toll Plaza before commencement of works, to prevent tipping, vehicle movements, and encroachment of personnel onto adjacent wooded areas.	N/A
Landscape and Visual Impact	• Landscape mitigation measure 1 (LMM1) – Construction programming and management. The periphery of the works areas at street level shall be managed so that they do not appear cluttered, untidy and unattractive and inconvenient to pedestrians. For example, all hoarding shall be colorfully designed with interesting motifs demonstrating the work of Highways Department. Hoardings with bland colours shall be avoided.	^
	• Landscape mitigation measure 2 (LMM2) – Advanced planting and erosion control works. Where possible, the transplantation of existing valuable trees, the stockpiling of topsoil, new planting and erosion control works shall be carried out as early as possible in the construction period instead of at the end. This will assist in maximizing the time for carrying out transplantation and new planting, resulting in a higher success rate for the survival of transplantation and new planting, resulting in a higher success rate for the survival of transplanted trees and the establishment of new screen trees. The stockpiling of topsoil will provide an abundant use of on-site material for growing media. During detailed design, the issue of stockpiling of topsoil in a manner that would avoid washing into the drainage scheme should be examined comprehensively.	^
	• Measurement of vibration would also be carried out on a need basis during the piling work	^

Remarks:

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

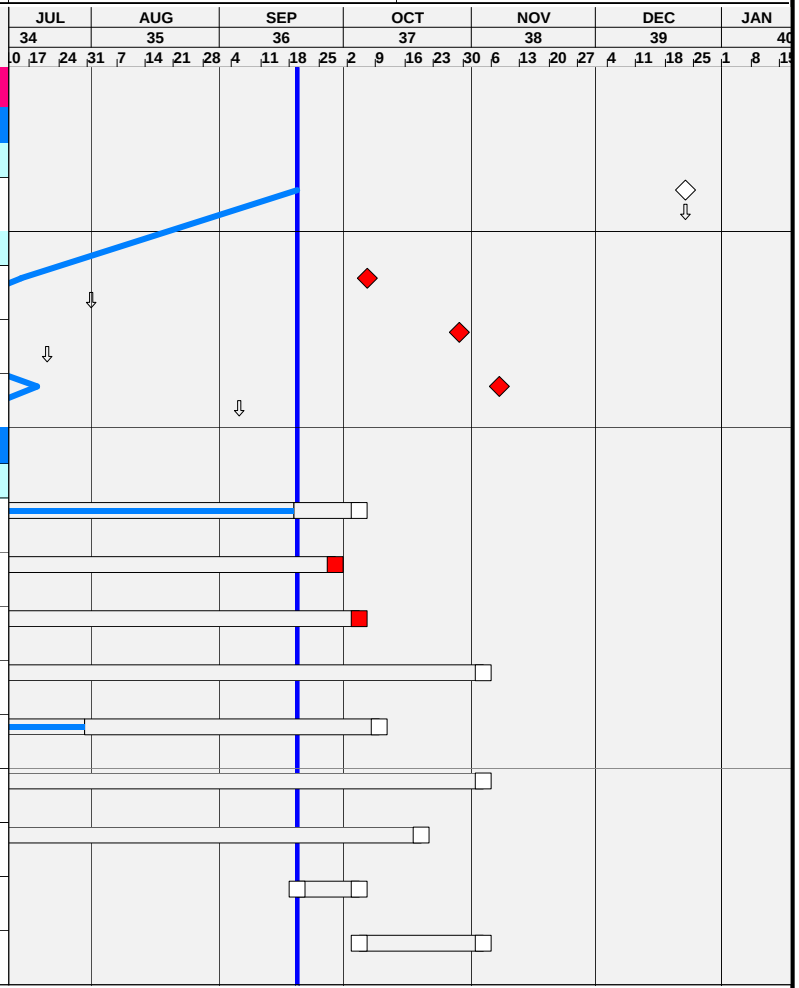
APPENDIX L
CONSTRUCTION PROGRAMME

Data Date 20SEP06
Run Date 26SEP06 16:50

3 MONTH ROLLING PROGRAMME

Monthly Update
Detailed Works Progr.(DWP) r
Progress Bar
Critical Activity

Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
GENERAL									
Contract defined dates, stages and sections									
Area Access & Vacation Dates									
VCT_W2	Release of Portions - W2	0		22DEC06	0	0	0	337	0
Stages of the Works									
KD05A2	KD-05A Proposed - TCSS Access BV West (15May06)	0		06OCT06	0	0	0	-144	-67
KD07A	KD-7 TCSS Access Toll Plaza east (30.Jun.06)	0		28OCT06	0	0	0	-120	-100
KD08A	KD-8 TCSS Access Toll Plaza West (15.Aug.06)	0		07NOV06	0	0	0	-84	-63
Submittals & Approvals									
Drawing Submittal & Approval									
8034	Prep.& Sub. Independ't Serv. Dwgs for SHT&T3&LCK	48	04AUG04A	04OCT06	98	98	12	310	-116
8024	Engineer Comment / Approve ENT ISD Submissions	18	06AUG04A	28SEP06	85	85	8	-12	-116
8030	Res-sub. & Approv of ENT ISD	24	06SEP04A	04OCT06	70	70	12	-12	-116
8035	Engineer Comment / Approve SHT&T3LCK ISD Sub.	24	13SEP04A	03NOV06	85	85	36	310	-116
8032	Engineer Comment / Approve SHT&T3&LCK CSD Sub.	18	25OCT04A	09OCT06	90	90	15	310	-116
8036	Re-sub. & Approv of SHT & T3 & LCK ISD	36	31MAR05A	03NOV06	70	70	36	310	-116
8033	Re-sub. & Approv. of SHT & T3 & LCK CSD	24	28JUN05A	19OCT06	60	60	24	310	-116
8022	Engineer Comment / Approve ENT CSD Submissions	12	20SEP06	04OCT06	0	0	12	310	-116
8029	Re-sub. & Approv. of ENT CSD	24	05OCT06	03NOV06	0	0	24	310	-116



Leighton - Kumagai Joint Venture

LEIGHTON - KUMAGAI JV

R8 - EAGLES'S NEST TUNNEL

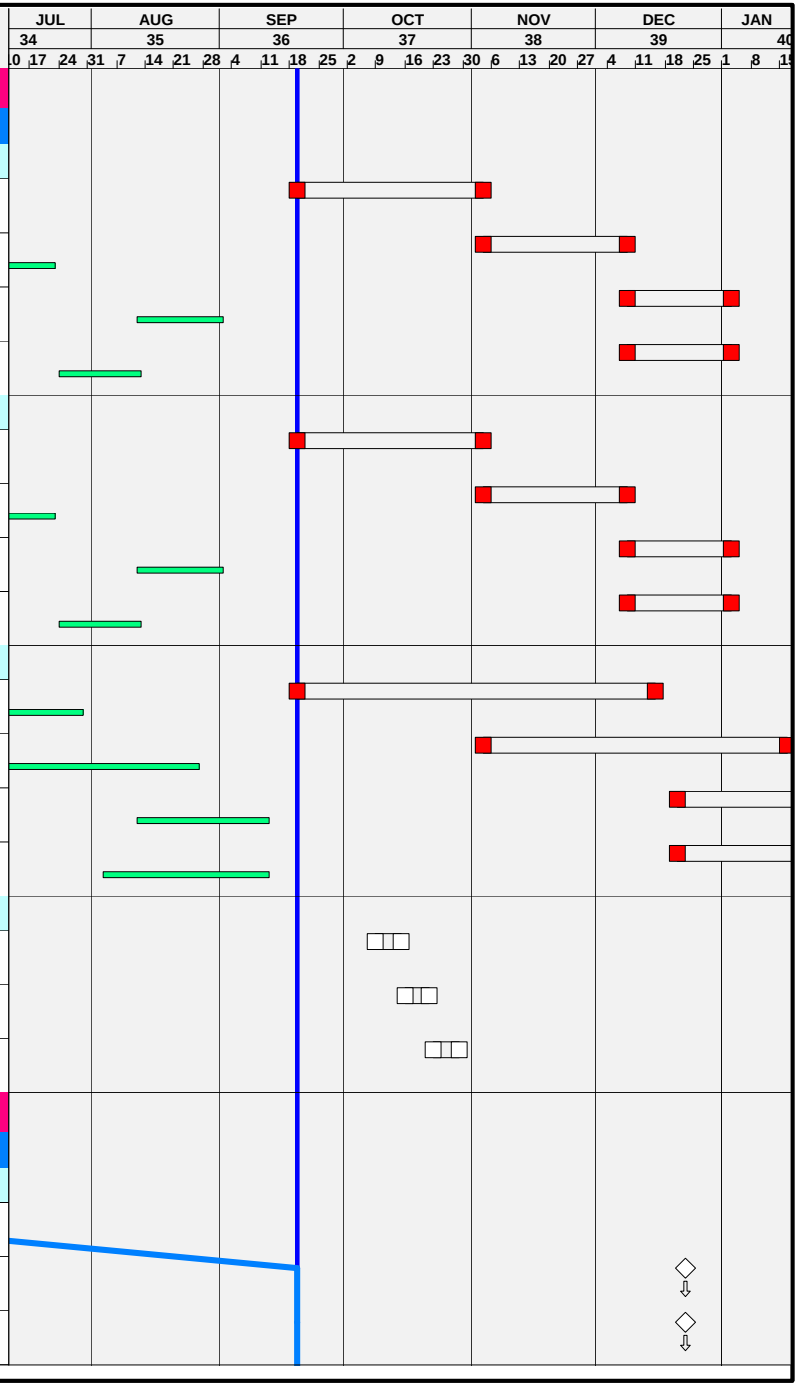
CONTRACTORS TARGET PROGRAMME REV.1

Proj. Name: W23E
Layout: 3 MONTHS ROLLING PROGRAMME
Filter: 3 MONTH ROLLING PROGRAMME
Current Proj: W23E
Target 1 Proj: BE02

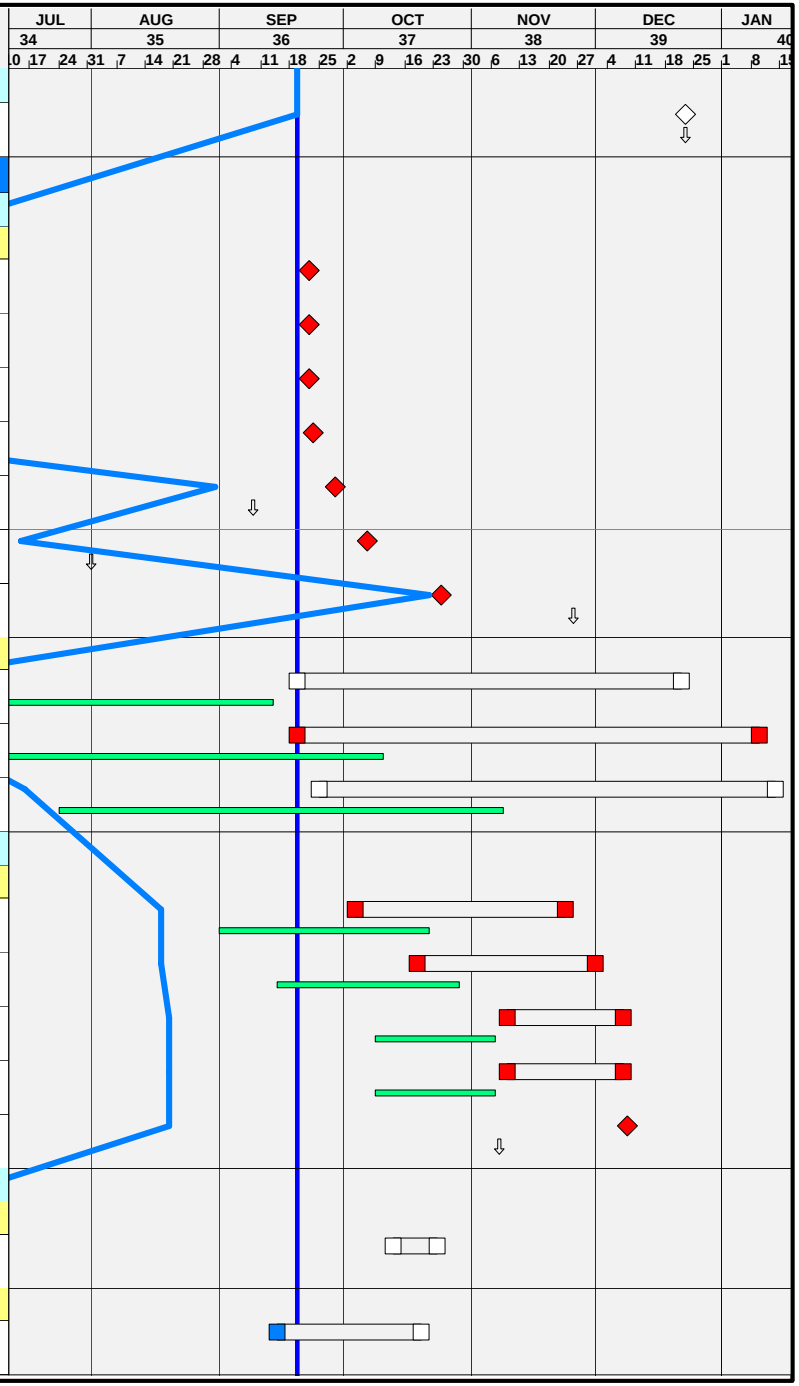
LKJV/ENT/DWP/B

Date	Revision	Checked	Approved
20SEP06	Prog update Sep 06	GW	RB

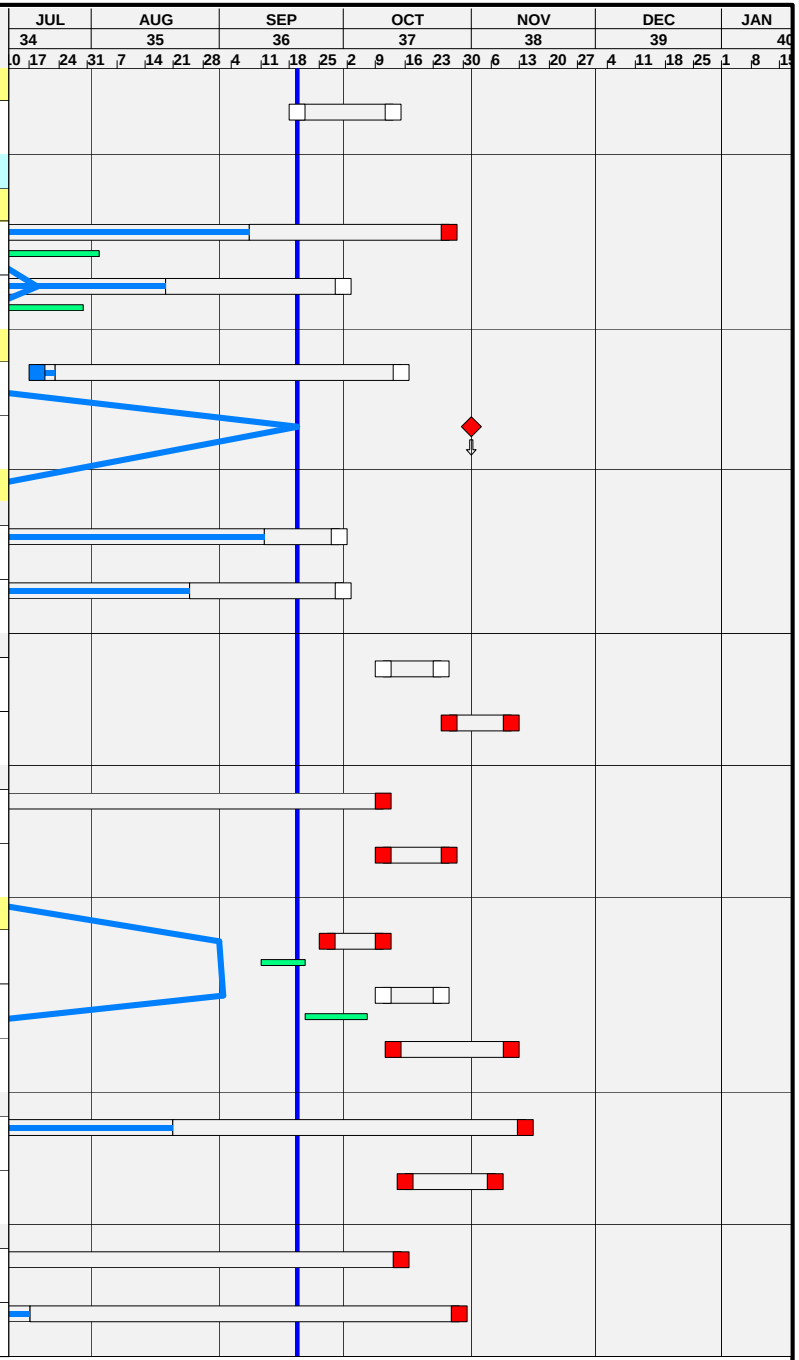
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
LAI CHI KOK VIADUCT									
Construction Works									
LCK Viaduct Noise Enclosure 1									
8322	LckVd NE1-Elect Works 1st Fix	36	20SEP06*	03NOV06	0	0	36	-56	-116
8332	LckVd NE1-Elect Works 2nd Fix	30	04NOV06	08DEC06	0	0	30	-56	-116
8342	LckVd NE1- Elect Cabling ENT SPB to N.E.	18	09DEC06	02JAN07	0	0	18	-56	-99
8352	LckVd NE1 Elect Works Fin Fix	18	09DEC06	02JAN07	0	0	18	-56	-116
LCK Viaduct Noise Enclosure 2									
7400	LckVd NE2-Elect Works 1st Fix	36	20SEP06*	03NOV06	0	0	36	-56	-116
7410	LckVd NE2-Elect Works 2nd Fix	30	04NOV06	08DEC06	0	0	30	-56	-116
7420	LckVd NE2- Elect Cabling ENT SPB to N.E.	18	09DEC06	02JAN07	0	0	18	-56	-99
7430	LckVd NE2 Elect Works Fin Fix	18	09DEC06	02JAN07	0	0	18	-56	-116
LCK Viaduct Noise Enclosure 3									
6737	LckVd NE3 & Elect Works 1st Fix	72	20SEP06*	15DEC06	0	0	72	-86	-116
6747	LckVd NE3 Elect Works 2nd Fix	60	04NOV06	16JAN07	0	0	60	-86	-116
6757	LckVd NE3 Cabling ENT SPB to N.E. 3	24	21DEC06	01FEB07	0	0	24	-86	-116
6767	LckVd NE3 Elect Works Fin Fix	24	21DEC06	01FEB07	0	0	24	-86	-116
CMCS Leased Lines at Pump Houses									
6807	E&M at Lai Wan Overpass Pump House	6	09OCT06	14OCT06	0	0	6	22	-116
6817	E&M at Lai Po Rd Pump House	6	16OCT06	21OCT06	0	0	6	22	-116
6827	E&M at Wai Man Tsuen Pump House	6	23OCT06	28OCT06	0	0	6	22	-116
BUTTERFLY VALLEY									
Contract Key Dates & Milestones									
Area Access & Vacation Dates									
ACS_A	Access to Portions - A	0	20OCT03A		100	100	0		-139
/CT_ABC	Release of Portions - A,B,C1,C2,C3,C4	0		22DEC06	0	0	0	337	0
T_E1234	Release of Portions - E1,E2,E4,E5	0		22DEC06	0	0	0	337	0



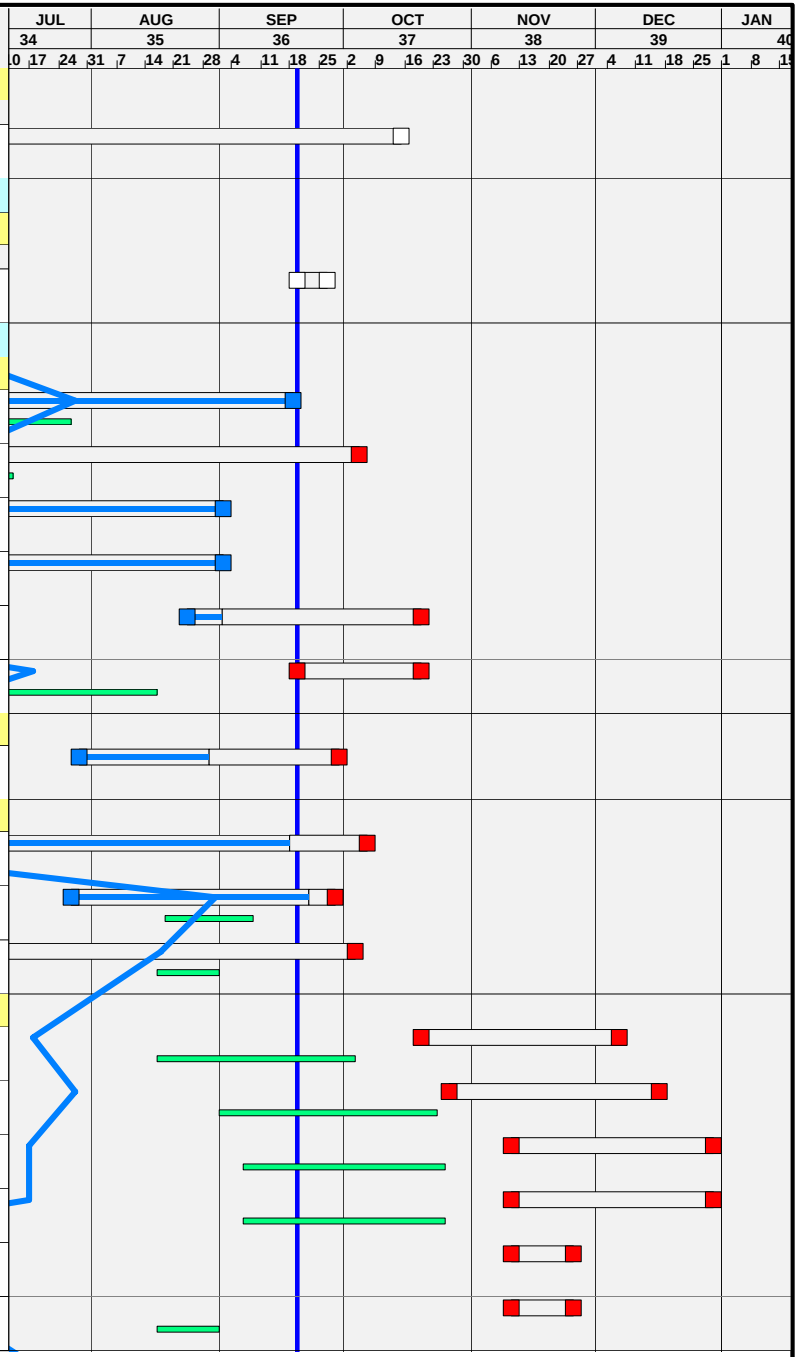
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Area Access & Vacation Dates									
VCT_I123	Release of Portions - I1,I2,I3	0		22DEC06	0	0	0	337	0
Construction Works									
BUTTERFLY VALLEY 3RD PARTY WORKS									
TCSS at Butterfly valley Approach									
S2462	TCSS Access to Gantry MLS-CAP13 (NB) (15MAY06)	0		22SEP06	0	0	0	-110	-104
S2602	TCSS Access to Gantry MLS-CAP11 (NB) (15MAY06)	0		22SEP06	0	0	0	-110	-104
S2622	TCSS Access to Gantry MLS-CAP12 (SB) (11JUN06)	0		22SEP06	0	0	0	-88	-104
S2632	TCSS Access to VMS MLS-CAP14,15 (11JUN06)	0		23SEP06	0	0	0	-89	-104
S2392	TCSS Access to Duct & D.Pit East BV (11JUN06)	0		28SEP06	0	0	0	-93	-17
S2592	TCSS Access to Duct & D.Pit West BV (15MAY06)	0		06OCT06	0	0	0	-121	-57
S2552	TCSS Access to Kiosk K3 (11JUN06)	0		24OCT06	0	0	0	-113	27
Noise Barrier Works by ACCIONA									
S2562	Access for 7m N.B. Works by Acciona at BV South	77	20SEP06	21DEC06	0	0	77	269	-82
S2612	Access for S-Enclosure Works (Primary Elements)	90	20SEP06	09JAN07	0	0	90	-179	-74
S2662	Access for 5m N.B. Works by Acciona at BV South	90	25SEP06	13JAN07	0	0	90	252	-54
BUTTERFLY VALLEY E&M WORKS									
Butterfly Valley Miscellaneous E&M Works									
8440	Butterfly Valley - Elect Works 1st Fix	42	04OCT06	23NOV06	0	0	42	7	-27
8430	Butterfly Valley - Elect Works 2nd Fix	36	19OCT06	30NOV06	0	0	36	7	-27
8410	Butterfly valley - Elect Works Fin Fix	24	10NOV06	07DEC06	0	0	24	7	-27
8420	Butterfly Valley - Cabling	24	10NOV06	07DEC06	0	0	24	7	-27
8400	Butterfly Valley - Ready for Energization	0		08DEC06	0	0	0	7	-27
MAJOR DRAINAGE DIVERSIONS									
Filling									
S2680	Fill on top of Box Culvert 45 & culvert A	9	13OCT06	23OCT06	0	0	9	319	-101
Box Culvert									
S2710	Box Cul. Final Structure (Strip, Clean & Fill)	12	15SEP06A	19OCT06	5	0	12	322	-128



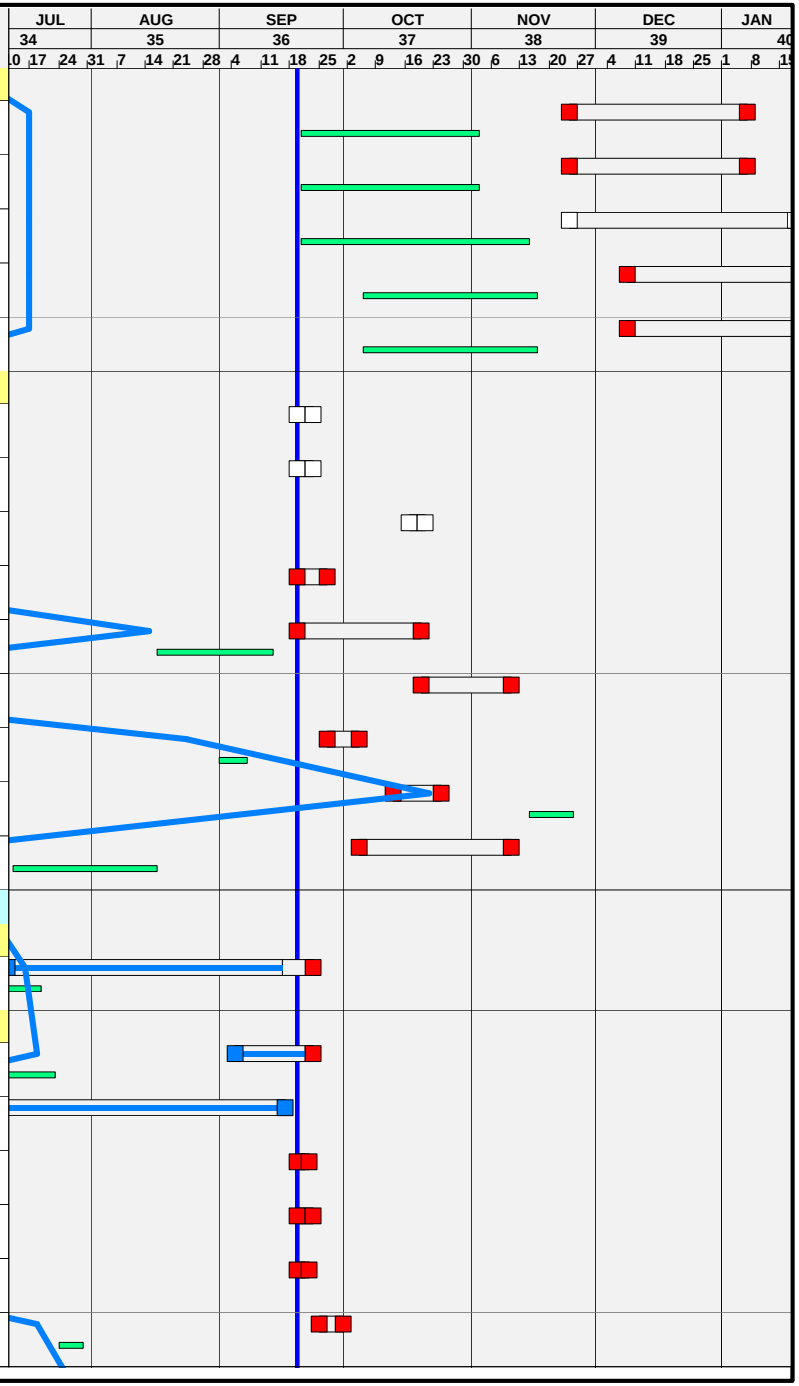
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Box Culvert									
S2800	Culvert A Structure & connection to Bay 45	18	20SEP06	12OCT06	0	0	18	319	-101
EARTHWORKS & SLOPEWORKS									
BV-R1 Remaining Works									
S3240	BV-R1 - Construction of Lagging Wall	91	20MAR06A	26OCT06	78	5	30	-36	-71
S2360	BV-R1 - Backfill	48	10MAY06A	30SEP06	70	0	10	336	-54
SLOPE SP-S2 & SP-S3									
S2370	Remaining Works to Slopes SP-S3 & SP-S2	24	19JUL06A	14OCT06	5	0	20	35	-94
S2480	WSD Access Rd No Longer Available for Use	0		31OCT06*	0	0	0	0	0
SLOPE BV-S2									
SLOPE STABILISATION (SOIL NAILS,ROCK BOLTS ETC)									
102691	BV-S2/8 Inst.Rock bolts & Test (60nr.w/3.rig)	22	15FEB06A	29SEP06	92	75	9	22	-119
102694	BV-S2/9 Inst.Rock bolts & Test (4nr.w/1.rig)	5	28MAR06A	30SEP06	80	15	10	29	-124
20.500.130.180.035									
103811	BV-S2 Berm 9 hydro-seeding & tensar mat	12	11OCT06	24OCT06	0	0	12	15	-120
103812	BV-S2 Berm 10 hydro-seeding & tensar mat	12	27OCT06	10NOV06	0	0	12	13	-122
SURFACE DRAINAGE									
103696	BV-S2 Berm 9 Surface drainage	14	01MAR06A	10OCT06	30	30	16	13	-122
103697	BV-S2 Berm 10 Surface drainage	14	11OCT06	26OCT06	0	0	14	13	-122
SLOPE BV-S4									
S3050	Complete Outstanding Soil Nails for BVS4 (5No.)	10	27SEP06	10OCT06	0	0	10	4	-14
S3520	Remaining Raking Drains (11No.) & Hydroseeding	12	11OCT06	24OCT06	0	0	12	15	-14
S3580	Additional Soil Nails - Base of Pier 19	24	13OCT06	10NOV06	0	0	24	-5	-116
SLOPE FINISHES									
102380	BV-S4/3a-4a & 5 hydro-seeding & tensarmat	12	12SEP05A	13NOV06	80	70	30	-173	-130
101139	11nw/434 BV-S4/1-2-3bcd-4b Hydro-seed/Tensarmat	18	16OCT06	06NOV06	0	0	18	-167	-130
SURFACE DRAINAGE									
103705	BV-S4/3 Surface Drainage	8	17MAR05A	14OCT06	75	70	20	-173	-130
103706	BV-S4/4 Surface Drainage	12	07SEP05A	28OCT06	75	5	18	-173	-130



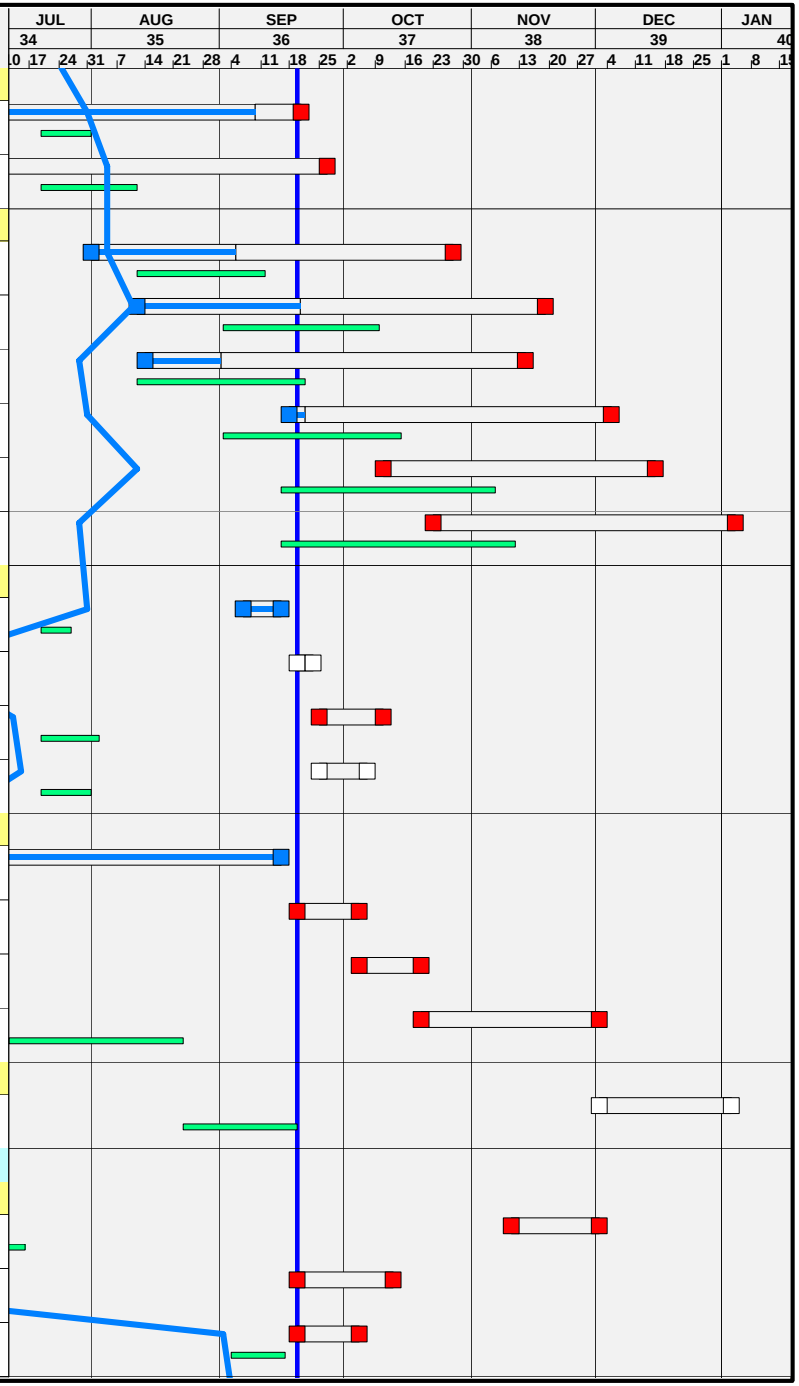
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SLOPE SP-S1									
SURFACE DRAINAGE									
103711	Sp-S1/4 Surface Drainage	7	06JUL04A	14OCT06	40	40	20	35	-129
RC STRUCTURES									
RETAINING WALL BV-R2									
BACKFILLING									
101126	BV-R2(C) Granular Drain & Compacted Backfill	6	20SEP06	26SEP06	0	0	6	36	-112
ROADWORKS - North End of BV									
Stormwater Drainage									
S2440	Storm Drainage to Nrth Bnd (Nr. Typ C&E N.B.)	37	31DEC05A	18SEP06A	100	40	0		-46
S2430	West Loop Rd. Drainage	20	19JAN06A	04OCT06	35	30	12	0	-71
S3020	Storm Drainage to enable TCSS Works at Median	12	24FEB06A	01SEP06A	100	50	0		-99
S3040	Storm Drainage to enable CLP Works	12	24FEB06A	01SEP06A	50	50	2		-99
S2420	Outstanding East Loop Rd. Drainage	28	24AUG06A	19OCT06	15	0	24	-48	-122
S2630	250mm pipe connect E./W. stream + 3No. Chamber	24	20SEP06	19OCT06	0	0	24	-45	-53
Noise Barrier Footings & Sign Gantries									
S3530	Base for HML 1	9	29JUL06A	29SEP06	50	0	9	-30	-108
Ducting & Drawpits									
S2560	BV North - TCSS Ducting & Drawpits (West)	18	01APR06A	06OCT06	90	5	14	-121	-110
S2580	BV North - TCSS Ducting & Drawpits (East)	18	27JUL06A	28SEP06	90	0	8	-93	-17
S2770	BV North - LV Ducting & Drawpits	13	20APR06A	03OCT06	30	0	6	-17	-27
Road Pavement & Associated Work									
S2232	BV North - Subbase to Sth Bound Carriageway	40	20OCT06	06DEC06	0	0	40	-45	-53
S2222	BV North - Subbase to Nrth Bound Carriageway	43	27OCT06	16DEC06	0	0	43	-36	-46
S2540	BV North - Kerbs & CPB to Nrth Bound Carriageway	36	11NOV06	29DEC06	0	0	36	-45	-53
S2890	BV North - Kerbs & CPB to Sth Bound Carriageway	36	11NOV06	29DEC06	0	0	36	-45	-53
S2920	Road Works to East Loop Rd Typ III (EVA)	13	11NOV06	25NOV06	0	0	13	0	-122
S2930	Road Works to West Loop Road Typ III (EVA)	13	11NOV06	25NOV06	0	0	13	0	-71



