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)

May 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 thirtieth 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 May 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, box culvert/open channel, retaining wall, water-main works, drainage works, slope cutting and haul road construction, concreting of columns, walls and slab.

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:

- Asphalts pavement construction;
- VE Panel;
- Cut slope and haul road;
- Soil nailing / Rock dowel;
- Retaining wall;
- Drainage works;
- Louver & door wall installation;
- Concreting of columns, walls & slab; and
- Concreting of wing wall & staircase.

The anticipated environmental impacts will be mainly on surface runoff during rainy season, 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 monthly EM&A report summarizing the EM&A works for the Project in May 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:

- Soil nailing, box culvert/open channel, retaining wall and water-main;
- Cut slope and haul road construction at Butterfly Valley;
- Noise barrier foundation, rock dowel at butterfly Valley;
- Drainage works at Butterfly Valley, Toll Plaza, Ventilation