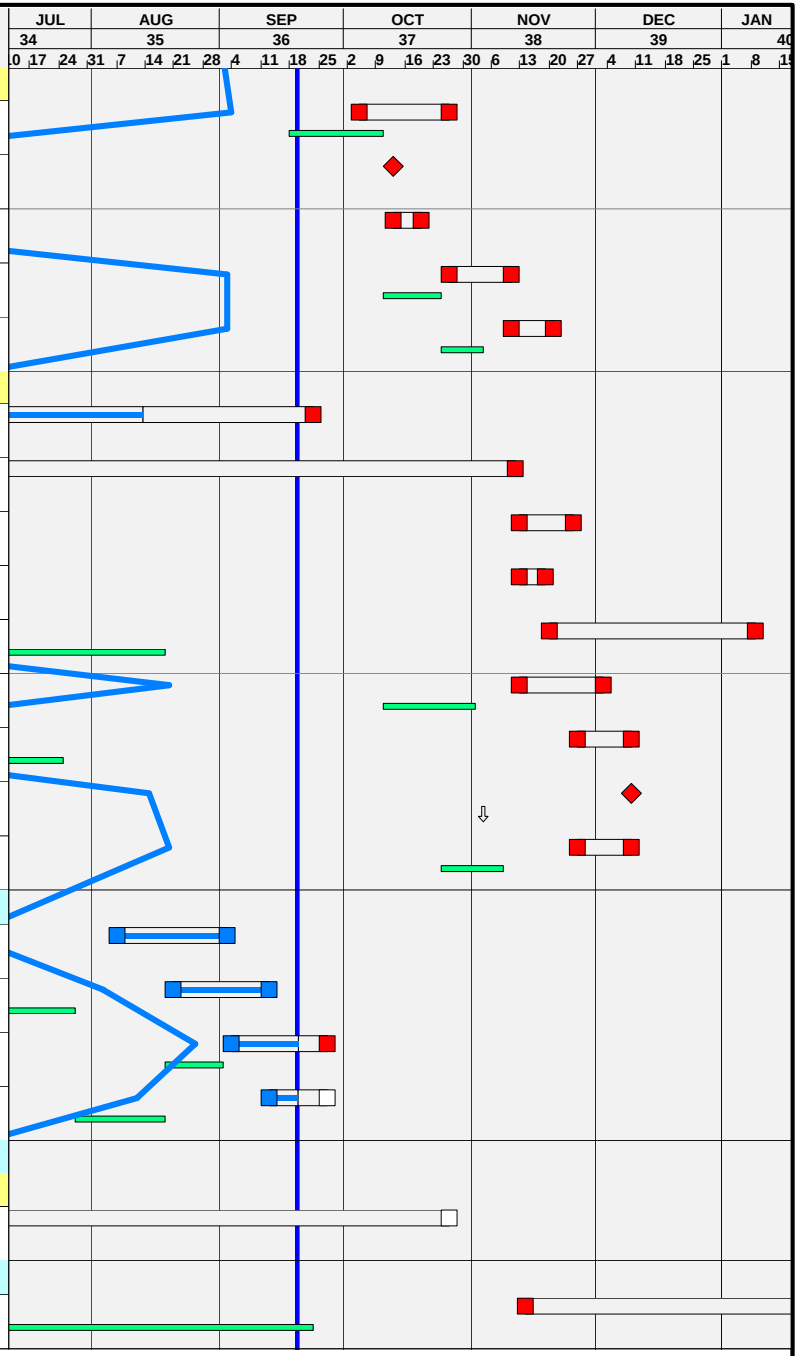
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Road Pavement & Associated Work									
S2242	BV North - Bitu. Pavement to Nrth Bnd Carrig'way	24	25NOV06	06JAN07	0	0	24	-45	-53
S2252	BV North - Bitu Pavement to Sth Bnd Carrig'way	24	25NOV06	06JAN07	0	0	24	-45	-53
S2262	BV North - Typ IV Pavement	40	25NOV06	18JAN07	0	0	40	248	-53
S2900	Road Marking & White Lining (Staged for Access)	24	09DEC06	20JAN07	0	0	24	-45	-53
S3010	Installation of Road Signage (Sign Plates Only)	24	09DEC06	20JAN07	0	0	24	-45	-53
Miscellaenous Works									
S3100	Erect HML 2	4	20SEP06	23SEP06	0	0	4	51	-116
S3450	Erect HML 3	4	20SEP06	23SEP06	0	0	4	51	-65
S2870	Erect HML 1	4	17OCT06	20OCT06	0	0	4	30	-108
S2910	Foul Drain Pipe Across SB Tube (3m Below FRL)	6	20SEP06	26SEP06	0	0	6	-113	-105
S2590	Installation of DN200 Fire Hydrant Pipe and FH's	24	20SEP06	19OCT06	0	0	24	-21	-29
S2670	Install Twin DN200 Pipes to SPB via E. Loop Rd	18	20OCT06	10NOV06	0	0	18	-48	-122
S3400	Base for Kiosk K3	6	27SEP06	04OCT06	0	0	6	-113	-22
S2760	Kiosk K3 - required for TCSS	10	13OCT06	24OCT06	0	0	10	-113	27
S3000	Construct Recreated Stream	30	05OCT06	10NOV06	0	0	30	0	-71
ROADWORKS - South End of BV									
Stormwater Drainage									
S2490	Storm Drainage to Nrth Bnd (Foot of BVS2)	41	11JUL06A	23SEP06	90	0	4	-198	-57
Noise Barrier Footings & Sign Gantries									
S2481	5.5m Barrier Footings Bay 15-17	24	05SEP06A	23SEP06	90	0	4	-192	-54
S2620	BV South - Sign / Lane Signal Gantry Bases (5no)	12	05JUL06A	16SEP06A	100	0	0		-102
S2461	Sign gantry Installation MLS-CAP12	3	20SEP06	22SEP06	0	0	3	-88	-104
S3370	Signal Gantry Installation MLS-CAP14 & 15	4	20SEP06	23SEP06	0	0	4	-89	-104
S3380	Sign Gantry Installation MLS-CAP11,13	3	20SEP06	22SEP06	0	0	3	-110	-104
S2250	Footing for CCTV mast	6	25SEP06	30SEP06	0	0	6	-192	-54



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Ducting & Drawpits									
S3350	BV South - TCSS Ducts & Drawpits (West)	10	01JUN06A	20SEP06	90	0	1	-108	-44
S2740	BV South - LV Ducts & Drawpits	20	01JUN06A	26SEP06	10	0	6	-188	-39
Road Pavement & Associated Work									
S2940	BV Sth - Trim Formation & S'base - Sth Bnd	26	01AUG06A	27OCT06	40	0	15	-35	-38
S2960	BV Sth - Kerbs & CPB to Sth Bound Carriageway	30	12AUG06A	18NOV06	40	0	18	-35	-34
S2510	BV Sth - Trim Formation & S'base - Nth Bnd	35	14AUG06A	13NOV06	20	0	28	-198	-42
S2950	BV Sth - Kerbs & CPB to Nrth Bound Carriageway	30	18SEP06A	04DEC06	5	0	28	-198	-42
S2970	BV Sth - Bitu. Pavement to Sth Bnd Carrig'way	20	11OCT06	15DEC06	0	0	20	-35	-34
S2980	BV Sth - Bitu. Pavement to Nrth Bnd Carrig'way	23	23OCT06	03JAN07	0	0	23	-198	-42
Miscellaneous Works									
S3320	Base for kiosk K4	6	07SEP06A	15SEP06A	100	0	0		-44
S2850	Erect HML9	4	20SEP06	23SEP06	0	0	4	51	-78
S2790	Installation of DN 200 Fire Hydrant Pipe & FH's	12	25SEP06	10OCT06	0	0	12	-198	-57
S3340	Construction of Weighbridge Pit	10	25SEP06	06OCT06	0	0	10	35	-57
LKJV Works at Abutment M									
S3430	Storm Drainage (MH02 & MH09 + 5 Gullies)	12	29JUN06A	15SEP06A	100	0	0		-85
S3440	200mm Watermain, valve pit & FH-6	12	20SEP06	04OCT06	0	0	12	-5	-84
S3470	Ducting & drawpits in Portion B	12	05OCT06	19OCT06	0	0	12	-5	-84
S3420	Complete remaining roadworks within Portion B	36	20OCT06	01DEC06	0	0	36	-5	-84
ACCIONA Works at Abutment									
S3480	ACCIONA - Dismantle Launching Girder	24	02DEC06	02JAN07	0	0	24	262	-84
DSD MAINTENANCE ROAD									
DSD Maintenance Rd DSD1-1 (Acciona Interface)									
S3570	WSD Slope Reinstatement	18	11NOV06	01DEC06	0	0	18	-5	-116
S2340	ACCIONA - Remove Crane Platform	18	20SEP06	12OCT06	0	0	18	-5	-116
S3460	MH R400-05 & Drain from R400-04	12	20SEP06	04OCT06	0	0	12	1	-14



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
DSD Maintenance Rd DSD1-1 (Acciona Interface)									
S2380	Complete DSD1-1 Surface Drainage & CP's	18	05OCT06*	26OCT06	0	0	18	1	-14
S2460	LKJV Regain Access at Pier 20	0		12OCT06	0	0	0	7	-116
S2390	Remaining DN200 Watermain at Pier 20 Access	6	13OCT06	19OCT06	0	0	6	7	-116
S3140	Complete Sub-base & kerbs at DSD1-1	12	27OCT06	10NOV06	0	0	12	1	-14
S3150	Complete Surfacing at DSD1-1 (Type IV)	8	11NOV06	20NOV06	0	0	8	5	-14
DSD Maintenanace Rd DSD1 (Parallel to Channel)									
S3210	2 No. Cross Rd Pipes & Roadside Gullies	12	01MAR06A	23SEP06	80	80	4	-79	-116
S2830	Twin DN200 Water Pipe	45	02MAY06A	11NOV06	20	1	36	-79	-116
S2700	Access rd DSD1 -barrier footings	12	13NOV06	25NOV06	0	0	12	-12	-116
S3390	Complete Formation at DSD1	6	13NOV06	18NOV06	0	0	6	-79	-116
S3120	DN 200 Watermain Diversion EB18 - EB70	40	20NOV06	08JAN07	0	0	40	-79	-116
S3220	Subbase & Kerbs	18	13NOV06	02DEC06	0	0	18	-12	-27
S2720	Access rd DSD1 - Barriers	12	27NOV06	09DEC06	0	0	12	-12	-116
S3160	REINSTATE BV ACCESS	0		09DEC06	0	0	0	-12	-31
S3230	Surfacing (Type IV)	12	27NOV06	09DEC06	0	0	12	-12	-27
Works By CLP									
S3650	Lay CLP Cables Ch30 - Ch220	24	07AUG06A	02SEP06A	100	0	0		-69
S2840	Lay CLP Cables Ch220 - Ch390	20	21AUG06A	12SEP06A	100	0	0		-40
S2880	Lay CLP Cables Ch490 - CLP Rm (at SP Bldg)	20	04SEP06A	26SEP06	70	0	6	-59	-21
S2860	Lay CLP Cables Ch390 - Ch490	12	13SEP06A	26SEP06	50	0	6	340	-33
Terrain Mitigation									
NTMM - BV-S2									
102350	NTMM - Afforestation of Area	60	22MAR06A	26OCT06	45	5	30	25	-120
Landscaping & Establishment									
101475	BV - Hard Landscaping	90	14NOV06	09MAR07	0	0	90	-173	-130



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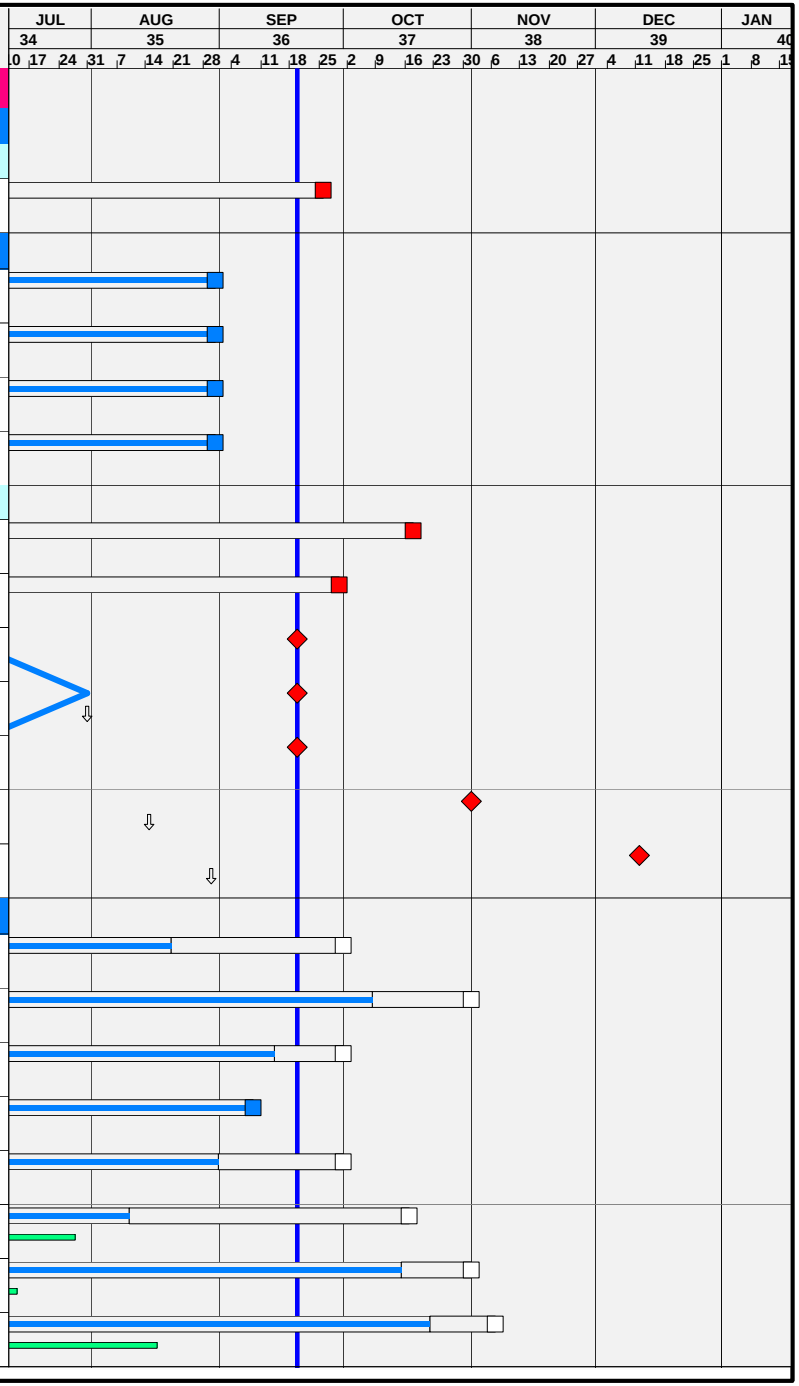
ENT SOUTH PORTAL VENTILATION BUILDING									
SUBMITTALS & APPROVALS									
E&M EQPT.& MATERIAL APPROVALS									
1919	SP.Bldg. - Approve doors details	24	07MAY05A	25SEP06	80	80	5	-114	-112
PROCUREMENT - MATERIAL									
6011	EntSpBldg-Proc & Manuf. PD irrig. sys	120	05MAR05A	30AUG06A	100	80	0		-90
6079	EntSpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	30AUG06A	100	90	0		-77
6009	EntSpBldg-Proc & Manuf. MVAC mech.vent. sys	120	06JAN06A	30AUG06A	100	60	0		-64
6035	EntSpBldg-Proc & Manuf. MVAC Package AC Units	120	06JAN06A	30AUG06A	100	60	0		-64
ABWF WORKS									
1951	SP.Bldg. - Procure aluminium composite cladding	180	19APR05A	17OCT06	80	80	22	-104	-116
1979	SP.Bldg. - Procure expanded metal mesh cladding	180	06JUN05A	29SEP06	80	80	9	-45	-116
2018	SP.Bldg. - Initial deliver fall arrest roof syst	0	20SEP06*		0	0	0	12	-69
2019	SP.Bldg. - Initial deliver of slate cladding	0	20SEP06*		0	0	0	-12	-44
2030	SP.Bldg. - Initial deliver balust & metal works	0	20SEP06*		0	0	0	12	-69
2025	SP.Bldg- Initial deliver exp metal mesh cladding	0	01NOV06*		0	0	0	-45	-64
2029	SP.Bldg. - Initial deliv alum composite cladding	0	12DEC06*		0	0	0	-104	-86
MAJOR EQUIPMENT DELIVERY									
6033	EntSpBldg-Del. PD pump & tank to G/F	48	06MAR06A	30SEP06	80	55	10	336	-116
6050	EntSpBldg-Del. building vent. fans	64	06MAR06A	31OCT06	90	40	33	313	-114
6133	EntSpBldg-Del. Package AC Units	64	06MAR06A	30SEP06	92	40	10	336	-91
6037	EntSpBldg-Del. LV power dist. equip't to 3/F	48	21MAR06A	08SEP06A	100	35	0		-82
6034	EntSpBldg-Del. PD irrig. pump & tank to G/F	48	02MAY06A	30SEP06	80	0	10	336	-78
6163	EntSpBldg-Del. AFA & FM200 sys	48	15MAY06A	16OCT06	56	0	21	325	-67
6744	EntSpBldg-Del. MVAC MCC, & control sys to 3/F	48	15MAY06A	31OCT06	90	0	33	313	-91
6194	EntSpBldg-Del. CMCS & ELV equip't	48	01JUN06A	06NOV06	90	0	38	308	-67



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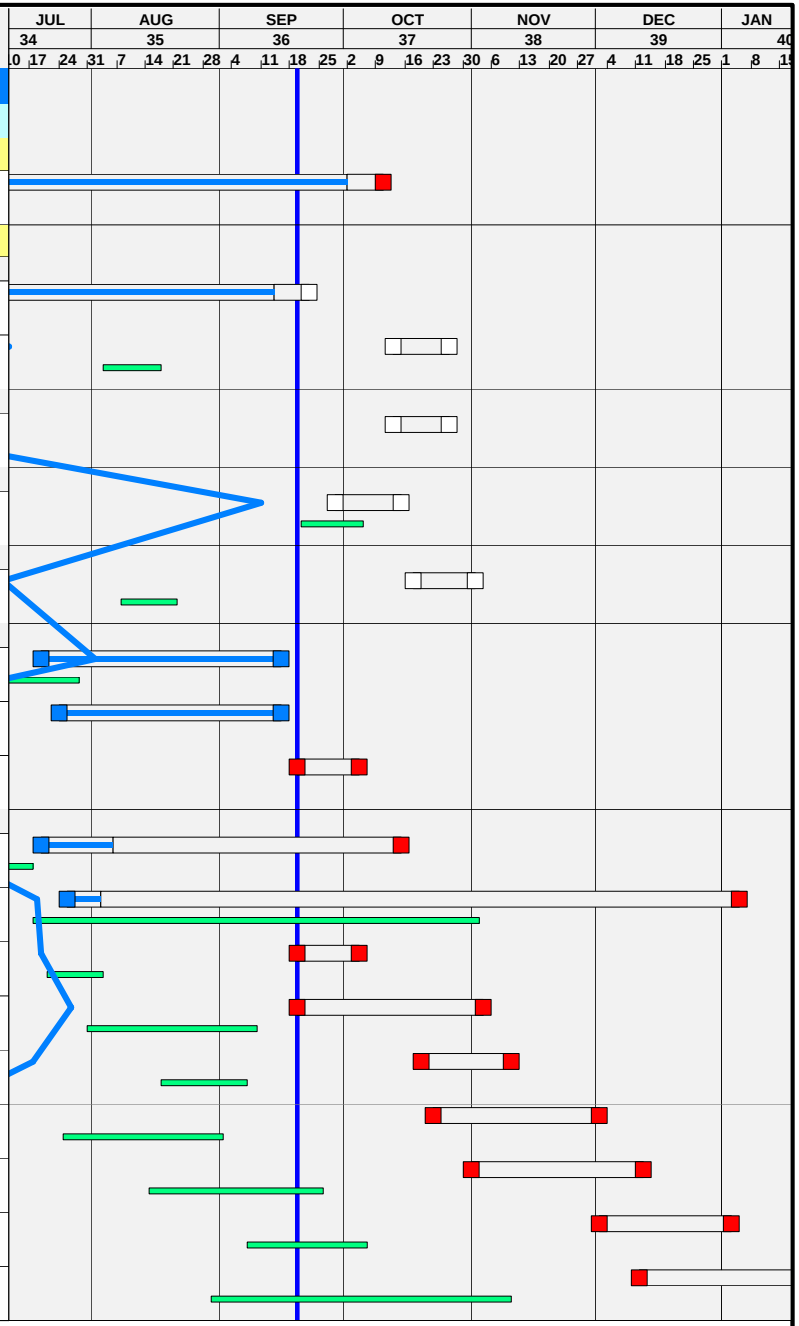
CONSTRUCTION									
South Portal Bldg. - CIVIL & ABWF WORKS									
STRUCTURES									
T2920	Backfilling at South Portal Building	18	18APR06A	10OCT06	95	60	16	-198	-122
ABWF WORKS									
SB Bldg - Internal Works GF									
T2650	ABWF Initial finishes & Doors to CLP Rm & GF	18	06APR06A	22SEP06	95	5	3	25	-97
T2760	GF - Paint touch up & Doors	12	13OCT06	26OCT06	0	0	12	25	-58
SP Bldg - Internal Works 1F & LP									
T2770	1F & LP - Paint touch up & Doors	12	13OCT06	26OCT06	0	0	12	25	-94
SP Bldg - Internal Works 2F									
T2780	2F - Paint touch up & Doors	12	29SEP06	14OCT06	0	0	12	35	-7
SP Bldg - Internal Works 3/F									
T2800	3F - Paint touch up & Doors	12	18OCT06	01NOV06	0	0	12	21	-59
SP Bldg - Internal Works 4F & Above									
T2690	ABWF Initial finishes 4F	18	20JUL06A	15SEP06A	100	0	0		-42
T3170	Installation of Crane beam to underside of 4FL	12	24JUL06A	15SEP06A	100	0	0		-92
T3150	Intallation of Crane beam to underside of 5FL	12	20SEP06	04OCT06	0	0	12	-94	-73
Roof & External Facade									
T2820	Ent SPB - Ext. Wall Waterproof Render	18	20JUL06A	14OCT06	20	0	20	-48	-75
T2710	Ent SPB - Install Aluminum louvres & doors	90	26JUL06A	04JAN07	5	0	86	-114	-51
T2530	Ent SPB - Roof Waterproofing & Test	12	20SEP06	04OCT06	0	0	12	-30	-52
T2540	Ent SPB - Slate Cladding above NB/SB Carriageway	36	20SEP06	03NOV06	0	0	36	-12	-44
T2730	Ent SPB - 25thk Roof Screed & Roofing Tiles	18	20OCT06	10NOV06	0	0	18	-30	-52
T2410	Ent SPB - External Wall Painting	34	23OCT06	01DEC06	0	0	34	-48	-75
T2390	Ent SPB - Expanded metal cladding to Ext Walls	36	01NOV06	12DEC06	0	0	36	-45	-64
T2360	Ent SPB - GMS,S/S Channel, Balustrade & Railing	24	02DEC06	02JAN07	0	0	24	-48	-70
T2400	Ent SPB - Alum. Comp Panel Cladding to Ext Walls	60	12DEC06	02MAR07	0	0	60	-104	-86



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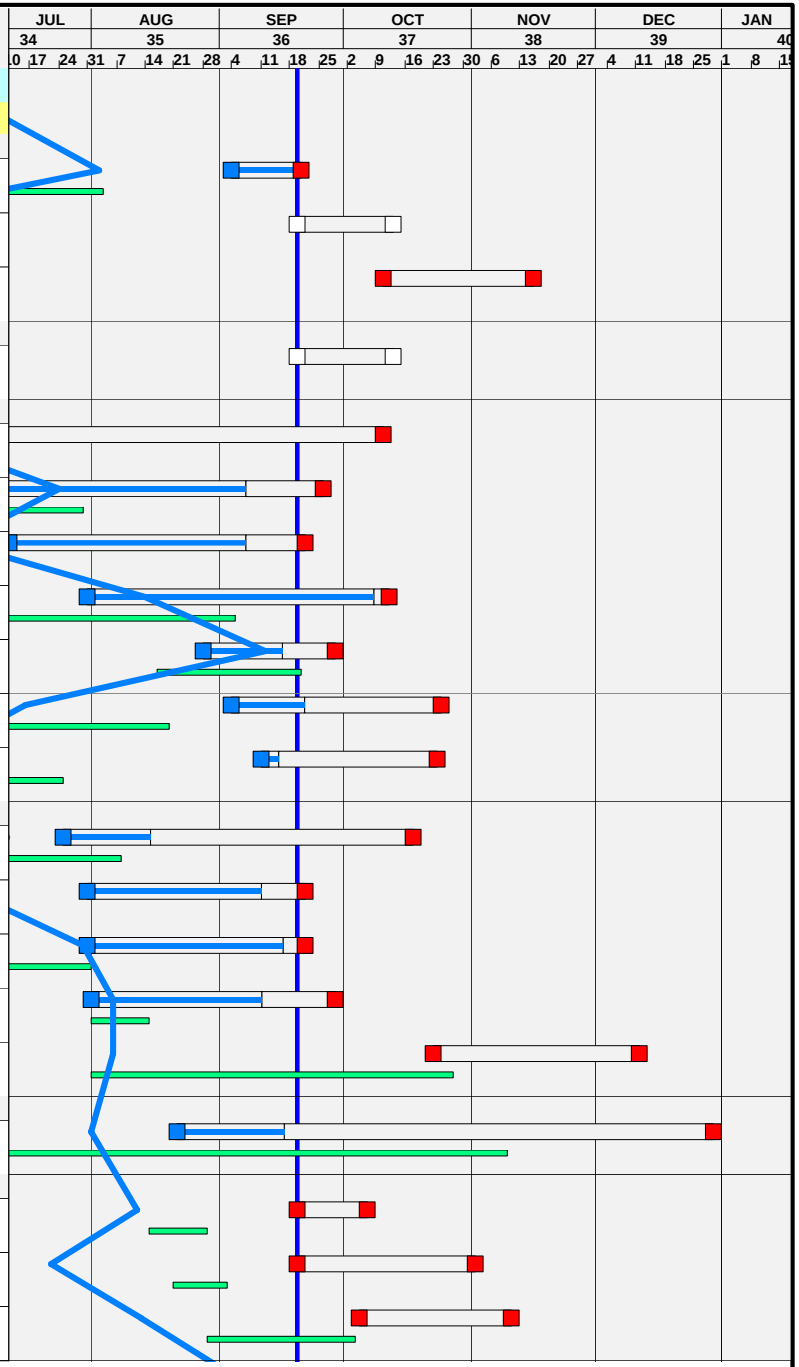
ENT South Portal Bldg. - BUILDING SERVICES									
E & M WORKS									
ENT South Portal Bldg (G/F) - E & M Works									
T2310	CLP work in CLP room	36	04SEP06A	20SEP06	95	0	1	-54	-41
EM1300	Installation of FS Pumps and Pipework at GF	18	20SEP06	12OCT06	0	0	18	25	-94
T2320	Installation of Earth Mat at SP Bldg	30	11OCT06	15NOV06	0	0	30	-98	-122
ENT South Portal Bldg (1F/Lwr Plen) - E & M Work									
EM1310	Installation of Compressor	18	20SEP06	12OCT06	0	0	18	25	-94
ENT South Portal Bldg (2F/Silencer) - E & M Work									
EM1110	BS Works for Genset	18	24JUN06A	10OCT06	10	0	16	-62	-78
EM1140	E&M Works in Corridors 2/F	24	24JUN06A	25SEP06	80	0	5	-88	-49
EM1030	BS Works for HV Sw + Tx	12	12JUL06A	21SEP06	80	0	2	-82	-70
EM1160	E&M Works in Risers	48	31JUL06A	11OCT06	95	0	2	-88	-30
EM1040	HV Sw + Tx Installation	18	28AUG06A	28SEP06	60	0	7	-82	-7
EM1120	Genset Installation	36	04SEP06A	24OCT06	35	0	23	-62	-54
EM1175	BS Works for TVS Plenums	30	11SEP06A	23OCT06	10	0	27	-92	-76
ENT South Portal Bldg (3F/ Fan Rm) - E & M Works									
EM1070	LV Sw, MCC, UPS, LCC Installation	30	25JUL06A	17OCT06	25	0	22	-87	-59
EM1060	BS Works for LV Sw, MCC, UPS, LCC	12	31JUL06A	21SEP06	80	0	2	-87	-69
EM1150	E&M Works in Corridors 3/F	24	31JUL06A	21SEP06	90	0	2	-96	-45
EM1090	BS Works for 110V Charger Rm	12	01AUG06A	28SEP06	70	0	4	-96	-39
EM1170	Termination of overall Elect HV & LV Sys	30	23OCT06	11DEC06	0	0	30	-121	-37
ENT South Portal Bldg (4F/Upr Plen) - E & M Work									
EM1180	TVS Installation	100	22AUG06A	29DEC06	20	0	80	-94	-41
Testing and Commissioning									
EM1100	110V Charger Rm Installation + T&C	12	20SEP06	06OCT06	0	0	12	-96	-33
EM1130	Genset Termination + T&C	12	20SEP06	01NOV06	0	0	12	-62	-48
EM1080	LV Sw, MCC, UPS, LCC Termination + T&C	30	05OCT06	10NOV06	0	0	30	-95	-31



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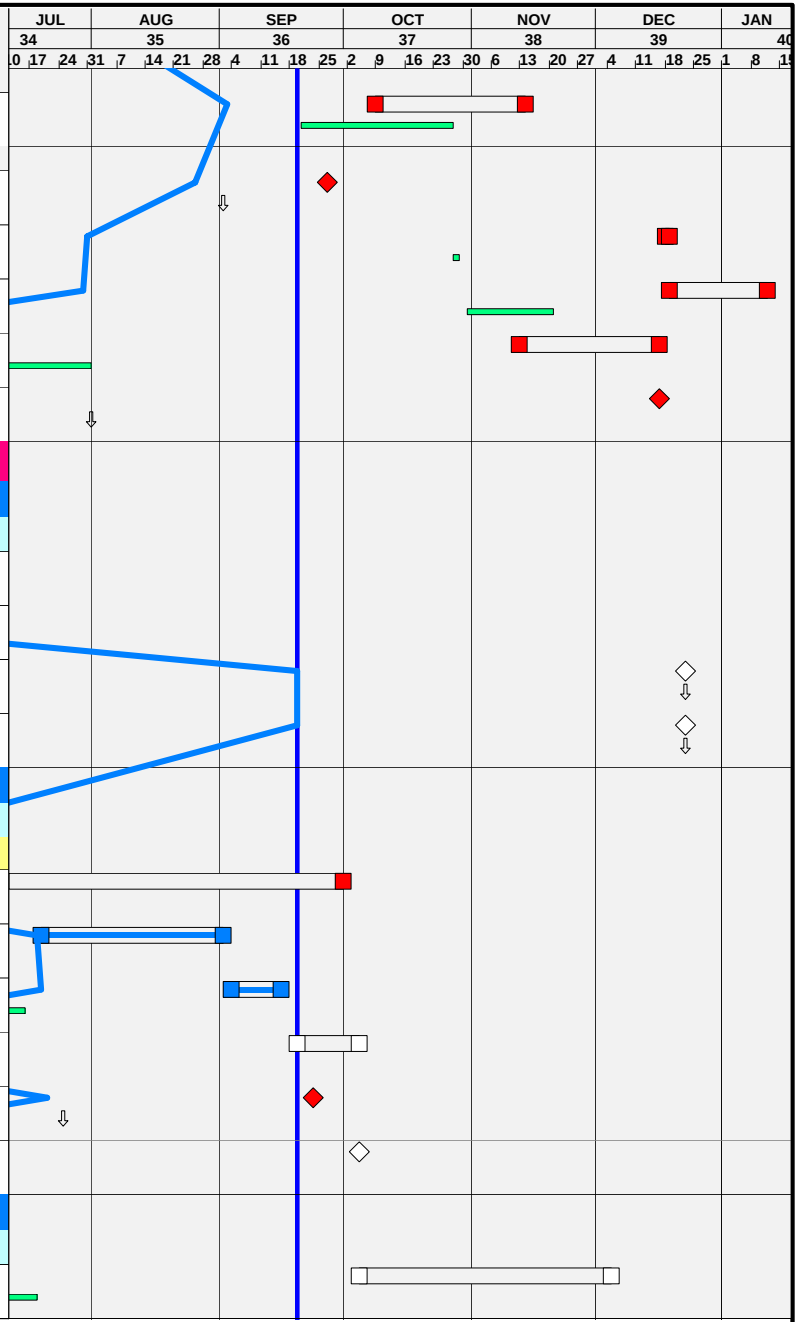
Testing and Commissioning									
EM1050	HV Sw + Tx Termination + T&C	30	09OCT06	13NOV06	0	0	30	-96	-13
Statutory Inspection & Issued Certificates									
EM1330	CLP Connect to its Transformer at SP Bldg	0		26SEP06	0	0	0	-59	-21
EM1200	Submit WR1 to CLP	1	18DEC06	18DEC06	0	0	1	-126	-42
EM1210	CLP insp.	18	19DEC06	11JAN07	0	0	18	-126	-42
EM1320	Submit Form WWO46 for Water Supply to WSD	30	13NOV06	16DEC06	0	0	30	-49	-116
EM1340	Water Supply Certificate issued	0		16DEC06	0	0	0	-49	-116
EAGLES NEST TUNNEL									
Contract defined dates, stages & sections									
Area access & vacation dates									
ACS_F1	Access to Portions - F1 (U/Gnd Sth Portal)	0	20OCT03A		100	100	0		-139
ACS_F2	Access to Portions - F2 (U/Gnd Sth Tunnel)	0	20OCT03A		100	100	0		-139
_F12345	Release of Portions - F1,F2,F3,F4,F5	0		22DEC06	0	0	0	337	0
T_GH134	Release of Portions - G,H1,H3,H4	0		22DEC06	0	0	0	337	0
Design & Engineering - Temporary Works									
Permanent Works									
Tunnel									
1657	Design/ICE Check Tunnel Clading	24	03JAN06A	30SEP06	70	60	10	-93	-120
1662	Design/ICE Check Niche Cabinets	48	20JUL06A	01SEP06A	100	0	0		-53
1663	Eng Approve Dsg Niche Cabinets	12	04SEP06A	15SEP06A	100	0	0		-53
1668	Eng Approve Dsg X-passage/Adit Fire Doors	12	20SEP06	04OCT06	0	0	12	284	-116
1664	Issue Constr Dwgs Niche Cabinets	0		23SEP06	0	0	0	-13	-53
1669	Issue Constr Dwgs X-passage/Adit Fire Doors	0		04OCT06	0	0	0	284	-116
Procurement - Material									
Tunnelling Project Wide									
1685	Order/Manufact/Del Fire Doors	50	05OCT06	04DEC06	0	0	50	284	-116



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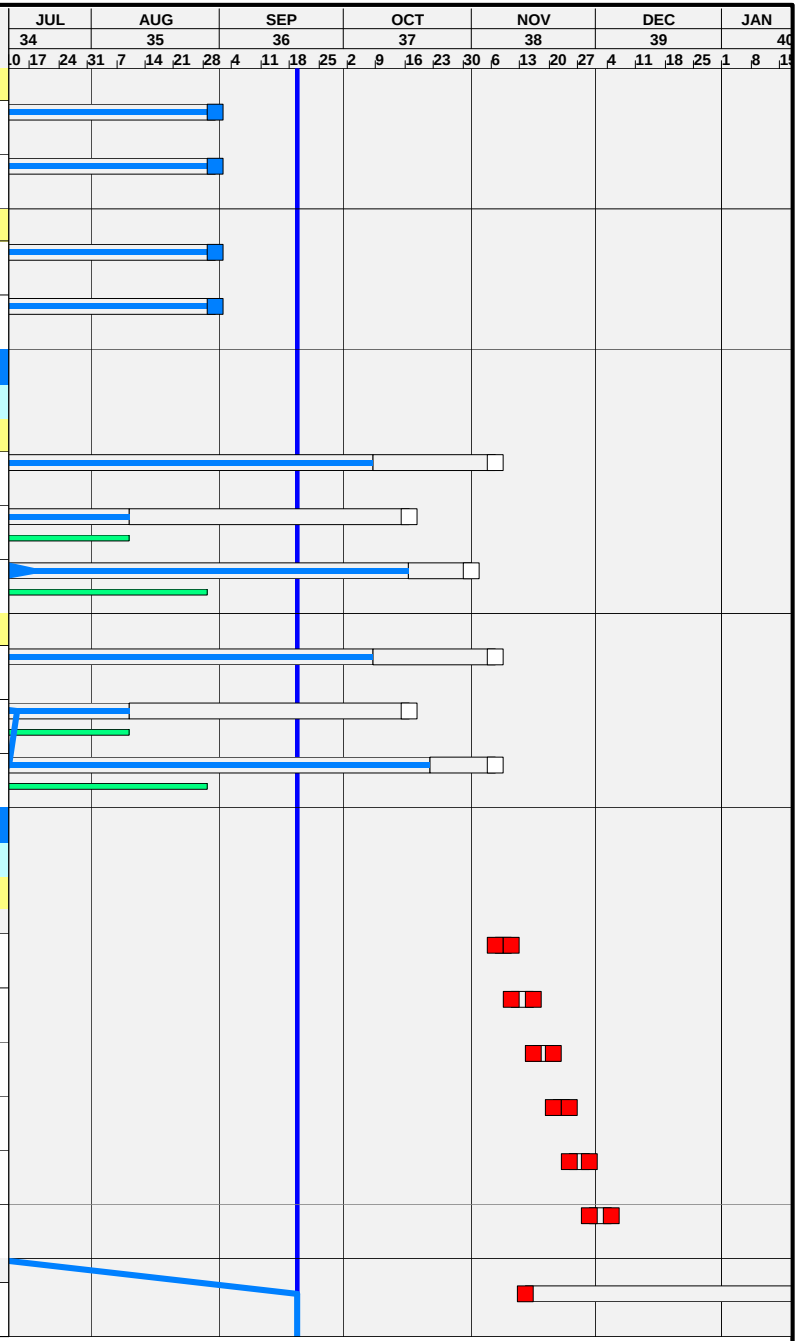
NB Tunnel									
6883	EntRtNb-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	30AUG06A	100	90	0		-66
6887	EntRtNb-Proc & Manuf. TVS control sys	180	01NOV05A	30AUG06A	100	90	0		-93
SB Tunnel									
6786	EntRtSb&VA-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	30AUG06A	100	90	0		-66
6796	EntRtSb&VA-Proc & Manuf. TVS control sys	180	01NOV05A	30AUG06A	100	90	0		-93
Major Equipemnt Delivery									
Tunnelling Project Wide									
NB Tunnel									
6891	EntRtNb-Del. TVS control sys	48	14JAN06A	06NOV06	90	90	38	308	-148
6888	EntRtNb-Del. AFA & Linear sys	48	15MAY06A	16OCT06	56	0	21	325	-104
6886	EntRtNb-Del. CMCS & ELV sys	35	01JUN06A	31OCT06	90	0	33	313	-52
SB Tunnel									
6797	EntRtSb&VA-Del. TVS control sys	48	14JAN06A	06NOV06	90	90	38	308	-148
6787	EntRtSb&VA-Del. AFA & Linear sys	48	15MAY06A	16OCT06	56	0	21	325	-56
6801	EntRtSb&VA-Del. CMCS & ELV sys	72	01JUN06A	06NOV06	90	0	38	308	-57
Construction Works									
Tunnel Drive North Bound									
Tunnel Finishing Works									
Bituminous Pavement									
3599	NB Base Course - RHS 650m Ch 3030->2380	4	07NOV06	10NOV06	0	0	4	-31	-138
3600	NB Base Course - RHS 650m Ch 2380->1730	4	11NOV06	15NOV06	0	0	4	-31	-138
3601	NB Base Course - RHS 650m Ch 1730->1080	4	16NOV06	20NOV06	0	0	4	-31	-138
3603	NB Base Course - LHS 650m Ch 3030->2380	4	21NOV06	24NOV06	0	0	4	-31	-138
3604	NB Base Course - LHS 650m Ch 2380->1730	4	25NOV06	29NOV06	0	0	4	-31	-138
3605	NB Base Course - LHS 650m Ch 1730->1080	4	30NOV06	04DEC06	0	0	4	-31	-138
VE Panel Installation									
3616	NB - VE Panel Sub-Frame Installation	60	14NOV06	25JAN07	0	0	60	-93	0



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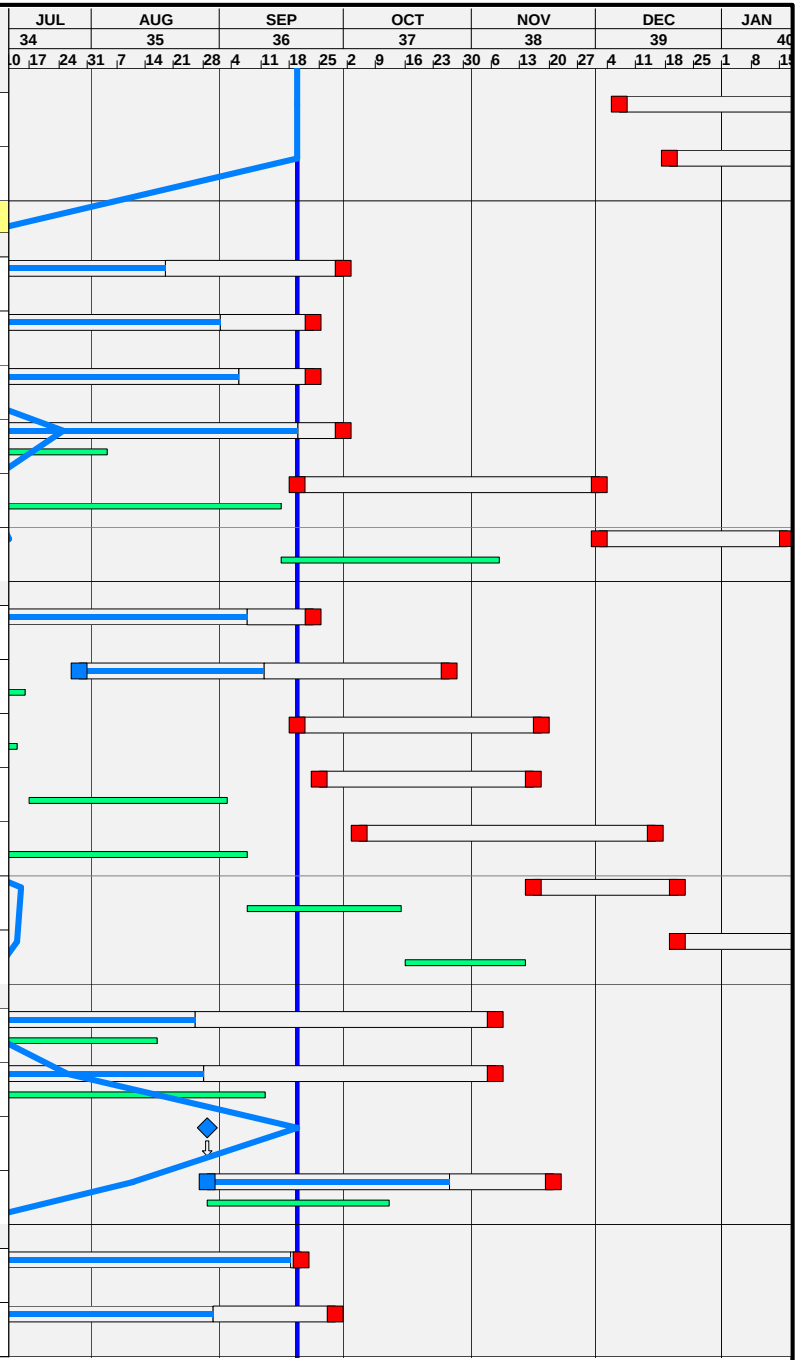
VE Panel Installation									
3636	NB - VE Panel Installation	55	07DEC06	26FEB07	0	0	55	-93	0
3656	NB - Niche Cabinets	50	19DEC06	09MAR07	0	0	50	-83	0
ENT NB TUNNEL - (E&M) BUILDING SERVICES									
MVAC / Tunnel Ventilation Syst Above OHVD									
277963	Ent NB - Install Motorised Smoke & Fire Dampers	72	04JAN06A	30SEP06	84	45	10	-124	-97
277964	Ent NB - Comp Air Pipes/Condts to E/P16 to E/P21	36	10FEB06A	23SEP06	90	40	4	-124	-85
277965	Ent NB - Comp Air Pipes/Condts to E/P15 to E/P8	36	27MAR06A	23SEP06	90	30	4	-124	-79
277966	Ent NB - Comp Air Pipes/ Condts to E/P1to E/P7	36	13JUN06A	30SEP06	90	0	4	-86	-49
277967	Ent NB - Cabling, Wiring and Termination	60	20SEP06	01DEC06	0	0	60	-124	-63
277968	Ent NB - MVAC Testing and T&C	36	02DEC06	16JAN07	0	0	36	-124	-57
Fire Protection System									
277990	Ent NB - Install FS Conduit for Niches	54	07FEB06A	23SEP06	93	40	4	-102	-88
277991	Ent NB - Install brckts for detection sys @ C/L	60	29JUL06A	26OCT06	50	0	30	-98	-86
277994	Ent NB - Install Hose Reel Cabinets & Eqpt @ G/L	48	20SEP06	17NOV06	0	0	48	-98	-106
277992	Ent NB - Install detection system @ Ceiling Lvl	42	25SEP06	15NOV06	0	0	42	-102	-60
277995	Ent NB - 100d FH / HR Pipeworks & Fittings @ G/L	60	05OCT06	15DEC06	0	0	60	-98	-82
277996	Ent NB - FS Wiring and Terminations	30	16NOV06	20DEC06	0	0	30	-102	-56
277997	Ent NB - FS Testing and T&C	24	21DEC06	20JAN07	0	0	24	-102	-56
Electrical Works Above OHVD									
278000	Ent NB - HV & LV Mn/Submain Cables to CP21-CP11	72	22JUN06A	06NOV06	47	0	38	-121	-67
278001	Ent NB - HV & LV Mn/Submain Cables to CP01-CP10	72	26JUN06A	06NOV06	47	0	38	-121	-45
278002	Ent NB - E&M Inspn & Access for Sandfill	0		28AUG06A	100	0	0		0
278003	Ent NB - Placing Sandfill and PC Covers	36	29AUG06A	20NOV06	70	0	11	-84	-33
Electrical Works Below OHVD									
278008	Ent NB - Brackets for Lightings @ Ceiling Level	96	07JAN06A	20SEP06	99	82	1	-109	-99
278009	Ent NB - Conduit Works (Above & Below OHVD)	60	01MAR06A	28SEP06	86	30	8	-109	-82



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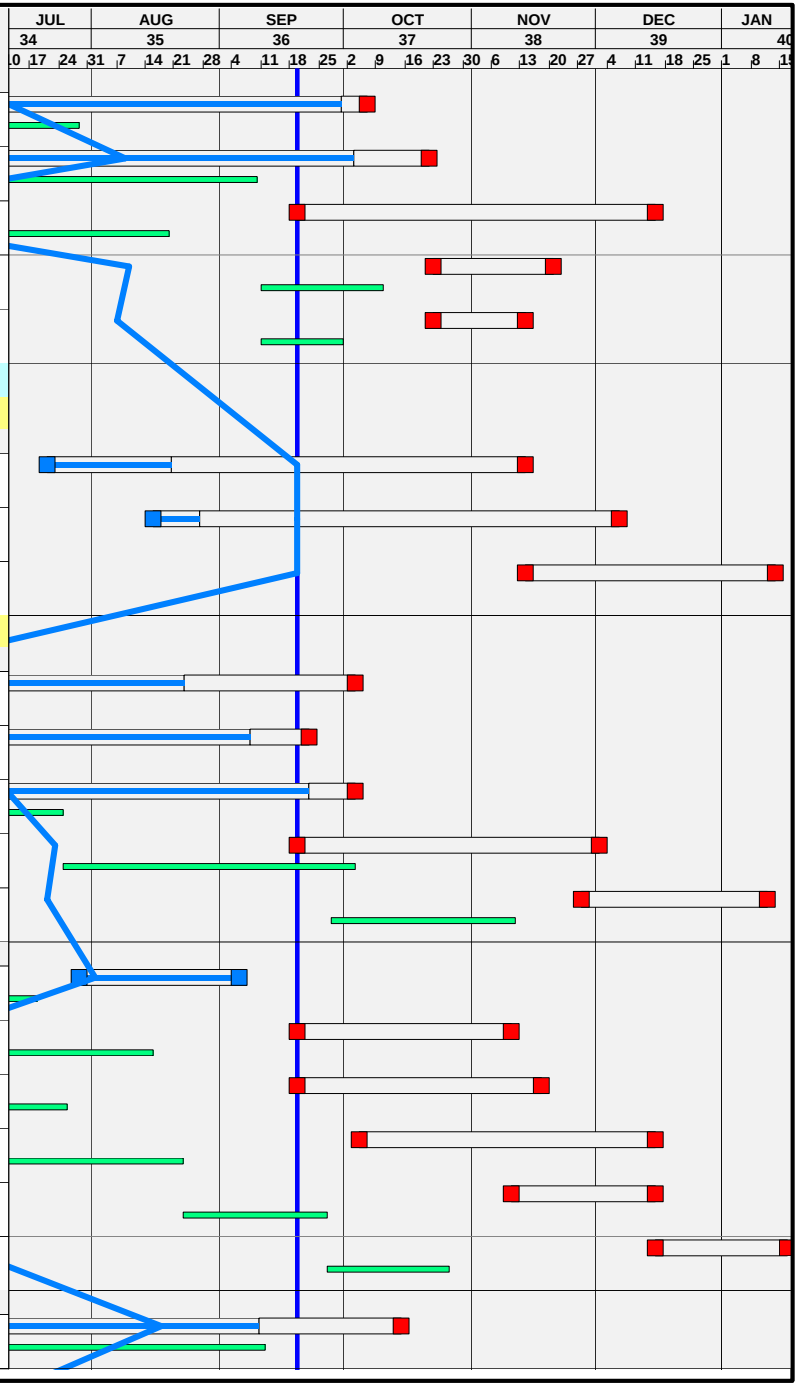
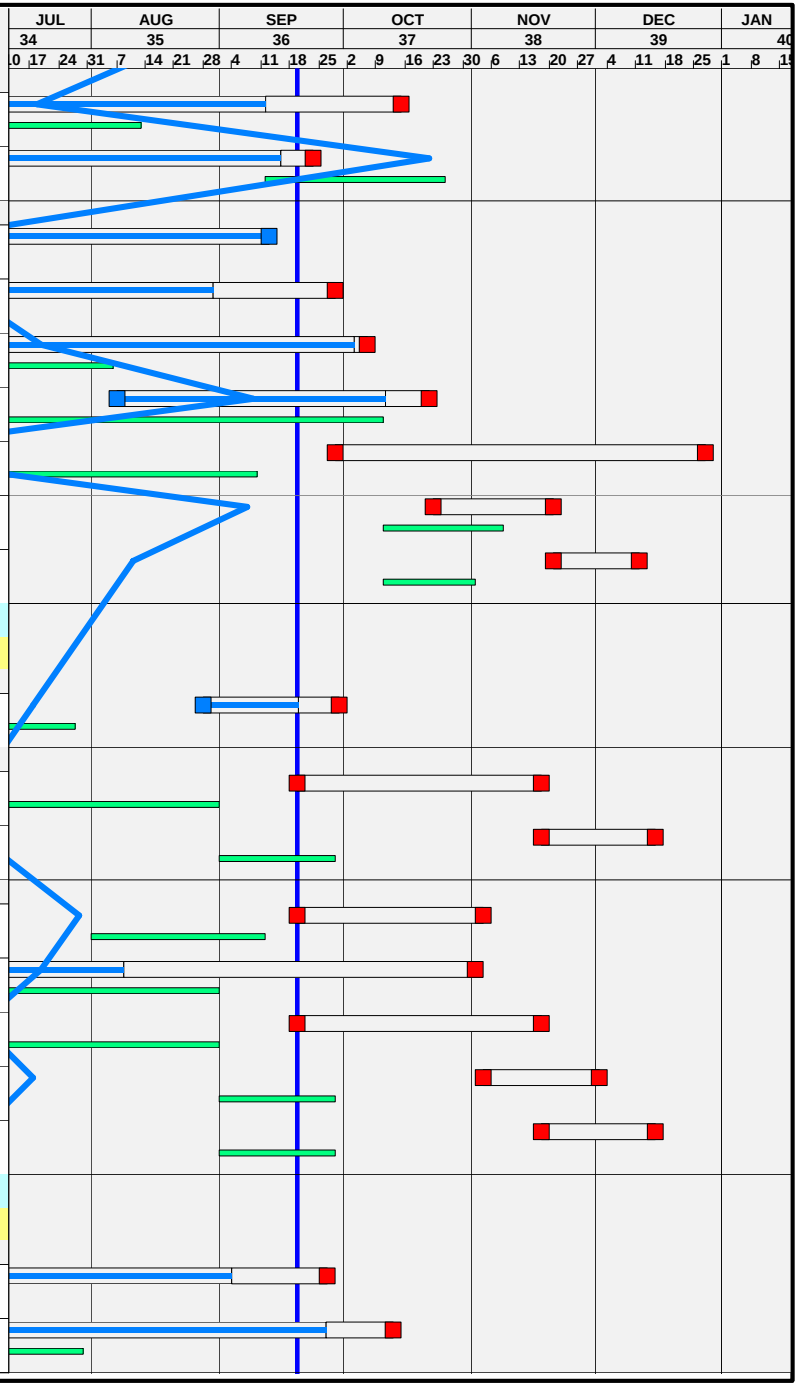
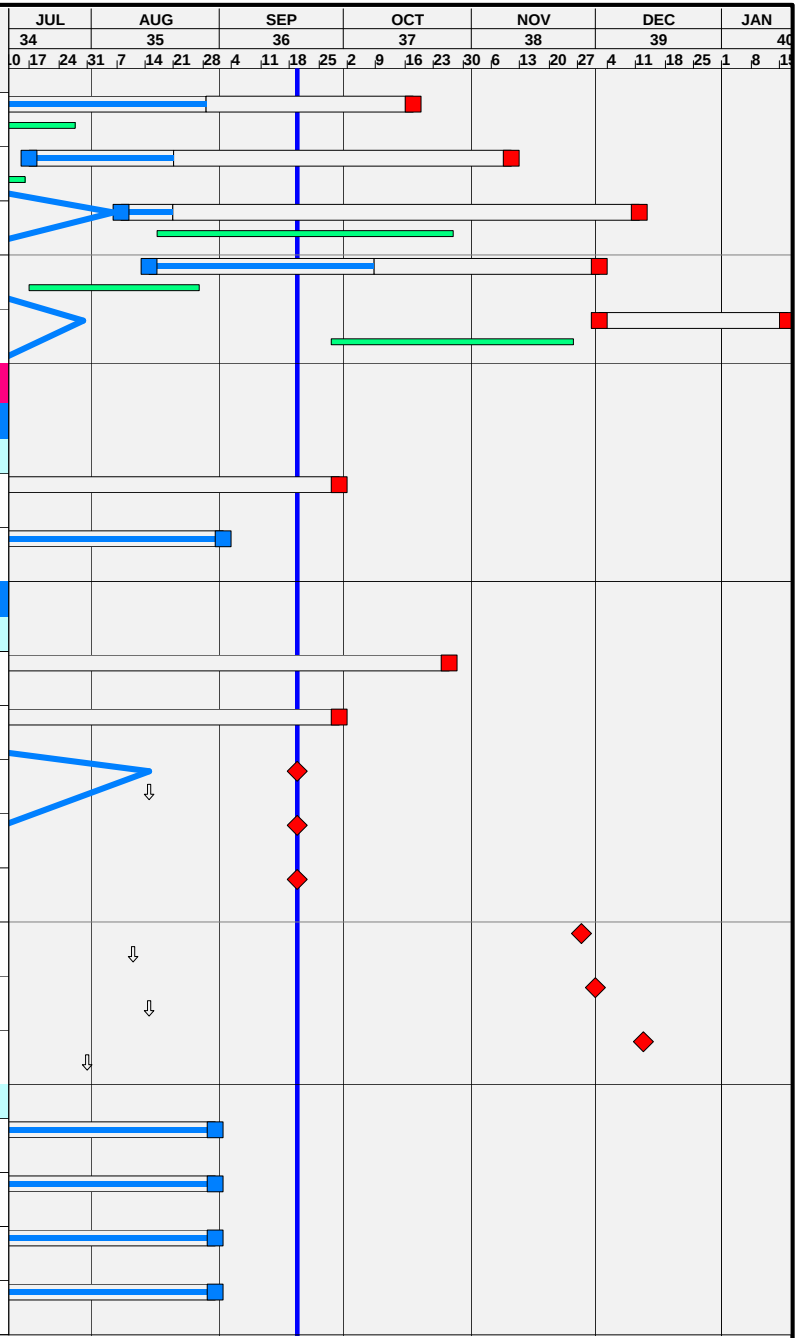
	Electrical Works Below OHVD								
278010	Ent NB - Earthing & Lighting Fixture @ C/Lvl	72	02MAY06A	06OCT06	96	2	8	-109	-59
278012	Ent NB - Cabling,Wirings&Term @ Ceiling/ Grd Lvl	48	13JUN06A	21OCT06	86	0	15	-109	-34
278011	Ent NB-Install CCTV,Camera,Eqpt @C/Lvl (By TCSS)	72	20SEP06	15DEC06	0	0	72	-83	-98
278013	Ent NB - Lighting / Equipt Testing and T&C	24	23OCT06	20NOV06	0	0	24	-78	-34
278083	Place Covers on C, Trough	18	23OCT06	13NOV06	0	0	18	-13	-34
	Tunnel Drive South Bound								
	Tunnel Finishing Works								
	VE Panel Installation								
3623	SB - VE Panel Sub-Frame Installation	60	21JUL06A	13NOV06	26	0	44	-93	0
3643	SB - VE Panel Installation	55	16AUG06A	06DEC06	10	0	50	-88	0
3663	SB - Niche Cabinets	50	14NOV06	13JAN07	0	0	50	-73	0
	ENT SB TUNNEL - (E&M) BUILDING SERVICES								
	MVAC / Tunnel Ventillation System Above OHVD								
278014	Ent SB - Install Motorised Smoke & Fire Dampers	72	31DEC05A	03OCT06	85	40	11	-120	-96
278015	Ent SB - Comp Air Pipes/Condts to E/P16 to E/P21	36	27MAR06A	22SEP06	92	58	3	-120	-100
278017	Ent SB - Comp Air Pipes/ Condts to E/P1 to E/P7	36	13JUN06A	03OCT06	90	0	4	-120	-60
278018	Ent SB - Cabling, Wiring and Termination	60	20SEP06	01DEC06	0	0	60	-120	-49
278019	Ent SB - MVAC Testing and T&C	36	28NOV06	11JAN07	0	0	36	-120	-49
	Fire Protection System								
278034	Ent SB - Install brckts for detection sys @ C/L	60	29JUL06A	05SEP06A	100	0	0		-42
278035	Ent SB - Install detection system @ Ceiling Lvl	42	20SEP06	10NOV06	0	0	42	-98	-72
278037	Ent SB - Install Hose Reel Cabinets & Eqpt @ G/L	48	20SEP06	17NOV06	0	0	48	-98	-96
278038	Ent SB - 100d FH / HR Pipeworks & Fittings @ G/L	60	05OCT06	15DEC06	0	0	60	-98	-96
278039	Ent SB - FS Wiring and Terminations	30	11NOV06	15DEC06	0	0	30	-98	-66
278040	Ent SB - FS Testing and T&C	24	16DEC06	16JAN07	0	0	24	-98	-66
	Electrical Works Above OHVD								
278044	Ent SB - HV & LV Mn/submain Cables to CP01-CP10	72	09JUN06A	14OCT06	73	0	20	-107	-27



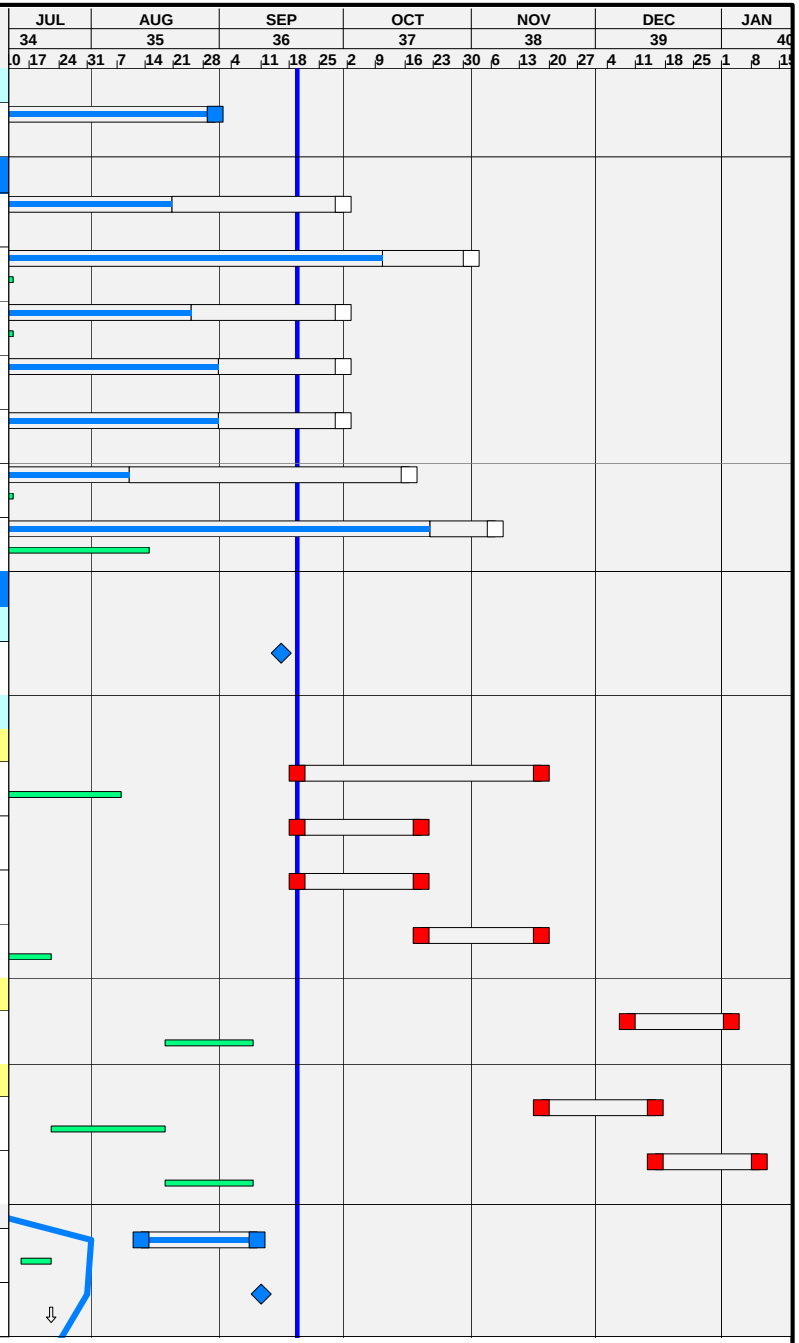
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
	Electrical Works Above OHVD								
278043	Ent SB - HV & LV Mn/Submain Cables to CP21-CP11	72	15JUN06A	14OCT06	73	0	20	-107	-52
278046	Ent SB - Placing Sandfill and PC Covers	36	07JUL06A	23SEP06	90	0	4	-38	25
	Electrical Works Below OHVD								
278051	Ent SB - Brackets for Lightings @ Ceiling Level	96	19DEC05A	12SEP06A	100	62	0		-74
278052	Ent SB - Conduit Works (Above & Below OHVD)	60	01MAR06A	28SEP06	86	30	8	-79	-70
278053	Ent SB - Earthing & Lighting Fixture @ C/Lvl	72	02MAY06A	06OCT06	98	2	2	-79	-52
278055	Ent SB - Cabling,Wirings&Term @ Ceiling/ Grd Lvl	48	07AUG06A	21OCT06	86	0	7	-79	-10
278054	Ent SB-Install CCTV,Camera,Eqpt @C/Lvl (by TCSS)	72	29SEP06	27DEC06	0	0	72	-61	-88
278056	Ent SB - Lighting / Equipt Testing and T&C	24	23OCT06	20NOV06	0	0	24	-78	-10
278096	Place Covers on C. Trough	18	21NOV06	11DEC06	0	0	18	-43	-34
	Vent Adit Tunnel / Cross Passage 7								
	ENT CROSS PASSAGE CP07 - (E&M) BUILDING SERVICES								
	MVAC / Tunnel Ventillation System Above OHVD								
278059	CP7 - Cabling, Wiring, Termination & Test	18	28AUG06A	29SEP06	70	0	5	-37	-55
	Fire Protection System								
278062	CP7 - Cabling, Wiring, FS detectn & Alarm Bell	48	20SEP06	17NOV06	0	0	48	-100	-64
278063	CP7 - FS Termination & Test	24	18NOV06	15DEC06	0	0	24	-100	-64
	Electrical Works								
278086	HGC - Cabling	36	20SEP06	03NOV06	0	0	36	-88	-43
278066	CP7 - Install Conduit, lighting & switches @ C/L	48	03JUL06A	01NOV06	30	0	34	-86	-50
278069	CP7 - HV/ LV Cabling, Wiring & Term to CP7 LV Rm	48	20SEP06	17NOV06	0	0	48	-100	-64
278067	CP7 - Cabling, Wiring & Termination and Test	24	04NOV06	01DEC06	0	0	24	-88	-52
278070	CP7 - HV / LV Cables Testing and T&C	24	18NOV06	15DEC06	0	0	24	-100	-64
	ENT Cross Passages								
	CROSS PASSAGES (CP1-CP6 & CP8-CP21) - (E&M) WORK								
	Electrical Works								
278074	(CP1-CP21) - Cable Containment & Equipt Support	60	07FEB06A	26SEP06	90	80	6	-101	-110
278077	(CP21-CP11) - MCCB/ MCB Brd,CMCS,Busbar,Switches	72	03MAY06A	12OCT06	90	0	7	-107	-62



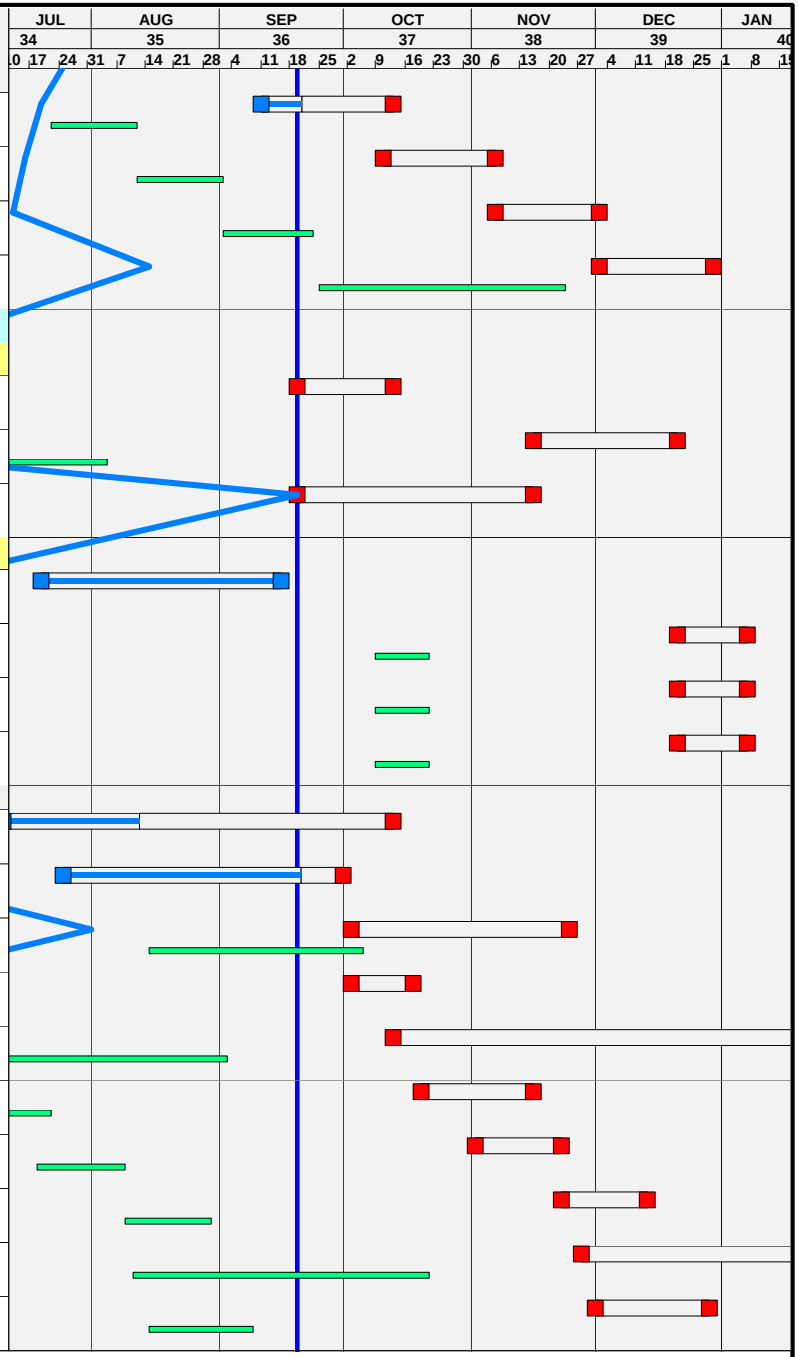
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Electrical Works									
278078	(CP1-CP10) - MCCB/ MCB Brd,CMCS,Busbar,Switches	72	03MAY06A	17OCT06	70	0	22	-107	-68
278075	(CP1-CP21) - Conduit,light,Signage fixt,Switches	60	17JUL06A	10NOV06	30	0	42	-124	-98
278079	(CP1-CP21) - HV & LV Cables Terminations & Test	60	08AUG06A	11DEC06	10	0	54	-121	-37
278076	(CP1-CP21) - Cabling, Wiring, Termination & Test	36	15AUG06A	01DEC06	50	0	18	-124	-80
278080	(CP1-CP21) - Cables Testing and T&C	36	02DEC06	16JAN07	0	0	36	-124	-41
VENTILATION ADIT & BUILDING									
Submittals & Approvals									
ABWF & Builders Works									
1972	VA Bldg. - Approve door details	24	07MAY05A	29SEP06	70	70	9	-127	-116
1988	VA Bldg. - Approve aluminium composite cladding	24	13DEC05A	01SEP06A	100	50	0		-79
PROCUREMENT									
ARCHITECTURAL									
1995	VA Bldg. - Procure aluminium composite cladding	90	19APR05A	26OCT06	50	60	30	-104	-124
2026	VA Bldg. - Procure expanded metal mesh cladding	60	06JUN05A	29SEP06	50	50	9	-69	-116
2031	VA Bldg. - Initial delivery slate cladding	0	20SEP06*		0	0	0	-32	-31
2034	VA Bldg. - Initial delivery fall arrest roof sys	0	20SEP06*		0	0	0	6	-62
2035	VA Bldg. - Initial delivery balust & metal works	0	20SEP06*		0	0	0	6	-62
2038	VA Bldg. - Initial delivery alum comp cladding	0	28NOV06*		0	0	0	-104	-90
2043	VA Bldg. - Initial deliv exp metal mesh cladding	0	01DEC06*		0	0	0	-69	-90
2032	VA Bldg. - Initial delivery doors	0	13DEC06*		0	0	0	-127	-113
E&M MATERIALS									
6636	VaBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	30AUG06A	100	90	0		-90
6586	VaBldg-Proc & Manuf. FS wet sys	120	06JUN05A	30AUG06A	100	95	0		-95
6585	VaBldg-Proc & Manuf. PD fresh & flush water sys	120	30SEP05A	30AUG06A	100	85	0		-94
8516	VaBldg-Proc & Manuf. MVAC Package AC Units	120	16DEC05A	30AUG06A	100	80	0		-90



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
E&M MATERIALS									
6588	VaBldg-Proc & Manuf. MVAC mech.vent. sys	180	06JAN06A	30AUG06A	100	80	0		-90
MAJOR EQUIPMENT DELIVERY									
7592	VaBldg-Del. PD irrig. pump & tank to G/F	48	07MAR06A	30SEP06	80	55	10	336	-117
6859	VaBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	30MAR06A	31OCT06	90	0	33	313	-92
8517	VaBldg-Del. Package AC Units	48	30MAR06A	30SEP06	80	0	10	336	-69
6608	VaBldg-Del. PD pump & tank to G/F	48	02MAY06A	30SEP06	80	0	10	336	-73
6609	VaBldg-Del. FS pumps & tank to G/F	48	02MAY06A	30SEP06	80	0	10	336	-74
6698	VaBldg-Del. AFA & FM200 sys	48	15MAY06A	16OCT06	56	0	21	325	-80
6666	VaBldg-Del. CMCS & ELV equip't	48	01JUN06A	06NOV06	90	0	38	308	-69
CONSTRUCTION WORKS									
Vent Bldg & Adit TCSS Access									
0295	Vent Bldg & Adt - TCSS Access	0		15SEP06A	100	0	0		-78
EXTERNAL WORKS									
Drainage									
S1900	Petrol interceptor & Storm Drain at East Side	48	20SEP06	17NOV06	0	0	48	-108	-85
S1940	Foul Drain Pipe & Holding Tank	24	20SEP06	19OCT06	0	0	24	-84	-85
S1960	Storm Drain at West Side	24	20SEP06	19OCT06	0	0	24	-126	-99
S1970	Storm Drain & Gullies at Access Apron	24	20OCT06	17NOV06	0	0	24	-126	-99
Ducting & Drawpits									
S1910	Ducting & Drawpits	18	09DEC06	02JAN07	0	0	18	-126	-93
Watermain Works									
S1950	Watermain & Valve Chambers at Building Apron	24	18NOV06	15DEC06	0	0	24	-126	-99
S1990	Irrigation Pipework	18	16DEC06	09JAN07	0	0	18	-114	-99
TTA for Tai Po Road									
SB3030	Apply for Road Works Advice from RMO of HKPF	7	13AUG06A	09SEP06A	100	0	0		-50
SB3050	TTM Scheme Implemented	0	11SEP06A		100	0	0		-51



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Construction of Watermains Across Tai Po Rd									
SB3070	Stage 1 - Watermain Crossing Tai Po Rd	26	11SEP06A	12OCT06	31	0	18	-88	-51
SB3080	Stage 2 - Watermain Crossing Tai Po Rd	22	11OCT06	06NOV06	0	0	22	-88	-53
SB3090	Stage 3 - Watermain Crossing Tai Po Rd	22	07NOV06	01DEC06	0	0	22	-88	-56
SB3100	Stage 4 - Watermain Crossing Tai Po Rd	22	02DEC06	29DEC06	0	0	22	-88	-29
VENTILATION BUILDING									
VA Building - Structure									
T2130	Installation of Exhaust Shaft Steelwork	18	20SEP06	12OCT06	0	0	18	-106	-102
T3130	Installation of Earth mat	30	16NOV06	20DEC06	0	0	30	-104	-115
T3140	Backfilling Around Ventillation Building	24	20SEP06	15NOV06	0	0	24	-104	0
VA Building - ABWF									
T2290	ABWF Initial Finishes Fan Rooms & Plemums	18	20JUL06A	15SEP06A	100	0	0		-78
T3030	ABWF - GL Paint Touch Up & Doors	12	21DEC06	06JAN07	0	0	12	-34	-62
T3040	ABWF - 1FL Paint Touch Up & Doors	12	21DEC06	06JAN07	0	0	12	-34	-62
T3050	ABWF - Fan Rooms & Plenums Touch Up & Doors	12	21DEC06	06JAN07	0	0	12	-34	-62
VA Building - External Finishes									
T2050	VA Bldg. - Ext. Wall Waterproof Render	20	10JUL06A	12OCT06	35	0	18	-104	-97
T3060	VA Bldg. - Ext. Wall Waterproof Membrane	21	25JUL06A	30SEP06	85	0	10	-58	-88
T2140	VA Bldg. - Slate Cladding	44	03OCT06	24NOV06	0	0	44	-42	-41
T3080	VA Bldg. - Roof Waterproofing & Test	12	03OCT06	17OCT06	0	0	12	-46	-88
T3110	VA Bldg. - Install Aluminum louvres & doors	60	13OCT06	19JAN07	0	0	60	-127	-113
T3070	VA Bldg. - External Wall Painting	22	20OCT06	15NOV06	0	0	22	-104	-97
T3090	VA Bldg. - 25thk Roof Screed & Roofing Tiles	18	02NOV06	22NOV06	0	0	18	-46	-88
T3100	VA Bldg. - GMS,S/S Channel, Balustrade & Railing	18	23NOV06	13DEC06	0	0	18	-46	-88
T3120	VA Bldg. - Alum Comp Panel Cladding to Ext Walls	60	28NOV06	08FEB07	0	0	60	-104	-90
T2110	VA Bldg. - Expanded metal cladding to Ext Walls	22	01DEC06	28DEC06	0	0	22	-69	-90



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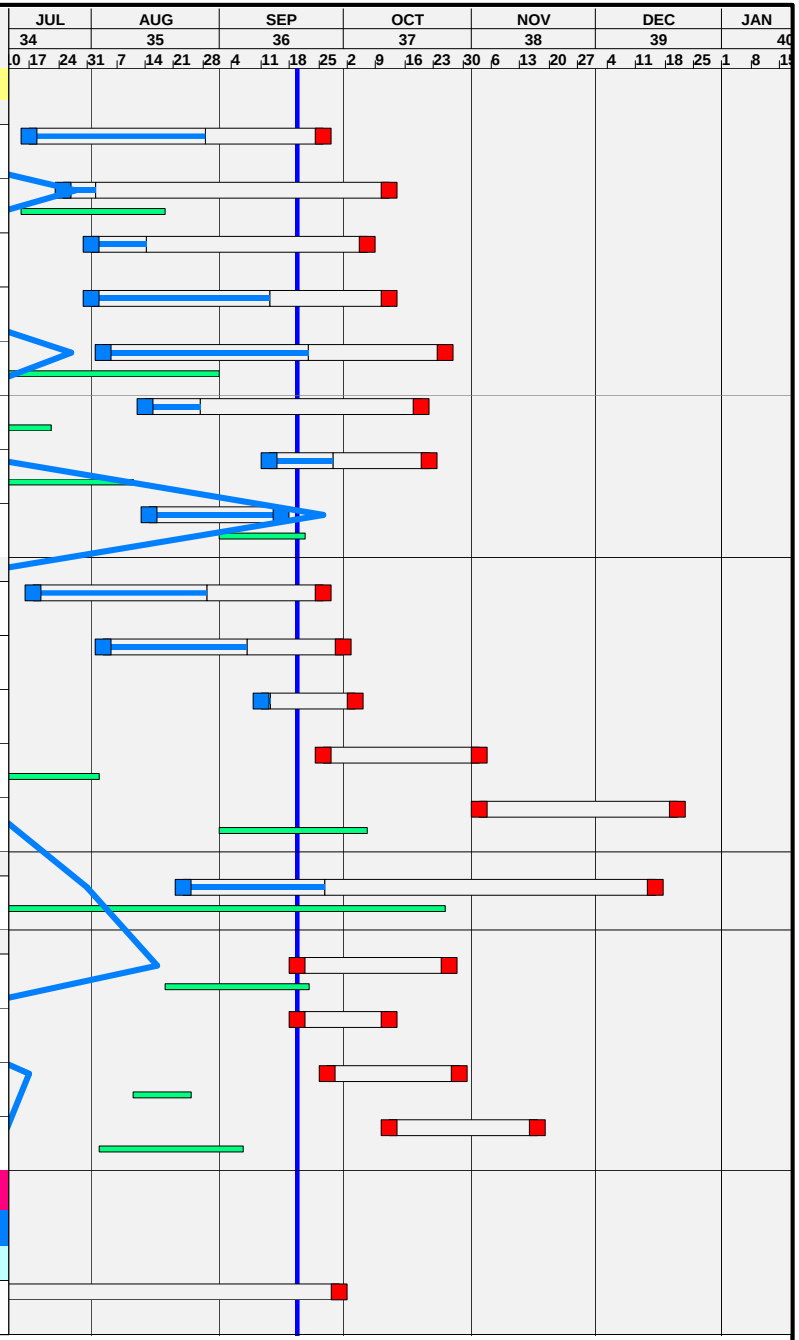
E & M WORKS									
Ventilation Adit Bldg (GF/Lwr Plen) - E & M Work									
EM2040	BS Works for HV Sw + Tx	12	17JUL06A	25SEP06	60	0	5	-90	-93
EM2060	HV Sw + Tx Installation	18	25JUL06A	11OCT06	10	0	16	-88	-44
EM2200	BS Works for Genset	18	01AUG06A	06OCT06	20	0	14	-90	-84
EM2260	E&M Works in Corridors G/F	24	01AUG06A	11OCT06	60	0	10	-87	-79
EM2300	E&M Works in Risers	48	04AUG06A	25OCT06	60	0	19	-87	-45
EM2310	BS Works in TVS Plenums	30	14AUG06A	19OCT06	20	0	24	-100	-75
EM2220	Genset Installation	36	13SEP06A	21OCT06	40	0	22	-90	-60
EM2050	HGC - Cable Containment	18	15AUG06A	15SEP06A	100	0	0		5
Ventilation Adit Bldg (1F) - E & M Work									
EM2100	BS Works for LV Sw, MCC, UPS, LCC	12	18JUL06A	25SEP06	60	0	5	-93	-91
EM2280	E&M Works in Corridors 1/F	24	04AUG06A	30SEP06	60	0	10	-80	-74
EM2160	BS Works for 110V Charger Rm	12	11SEP06A	03OCT06	10	0	11	-88	-85
EM2120	LV Sw, MCC, UPS, LCC Installation	30	26SEP06	02NOV06	0	0	30	-93	-76
EM2340	Termination of overall Elect HV & LV Sys	30	03NOV06	20DEC06	0	0	30	-104	-62
Ventilation Adit Bldg (2F/Upr Plen) - E & M Work									
EM2320	TVS Installation	90	23AUG06A	15DEC06	30	0	63	-100	-43
Testing and Commissioning									
EM2080	HV Sw + Tx Termination + T&C	30	20SEP06	26OCT06	0	0	30	-58	-27
EM2180	110V Charger Rm Installation + T&C	12	20SEP06	11OCT06	0	0	12	-88	-79
EM2240	Genset Termination + T&C	12	27SEP06	28OCT06	0	0	12	-90	-54
EM2140	LV Sw, MCC, UPS, LCC Termination + T&C	30	12OCT06	16NOV06	0	0	30	-93	-58
ENT NORTH PORTAL VENTILATION BUILDING									
SUBMITTALS & APPROVALS									
ABWF & Builders Works									
1954	NP.Bldg. - Approve door details	24	06APR05A	29SEP06	80	80	9	-97	-116



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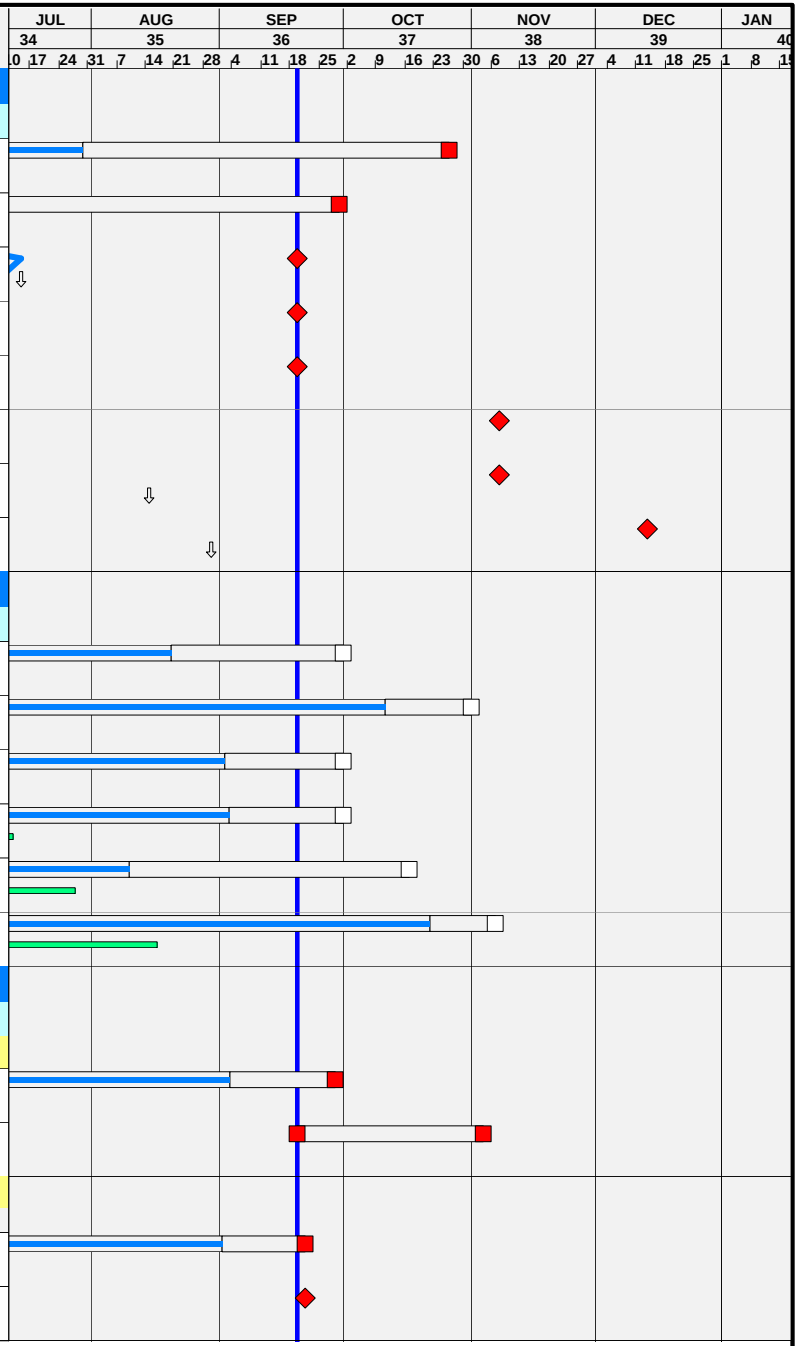
PROCUREMENT - MATERIAL									
ABWF WORKS									
1967	NP.Bldg. - Procure aluminium composite cladding	180	19APR05A	26OCT06	84	50	30	-106	-124
1981	NP.Bldg. - Procure expanded metal cladding	180	06JUN05A	29SEP06	50	50	9	-51	-116
2051	NP.Bldg. - Initial delivery slate cladding	0	20SEP06*		0	0	0	-12	-57
2052	NP.Bldg. - Initial delivery balust & metal works	0	20SEP06*		0	0	0	0	-69
2053	NP.Bldg. - Initial delivery fall arrest roof sys	0	20SEP06*		0	0	0	0	-69
2039	NP.Bldg. - Initial delivery of doors	0	08NOV06*		0	0	0	-97	-108
2066	NP.Bldg. - Initial deliv expanded metal cladding	0	08NOV06*		0	0	0	-51	-70
2050	NP.Bldg. - Initial deliv alum composite cladding	0	14DEC06*		0	0	0	-106	-88
MAJOR EQUIPMENT DELIVERY									
ENT NORTH PORTAL BUILDING									
6231	EntNpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	30SEP06	80	50	10	336	-116
6832	EntNpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	06APR06A	31OCT06	90	10	33	313	-114
6327	EntNpBldg-Del. Package AC Units	48	10MAY06A	30SEP06	80	0	10	336	-73
6229	EntNpBldg-Del. PD pump & tank to G/F	48	15MAY06A	30SEP06	80	0	10	336	-69
6359	EntNpBldg-Del. AFA & FM200 sys	48	15MAY06A	16OCT06	56	0	21	325	-67
6288	EntNpBldg-Del. CMCS & ELV equip't	48	01JUN06A	06NOV06	90	0	38	308	-67
CONSTRUCTION									
North Portal Bldg. - CIVIL & ABWF WORKS									
STRUCTURE									
T1390	NP Bldg - Exhaust Shaft (+110.38mPD)	18	24MAY06A	28SEP06	80	0	8	-82	-98
S1370	Construct earth mat	36	20SEP06	03NOV06	0	0	36	-70	-108
ABWF WORKS									
Internal Works GF									
T1650	GF ABWF Initial finishes	18	04MAR06A	21SEP06	90	28	2	-25	-105
T1320	GF BB Access grnd Floor	0		21SEP06*	0	0	0	-25	-105



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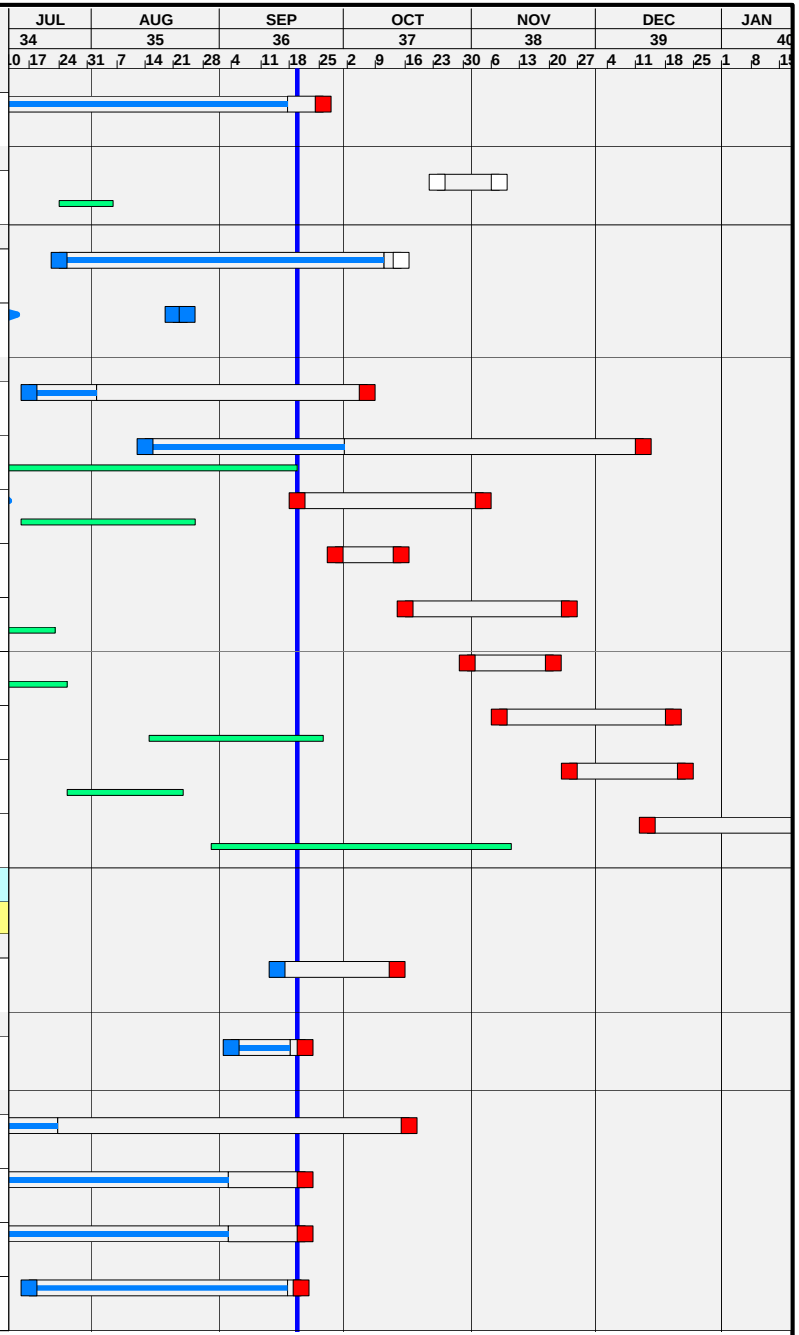
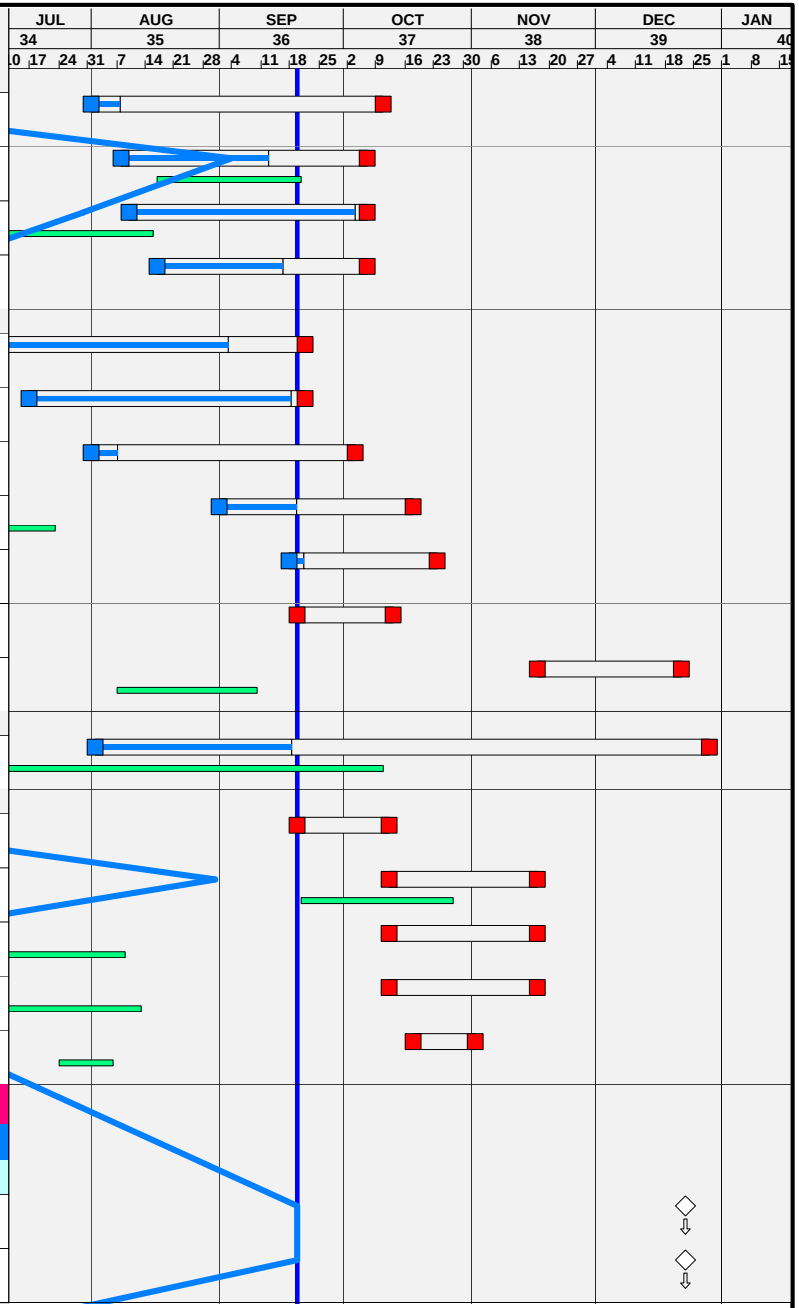
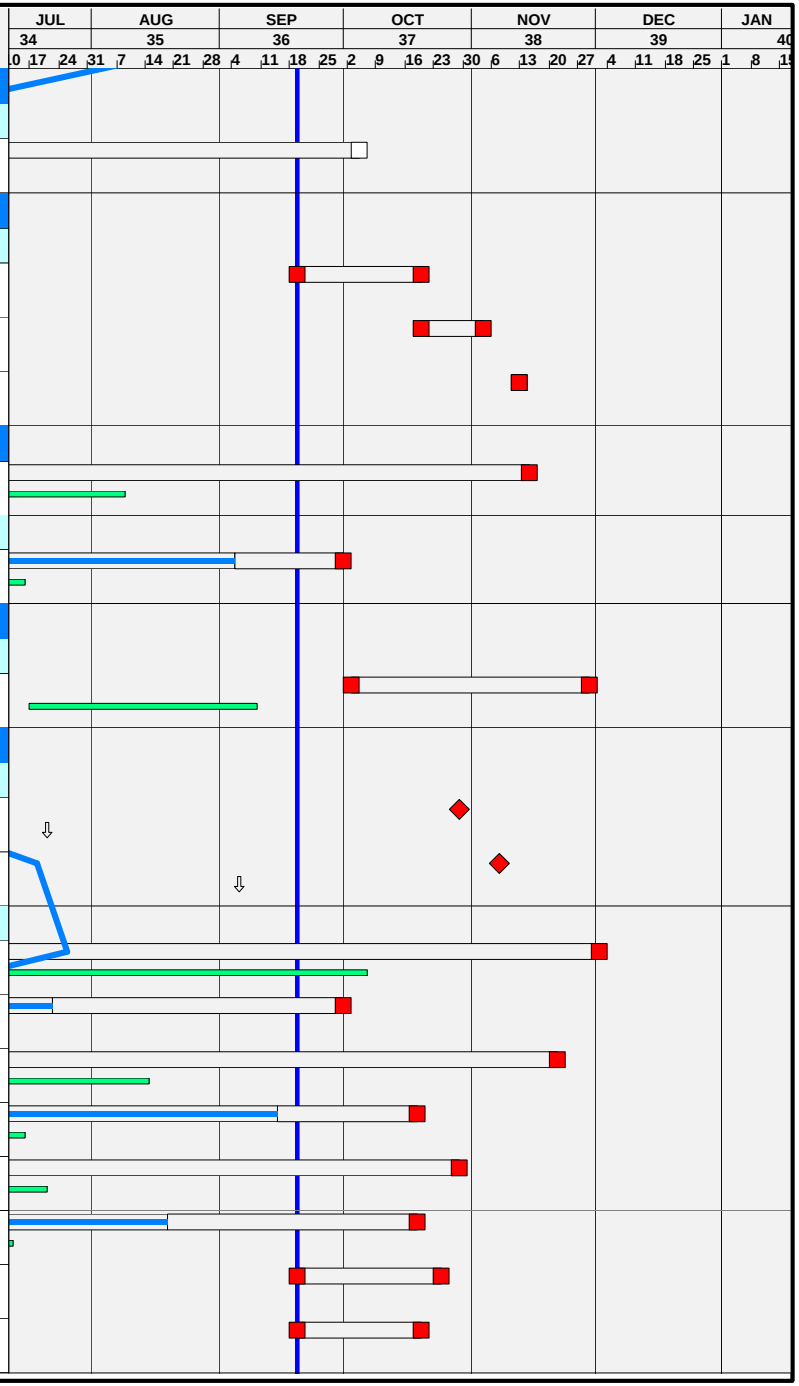
	NP Bldg - Internal Works 2F								
T1600	2F ABWF Initial Finishes	18	06APR06A	25SEP06	95	28	5	-107	-109
	NP Bldg Internal Works 3/F								
T1880	3F - paint touch up & doors	12	24OCT06	07NOV06	0	0	12	15	-77
	NP Building - Internal Works								
T1620	4F ABWF initial finishes	12	24JUL06A	14OCT06	95	0	1	326	-98
T2430	Installation of Crane beam to underside of 5FL	18	21AUG06A	23AUG06A	100	0	0		-57
	NP Bldg - Roofing & External Facade								
T2238	Ent NPB - Ext. Wall Waterproof Render	18	17JUL06A	06OCT06	20	0	14	-54	-104
T1740	Ent NPB - Install Aluminum louvres & doors	90	14AUG06A	12DEC06	40	0	54	-97	-69
T1780	Ent NPB - Slate cladding above NB/SB carriageway	36	20SEP06	03NOV06	0	0	36	-12	-57
T1800	Ent NPB - Roof Waterproofing & Test	12	29SEP06	14OCT06	0	0	12	-50	-98
T1730	Ent NPB - External Wall Painting	34	16OCT06	24NOV06	0	0	34	-54	-104
T1700	Ent NPB - 25thk Roof Screed & Roofing Tiles	18	31OCT06	20NOV06	0	0	18	-50	-98
T1770	Ent NPB - Expanded metal cladding to Ext Walls	36	08NOV06	19DEC06	0	0	36	-51	-70
T1790	Ent NPB - GMS,S/S Channel, Balustrade & Railing	24	25NOV06	22DEC06	0	0	24	-54	-102
T1750	Ent NPB - Alum. Comp Panel Cladding to Ext Walls	60	14DEC06	05MAR07	0	0	60	-106	-88
	ENT North Portal Bldg. - BUILDING SERVICES								
	E & M WORKS								
	ENT North Portal Bldg (G/F) - E & M Works								
T1720	Installation of FS Pumps & Pipework at GF	18	15SEP06A	13OCT06	5	0	17	-25	-104
	ENT North Portal Bldg (1F/Lwr Plen) - E & M Work								
T1810	Installation of FM200 at 1F	12	04SEP06A	21SEP06	80	0	2	-30	-94
	ENT North Portal Bldg (2F/Silencer) - E & M Work								
EM2930	BS Works for TVS Plenums	30	17JUN06A	16OCT06	30	0	21	-105	-93
EM2580	BS Works for HV Sw + Tx	12	20JUN06A	21SEP06	80	0	2	-88	-94
EM2700	BS Works for LV Sw	12	20JUN06A	21SEP06	80	0	2	-76	-94
EM2860	E&M Works in Corridors 2/F	24	17JUL06A	20SEP06	95	0	1	-59	-81



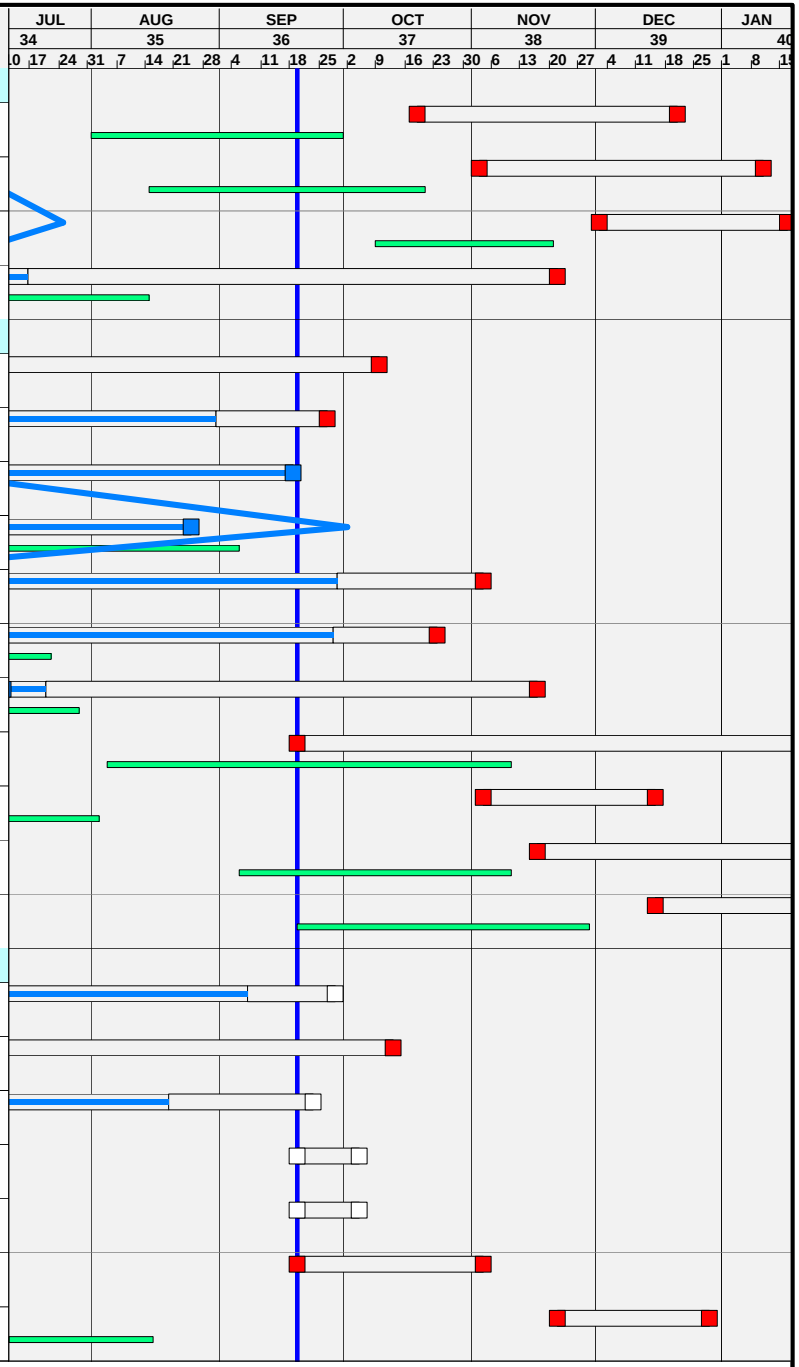
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ENT North Portal Bldg (2F/Silencer) - E & M Work									
EM2800	BS Works for Genset	18	01AUG06A	10OCT06	10	0	16	-92	-102
EM2600	HV Sw + Tx Installation	18	08AUG06A	06OCT06	60	0	7	-88	-13
EM2900	E&M Works in Risers	48	10AUG06A	06OCT06	95	0	2	-60	-44
EM2720	LV Sw Installation	30	17AUG06A	06OCT06	60	0	12	-76	-76
ENT North Portal Bldg (3F/ Fan Rm) - E & M Works									
EM2640	BS Works for MCC, UPS, LCC	12	20JUN06A	21SEP06	80	0	2	-86	-92
EM2880	E&M Works in Corridors 3/F	24	17JUL06A	21SEP06	95	0	2	-60	-80
EM2760	BS Works for 110V Charger Rm	12	01AUG06A	03OCT06	10	0	11	-105	-101
EM2820	Genset Installation	30	01SEP06A	17OCT06	40	0	18	-92	-72
EM2660	MCC, UPS, LCC Installation	30	18SEP06A	23OCT06	10	0	27	-86	-93
EM2890	Compressor Room Installation	18	20SEP06	12OCT06	0	0	18	-46	-102
EM2920	Termination of overall Elect HV & LV Sys	30	17NOV06	21DEC06	0	0	30	-105	-85
ENT North Portal Bldg (4F/Upr Plen) - E & M Work									
EM2940	TVS Installation	100	02AUG06A	28DEC06	32	0	68	-105	-65
Testing and Commissioning									
EM2780	110V Charger Rm Installation + T&C	12	20SEP06	11OCT06	0	0	12	-105	-95
EM2620	HV Sw + Tx Termination + T&C	30	12OCT06	16NOV06	0	0	30	-105	-16
EM2680	MCC, LCC Termination + T&C	30	12OCT06	16NOV06	0	0	30	-93	-83
EM2740	LV Sw Termination + T&C	30	12OCT06	16NOV06	0	0	30	-93	-79
EM2840	Genset Termination + T&C	12	18OCT06	01NOV06	0	0	12	-92	-72
TOLL PLAZA & ANCILLIARY STRUCTURES									
CONTRACT DEFINED DATES & SECTIONS									
AREA ACCESS & VACATION DATES									
T_D1234	Release of Portions - D1,D2,D3,D4	0		22DEC06	0	0	0	337	0
T_D5678	Release of Portions - D5,D6,D7,D8	0		22DEC06	0	0	0	337	0



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SUBMITTALS & APPROVALS									
ABWF & BW SUBMITTALS									
1522	TP/FB - Approve footbridge details	24	28JUL05A	04OCT06	50	50	12	334	-116
Design & Engineering - Temporary Works									
50.030.020									
1244	Design/ICE Check Tool Booth Canopy	24	20SEP06	19OCT06	0	0	24	-119	-116
1341	Eng Approve Dsg Tool Booth Canopy	12	20OCT06	03NOV06	0	0	12	-119	-116
1358	Issue Constr Dwgs Tool Booth Canopy	0	13NOV06	11NOV06	0	0	0	-119	-116
Procurement - Major Material									
2185	Order/Fabricate/Deliver Tool Booth Canopy	90	01DEC05A	14NOV06	50	11	45	-121	-81
Toll Plaza									
7548	TP-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	30SEP06	90	50	10	-28	-66
MAJOR EQUIPMENT DELIVERY									
TOLL PLAZA									
7549	TP-Del. Package AC Units	48	03OCT06	29NOV06	0	0	48	-28	-66
Construction Works									
Toll Plaza - TCSS Access									
K1162	Toll Plaza - TCSS Access (East Side)	0		28OCT06	0	0	0	-100	-84
K1272	Toll Plaza - TCSS Access (West Side)	0		07NOV06	0	0	0	-69	-51
TOLL PLAZA EAST SIDE									
K1282	Provision of micro-satelite-office at East Loop	186	13MAR06A	01DEC06	35	17	60	-42	-46
K1232	Carriageway Drainage Prior to TCSS	36	27APR06A	30SEP06	55	10	10	-100	-94
K1222	Main carriageway Ducting & Drawpits	54	02MAY06A	21NOV06	30	0	20	-55	-82
S1170	FW Watermains Centre to Admin Bldg & FH12, FH13	36	02MAY06A	18OCT06	80	0	23	-55	-79
S1160	Installation of Ducting and Drawpits for TCSS	32	08MAY06A	28OCT06	30	0	22	-100	-84
K1212	Main Carid'way Drain (D3 & D4) - after stockpile	57	20MAY06A	18OCT06	60	0	23	-55	-82
K1182	East Loop Road - Drainage	28	20SEP06	24OCT06	0	0	28	-10	-116
K1252	E&M / Lighting works	24	20SEP06	19OCT06	0	0	24	6	-104



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
TOLL PLAZA EAST SIDE									
K1242	Main carriageway - East Subbase and kerbs	53	19OCT06	20DEC06	0	0	53	-55	-66
S1420	Road Pavement Surfacing (Flex & Rigid)	56	03NOV06	10JAN07	0	0	56	-55	-66
K1192	East Loop Road - Formation & Roadworks	36	02DEC06	16JAN07	0	0	36	-42	-46
S1190	HGC Ducting & Drawpits	24	08MAY06A	21NOV06	35	0	16	-55	-82
TOLL PLAZA WEST SIDE									
K1161	CSJV, Remove TAR1, drainage, formation (RE Wall)	56	24SEP05A	09OCT06	60	60	15	-107	-111
K1231	CSJV Complete Drainage & Vacate part	24	31DEC05A	26SEP06	90	60	6	-115	-113
K1181	Main Carriageway - West side drainage - NP-FB	42	20MAR06A	18SEP06A	100	15	0		-76
K1191	Drawpits & Ducting (incl TCSS)	42	02MAY06A	24AUG06A	100	5	0		10
K1201	West Loop Drainage Works	38	15JUN06A	03NOV06	75	25	15	-93	-113
K1241	Main Carriageway - West side drainage - FB-SHT	45	19JUN06A	23OCT06	80	0	12	-107	-78
S1510	FW Waterminam Centre to Admin Bldg & FH12, FH13	24	10JUL06A	16NOV06	8	0	21	-115	-92
K1211	E&M / Lighting works	24	20SEP06	22JAN07	0	0	24	-71	-59
K1171	West Loop road - Roadworks	36	04NOV06	15DEC06	0	0	36	-93	-113
K1221	Main Carriageway - West Subbase & kerbs	54	17NOV06	22JAN07	0	0	54	-115	-59
S1310	Road Pavement Surfacing	57	16DEC06	03MAR07	0	0	57	-93	-71
TOLL PLAZA - works adjacent to building									
S1415	SHT SPB - Drainage & Ducting	18	28FEB06A	28SEP06	90	90	8	46	-116
S1427	Admin Blg & Wshop - Drainage & ducting	36	07MAR06A	12OCT06	50	25	18	6	-117
S1380	ENT NPB - Drainage & Ducting	18	01APR06A	23SEP06	80	25	4	50	-112
S1400	ENT NPB - Kerbs & Rwks & misc Finishes	12	20SEP06	04OCT06	0	0	12	42	-108
S1417	SHT SPB - Kerbs & Rwks & misc finishes	12	20SEP06	04OCT06	0	0	12	42	-106
S1440	Install Earth Mat for Admin Bldg & SHT NP Bldg	36	20SEP06	03NOV06	0	0	36	-70	-116
S1437	Admin Blg & Wshop - kerbs, Rwks & misc finishes	30	22NOV06	28DEC06	0	0	30	-27	-111



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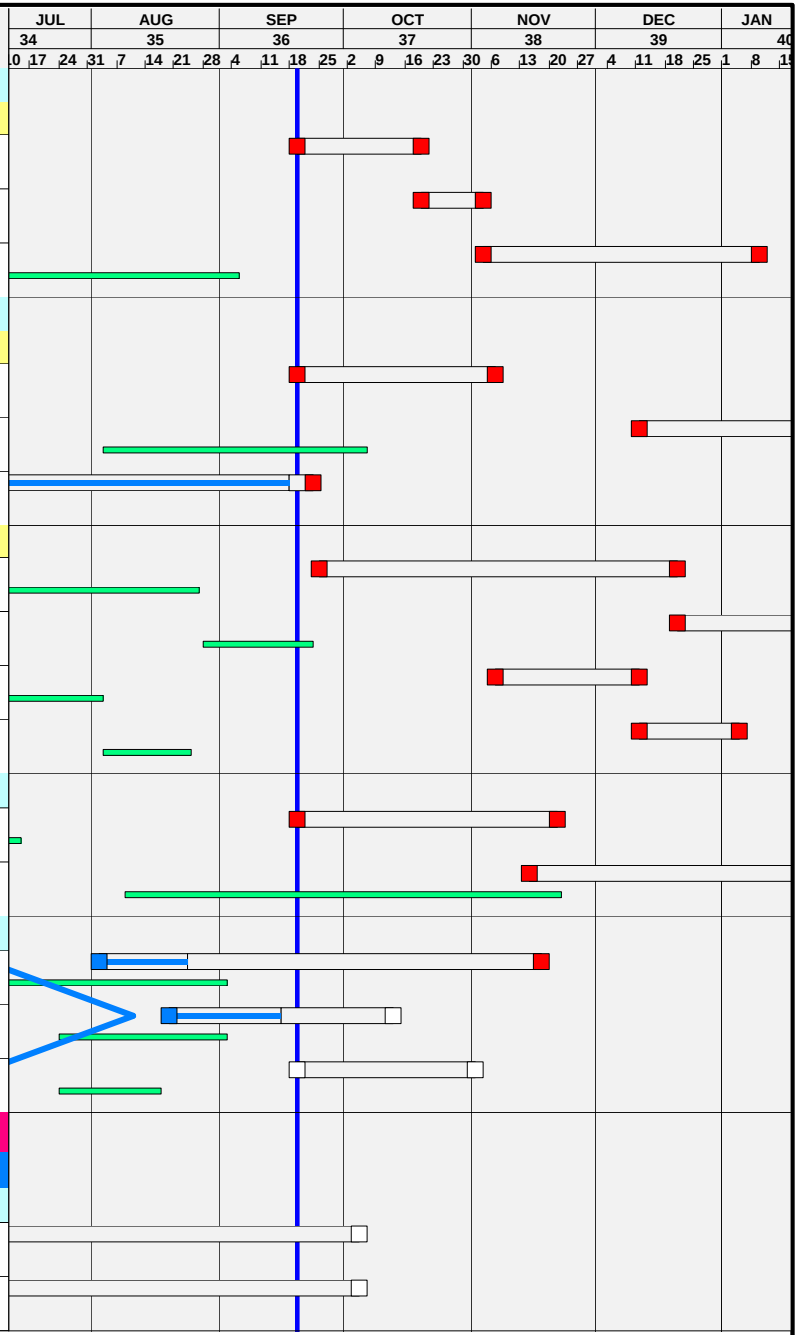
TOLL PLAZA COLLECTOR'S SUBWAY									
ABWF									
101471	TP/CS - Internal Finishes Ptn A, B & C	24	20SEP06	19OCT06	0	0	24	-36	-102
101472	TP/CS - Internal Finishes Ptn D	12	20OCT06	03NOV06	0	0	12	-36	-102
S1290	Toll Subway - E&M	54	04NOV06	09JAN07	0	0	54	-36	-102
TOLL PLAZA FOOTBRIDGE									
ABWF									
S1264	Installation of Aluminium Cladding	38	20SEP06	06NOV06	0	0	38	-96	-108
S1250	Toll Ftbrdge - Finishes	54	12DEC06	15FEB07	0	0	54	-68	-108
S1340	Toll Plaza - Erection of Lift Steel Work	24	30MAY06A	23SEP06	95	0	4	-46	-96
E & M WORKS									
S1200	Toll Plaza Footbridge - Lift Installation	72	25SEP06	20DEC06	0	0	72	-46	-96
S1450	Toll Plaza Footbridge - Lift Commissioning	24	21DEC06	20JAN07	0	0	24	-46	-96
S1470	E&M Installation at Footbridge	30	07NOV06	11DEC06	0	0	30	-68	-108
S1500	E&M Footbridge T&C	18	12DEC06	04JAN07	0	0	18	-32	-108
TOLL PLAZA BOOTHS									
S1210	Construct Toll Islands 17 No.	51	20SEP06	21NOV06	0	0	51	-101	-108
S1220	Construct Toll Booths - 22No.	88	15NOV06	08MAR07	0	0	88	-121	-81
ADMIN.BLDG. - WORKSHOP									
S1350	Workshop - External Finishes	60	03AUG06A	17NOV06	20	0	48	6	-62
S1320	Workshop - Remaining internal Finishes	36	20AUG06A	12OCT06	50	0	18	36	-32
S1280	Workshop - Install Roller Shutters	12	20SEP06	01NOV06	0	0	12	20	-62
ADMINISTRATION BUILDING									
SUBMITTALS & APPROVALS									
ABWF. MTRL SUBMiTTALS									
1885	Admin.Bldg. - Prep & submit wood ceiling details	24	20NOV04A	04OCT06	50	50	12	286	-116
1881	Admin.Bldg. - Prep & sub GRP water tank details	24	12JAN05A	04OCT06	50	50	12	280	-116



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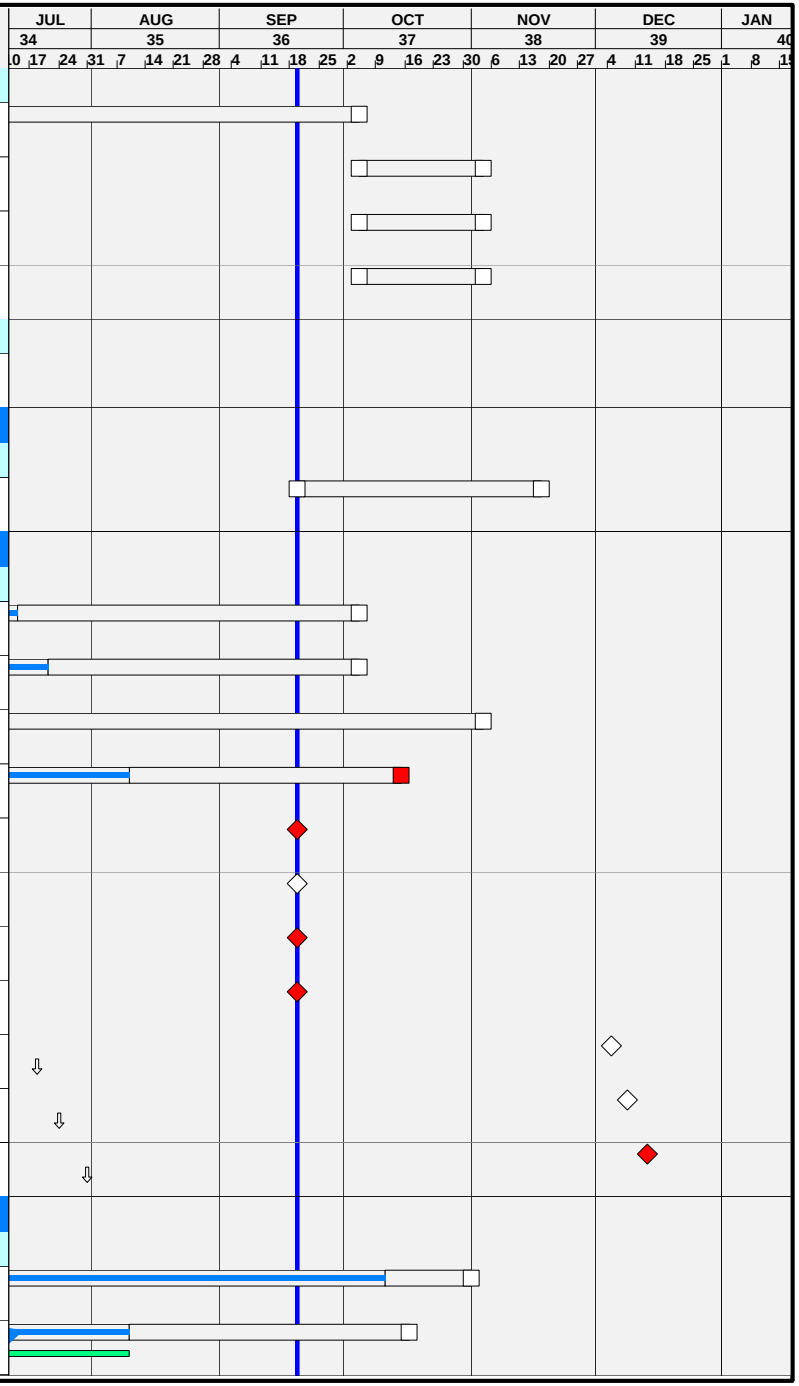
ABWF. MTRL SUBMiTTALS									
1887	Admin.Bldg. - Prep & sub suspend ceiling details	24	12AUG05A	04OCT06	50	50	12	250	-116
1882	Admin.Bldg. - Approve GRP water tank details	24	05OCT06	03NOV06	0	0	24	280	-116
1886	Admin.Bldg. - Approve wood ceiling details	24	05OCT06	03NOV06	0	0	24	286	-116
1888	Admin.Bldg. - Approve suspended ceiling details	24	05OCT06	03NOV06	0	0	24	250	-116
E&M EQPT. / MTRL. SUBMITTALS									
8248	AdmBldg-Engineer to provide Cater'g equip detail	0	07APR05A		100	100	0		-116
DESIGN & ENGINEERING									
TEMPORARY WORKS									
1373	Design/ICE Temp False/Formwork Admin Bldg	48	20SEP06	17NOV06	0	0	48	298	-116
PROCUREMENT - MATERIAL									
ABWF WORKS									
1904	Admin.Bldg. - Procure wood ceiling	90	19JAN05A	04OCT06	87	87	12	284	-116
1902	Admin.Bldg. - Procure GRP water tank	90	16MAR05A	04OCT06	87	87	12	304	-116
1905	Admin.Bldg. - Procure suspended ceiling	120	09MAY05A	03NOV06	70	70	36	250	-116
1910	Admin.Bldg. - Procure expanded metal cladding	90	06JUN05A	14OCT06	87	87	20	-97	-116
1938	Admin.Bldg. - Initial delivery glass canopy	0	20SEP06*		0	0	0	-15	-95
2056	Admin.Bldg. - Initial delivery sheet decking	0	20SEP06		0	0	0	346	-74
2059	Admin.Bldg.- Initial deliv fall arrest roof syst	0	20SEP06*		0	0	0	6	-69
2060	Admin.Bldg. - Initial deliver balust & metal wks	0	20SEP06*		0	0	0	6	-69
2058	Admin.Bldg. - Initial delivery wood ceiling	0	05DEC06		0	0	0	284	-116
2063	Admin.Bldg. - Initial delivery GRP water tank	0	09DEC06		0	0	0	280	-116
2061	Admin.Bldg.- Initial del expanded metal cladding	0	14DEC06*		0	0	0	-97	-114
MAJOR EQUIPMENT DELIVERY									
ADMINISTRATION BUILDING									
6428	AdmBldg-Del. building vent. fans	48	06APR06A	31OCT06	90	20	33	313	-127
6534	AdmBldg-Del. AFA & FM200 sys	48	15MAY06A	16OCT06	56	0	21	325	-56



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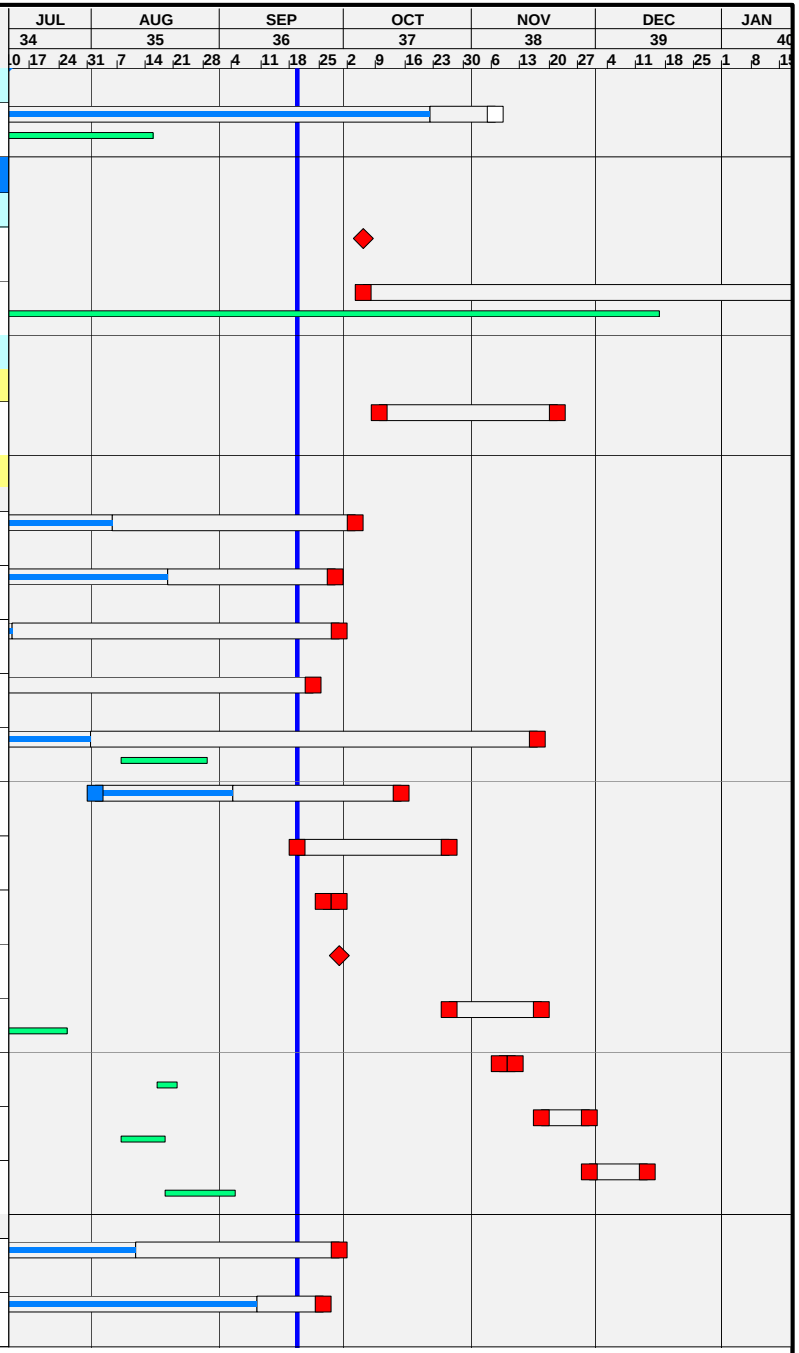
ADMINISTRATION BUILDING									
6476	AdmBldg-Del. CMCS, ELV & TCS equip't	72	01JUN06A	06NOV06	90	0	38	308	-68
CONSTRUCTION									
TCSS Access at Admin Bldg									
T2910	TCSS Access at Administration Bldg (24JUN06)	0		05OCT06	0	0	0	-111	-80
T3350	TCSS Works Within Admin Bldg / Tunnel & Ext	140	06OCT06	31MAR07	0	0	140	-111	-80
CIVIL & ABWF WORKS									
Substructure									
106398	Admin.Bldg. - Earth Mat & Rods - All in ptn D4	36	10OCT06	21NOV06	0	0	36	-27	-111
ABWF									
Admin Bldg (G/F) - Internal Work @ Grid 1 to 21									
T1682	AB (G/F to 1/F) - Staircase Finishing Works	30	18APR06A	03OCT06	65	5	11	-103	-99
T1685	AB G/F (Grid 1-21) - Wall Plaster & Flr Screed	20	19APR06A	28SEP06	75	10	8	-112	-110
T1680	AB G/F (Grid 1-21) - Windows & door frames	18	24APR06A	29SEP06	50	56	9	-112	-117
T3245	Rm (G39/G40/G45/G46) - Wdws & door frames	8	24APR06A	23SEP06	50	70	4	-103	-118
T1975	AB G/F (Grid 1-21) - Base Skirting	18	15JUN06A	16NOV06	30	0	13	1	-66
T2995	AB G/F (Grid 1-21) - Wall & Ceiling Base Paint	30	02AUG06A	14OCT06	45	0	17	-109	-86
T2990	AB G/F (Grid 1-21) - Tileworks & Sanitary Fixt	30	20SEP06	26OCT06	0	0	30	-109	-116
T3255	Genset&Fuel Rm (G45/G46) - Floor Tiles	4	26SEP06	29SEP06	0	0	4	-112	-104
T3275	AB G/F (Critical Rooms) - Access to E&M Works	0		29SEP06	0	0	0	-112	-104
T1970	AB G/F (Grid 1-21) - Install Ceiling Grids	18	27OCT06	17NOV06	0	0	18	-16	-96
T3285	Rm (G39/G40/G45/G46) - Door Leaf & Final Paints	4	08NOV06	11NOV06	0	0	4	11	-68
T2160	AB G/F (Grid 1-21) - Install Ceiling Panels	10	18NOV06	29NOV06	0	0	10	-16	-85
T2150	AB G/F (Grid 1-21) - Door Leaf & Final Paints	12	30NOV06	13DEC06	0	0	12	-16	-83
Admin Bldg (1/F) - Internal Work @ Grid 1 to 18									
T1982	AB (1/F to 2/F) - Staircase Finishing Works	30	18APR06A	29SEP06	70	5	9	-100	-97
T1985	AB 1/F (Grid 1-18) - Wall Plaster & Flr Screed	24	18APR06A	25SEP06	90	35	5	-91	-106



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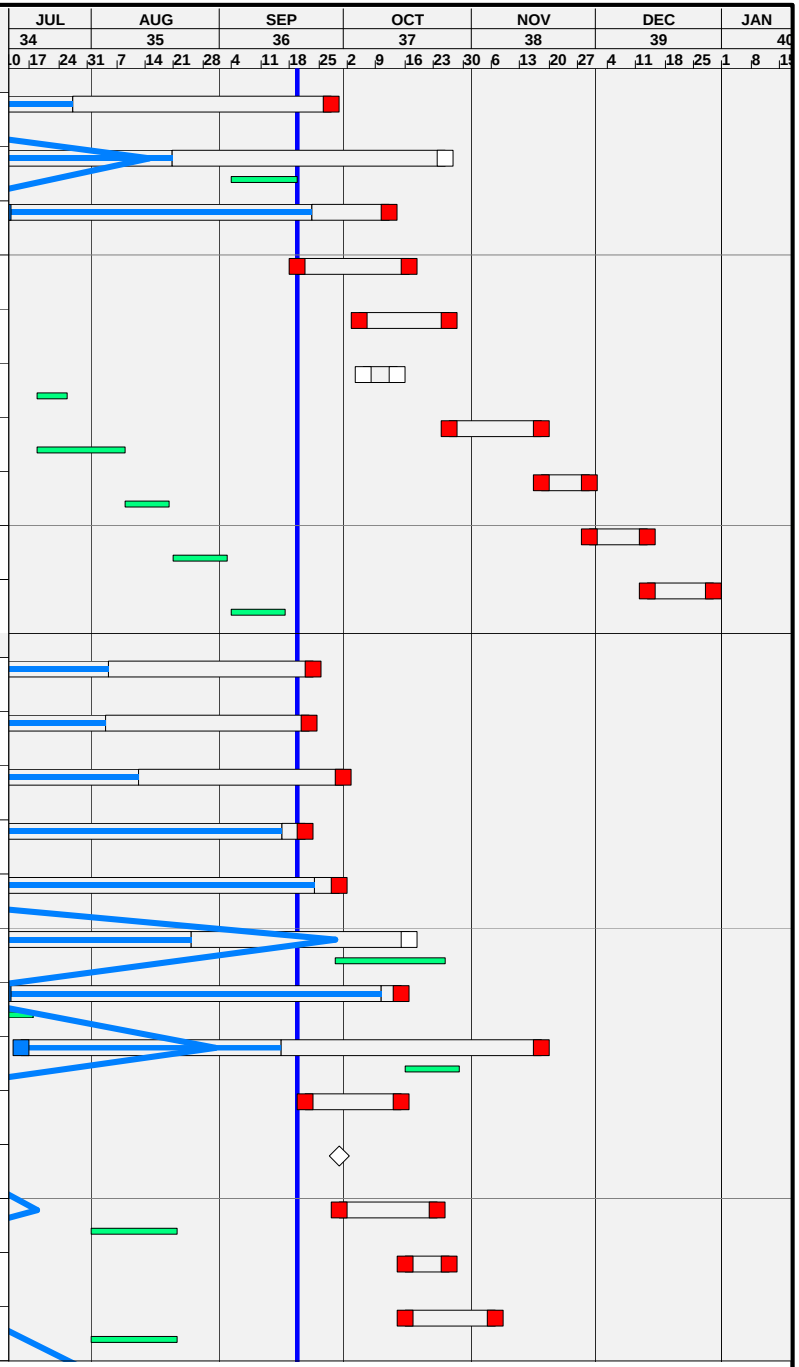
Admin Bldg (1/F) - Internal Work @ Grid 1 to 18									
T1980	AB 1/F (Grid 1-18) - Wdws & Door Frames	18	24APR06A	27SEP06	60	56	7	-80	-114
T2165	AB 1/F (Grid 1-18) - Install Skirting	14	15JUN06A	25OCT06	50	0	7	25	-29
T2015	AB 1/F (Grid 1-18) - Wall & Ceiling Base Paint	30	10JUL06A	11OCT06	80	0	6	-15	-81
T2010	AB 1/F (Grid 1-18) - Tileworks & Sanitary Fixt	21	20SEP06	16OCT06	0	0	21	-91	-116
T2012	AB 1/F (Grid 10-18) - Proprietary Toilet Cubicle	18	05OCT06	26OCT06	0	0	18	-91	-113
T3268	UPS&UPS Bat Rm (112/115) - Door Lf & Final Paint	6	06OCT06	13OCT06	0	0	6	35	-67
T3000	AB 1/F (Grid 1-18) - Install Ceiling Grids	18	27OCT06	17NOV06	0	0	18	-28	-84
T2185	AB 1/F (Grid 1-18) - Install Ceiling Panels	10	18NOV06	29NOV06	0	0	10	-28	-84
T3015	AB 1/F (Grid 1-18) - Floor Carpets	12	30NOV06	13DEC06	0	0	12	-28	-84
T2170	AB 1/F (Grid 1-18) - Door Leaf & Final Paints	12	14DEC06	29DEC06	0	0	12	-28	-84
Admin Bldg (2/F) - Internal Work @ Grid 1 to 18									
T2060	AB 2/F (Grid 1-18) - Wdws & Door Frames	12	11APR06A	23SEP06	70	50	4	-83	-114
T3012	AB 2/F (Tel, Comp, Cont Rm) - Wdws & door frames	8	11APR06A	22SEP06	70	70	3	-98	-116
T2062	AB (2/F to Rf/Lvl) - Staircase Finishing Works	30	18APR06A	30SEP06	70	5	9	-83	-98
T2065	AB 2/F (Grid 1-18) - Wall Plaster & Flr Screed	24	01JUN06A	21SEP06	95	0	2	-75	-94
T3025	AB 2/F (Tel, Comp, Cont Rm) - Plaster & Screed	12	01JUN06A	29SEP06	95	0	5	-98	-113
T2190	AB 2/F (Grid 1-18) - Base Skirting	21	03JUL06A	16OCT06	50	0	12	33	8
T2025	AB 2/F (Grid 1-18) - Ceiling & Wall Base Paint	30	10JUL06A	14OCT06	95	0	2	-26	-75
T1860	AB 2/F (Tel, Comp, Cont Rm) - Base Skirting	12	15JUL06A	17NOV06	50	0	48	6	-16
T2020	AB 2/F (Grid 1-18) - Tileworks & Sanitary Fixt	18	22SEP06	14OCT06	0	0	18	-75	-94
T2035	AB 2/F (Non-Critical Room) - Access to E&M Works	0		29SEP06	0	0	0	337	-76
T3045	AB 2/F (Tel, Comp, Cont Rm) - Ceiling Grids	18	30SEP06	23OCT06	0	0	18	-24	-52
T2028	AB 2/F (Grid 1-18) - Proprietary Toilet Cubicle	10	16OCT06	26OCT06	0	0	10	-75	-94
T2045	AB 2/F (Grid 1-18) - Install Ceiling Grids	18	16OCT06	06NOV06	0	0	18	-26	-63



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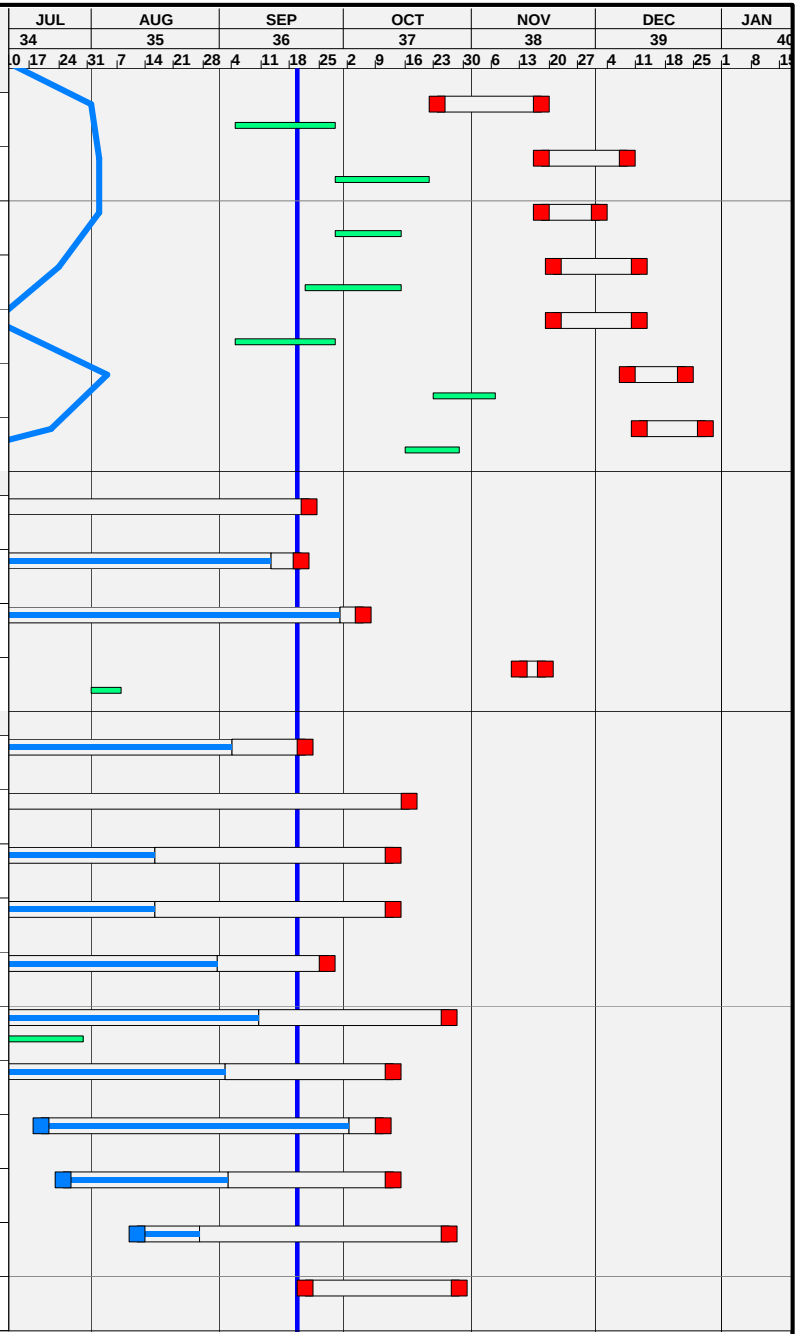
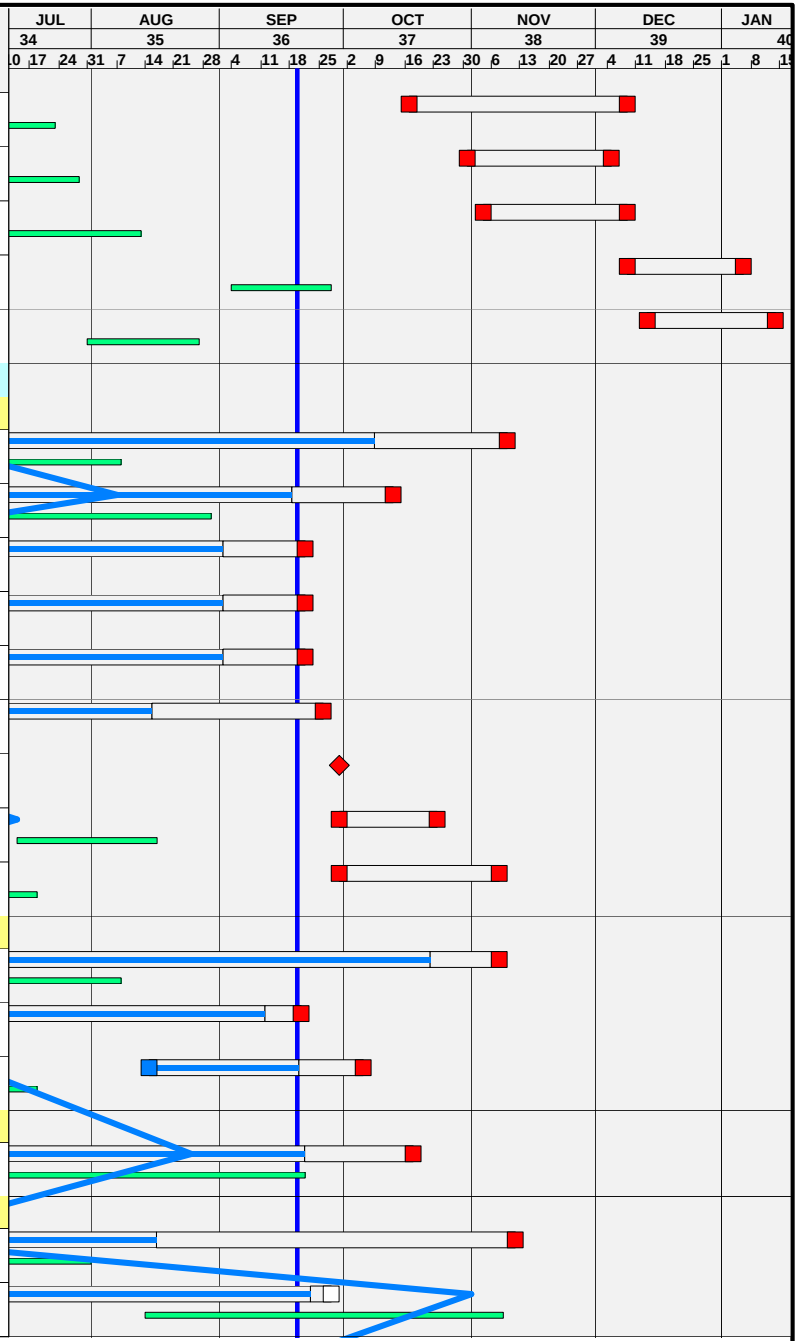
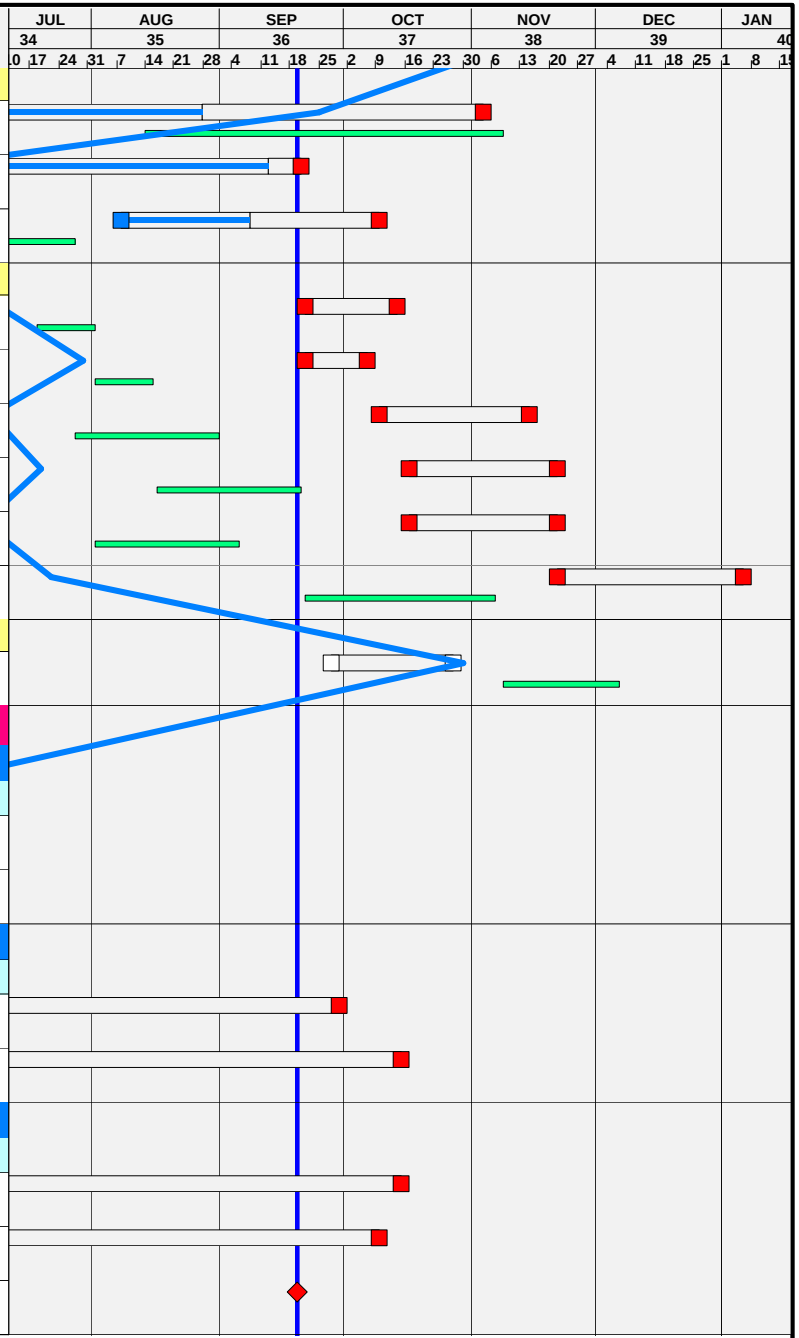
Admin Bldg (2/F) - Internal Work @ Grid 1 to 18									
T3055	AB 2/F (Tel, Comp, Cont Rm) - Raised Floors	21	24OCT06	17NOV06	0	0	21	-24	-40
T3065	AB 2/F (Corridor & Cont Rm) - Ceiling Panels	18	18NOV06	08DEC06	0	0	18	-24	-40
T3068	AB 2/F (Corridor & Cont Rm) - Floor Carpets	12	18NOV06	01DEC06	0	0	12	-18	-40
T2058	AB 2/F (Grid 1-18) - Install Ceiling Panels	18	21NOV06	11DEC06	0	0	18	-26	-48
T2068	AB 2/F (Grid 1-18) - Floor Carpets	18	21NOV06	11DEC06	0	0	18	-26	-60
T1865	AB 2/F (Tel, Comp, Cont) - Door Lf & Final Paint	12	09DEC06	22DEC06	0	0	12	-24	-40
T2220	AB 2/F (Grid 1-18) - Door Leaf & Final Paints	12	12DEC06	27DEC06	0	0	12	-26	-48
Admin Bldg (Roof/Flr) - Inter Works Grid 3 to 16									
T2985	AB R/F (Grid 3-16) - Window & door frames	6	28APR06A	22SEP06	50	35	3	-107	-113
T3280	AB R/F (Grid 3-16) - Wall Plaster & Flr Screed	18	28APR06A	20SEP06	95	50	1	-111	-108
T2250	AB R/F (Grid 3-16) - Ceiling & Wall Base Paint	12	15JUN06A	05OCT06	95	0	2	-111	-101
T2235	AB R/F (Grid 3-16) - Door Leaf & Final Paints	6	13NOV06	18NOV06	0	0	6	5	-86
Admin Bldg - Upper Roof & External Facade									
T2890	AB Ext (GL 11-21) - Wall Waterproofing	18	28MAR06A	21SEP06	90	40	2	-65	-107
T2340	AB Ext (GL 11-21) - Slate Cladding	30	03APR06A	16OCT06	30	30	21	-51	-116
T2850	AB Ext (GL 1-11) - Install Louvres & Wdw Glazing	60	03APR06A	12OCT06	70	70	18	-49	-116
T2860	AB Ext (GL 11-21)- Install Louvres & Wdw Glazing	60	03APR06A	12OCT06	70	70	18	-43	-116
T2870	AB Ext UR/LR - Roof Screeding	18	30JUN06A	26SEP06	70	0	6	-60	-104
T2230	AB Ext (GL 6-11) - Curtain Wall & Glass Canopy	30	03JUL06A	26OCT06	60	0	12	-15	-74
T2232	AB Ext (GL 11-18) - Curtain Wall Installation	21	03JUL06A	12OCT06	60	0	9	-15	-92
T2880	AB Ext (GL 1-11) - Wall Waterproofing	18	20JUL06A	10OCT06	90	0	16	-49	-114
T2841	AB Ext UR/LR - Render&wall paint to Open Area Rf	12	25JUL06A	12OCT06	50	0	6	-60	-80
T2840	AB Ext UR/LR - Roof Waterproofing & Test	24	12AUG06A	26OCT06	20	0	19	-60	-104
T2830	AB Ext (GL 11-21) - Ceramic Wall Tiles	30	22SEP06	28OCT06	0	0	30	-65	-107



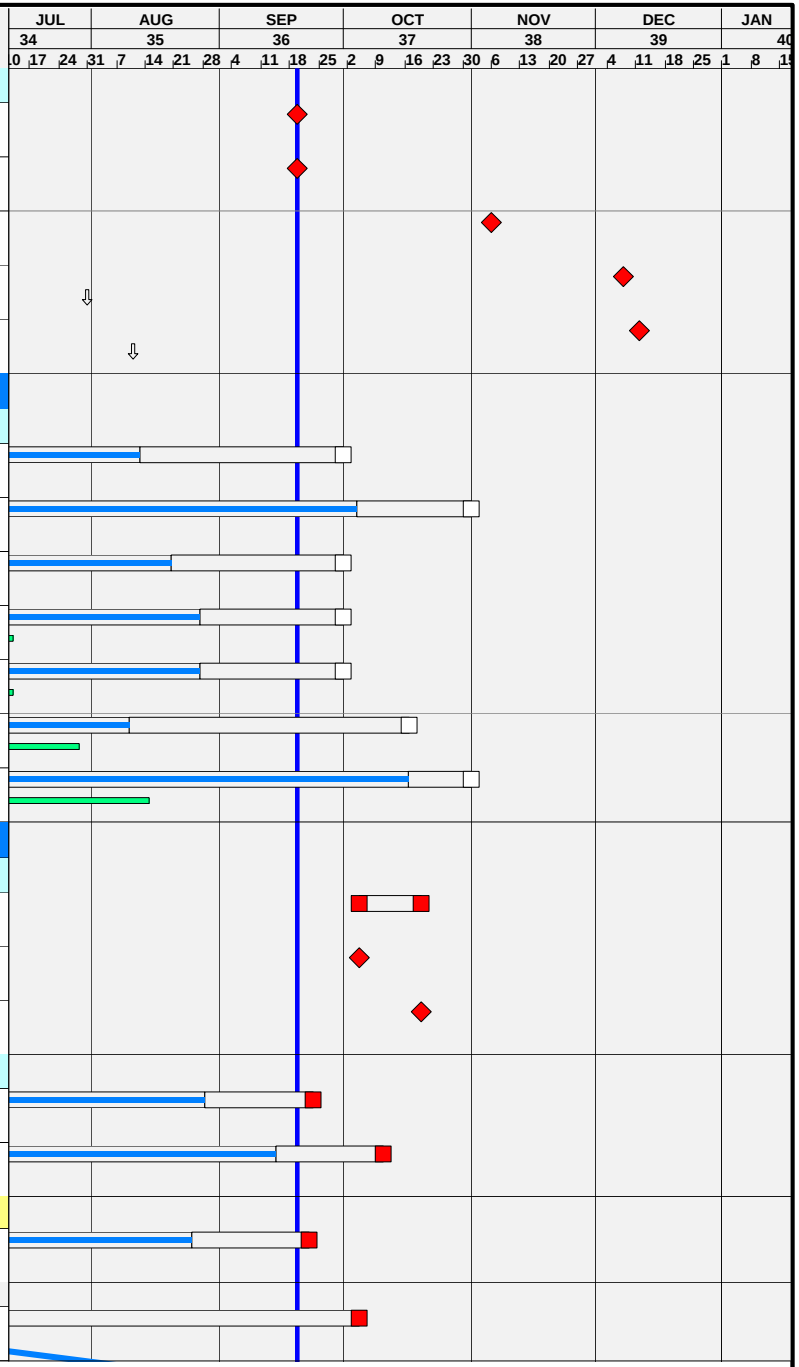
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Admin Bldg - Upper Roof & External Facade									
T2330	AB Ext (GL 1-11) - Slate Cladding	45	17OCT06	08DEC06	0	0	45	-51	-116
T2350	AB Ext (GL 1-11) - Ceramic Wall Tiles	30	31OCT06	04DEC06	0	0	30	-65	-107
T2900	AB Ext UR/LR - Insulation & Conc Roof Tile	30	04NOV06	08DEC06	0	0	30	-60	-98
T2915	AB Ext UR/LR- Install GMS, Balustrades & Railing	21	09DEC06	05JAN07	0	0	21	-60	-80
T2280	AB Ext (GL 11-16) - Expanded metal mesh cladding	24	14DEC06	13JAN07	0	0	24	-97	-114
BUILDING SERVICES									
Admin Bldg (G/F) - E & M Works									
EM3540	BS Works in G/F	90	01JUN06A	09NOV06	80	12	18	-102	-78
EM3620	E&M Works in Risers	90	12JUN06A	12OCT06	80	0	18	-79	-36
EM3220	BS Works for HV Sw + Tx	12	14JUN06A	21SEP06	80	0	2	-112	-106
EM3280	BS Works for LV Sw	12	14JUN06A	21SEP06	80	0	2	-112	-94
EM3340	BS Works for 110V Charger Rm	12	14JUN06A	21SEP06	80	0	2	-105	-106
EM3420	BS Works for Genset	12	14JUN06A	25SEP06	60	0	5	-112	-85
T1830	Bldg available for BB deliveries excl cont room	0		29SEP06	0	0	0	-112	-93
EM3240	HV Sw + Tx Installation	18	30SEP06	23OCT06	0	0	18	-112	-56
EM3300	LV Sw Installation	30	30SEP06	07NOV06	0	0	30	-112	-93
Admin Bldg (1/F) - E & M Works									
EM3560	BS Works in 1/F	90	08JUN06A	07NOV06	89	12	10	-100	-76
EM3380	BS Works for UPS Rm (2x)	12	03JUL06A	20SEP06	89	0	1	-110	-86
EM3400	UPS (2x) Installation	30	15AUG06A	05OCT06	70	0	9	-110	-67
Admin Bldg (2/F) - E & M Works									
EM3580	BS Works in 2/F	90	08JUN06A	17OCT06	80	0	18	-83	-20
Admin Bldg (Int. & Ext. Roof Lvl) - E & M Works									
EM3600	BS Works in R/F	78	06JUN06A	11NOV06	45	1	43	-104	-86
EM3190	Admin Bldg - Lift Installation	72	19JUN06A	27SEP06	95	0	7	23	33



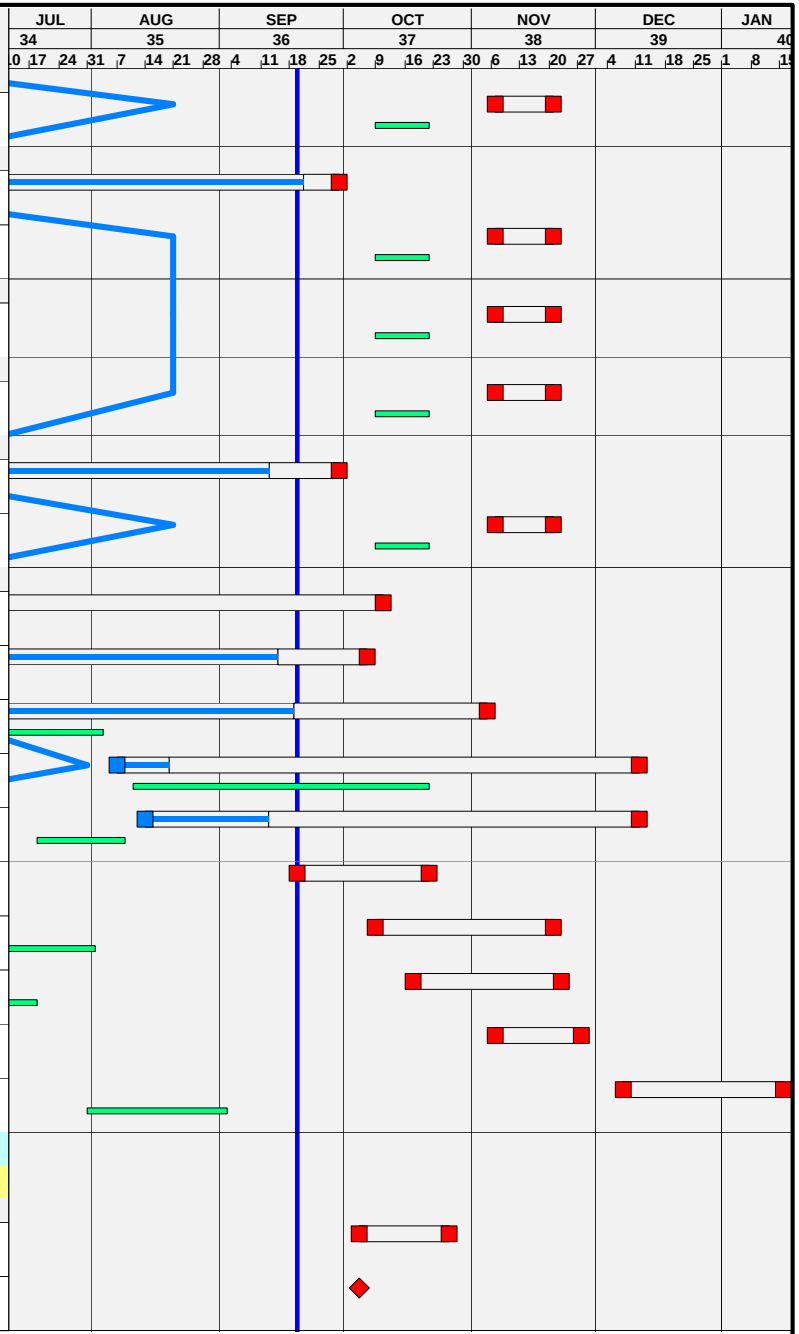
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Admin Bldg (Int. & Ext. Roof Lvl) - E & M Works									
EM3720	Chiller System in R/F (inc. All AC Units)	72	20JUN06A	03NOV06	50	0	36	-61	4
EM3480	BS Works for MCC	12	03JUL06A	20SEP06	90	0	1	-106	-77
EM3500	MCC Installation	30	08AUG06A	09OCT06	50	0	15	-106	-61
Admin Bldg - Testing and Commissioning									
EM3360	110V Charger Rm Installation + T&C	12	22SEP06	13OCT06	0	0	12	-110	-61
EM3460	Genset Termination + T&C	12	22SEP06	06OCT06	0	0	12	-75	-44
EM3520	MCC Termination + T&C	30	10OCT06	14NOV06	0	0	30	-106	-61
EM3260	HV Sw + Tx Termination + T&C	30	17OCT06	21NOV06	0	0	30	-112	-50
EM3320	LV Sw Termination + T&C	30	17OCT06	21NOV06	0	0	30	-112	-63
EM3640	Termination of overall Elect HV & LV Sys	36	22NOV06	05JAN07	0	0	36	-112	-49
Admin Bldg - Statutory Inspection and Handover									
EM3370	Admin Bldg - Lift Commissioning	24	28SEP06	27OCT06	0	0	24	23	33
SHATIN HEIGHTS SOUTH PORTAL BUILDING									
CONTRACT DEFINED DATES & SECTIONS									
AREA ACCESS & VACATION DATES									
ACS_J2	Access to - J2 (T.Plate & above) SH-S.Vent.Bldg.	0	10DEC05A		100	100	0		-139
ACS_D8	Access to Portion - D8	0	03JAN06A		100	100	0		-139
SUBMITTALS & APPROVALS									
ABWF & BW APPROVALS									
2000	SHT SPB - Approve doors details	24	07MAY05A	29SEP06	70	70	9	-65	-116
2074	SHT SPB - Approve aluminum composite cladding	24	13DEC05A	14OCT06	50	50	20	-44	-103
PROCUREMENT - MATERIAL									
ABWF WORKS									
2079	SHT SPB - Procure aluminum composite cladding	180	19APR05A	14OCT06	50	50	20	-44	-103
2077	SHT SPB - Procure expanded metal mesh cladding	180	06JUN05A	09OCT06	50	50	15	-71	-111
2082	SHT SPB - Initial delivery of slate cladding	0	20SEP06*		0	0	0	-12	-78



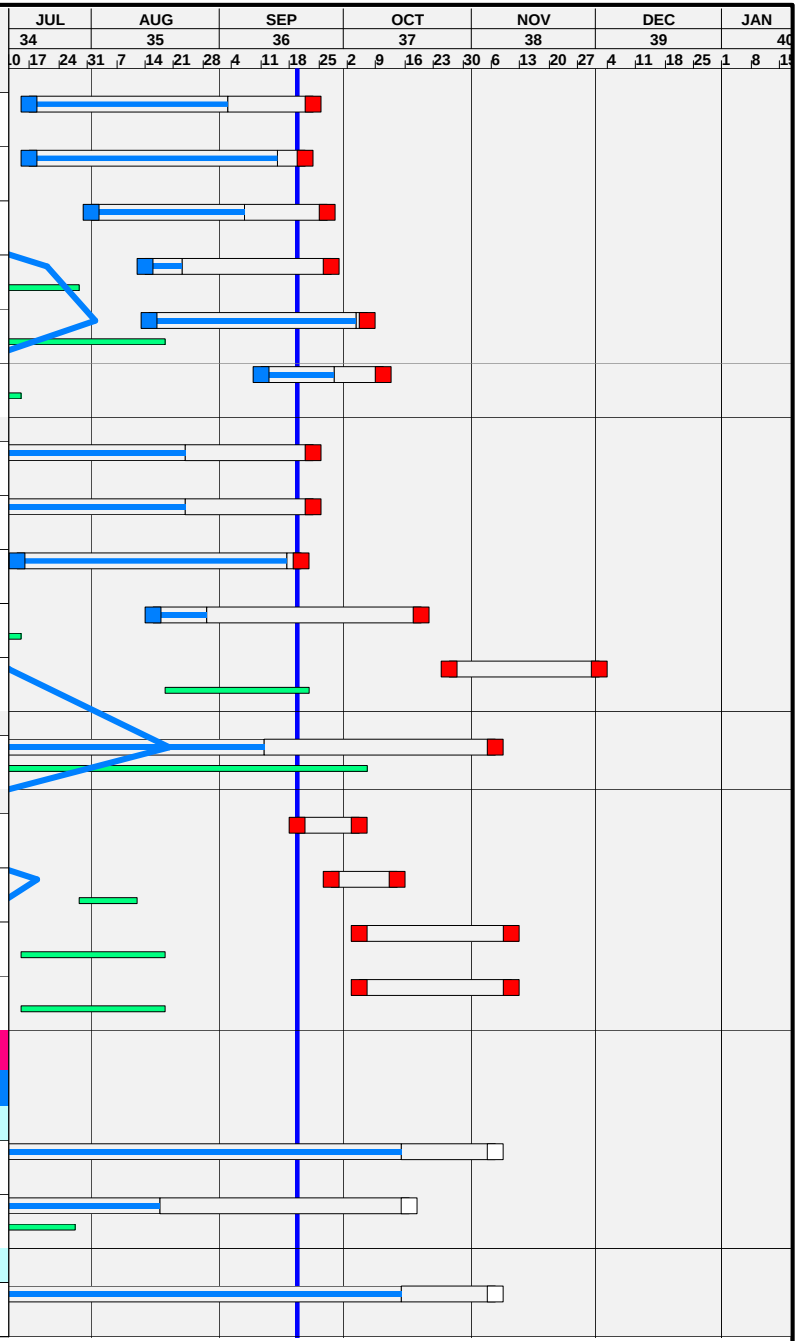
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ABWF WORKS									
2083	SHT SPB - Initial deliv fall arrest roof syst.	0	20SEP06*		0	0	0	12	-69
2084	SHT SPB - Initial delivery balustrd & metal work	0	20SEP06*		0	0	0	12	-69
2081	SHT SPB - Initial delivery of doors	0	06NOV06*		0	0	0	-65	-115
2085	SHT SPB - Initial deliv expanded metal cladding	0	08DEC06*		0	0	0	-71	-109
2086	SHT SPB - Initial deliv alum composite claddings	0	12DEC06*		0	0	0	-44	-102
MAJOR EQUIPMENT DELIVERY									
E&M WORKS									
7103	ShtSpBldg-Del. Package AC Units	48	27JAN06A	30SEP06	80	60	10	336	-104
7118	ShtSpBldg-Del. building vent. fans	48	27JAN06A	31OCT06	90	60	33	313	-127
7157	ShtSpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	30SEP06	80	50	10	336	-117
7211	ShtSpBldg-Del. PD pump & tank to G/F	48	10APR06A	30SEP06	80	0	10	336	-69
7231	ShtSpBldg-Del. PD irrig. pump & tank to G/F	48	10APR06A	30SEP06	80	0	10	336	-69
7207	ShtSpBldg-Del. AFA & FM200 sys	48	15MAY06A	16OCT06	56	0	21	325	-66
7087	ShtSpBldg-Del. CMCS & ELV equip't	48	01JUN06A	31OCT06	90	0	33	313	-64
CONSTRUCTION									
TCSS Access to SHT Sout Portal Bldg									
EM6700	TCSS Containment in G/F	12	05OCT06	19OCT06	0	0	12	-187	-111
EM6710	TCSS ACCESS GF (Room G01-G05, G08-G10)	0		04OCT06	0	0	0	-149	-111
EM6720	TCSS ACCESS GF(Room G07,G11,G12)	0		19OCT06	0	0	0	-187	-111
CIVIL & ABWF WORKS									
AB5983	U/G Drainages and Utilities under bldg	24	01APR06A	23SEP06	85	0	4	-22	-96
AB5986	Backfill, G/F Slabs and Walls	24	20APR06A	10OCT06	85	0	4	-22	-84
ABWF									
AB6022	Remedy SHT Contractor Defects	25	12DEC05A	22SEP06	90	90	3	-187	-114
ABWF at GF									
AB5989	Initial Finishes to G/F	18	11FEB06A	04OCT06	40	5	12	-187	-111



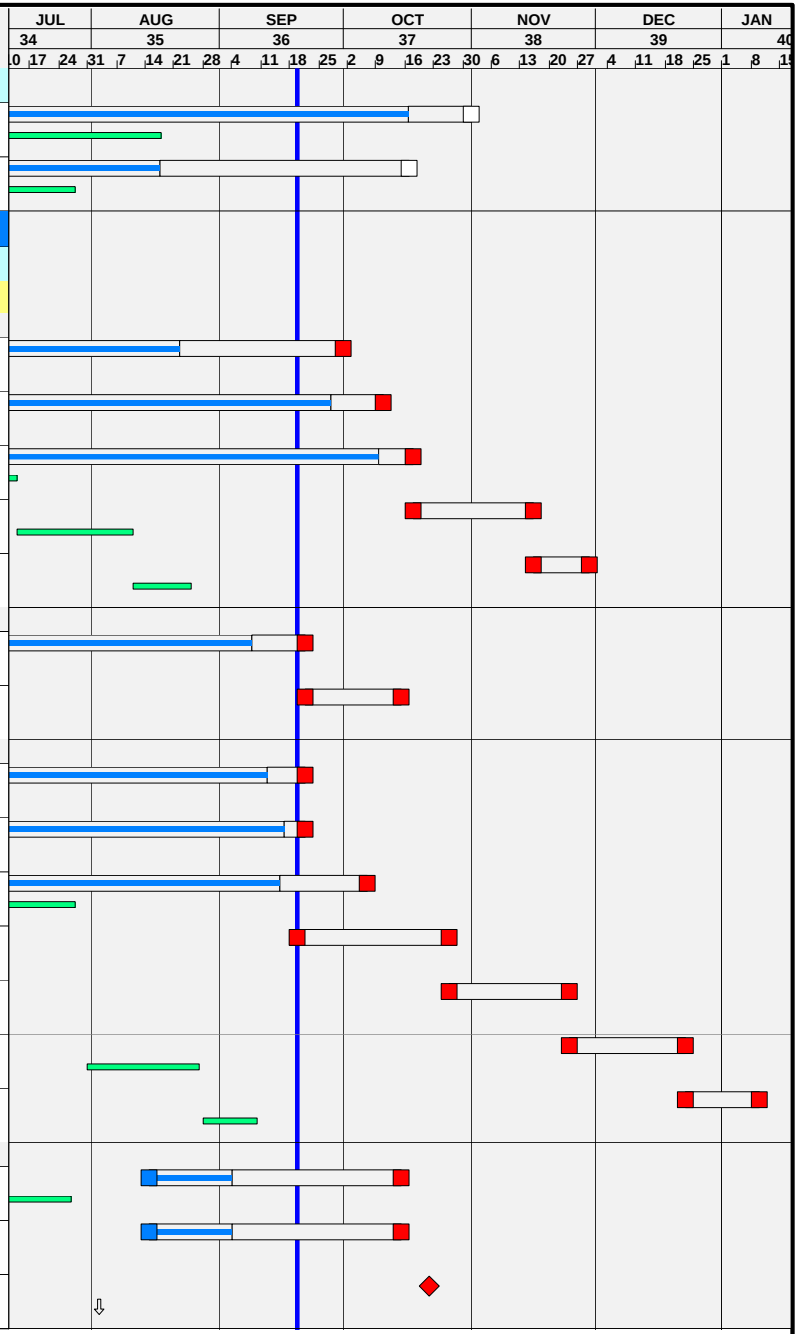
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ABWF at GF									
AB6042	G/F Paint Touch Up & Doors	12	07NOV06	20NOV06	0	0	12	4	-24
ABWF at 1F & LP									
AB5995	Initial Finishes to Lower Plenum	12	10APR06A	29SEP06	95	15	5	-66	-108
AB6032	1F & LP Paint Touch Up & Doors	12	07NOV06	20NOV06	0	0	12	4	-24
ABWF at 2F									
AB6052	2/F Paint Touch Up & Doors	12	07NOV06	20NOV06	0	0	12	4	-24
ABWF at 3F									
AB6062	3/F Paint Touch Up & Doors	12	07NOV06	20NOV06	0	0	12	4	-24
ABWF at 4F and above									
AB6004	Initial Finishes to 4/F and above	24	13APR06A	29SEP06	90	10	9	-21	-90
AB6072	4/F and above Paint Touch Up & Doors	12	07NOV06	20NOV06	0	0	12	4	-24
Roof & External Facade									
AB6018	Sht SPB - Ext. Wall Waterproof Render	21	02MAR06A	10OCT06	20	0	16	-40	-106
AB6017	Sht SPB - Ext. Wall Waterproof Membrane	24	04MAR06A	06OCT06	90	90	14	-65	-116
AB6067	Sht SPB - Install Aluminum louvres & doors	75	15MAR06A	04NOV06	80	0	37	-65	-77
AB6077	Sht SPB - Alum. composite cladding to ext walls	60	07AUG06A	11DEC06	10	0	54	-44	-42
AB6047	Sht SPB - GMS, S/S Channel, Balustrade & Railing	18	14AUG06A	11DEC06	25	0	14	-44	-104
AB6037	Sht SPB - Roof Waterproofing & Test	12	20SEP06	21OCT06	0	0	14	-44	-116
AB6007	Sht SPB - Slate Cladding above NB/SB Carriageway	36	09OCT06	20NOV06	0	0	36	-26	-92
AB6027	Sht SPB - External Wall Painting	30	18OCT06	22NOV06	0	0	30	-40	-106
AB6057	Sht SPB - 25thk Roof Screed & Roofing Tiles	18	07NOV06	27NOV06	0	0	18	-44	-116
AB6034	Sht SPB - Expanded metal cladding to ext walls	30	08DEC06	15JAN07	0	0	30	-71	-109
SHT South Portal Bldg. - BUILDING SERVICES									
E & M WORKS									
SHT South Portal Bldg (G/F) - E & M Works									
EM6065	Installation of FS Pumps & Pipework at GF	18	05OCT06	26OCT06	0	0	18	-58	-111
EM6063	E&M Access to G/F	0	05OCT06		0	0	0	-187	-111



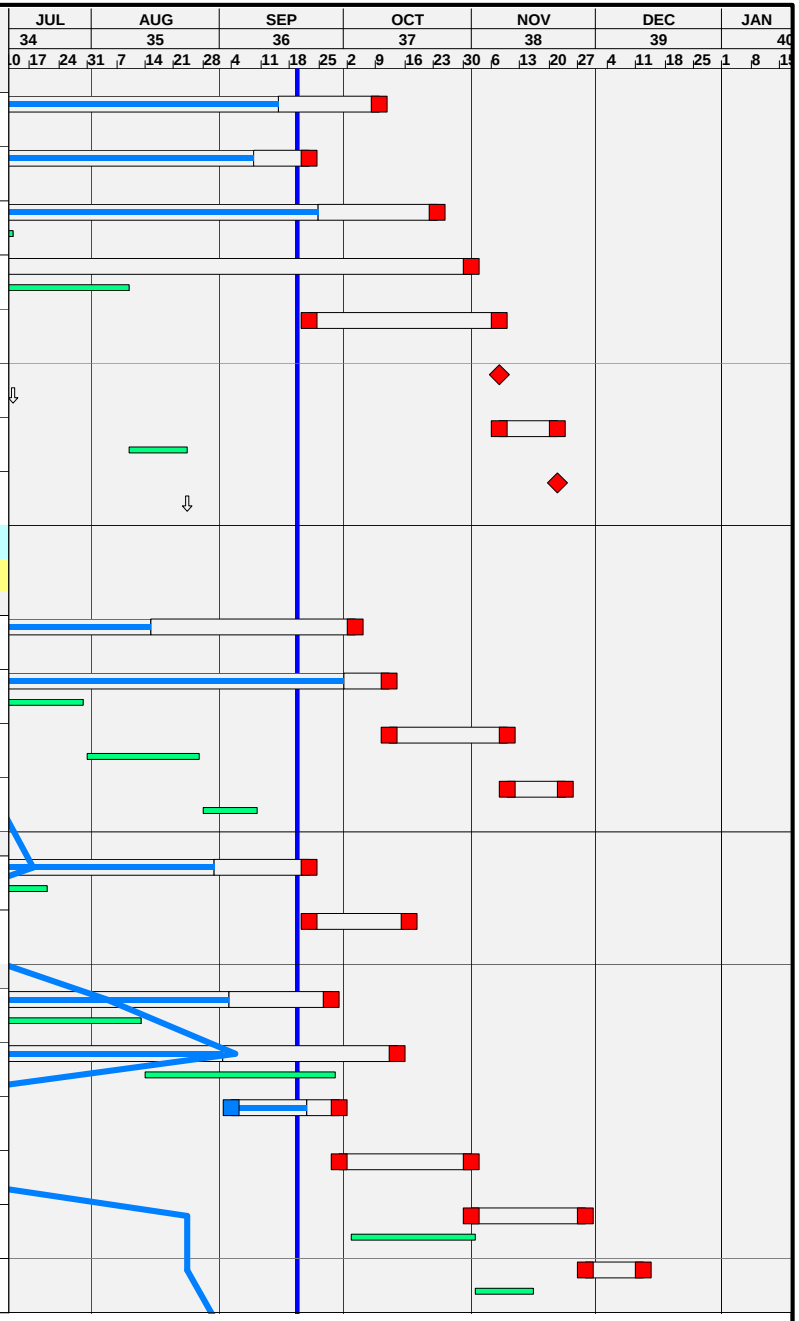
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SHT South Portal Bldg (2F/Silencer) - E & M Work									
EM6080	BS Works for HV Sw + Tx	12	17JUL06A	23SEP06	70	0	4	-124	-91
EM6300	E&M Works in Corridors 2/F	24	17JUL06A	21SEP06	90	0	2	-72	-65
EM6240	BS Works for Genset	18	01AUG06A	26SEP06	65	0	6	-70	-87
EM6260	Genset Installation	36	14AUG06A	27SEP06	20	0	7	-77	-52
EM6340	E&M Works in Risers (2F & 3F)	48	15AUG06A	06OCT06	95	0	2	-72	-41
EM6100	HV Sw + Tx Installation	18	11SEP06A	10OCT06	60	0	7	-124	-73
SHT South Portal Bldg (3F/Fan Rm) - E & M Work									
EM6140	BS Works for LV Sw, MCC, UPS, LCC	12	12JUN06A	23SEP06	70	0	4	-82	-91
EM6200	BS Works for 110V Charger Rm	12	12JUN06A	23SEP06	70	0	4	-88	-91
EM6320	E&M Works in Corridors 3/F	24	14JUL06A	20SEP06	95	0	1	-71	-64
EM6160	LV Sw, MCC, UPS, LCC Installation	30	16AUG06A	19OCT06	20	0	24	-82	-81
EM6360	Termination of overall Elect HV & LV Sys	30	27OCT06	01DEC06	0	0	30	-88	-57
SHT South Portal Bldg (4F/Upr Plen) - E & M Work									
EM6400	TVS Installation	100	12JUN06A	06NOV06	62	0	38	-66	-24
Testing and Commissioning									
EM6220	110V Charger Rm Installation + T&C	12	20SEP06	04OCT06	0	0	12	-88	-87
EM6280	Genset Termination + T&C	12	28SEP06	13OCT06	0	0	12	-77	-52
EM6120	HV Sw + Tx Termination + T&C	30	05OCT06	10NOV06	0	0	30	-70	-69
EM6180	LV Sw, MCC, UPS, LCC Termination + T&C	30	05OCT06	10NOV06	0	0	30	-88	-69
SHT TUNNEL									
MAJOR EQUIPMENT DELIVERY									
SHT TUNNEL NORTHBOUND									
7012	ShtRtNb-Del. TVS control sys	48	24MAR06A	06NOV06	90	60	38	308	-145
7024	ShtRtNb-Del. AFA & Linear sys	48	01JUN06A	16OCT06	56	0	21	325	-67
SHT TUNNEL SOUTH BOUND									
6959	ShtRtSb-Del. TVS control sys	47	24MAR06A	06NOV06	90	40	38	308	-145



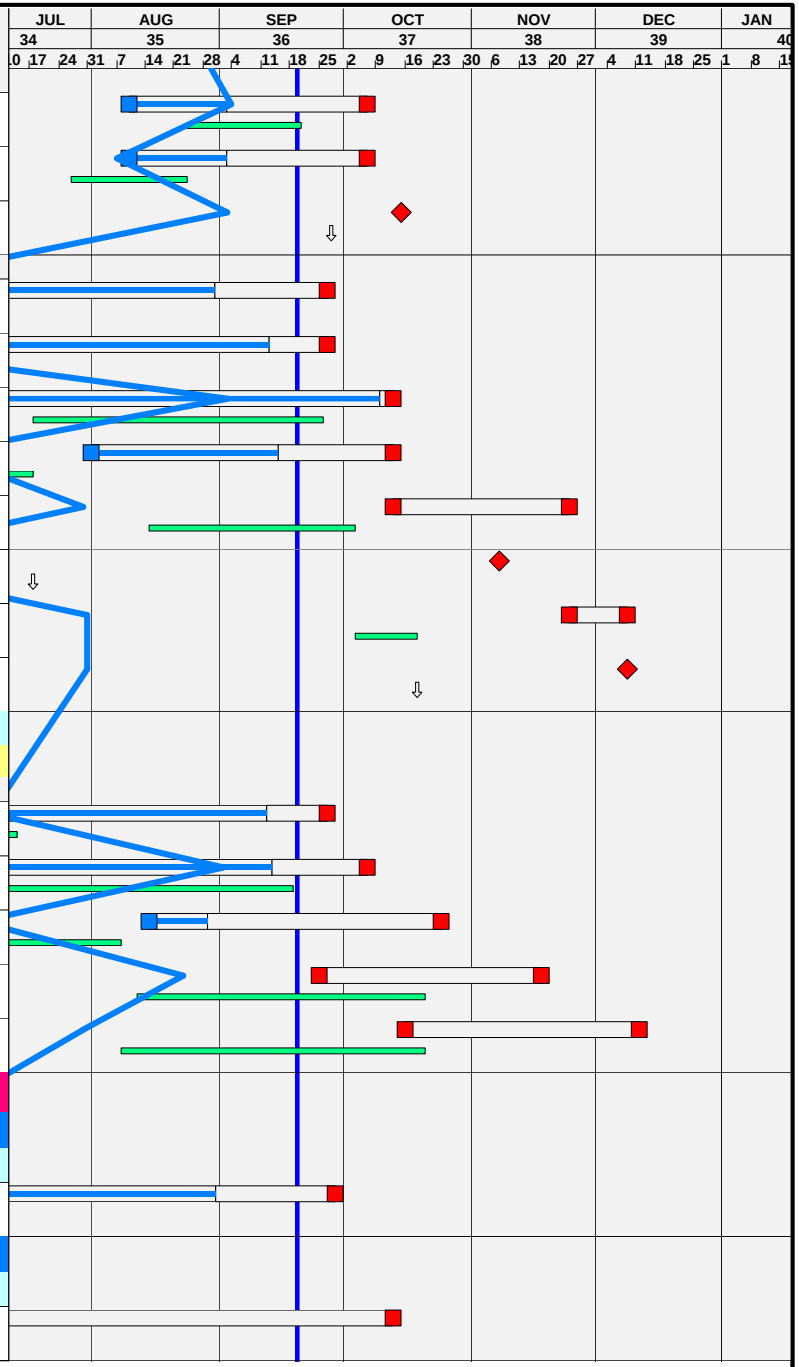
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SHT TUNNEL SOUTH BOUND									
6947	ShtRtSb-Del. CMCS & ELV sys	72	01JUN06A	31OCT06	90	0	33	313	-61
6971	ShtRtSb-Del. AFA & Linear sys	48	01JUN06A	16OCT06	56	0	21	325	-67
CONSTRUCTION									
SHT NORTHBOUND TUNNEL									
(E & M) BUILDING SERVICES									
MVAC / Tunnel Ventillation System Above OHVD									
207004	Sht NB - Install Motorized Smoke & Fire Damper	48	22FEB06A	30SEP06	82	80	10	-113	-117
207006	Sht NB - Comp Air Pipes/Condts to E/P1 to E/P5	36	12APR06A	10OCT06	93	5	3	-113	-110
207005	Sht NB - Comp Air Pipes/Condts to E/P10 to E/P6	36	20JUN06A	17OCT06	93	0	3	-113	-80
207007	Sht NB - Cabling, wiring and termination	24	18OCT06	15NOV06	0	0	24	-113	-80
207008	Sht NB - MVAC Testing and T&C	12	16NOV06	29NOV06	0	0	12	-113	-80
Plumbing and Drainage									
214030	Sht NB - Pipe Testing & T&C	12	15MAY06A	21SEP06	90	0	2	-48	-78
214028	Sht NB - Pipe Connectn, pumps, tanks to SP / NP	18	22SEP06	14OCT06	0	0	18	-48	-108
Fire Protection System									
221054	Sht NB - Install FS Conduits for Niches	30	22MAR06A	21SEP06	95	20	2	-90	-94
221055	Sht NB - (150d) FS Main pipeworks @ G/L	34	06APR06A	21SEP06	97	10	2	-78	-88
221057	Sht NB - Hose Reel Cabinets & Equipts	40	08MAY06A	06OCT06	86	0	7	-78	-60
221052	Sht NB - Install brckt for detection sys @ C/L	30	20SEP06	26OCT06	0	0	30	-118	-116
221053	Sht NB - Install detection system @ Ceiling Lvl	24	27OCT06	24NOV06	0	0	24	-118	-116
221059	Sht NB - FS wiring & termination	24	25NOV06	22DEC06	0	0	24	-118	-98
221061	Sht NB - FS Testing and T&C	12	23DEC06	09JAN07	0	0	12	-118	-98
Electrical Works Above OHVD									
228105	Sht NB-HV&LV Mn/Submain Cable Pulling (CP5-CP1)	24	15AUG06A	14OCT06	33	0	16	-99	-67
228108	Sht NB-HV&LV Mn/Submain Cable Pulling (CP10-CP6)	24	15AUG06A	14OCT06	33	0	16	-123	-91
228109	E&M Inspection & Access to Civil Contractor	0		21OCT06	0	0	0	-99	-67



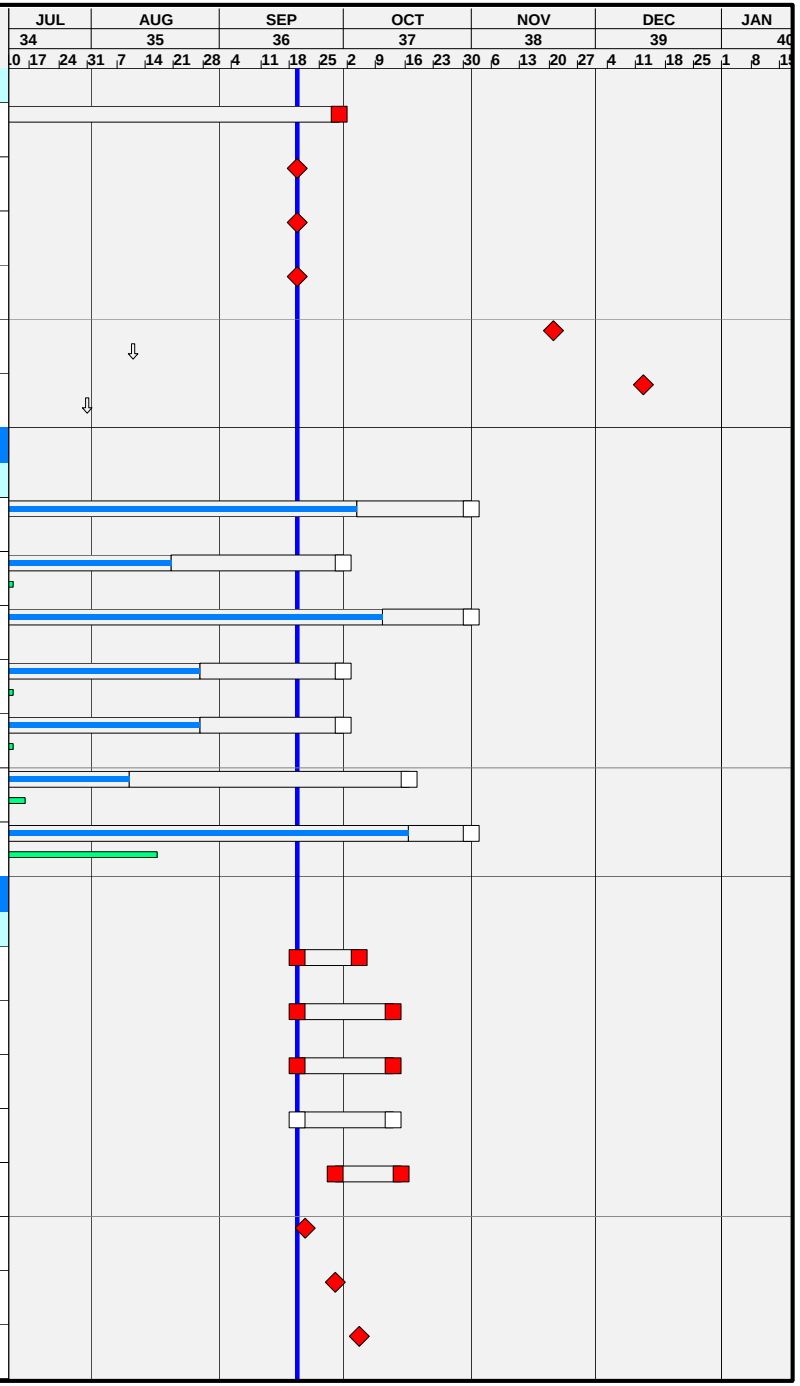
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Electrical Works Below OHVD									
235161	Sht NB - Conduits Works (Above & below OHVD)	48	01MAR06A	09OCT06	89	44	6	-88	-104
235160	Sht NB - Brackets for Lightings @ Ceiling Level	48	14MAR06A	22SEP06	93	80	3	-91	-110
235164	Sht NB - Tunnel Lightings Fixtures	60	26APR06A	23OCT06	84	5	10	-88	-86
235165	Sht NB - Cabling, Wiring and Termination	36	30MAY06A	31OCT06	20	0	29	-88	-68
235162	Sht NB - Tunnel Earthing to CP1-CP10	36	23SEP06	07NOV06	0	0	36	-91	-110
235163	Stn NB Access to Civil Contractr for Rd Pavement	0	08NOV06		0	0	0	-91	-98
235166	Sht NB - Lighting Test and T&C	12	08NOV06	21NOV06	0	0	12	-91	-74
235167	Stn NB Access to Civil Contractor for Top Layer	0		21NOV06	0	0	0	-91	-74
SHT SOUTHBOUND TUNNEL									
(E & M) BUILDING SERVICES									
MVAC / Tunnel Ventilation System Above OHVD									
242270	Sht SB - Install Motorized Smoke & Fire Damper	48	02MAR06A	03OCT06	77	74	11	-96	-115
242272	Sht SB - Comp Air Pipes/Condts to E/P1 to E/P5	36	08MAY06A	11OCT06	93	0	3	-96	-61
242273	Sht SB - Cabling, wiring and termination	24	12OCT06	09NOV06	0	0	24	-96	-61
242274	Sht SB - MVAC Testing and T&C	12	10NOV06	23NOV06	0	0	12	-81	-61
Plumbing and Drainage									
249393	Sht SB - Pipe Testing and T&C	12	22JUN06A	22SEP06	75	0	3	-49	-55
249392	Sht SB - Pipe Connectn, pumps, tanks to SP / NP	18	23SEP06	16OCT06	0	0	18	-49	-85
Fire Protection System									
256516	Sht SB - Install FS Conduits for Niches	30	12JUN06A	27SEP06	77	0	7	-83	-39
256518	Sht SB - Hose Reel Cabinets & Equipts	40	30JUN06A	13OCT06	60	0	16	-83	-11
256514	Sht SB - Install brckt for detection sys @ C/L	30	04SEP06A	29SEP06	70	0	9	-97	-95
256515	Sht SB - Install detection system @ Ceiling Lvl	24	30SEP06	31OCT06	0	0	24	-97	-95
256520	Sht SB - FS Wiring & Termination	24	01NOV06	28NOV06	0	0	24	-97	-23
256521	Sht SB - FS Testing and T&C	12	29NOV06	12DEC06	0	0	12	-97	-23



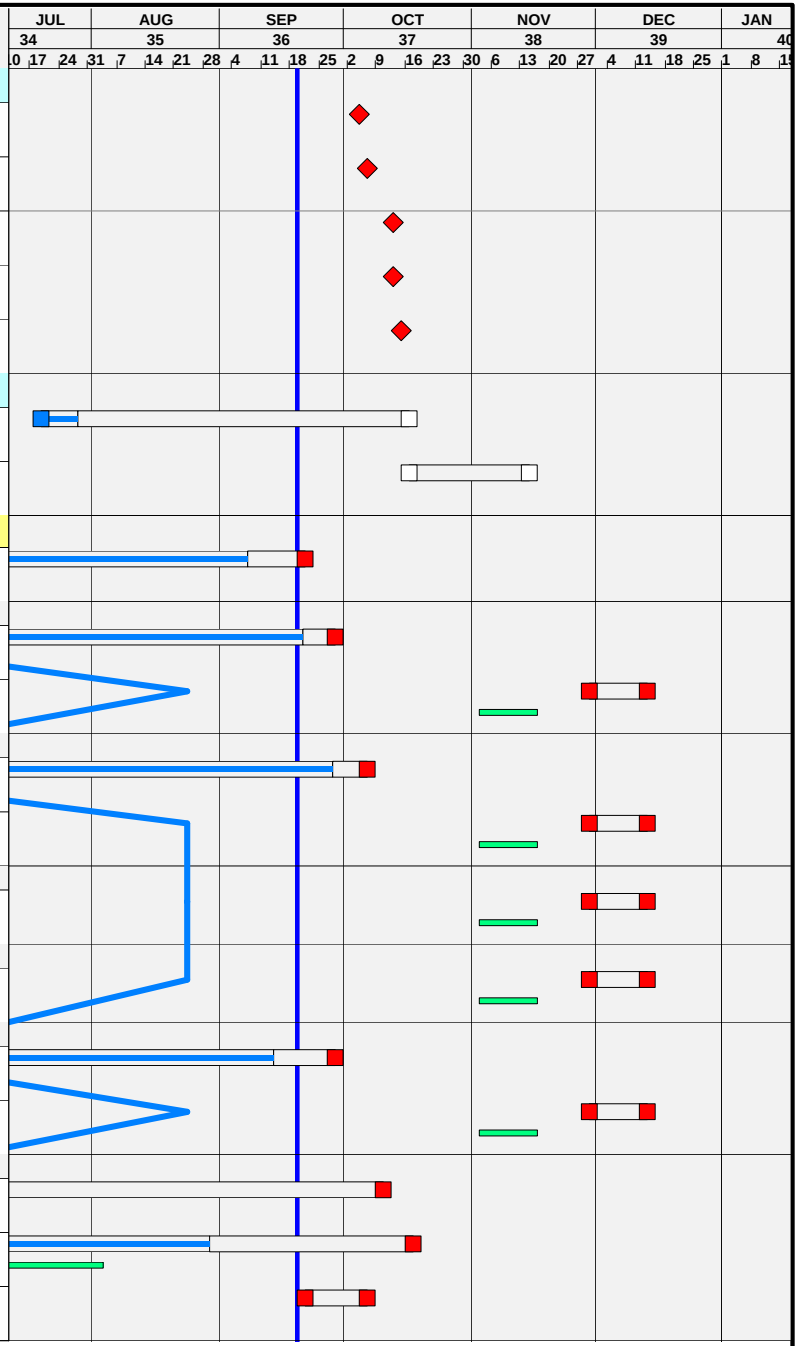
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Electrical Works Above OHVD									
263655	Sht SB-HV&LV Mn/Submain Cable Pulling (CP6-CP10)	24	10AUG06A	06OCT06	41	0	14	-123	-13
263658	Sht SB-HV&LV Mn/Submain Cable Pulling (CP1-CP5)	24	10AUG06A	06OCT06	41	0	14	-123	-37
263659	E&M Inspection & Access to Civil Contractor	0		14OCT06	0	0	0	-93	-13
Electrical Works Below OHVD									
270799	Sht SB - Conduits Works (Above & below OHVD)	48	01MAR06A	26SEP06	87	42	6	-91	-94
270798	Sht SB - Brackets for Lightings @ Ceiling Level	48	01JUN06A	26SEP06	88	0	6	-109	-97
270802	Sht SB - Tunnel Lightings Fixtures	60	27JUN06A	12OCT06	97	0	2	-91	-13
270800	Sht SB - Tunnel Earthing to CP1-CP10	36	01AUG06A	12OCT06	62	0	14	-109	-73
270803	Sht SB - Cabling, Wiring and Termination	36	13OCT06	24NOV06	0	0	36	-109	-43
270801	Stn SB Access to Civil Contractr for Rd Pavement	0	08NOV06		0	0	0	-91	-94
270804	Sht SB - Lighting Test and T&C	12	25NOV06	08DEC06	0	0	12	-106	-43
270805	Stn SB Access to Civil Contractor for Top Layer	0		08DEC06	0	0	0	-106	-43
SHT CROSS PASSAGES (CP1 to CP10)									
(E & M) BUILDING SERVICES									
Electrical Works									
277957	(CP1-CP10) - Cable Containment & Equipt Support	60	03MAY06A	26SEP06	90	2	6	-112	-64
277959	(CP1-CP10) - MCCB / MCB Bd,CMCS,Busbar,Switches	72	13JUN06A	06OCT06	80	0	14	-103	-15
277960	(CP1-CP10) - Conduit, light Fixture, Swt & Test	36	15AUG06A	24OCT06	20	0	28	-112	-65
277962	(CP1-CP10) - Switchboard, CMCS, Eqpt, Testing	48	25SEP06	17NOV06	0	0	22	-103	-23
277961	(CP1-CP10) - HV & LV Cables Termination & Test	48	16OCT06	11DEC06	0	0	48	-123	-43
SHT NORTH PORTAL BUILDING									
SUBMITTALS & APPROVALS									
ABWF & BUILDERS WORKS									
2094	SHT NPB - Approve alum. composite claddings	24	13DEC05A	28SEP06	90	70	8	-88	-102
PROCUREMENT - MATERIAL									
ABWF WORKS									
2099	SHT NPB - Procure alum. composite claddings	180	19APR05A	12OCT06	50	50	18	-98	-112



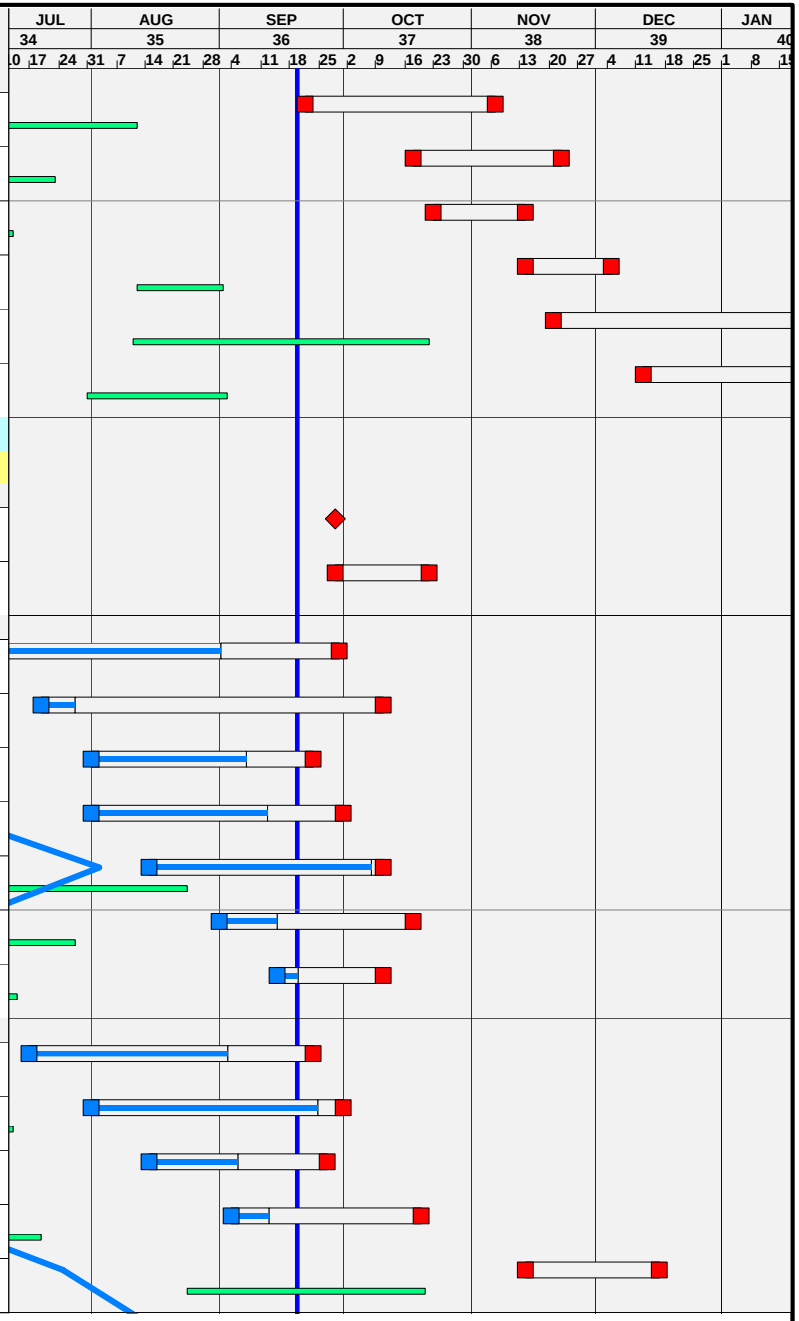
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ABWF WORKS									
2098	SHT NPB - Procure expanded metal claddings	180	06JUN05A	29SEP06	50	50	9	-87	-116
2101	SHT NPB - Initial delivery of doors	0	20SEP06*		0	0	0	12	-78
2102	SHT NPB - Initial delivery of slate claddings	0	20SEP06*		0	0	0	-42	-69
2104	SHT NPB - Initial deliv fall arrest roofing syst	0	20SEP06*		0	0	0	-6	-62
2106	SHT NPB - Initial deliv alum. composite cladding	0	21NOV06*		0	0	0	-98	-84
2103	SHT NPB - Initial deliv expanded metal claddings	0	13DEC06*		0	0	0	-87	-113
MAJOR EQUIPMENT DELIVERY									
SHT NORTH PORTAL BUILDING									
7340	ShtNpBldg-Del. building vent. fans	48	27JAN06A	31OCT06	90	60	33	313	-114
7379	ShtNpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	30SEP06	80	0	10	336	-69
7364	ShtNpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	30MAR06A	31OCT06	90	30	33	313	-127
7325	ShtNpBldg-Del. Package AC Units	48	10APR06A	30SEP06	80	0	10	336	-69
7433	ShtNpBldg-Del. PD pump & tank to G/F	48	10APR06A	30SEP06	80	0	10	336	-69
7429	ShtNpBldg-Del. AFA & FM200 sys	48	15MAY06A	16OCT06	56	0	21	325	-77
7309	ShtNpBldg-Del. CMCS & ELV equip't	48	01JUN06A	31OCT06	90	0	33	313	-62
CONSTRUCTION									
TCSS Access to SHT North Portal Bldg									
EM7286	TCSS Containment in 1/F	12	20SEP06	04OCT06	0	0	12	-169	-100
EM7289	TCSS Containment in Lower Plenum	18	20SEP06	12OCT06	0	0	18	-190	-95
EM7292	TCSS Containment in 2/F	18	20SEP06	12OCT06	0	0	18	-172	-100
EM7295	TCSS Containment in 3/F and above	18	20SEP06	12OCT06	0	0	18	328	-95
EM7283	TCSS Containment in G/F	12	29SEP06	14OCT06	0	0	12	-144	-103
AB7190	TCSS ACCESS 4F (Room 401,402,403,404)	0		21SEP06	0	0	0	-156	-91
EM7290	TCSS ACCESS - GF (Room G02-G03, G04-G08)	0		28SEP06	0	0	0	-140	-103
EM7296	TCSS ACCESS - 1F (Room 107,109,104)	0		04OCT06	0	0	0	-169	-100



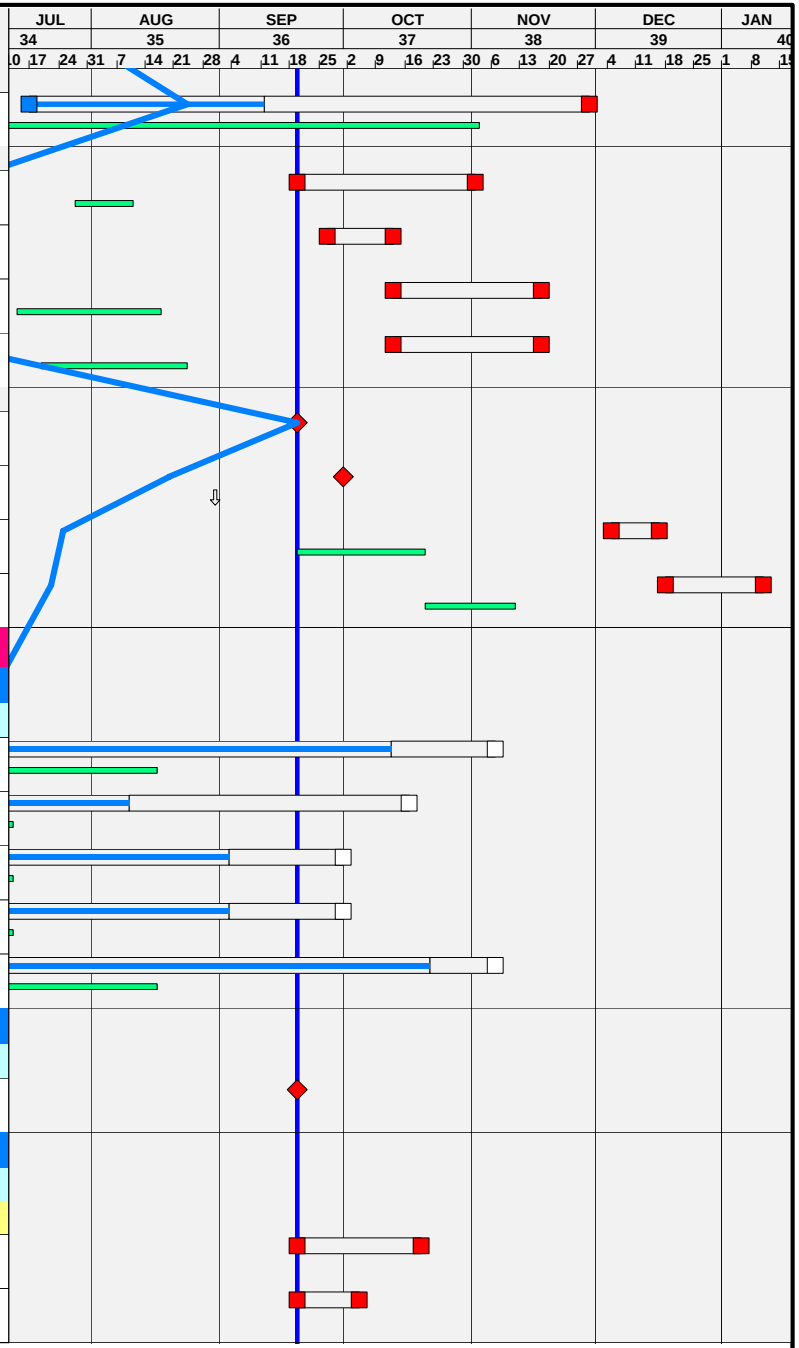
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
TCSS Access to SHT North Portal Bldg									
EM7306	TCSS ACCESS - 1F (Room 108)	0		04OCT06	0	0	0	-144	-100
EM7299	TCSS ACCESS LPL (Room L03)	0		06OCT06	0	0	0	-195	-109
AB7150	TCSS ACC 2F(201,204,205,207-212,214,215,ST1,ST2)	0		12OCT06	0	0	0	-172	-100
EM7309	TCSS ACCESS LPL (Room L04,L05)	0		12OCT06	0	0	0	-190	-95
EM7293	TCSS ACCESS - GF (Room G09,G15)	0		14OCT06	0	0	0	-144	-103
CIVIL & ABWF WORKS									
AB7040	U/G Drainages and Utilities under bldg	24	20JUL06A	16OCT06	10	0	21	301	-113
AB7060	Backfill, G/F Slabs and Walls	24	17OCT06	14NOV06	0	0	24	301	-113
ABWF Works									
AB7130	Remedy defects to SHT Buildings	24	17DEC05A	21SEP06	95	50	2	-195	-109
ABWF at GF									
AB7080	Initial Finishes to G/F	18	25APR06A	28SEP06	95	7	8	-144	-103
AB7330	G/F paint Touch Up & Doors	12	30NOV06	13DEC06	0	0	12	-16	-23
ABWF at 1F & LP									
AB7120	Initial Finishes to Lower Plenum	12	22APR06A	06OCT06	95	0	8	-195	-109
AB7320	1F & LP Paint Touch Up & Doors	12	30NOV06	13DEC06	0	0	12	-16	-23
ABWF at 2F									
AB7340	2/F Paint Touch Up & Doors	12	30NOV06	13DEC06	0	0	12	-16	-23
ABWF at 3F									
AB7350	3/F Paint Touch Up & Doors	12	30NOV06	13DEC06	0	0	12	-16	-23
ABWF at 4F									
AB7180	Initial Finishes to 4/F and above	24	02MAY06A	28SEP06	90	0	8	-156	-91
AB7360	4/F and above Paint Touch Up & Doors	12	30NOV06	13DEC06	0	0	12	-16	-23
Roofing & External Facade									
B70205	Sht NPB - Ext. Wall Waterproof Render	21	04MAY06A	10OCT06	25	0	16	-40	-102
AB7290	Sht NPB - Install Aluminum louvres & doors	75	06MAY06A	17OCT06	70	0	22	-10	-62
AB7270	Sht NPB - Roof Waterproofing & Test	12	22SEP06	06OCT06	0	0	12	-50	-103



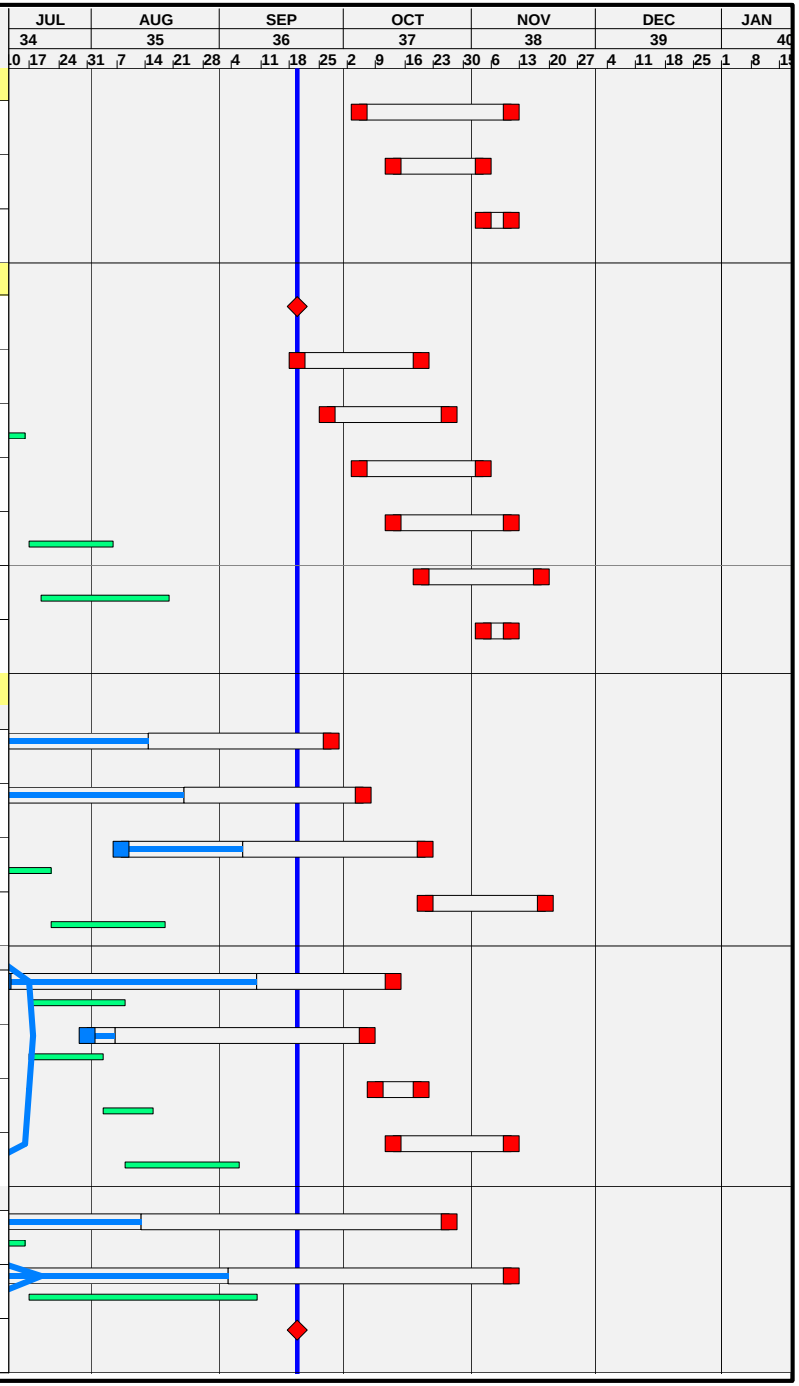
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Roofing & External Facade									
AB7310	Sht NPB - Slate Cladding above NB/SB Carriageway	36	22SEP06	06NOV06	0	0	36	-44	-71
AB7260	Sht NPB - External Wall Painting	30	18OCT06	22NOV06	0	0	30	-40	-102
AB7300	Sht NPB - 25thk Roof Screed & Roofing Tiles	18	23OCT06	13NOV06	0	0	18	-50	-103
AB7250	Sht NPB - GMS, S/S Channel, Balustrade & Railing	18	14NOV06	04DEC06	0	0	18	-50	-77
AB7280	Sht NPB - Alum. composite cladding to ext walls	60	21NOV06	01FEB07	0	0	60	-98	-84
AB7220	Sht NPB - Expanded metal cladding to Ext Walls	30	13DEC06	19JAN07	0	0	30	-87	-113
Sht North Portal Bldg. - BUILDING SERVICES									
E & M WORKS									
SHT North Portal Bldg (G/F) - E & M Works									
EM7280	E&M Access to G/F	0	29SEP06		0	0	0	-144	-103
EM7281	Installation of FS Pumps & Pipework at GF	18	29SEP06	21OCT06	0	0	18	-54	-103
SHT North Portal Bldg (2F/Silencer) - E & M Work									
EM7600	BS Works for TVS Plenums	30	26JUN06A	29SEP06	70	0	9	-86	-74
EM7460	BS Works for Genset	18	20JUL06A	10OCT06	10	0	16	-118	-98
EM7300	BS Works for HV Sw + Tx	12	01AUG06A	23SEP06	70	0	4	-126	-92
EM7520	E&M Works in Corridors 2/F	24	01AUG06A	30SEP06	70	0	7	-94	-74
EM7560	E&M Works in Risers	48	15AUG06A	10OCT06	95	0	2	-89	-39
EM7480	Genset Installation	30	01SEP06A	17OCT06	30	0	21	-118	-68
EM7320	HV Sw + Tx Installation	18	15SEP06A	10OCT06	20	0	14	-126	-74
SHT North Portal Bldg (3F/Fan Rm) - E & M Work									
EM7360	BS Works for LV Sw, MCC, UPS, LCC	12	17JUL06A	23SEP06	70	0	4	-116	-87
EM7540	E&M Works in Corridors 3/F	24	01AUG06A	30SEP06	90	0	3	-94	-69
EM7420	BS Works for 110V Charger Rm	12	15AUG06A	26SEP06	50	0	6	-128	-89
EM7380	LV Sw, MCC, UPS, LCC Installation	30	04SEP06A	19OCT06	20	0	24	-116	-77
EM7580	Termination of overall Elect HV & LV Sys	29	14NOV06	16DEC06	0	0	29	-128	-48



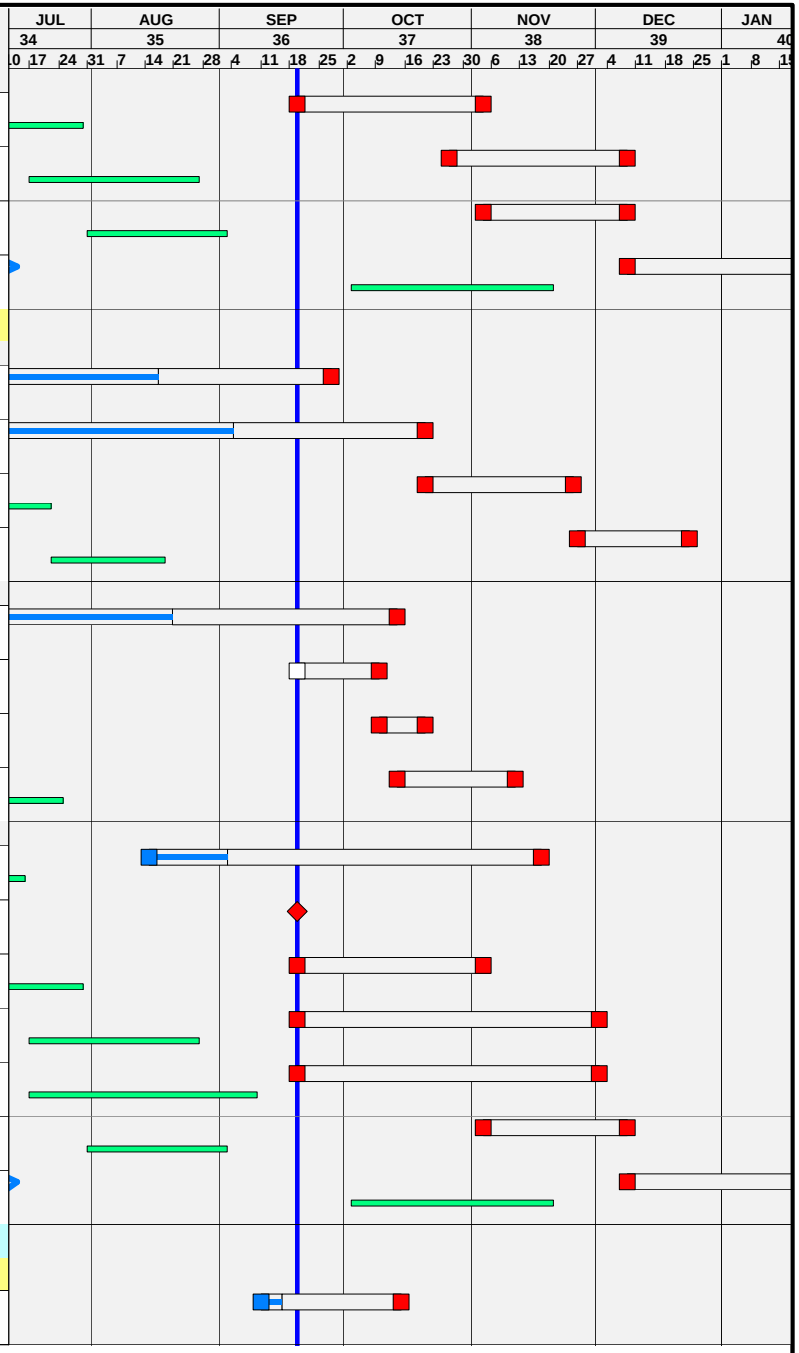
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SHT North Portal Bldg (4F/Upr Plen) - E & M Work									
EM7620	TVS Installation	100	17JUL06A	29NOV06	42	0	58	-86	-23
Testing and Commissioning									
EM7500	Genset Termination + T&C	12	20SEP06	01NOV06	0	0	12	-118	-68
EM7440	110V Charger Rm Installation + T&C	12	27SEP06	12OCT06	0	0	12	-128	-89
EM7340	HV Sw + Tx Termination + T&C	30	13OCT06	17NOV06	0	0	30	-128	-76
EM7400	LV Sw, MCC, UPS, LCC Termination + T&C	30	13OCT06	17NOV06	0	0	30	-128	-71
Statutory Inspection & Issued Certificates									
EM7691	Room Available for CLP Equipment Installation	0	20SEP06*		0	0	0	-13	0
EM7681	Power Supply Available (Arrange by SHT)	0		30SEP06*	0	0	0	-71	-27
EM7660	Submit WR1 to CLP (SHT NP Bldg)	6	05DEC06	16DEC06	0	0	6	-128	-48
EM7680	CLP insp.	18	18DEC06	10JAN07	0	0	18	-128	-48
SHT RC ENCLOSURE & T3 UNDERPASS									
MAJOR EQUIPMENT DELIVERY									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
7507	Sht-N.R9-Del. TVS control sys	48	27FEB06A	06NOV06	90	0	38	308	-67
7519	Sht-N.R9-Del. AFA & Linear sys	48	15MAY06A	16OCT06	56	0	21	325	-80
7606	Sht-N.R9-Del. LCC to S & N Sw/R	48	15MAY06A	30SEP06	80	0	10	336	-69
7614	Sht-N.R9-Del. MCC, & control sys to S LV S/R	48	15MAY06A	30SEP06	80	0	10	336	-69
7496	Sht-N.R9-Del. CMCS & ELV sys	48	01JUN06A	06NOV06	90	0	38	308	-67
INTERFACE DATES									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
EM4020	LKJV - Posession of T3 Underpass	0	20SEP06*		0	0	0	-122	-96
CONSTRUCTION WORKS									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
Koisk S1 at Shatin North Control Point									
EM3950	Kiosk S1 - Structure & Fittings	24	20SEP06	19OCT06	0	0	24	-126	-116
EM3960	Wighbridge S1 - Install	12	20SEP06	04OCT06	0	0	12	-126	-116



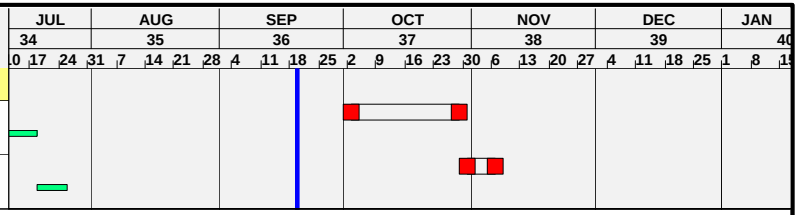
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Koisk S1 at Shatin North Control Point									
EM3970	Weighbridge S1 - Test and T&C	30	05OCT06	10NOV06	0	0	30	-126	-116
EM3952	Kiosk S1 - Install E&M Works	18	13OCT06	03NOV06	0	0	18	-126	-110
EM3954	Kiosk S1 - E&M Testing and T&C	6	04NOV06	10NOV06	0	0	6	-126	-110
RC Full Enclosure - LV Switch Room									
280070	E&M Access to Southern LV Switch Room	0	20SEP06		0	0	0	-126	-116
280072	LV SW Rm - Cable Containment & Equipt Supports	24	20SEP06	19OCT06	0	0	24	-126	-116
280074	LV SW Rm - SWGR, MCCB/ MCB Board, FS Panels	24	27SEP06	26OCT06	0	0	24	-126	-86
280076	LV SW Rm - Elect Lightings & Conduits	18	05OCT06	03NOV06	0	0	18	-126	-110
280079	LV SW Rm - MCCB,MCB,LV Sw,FS panels Term & Test	18	13OCT06	10NOV06	0	0	18	-126	-80
280080	LV SW Rm - Connect HV / LV Cables from SHT NPB	24	20OCT06	17NOV06	0	0	24	-116	-74
280078	LV SW Rm - Lightings wiring, term & test	6	04NOV06	10NOV06	0	0	6	-126	-110
STN RC FULL ENCLOSURE (North Bound) - E&M WORKS									
MVAC / Tunnel Ventillation System									
280000	RCFE NB - Ductworks Supports / Containment @ C/L	36	18FEB06A	27SEP06	80	30	7	-82	-106
280002	RCFE NB - MVAC Ducts, TVF & MSFD Units @ C/L	48	02MAR06A	05OCT06	80	25	10	-82	-94
280004	RCFE NB - MVAC Pipeworks & Conduits @ C/L	30	08AUG06A	20OCT06	40	0	18	-73	-76
280006	RCFE NB - Cabling, wiring and termination	24	21OCT06	18NOV06	0	0	24	-73	-76
Fire Protection System									
280028	RCFE NB - (100d) FH / HR Pipeworks & Fittings	18	10JUL06A	12OCT06	65	0	6	-66	-54
280026	RCFE NB - FS Conduit, Hose Reel Cabinets & Eqpt.	16	31JUL06A	06OCT06	10	0	14	-66	-54
280029	RCFE NB - Install Smoke detector @ N1-N3	10	09OCT06	19OCT06	0	0	10	-54	-54
280030	RCFE NB - FS Wiring & Termination	24	13OCT06	10NOV06	0	0	24	-66	-54
Electrical Works									
280044	RCFE NB - Brackets for Lightings @ Ceiling Level	60	30MAY06A	26OCT06	50	0	30	-118	-86
280048	RCFE NB - Earthing, Lighting, Equipt. @ C/L	48	26JUN06A	10NOV06	50	0	24	-94	-50
280034	RCFE NB - E&M Access to Southern LV Sw Room	0	20SEP06		0	0	0	-118	-80



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Electrical Works									
280038	RCFE NB - HV & LV Cabling Works @ C Trough	36	20SEP06	03NOV06	0	0	36	-118	-80
280046	RCFE NB - Conduits Works @ Ceiling Level	36	27OCT06	08DEC06	0	0	36	-118	-86
280040	RCFE NB - Install Power Distn Panels & Test	30	04NOV06	08DEC06	0	0	30	-118	-80
280054	RCFE NB - Tunnel Signage, Wiring, Term & Test	40	09DEC06	27JAN07	0	0	40	-118	-56
STN RC FULL ENCLOSURE (South Bound) - E&M WORKS									
MVAC / Tunnel Ventillation System									
280082	RCFE SB - Ductworks Supports / Containment @ C/L	36	02MAR06A	27SEP06	80	30	7	-103	-106
280084	RCFE SB - MVAC Ducts, TVF & MSFD Units @ C/L	48	02MAR06A	20OCT06	80	25	10	-103	-106
280086	RCFE SB - MVAC Pipeworks & Conduits @ C/L	30	21OCT06	25NOV06	0	0	30	-103	-106
280088	RCFE SB - Cabling, wiring and termination	24	27NOV06	23DEC06	0	0	24	-103	-106
Fire Protection System									
280098	RCFE SB - (100d) FH / HR Pipeworks & Fittings	18	03JUL06A	13OCT06	47	0	10	-67	-92
280096	RCFE SB - FS Conduit, Hose Reel Cabinets & Eqpt.	16	20SEP06	09OCT06	5	0	15	-67	-92
280100	RCFE SB - Install Smoke detector @ S1-S4	10	10OCT06	20OCT06	0	0	10	-55	-92
280102	RCFE SB - FS Wiring & Termination	24	14OCT06	11NOV06	0	0	24	-67	-92
Electrical Works									
280116	RCFE SB - Brackets for Lightings @ Ceiling Level	60	15AUG06A	17NOV06	20	0	48	-112	-104
280110	RCFE SB - E&M Access to Southern LV Sw Room	0	20SEP06*		0	0	0	-118	-80
280112	RCFE SB - HV & LV Cabling Works @ C Trough	36	20SEP06	03NOV06	0	0	36	-118	-80
280118	RCFE SB - Conduits Works @ Ceiling Level	36	20SEP06	01DEC06	0	0	36	-112	-80
280120	RCFE SB - Earthing, Lighting, Equipt. @ C/L	48	20SEP06	01DEC06	0	0	48	-112	-68
280114	RCFE SB - Install Power Distn Panels & Test	30	04NOV06	08DEC06	0	0	30	-118	-80
280124	RCFE SB - Tunnel Signage, Wiring, Term & Test	40	09DEC06	27JAN07	0	0	40	-118	-56
T3 UNDERPASS									
Kiosks S2 at T3 Underpass Portal									
EM3980	Kiosk S2 - Structure & Fittings	24	11SEP06A	14OCT06	15	0	20	-122	-92



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Kiosks S2 at T3 Underpass Portal									
EM4000	Kiosk S2 - Install E&M Works	18	03OCT06	28OCT06	0	0	18	-122	-86
EM4002	Kiosk S2 - E&M Testing and T&C	6	31OCT06	06NOV06	0	0	6	-122	-86



APPENDIX M
COMPLAINT LOG

Appendix M - Complaint Log

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
40426	Butterfly Valley	26 April 2004	A public noise complaint was recently received by EPD. The complaint was related to the noise generated from the Route 8 – ENT site near Butterfly Valley at the night time on 21 April 2004. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23 April 2004.	<u>Noise at night time</u> The information provided by the RSS indicated that no works were undertaken by the Contractor during the concerned period. The concerned noise might probably be due to a burglary case occurred at same night. <u>Noise during day-time</u> It is believed that the day-time noise complaint was due to the site formation works of the Project. Considering the powered mechanical equipment used at the Butterfly Valley and the echo effect of the valley, ET believe that the day-time construction noise from the site at Butterfly Valley might cause nuisance to the nearby resident to some extent, though there was no noise level exceedance at the Government Quarters during our routine monitoring in last three months. The Contractor agreed to implement mitigation measures, including good site practices, selecting quieter plant and working methods and reduction in numbers of noisy plant operating currently, in order to mitigate noise impacts at the NSRs.	Closed
40914	Garden Villa	13-Sep-04 (by EPD) 14-Sep-04 (by ET Leader)	Environmental Protection Department (EPD) received a public noise complaint on 13 September 2004 about construction noise generated from the Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project, nearby by Garden Villa at Tai Po Road, Sha Tin. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 14 September 2004. The complaint was about general construction noise generated from a construction site nearby Garden Villa at Tai Po Road, Sha Tin. As informed by EPD,	<u>Environmental Permits</u> A Construction Noise Permit (No. GW-RN0405-04) was obtained by the Contractor for the use of powered mechanical equipment (PME) in the concerned works area and use of TAR no.1 during restricted hours. <u>Blasting Works</u> According to the information provided by the Resident Site Staff (RSS), for carrying out blasting works, a blasting permit should be issued by the Mines Division of Civil Engineering and Development Department (CEDD), but not under the jurisdiction of EPD. The CNP issued by EPD only specified the use of PME but not the blasting works during restricted hours.	Closed

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			the complainant was particularly concerned of two issues: 1. The complainant was informed by the Contractor (Leighton – Kumagai Joint Venture) that blasting works would be conducted during restricted hours. He worried about the noise nuisance would be induced by the blasting works. 2. Noise nuisance from some site vehicles traveling on the Temporary Access Road (TAR no.1) near Garden Villa was noted by the complainant during restricted hours.	As advised by the RSS, the Contractor did intend to apply for a permit to the Mines Division of CEDD for blasting works during restricted hours. However, up to the time of preparation of this report, the Contractor still had not obtained the approval from the Mines Division and therefore, no blasting works were performed by the Contractor during restricted hours. <u>Use of TAR no.l</u> According to Condition 3d of the above-mentioned CNP, there was restriction on the use of site vehicles traveling on TAR no.1. The usage of site vehicles on TAR no.1 in a 2-week period before the date of complaint, i.e. 30th August to 12th September 2004 showed that the only vehicle type using TAR no.1 for the concerned period was concrete truck and the number of vehicle pass was limited to 4 times per hour, which was in compliance with the above CNP's conditions. Regular noise monitoring was undertaken by ET at Garden Villa on 30th August and 6th September 2004 during restricted hours (1900 – 2300 hours). The monitoring results were 58.7 dB(A) and 58.6 dB(A), respectively, which were below the noise limit level of 60 dB(A). However, it should be noted that site vehicles were not used by the Contractor on TAR no.1 during restricted hours on these two monitoring day. Based on the information obtained, the validity for the noise complaint in associated with night-time blasting works could not be concluded under ET's investigation, since no blasting works had been performed by the Contractor during restricted hours at the time of the report preparation. Also, it should be highlighted that for carrying out blasting works, permission should be obtained by Mines Division of CEDD, but not under the control of EPD. For the use of TAR no.1, the RSS's records showed that the number of vehicle pass in the period between 30th August and 12th September 2004 was complied with the CNP's conditions. It should be noted that only a maximum of 3 concrete trucks	

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				passing the site entrance was recorded. Therefore, it was considered that the nuisance noted by the complainant was not due to the site vehicles adopted by the Contractor (LKJV). Nevertheless, the Contractor was reminded to ensure the compliance of the CNP conditions and adopt good site practice to minimize the construction noise.	
41021	Garden Villa	09-Oct-04 (by EPD) 21-Oct-04 (by ET Leader)	Environmental Protection Department (EPD) received a public noise complaint on 9 October 2004 about construction noise generated from the Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project, nearby by Garden Villa at Tai Po Road, Sha Tin. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 21 October 2004. The complaint was about nighttime construction noise generated from a construction site nearby Garden Villa at Tai Po Road, Sha Tin. As informed by EPD, the complainant was particularly concerned of two issues: • Construction works undertaken by the Contractor (Leighton–Kumagai Joint Venture) were noted after 2300 hour. • Some workers were noted leaving the site through Temporary Access Road (TAR) no.1 at around 2 am, causing nuisance to the residents in Garden Villa.	According to the information provided by the RSS, no construction activity was undertaken in the nighttime period (2300 – 0700 hours) at the concerned site area. LKJV did admit that some vehicles had been operating at midnight for transporting LKJV's survey workers from the site. Inconsiderate behaviors were noted causing nuisance to Garden Villa residents: 1. Driving the vehicles too fast, which generated excessive engine noise; 2. Noise inside the vehicles (such as staff talking or radios) escaping through the open vehicle windows; and 3. Vehicle beeping horn to request the guards to open the gate. In order to rectify the situation, LKJV had notified the relevant staff with the receipt of the complaint and urged them to take appropriate measures when using TAR1 at night: 1. to drive slowly in order to reduce the engine noise, especially when approaching Garden Villa; 2. to roll up the vehicle windows to contain any noise from talking or radios; and 3. to prohibit beeping the vehicle horn for gate opening; instead, to park the car and approach the guard on foot.	Closed

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41023	Government Quarters (Butterfly Valley)	20-Oct-04 (by MHJV) 23-Oct-04 (by ET Leader)	A public complaint was received by the Engineer's Representative (ER) of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project on 20th October 2004. The complaint was raised by a resident of the Government Quarters at Caldecott Road, concerning dust generation as a result of the construction activities at Butterfly Valley. The ER subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 23rd October 2004.	The complaint was considered valid based on: 1. ER's site observations; 2. ET's weekly site audit; and 3. 1-hr TSP exceedance record. Also, the sources of dust generation were identified as 1. 2 portions of the haul roads, one at Slope BV-S2 and one linking between South Portal Tunnel to Mui Kong Tsuen, were found to be dry. 2. Dust impact due to the haulage of excavated materials at the South Portal. Enhanced dust suppression measures had been implemented by the Contractor: • added rockfill to the haul road between South Portal Tunnel and the Gully fill area; • maintained watering to haul road at Slope BV-S2; • requested the fill material supplier to ensure the material was in a damp condition before leaving quarry; • provided for material not dampened at the Quarry to be directed to the wheel wash for water spray before entering the site; • when cleaning drill holes along slope BV-S4 to ensure adequate water was available for flushing to suppress dust emission; AND • provided damper stockpiles of cleared material at BV-S2 before loading. Based on ER's site observations, most of the above mitigation measures have been implementing by the Contractor. Also, an additional water browser was delivered to site on 29th Oct 04. No significant fugitive dust emission has been found. During ET's site inspections on 27th Oct and 3rd Nov 2004, the situation was found improved. No deficiency relating to air quality impact was noted by ET during the two audit sessions. The results of air quality monitoring (1-hr and 24-hr TSP) in the period between 21st Oct and 2nd Nov 2004 were all found to be complied with the Action / Limit Levels.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
41124	Government Quarters (Butterfly Valley)	21-Nov-04 (by LKJV) 24-Nov-04 (by ET Leader)	A public complaint was received by the Contractor of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project on 21st November 2004 (Sunday). The complaint was concerned about excessive noise generation from construction machinery at Butterfly Valley on the same day. The Engineer's Representative (ER) subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 24th November 2004.	According to the ER, the only construction activity at Butterfly Valley undertaken on 21st Nov 04 was formation of access road near Slope BV-S2. The activity only involved operations of 1 no. of excavator and 1 no. of dump truck with grab, which complied with the condition stipulated in a valid CNP GW-RW0484-04, which was hold by the Contractor. Routine noise monitoring was conducted on 21st and 28th Nov 2004 at NM6. All the measured noise levels (48.5 to 56.4 dB(A)) were well below the noise limit level. In addition, the measurement results were within the baseline noise level. Therefore, the complaint was considered to be invalid. Nevertheless, the Contractor was reminded to ensure the compliance of the conditions stipulated in CNP. The Contractor was also recommended to adopt good site practice in order to minimize the construction noise.	Closed
41201	Government Quarters (Butterfly Valley)	01-Dec-04 (by MHJV & ET Leader)	A public complaint was received by the Engineer's Representative (ER) of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project on 1st December 2004. The complaint was raised by a resident of the Government Quarters at Caldecott Road, concerning dust generation at Butterfly Valley. The Environmental Team (ET) of the Project was informed with the complaint on the same day. The resident complained that a large portion of the excavated slopes was not properly covered, which caused dust nuisance to her.	The complaint was considered valid based on: 1. ER's site observations; 2. ET's weekly site audit Upon receipt of the complaint, a series dust control measures had been implemented by the Contractor, such as covering of the exposed slopes with appropriate sheeting, regular watering to the haul roads and excavated slope faces, etc. During the ET's weekly site audit on 08-Dec-04 together with the representative of HyD, IEC, ER and the Contractor, the above mitigation measures were observed. The idle slopes at BVS2 had been covered by tarpaulin sheeting and erosion mat. The left exposed slope surfaces at BVS2 were under excavation, thus being unable to be covered. According to the ER, the complainant has expressed his satisfaction to the site condition on 07-Dec-04, after the implementation of dust mitigation measures by the	Closed

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				Contractor. However, owing to the prevailing of the dry season, the Contractor was reminded to ensure the dust control measures are effectively implemented.	
50125	Garden Villa (North Portal)	21-Jan-05 (by EPD) 25-Jan-05 (by ET Leader)	Environmental Protection Department (EPD) received a public noise complaint on 21 January 2005 about construction noise and dust generated from the Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project, nearby by Garden Villa at Tai Po Road, Sha Tin. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 25 January 2005. The complaint was about construction noise and dust generated from a construction site nearby Garden Villa at Tai Po Road, Sha Tin. The complainant was particularly concerned of two issues: 1. Noise from tunnel blasting work carrying out at around 7:30am and 10:00pm; and 2. Dump trucks without covering of canvas when leaving the construction site.	**Noise from blasting** For carrying out the blasting, the Contractor had obtained the permit from relevant authority. The ET's noise monitoring results did not show any exceedance for the measurement taken when blasting was in place. It should be highlighted that for carrying out blasting works, permission should be obtained by Mines Division of CEDD, but not under the control of EPD. In order to minimize the nuisance from the works, the Contractor was recommended: • To inform the residents around the area about the time of blasting in advance; and • To re-schedule the blasting time table, if possible, in order to avoid nuisance. **Uncovered dump trucks** In order to evaluate the situation, two inspections were carried out by the ET at Garden Villa on 27-Jan and 28-Jan-05 to identify the dump trucks leaving the site with uncovered load. On 27-Jan-05, 3 nos. of trucks, which were working for ENT Project, was noted by-passing Garden Villa without proper cover. Enhanced control (penalty system) was implemented by the Contractor after the inspection on 27-Jan. During the inspection on 28-Jan-05, 24 nos. of dump trucks for ENT Project were found leaving the site. No non-compliance was noted for the trucks working for ENT Project. LKJV was reminded to keep closely monitoring on the condition and the effectiveness of the proposed control measures.	Closed

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50308	Garden Villa (North Portal)	05-Mar-05 (by EPD) 08-Mar-05 (by ET Leader)	EPD received a public complaint on 5 March 2005 about construction noise and dust generated from the construction sites of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) and Route 8 - Sha Tin Heights Tunnel and Approaches (R8-SHT), nearby by Garden Villa at Tai Po Road, Sha Tin. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 8 March 2005. The complaint was about construction noise and dust generated from the construction sites nearby Garden Villa at Tai Po Road, Sha Tin. The complainant was particularly concerned of the following issues: 1. Nighttime & Sunday construction noise 2. Noise from tunnel blasting at early morning and nighttime 3. Dust from construction activities	*Nighttime & Sunday construction noise* • no exceedance for noise monitoring • restricted hour works were found complied with the CNPs • records of vehicular trips on TAR1 did not show non-compliance of CNP conditions *Noise from tunnel blasting at early morning and nighttime* • no exceedance for noise monitoring • valid blasting permit had been obtained from CEDD • blasting work is not under the jurisdiction of EPD *Dust from construction activities* • dump trucks with uncovered / inadequately covered materials were observed leaving site • no exceedance for TSP monitoring • enhanced dust suppression measures had been implemented by the Contractor <u>Conclusions</u> The complaint against the dust issue (uncovered / inadequately covered dump trucks) was considered justifiable The Contractor was reminded to review the current checking system. Continuous spot checks would be performed by ET and RSS.	Closed
50330	Garden Villa (TAR1)	30-Mar-05 (by EPD & ET Leader)	Environmental Protection Department (EPD) received a public complaint on 30th March 2005 about construction noise from the sites of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) near Garden Villa at Tai Po Road, Sha Tin. The complaint, which was lodged by a resident of Garden Villa on 29th March 2005, was about the noise generated by heavy vehicles traveling in and out of the construction site near Garden Villa. According to the complaint, the noise was made from 7am onwards.	The site of concern was likely to be the Temporary Access Road no.1 (TAR1) connecting Tai Po Road and the construction sites of R8-ENT and Route 8 - Sha Tin Heights Tunnel and Approaches (R8-SHT). The time period of concern was within normal working hours (7am to 7pm) on a weekday not being holidays. According to the EM&A Manual, the criterion of construction noise in term of L_{eq}-30min within this period is 75 dB(A) for domestic premises. Since the commencement of the Project, no exceedance of daytime noise criterion of 75 dB(A) was recorded at Station AM3 (Garden Villa). During the 2-hour measurement period of the ad-hoc monitoring (0700-0900 hrs), all the measured noise levels (L_{eq}-30min) were below the daytime noise	Closed

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				criterion of 75 dB(A). Based on the results of routine noise monitoring and the ad-hoc measurement on 1st April 2005 at Garden Villa, no exceedance of daytime noise criterion of 75 dB(A) was recorded. The complaint lodged is therefore considered not justifiable. In order to minimize the nuisance generated by the vehicle use at Garden Villa, the Contractor has proposed to limit the frequency of trucks existing from TAR1 at a rate of one truck per minute during the time period of concern (7am to 8:30am).	
50415	Government Quarters	09-Apr-05 (by EPD) 15-Apr-05 (by ET Leader)	The complaint, which was lodged by a resident of 7/F, 38B, 8-10 Caldecott Road (Governmental Quarters) on 9th April 2005, was about the noise generated by the construction works at the Butterfly Valley during daytime. The complainant mentioned that the instant noise level taken by himself was 78 to 82 dB(A). EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 15th April 2005. The time period of concern was within normal working hours (7am to 7pm) on a weekday not being public holidays. According to the EM&A Manual, the criterion of construction noise in term of L_{eq}-30min within this period is 75 dB(A) for domestic premises.	Governmental Quarters (Station NM6) is one of the designated noise monitoring stations in the EM&A programme. Routine monitoring is undertaken on a weekly basis in accordance with the EM&A Manual. Since the commencement of the Project, no exceedance of daytime noise criterion of 75 dB(A) was recorded at this station. Ad-hoc measurement was conducted at the complainant's premises on 22 Apr 05. The measured noise level was 69.0 dB(A), which was well below the daytime noise criterion of 75 dB(A). Based on the results of routine noise monitoring and the ad-hoc measurements conducted in the complainant premises, no exceedance of daytime noise criterion of 75 dB(A) was recorded. The complaint lodged is therefore considered not justifiable.	Closed

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50419	Government Quarters	15-Apr-05 (by EPD) 19-Apr-05 (by ET Leader)	The complaint was lodged by a resident of 8-10 Caldecott Road (Government Quarters) on 15th April 2005 to EPD as well as the Chief Resident Engineer of the Project. EPD subsequently referred the complaint to the Environmental Team (ET) Leader of the Project on 19th April 2005. The complainant mentioned that they had experienced quite a lot of noise emanating from the tunnel drilling area after 11pm over several nights and most particularly at the night of 14th April 2005 and at 4am on 15th April 2005.	The site of concern was likely to be the South Portal. For carrying out construction works at this area during restricted hours, two Construction Noise Permits (CNPs no. GW-RW0085-05 and GW-RW0086-06) were obtained by the Contractor in accordance with the requirements stipulated in Noise Control Ordinance. According to the information provided by the Resident Site Staff and the Contractor, the construction activities undertaken in the period between 11th and 15th April 2005 from 1900 to 0700 hours included drilling, breaking, trimming, set up of rock drill, installation of arch-rib and grouting. The powered mechanical equipment (PME) involved in the above works included backhoe, rock drill, loader, dumper, shot-crete machine, group pump, mobile platform and grout machine, which were covered by the CNPs. According to the routine monitoring results, for the time period between 2300-0700 hours, the measured noise levels exceeded the corresponding noise Limit Level of 50dB(A). However, the measured levels were found within the range of baseline level and below the average baseline level. Based on the routine noise monitoring results at Station NM6, the measured noise levels for the period between 2300-0700 hours were below the baseline noise level, which was comparable to the ambient level. According to the RSS's record, the PME items operated during the concerned period were found covered by the 2 CNPs hold by the Contractor. Based on the available information, there is not enough evidence to prove whether the complaint against nighttime construction noise generated in the concerned period (11th to 15th April 2005) is justifiable or not.	Closed

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50512	Yew Chung International School	12-May-05	On 11 May 05, a notice was sent to Yew Chung International School (YCIS) by the Contractor, providing their tentative blasting schedule on 12 May 05. It was shown that one of the blasting operations was scheduled at 09:30am, at when an examination was being held in YCIS. Upon receipt of the notice, a representative of YCIS lodged a complaint to the Contractor via the Project's hotline at 07:40 on 12 May 2005. The complainant expressed her objection to the blasting operation taken at 09:30am when the examination was taken place. The Contractor then agreed on one occasion only to delay the tunnel blast planned for 9:30am until 9:50am (i.e. 5 min after the examination). The complainant satisfied but did expect no future blasting during the examination period. According to the Engineer's Representative, the Contractor did not wish to make any commitment to ensure no blasting would be taken within the examination period.	A 1-day continuous noise measurement was conducted by the Environmental Team at Station NM1 on 26 May 05. According to the ER's record, two blasting operations were taken in the vicinity of YCIS on 26 May 05. One surface blast was taken at Butterfly Valley at 15:42 and one tunnel blasting was taken at South Portal at 16:56. The measurement results showed that the noise impact in term of Leq-5min and Leq-30min arising from the blasting operations was insignificant. No exceedance of construction noise criterion for examination period was recorded (Leq-30min < 65dB(A)). The complaint lodged was therefore considered not justifiable. However, in order to minimize the potential nuisance arising from the blasting noise and the siren sounds prior to blasting, the Contractor was recommended to consider scheduling the blasting operations beyond the examination periods.	Closed

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50610	Government Quarters	10-Jun-05	On 10 June 2005, the Resident Site Staff (Maunsell-Hyder Joint Venture) received a complaint from a resident of the Government Quarters at Caldecott Road. The complaint was concerned about the construction dust generation as a result of the construction activities of the Project at Butterfly Valley. The complainant had not specified which construction activities had contributed to the dust generation.	*Site Observations* According to the RSS's preliminary investigation, it was considered that soil nailing at Slope BV-S2 was the dominant dust source and was likely to be the activity of concern. The dust suppression measures taken were found inadequate to control the dust dispersion from the works. Noticeable dust dispersion from the soil nailing work could be observed. *Corrective Actions* After the Contractor was notified by the RSS of the complaint, immediate action was taken by the Contractor on the same day (10 June 2005). The dust mitigation measures for the soil nailing were enhanced. An additional thicker cover was used. Also, continuous water spray was applied to suppress the dust emission. *Environmental Outcome* The RSS made a response to the complainant on 10 June 2005. The complainant was informed of the rectification actions taken by the Contractor. No further adverse comment was received from the complainant. *Conclusions* Based on the RSS's information, 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 immediately and the situation was found improved.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
50712	A scattered house near South Portal and Tai Po Road Water Treatment Works Staff Quarters	12-Jul-05	On 12 July 2005, a resident, whose house is located near South Portal and Tai Po Road Water Treatment Works Staff Quarters, lodged a complaint to the Contractor via the Project's hotline at 11:40am. The complainant expressed his concern on the nuisance caused by the blasting works at early morning (before 07:00 hours) and late night (after 23:00 hours).	*Site Activity* According to the information provided by the RSS, tunnel blasting works have been taken place in the concerned period in north bound tunnel from the Ventilation Adit towards the direction of the South Portal. *Environmental Requirements* In the EP, the EM&A Manual of the Project and the NCO, no requirement is specified for the control of blasting operation and the associated environmental impact, such as blasting noise. It should be highlighted that for carrying out blasting works, permission should be obtained by Mines Division of CEDD, but not under the jurisdiction of EPD. For carrying out the above-mentioned blasting operations, the Contractor has obtained a valid blasting permit from CEDD under the Dangerous Goods Ordinance (Cap. 295). Under this permit, the Contractor is allowed to carry out 24-hour blasting works within the designated area. *Contractor's Actions* Though the blasting noise is not under the control of any environmental related regulation and the Contractor is allowed to carry out 24-hour blasting, the Contractor would try to keep the blasts of concern undertaken between 07:00 to 23:00 hours. This arrangement could effectively reduce the potential nuisance to the residents within the more sensitive time period (23:00 to 07:00 on next day). *Conclusions* The subjected blasting operations were carried out by the Contractor under a valid blasting permit. The complaint lodged is therefore considered not justifiable.	Closed

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50809	Government Quarters (8-10 Caldecott Road)	09-Aug-05	On 9 August 2005, a resident of 8-10 Caldecott Road (Government Quarters) lodged a complaint to the Contractor via the Project's hotline at 14:30. The complainant expressed her concern on the nuisance caused by the blasting works undertaken at Butterfly Valley. Noise impact arising from the blasting works was one of the issues raised by the complainant.	*Ad-hoc Noise Measurement* An ad-hoc noise measurement was carried out on the roof of Government Quarters during a surface blast on 16 August 2005. According to the record of the RSS and the site observation, a surface blasting was undertaken at Butterfly Valley at around 15:38 on the monitoring day. The results show that the measured noise level in term of Leq-30min, i.e. 69.1 dB(A) during the surface blasting was well below the daytime construction noise criterion of 75 dB(A). *Conclusion and Recommendation* According to the results of ad-hoc noise measurement taken at Government Quarters on 16 August 2005, the measured noise levels (Leq-30min) did not exceed the noise criterion of 75 dB(A). In addition, the subjected blasting operations were carried out by the Contractor under a valid blasting permit. For the concern of noise impact, the complaint was considered not justifiable.	Closed
50830	Government Quarters (8-10 Caldecott Road)	30-Aug-05	The RSS received a public complaint from a resident of Government Quarters addressing two noise issues: 1. Noise nuisance caused by drilling works at Butterfly Valley; 2. Noise nuisance due to blasting 0045 hrs of 28 August 2005.	*Noise Measurement* No exceedance was recorded for the routine noise monitoring at NM6 (Government Quarters). Ad-hoc noise measurement was conducted on 1 and 2 Sept 05. All measured noise levels complied with the noise criteria. *Conclusion* The complaint was considered not justifiable. However, the Contractor had taken proactive actions in order to minimize the nuisance of the residents, (1) to stop the rock breaking works at BVS2 and (2) to install temporary noise barriers for drilling works.	Closed

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50928	Government Quarters (8-10 Caldecott Road)	28-Sept-05	A resident of Government Quarters complaint about a blast undertaken at 0215hr on 28 Sept 05.	*Environmental Monitoring* After receiving the complaint, the ET carried out a continuous noise measurement at Station NM6 (Government Quarters) from 29 to 30 September 2005. All the measured noise levels in term of Leq-5min are close to the baseline noise level. The noise levels after correction of baseline levels were all below the noise criterion of 50 dB(A). *Conclusion* The subjected blasting operations were carried out by the Contractor under a valid blasting permit. In addition, no noise exceedance was recorded for the ad-hoc noise monitoring. The complaint lodged is therefore considered not justifiable.	Closed
51025	Caldecott Hill (2 Caldecott Road)	25-Oct-05	A public complaint was received by the MWPMO of Highways Department on 25 October 2005. The complaint was subsequently refereed to the RSS and Environmental Team of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project. The complaint was lodged by the management company of Caldecott Hill (No.2 Caldecott Road). It was about dust generation when construction vehicles, particularly dump trucks and concrete trucks, traveling along the Water Treatment Works (WTW) access road and its junction with Caldecott Road. According to the photos provided by the complainant, noticeable dust generation was observed during construction vehicles movement on the roads of concern.	*Site Observations* Ad-hoc site inspections were carried out on 25 and 26 Oct 05. On 26 Oct 05, the WTW access road was observed dry. Deposition of dusty materials was noted. Significant dust generation was identified during vehicle movement. *Contractor's Actions* Mitigation actions were taken by the Contractor: 1. One labour was appointed to water spray the concerned road junction and clear up of dusty materials deposited on the WTW access road. 2. Regular watering on access road by hose pipe was performed to keep the road wet. 3. All vehicles would be wheel-washed and loads of dusty materials would be covered before leaving the site. *Conclusions* Based on the site observations, this complaint was considered to be valid and related to the Project works. However, enhanced dust mitigation measures were taken by the Contractor and the situation was found improved.	Closed

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51031	Po Leung Kuk Choi Kai Yau School	31-Oct-05	The resident site staff (MHJV) of R8-ENT received a complaint from the Principal of PLKCKY School. She commented that the blasting noise (nighttime and daytime) at Butterfly Valley became louder than before.	An ad-hoc noise measurement was taken by ET on 5 Nov 05 to evaluate the noise impact due to daytime surface blasting at the BV. The measurement results revealed that there has been no exceedance of noise level criteria. The complaint was therefore considered not justifiable.	Closed
51101	Butterfly Valley (Government Quarters)	1-Nov-05	On 1 Nov 05, the Resident Site Staff received a complaint from a resident of the Government Quarters. On 2 Nov 05, a complaint of similar natures and same location was received by the Environmental Protection Department. The complainant was concerned about the following environmental issues: 1. Noise nuisance due to tunnel blasting works undertaken at midnights and in early mornings (3am to 5am); 2. Noise nuisance due to operation of a generator after 11pm; 3. Construction dust and daytime noise due to processing and stockpiling of crushed rocks at Butterfly Valley; 4. Noise nuisance due to works outside tunnel in the early morning of 2 Nov 05.	*Item 1: Noise nuisance due to tunnel blasting* For carrying out the above-mentioned blasting operations, the Contractor has obtained a valid blasting permit from CEDD. Under this permit, the Contractor is allowed to carry out 24-hour blasting works. As advised by the Contractor, all the blasting operations had been completed by 12 Nov 05. *Item 2: Noise due to operation of a generator after 11pm* According to the Construction Noise Permit issued by EPD, one generator was allowed to be operated after 11pm at South Portal area outside the tunnel. In view of the provision of acoustic enclosure and the separation distance from the generator to Government Quarters (around 300m), the noise impact arising from this generator onto the residents of the Quarters was believed to be insignificant. During the ET's investigation on 11 Nov 05, no engine-like noise generated from the construction site could be identified. *Item 3: Dust and noise due to handling of crushed rocks* No noise exceedance was recorded. During the weekly site inspections, deficiencies regarding inadequate dust mitigation measures for the crushed rock processing and stockpiling were occasionally observed. Dry / uncovered stockpiles and dust emissions from crushed rocks handling were sometimes noted. *Item 4: Noise from works out of tunnel in morning of 2 Nov 05* According to the RSS's site records, there has been no activity outside the tunnel in the early morning of 2 November 2005. Work was undertaken deep inside the tunnel during the concerned period. The mentioned noise nuisance might not be related to R8-ENT Project. An ad-hoc noise measurement was carried out by ET from 8 to 10 November 2005 in order to evaluate the noise at Quarter's residents and no exceedance was recorded.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				Conclusion Based on the information obtained, environmental monitoring results and site observations, this complaint was considered not justifiable, except for the concern of dust nuisance due to crushed rock processing.	
51205	Caldecott Road junction	5-Dec-05	The complaint was lodged by the management company of Villa Carlton. The complainant mentioned that several complaints from the occupants of Villa Carlton were received, against the dust emission when they drove to Kowloon via the Caldecott Road Junction. She also considered that the amount of water spraying by the Contractor was insufficient to suppress dust emission at Caldecott Road Junction.	*Complaint Record* A similar complaint (Log no. 51025) was received on 25 Oct 05 from Caldecott Hill. Significant dust emission was noted when construction vehicles traveling along the WTW access road and its junction with Caldecott Road. With implementation of enhanced dust mitigation measures, the situation was found improved and satisfactory. *Site Observations* Since Nov 05, in order to observe the Contractor's actions taken for the above-mentioned complaint, the area of interest was included during the weekly environmental audit. No deficiency had been noted at this area during the audit. After receiving this new complaint (Log no.51205), several ad-hoc site inspections were carried out on 6, 8 and 14 Dec 05. In addition, the RSS of the Project had carried out daily checking of the condition of the Caldecott Road Junction. Sufficient dust mitigation measures had been implemented by the Contractor. The condition was found satisfactory. Therefore, this complaint was considered not justifiable. However, it is noted that the Contractor had stepped up dust mitigation measures to further improve the condition at Caldecott Road junction.	Closed

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
60204	Garden Villa	4-Jan-06 (by ETL)	A public complaint was received by the Environmental Protection Department on 3 January 2006. The complaint was subsequently referred to the Environmental Team of Route 8 – Eagle's Nest Tunnel and Associated Works (R8-ENT) Project on 4 January 2006. According to EPD's information, the complaint was lodged by a complainant, who walked along Tai Po Road on 1-2 January 2006. The following information was given by EPD for our investigation: • Time of concern: 1-2 January 2006 (Daytime) • Suspected site area of concern: ENT's Toll Plaza and Administration Building. • Dust and noise nuisance was noted by the complainant when he passed Garden Villa. • Noise from wood saw and crane or alike was noted.	**A. Construction Noise Impact** According to the Contractor's information, construction activities were carried out on 1 and 2 Jan 06, including: • Erection and dismantling of formwork • Fixing water pipe All the equipment operated by the Contractor on 1-2 Jan 06 complied with the permissible equipment stated in the CNP. On 1 Jan 06, noise monitoring was carried out. All the results complied with the noise criterion. **B. Construction Dust Impact** Erection and dismantling of formwork and fixing water pipe were considered not dust emissive in nature. For stockpiles of materials in Toll Plaza area, dust mitigation measures had been implementing by the Contractor. The condition in term of dust control was found satisfactory during the audit sessions on 4 and 11 Jan 06. Since December 2005, all TSP monitoring results complied with the Action / Limit Level. **Conclusion** Based on the information given, site observations and environmental monitoring results, this complaint was considered not justifiable. Nevertheless, the Contractor was reminded to adopt good site practice to minimize the environmental impacts at the nearby sensitive receivers	Closed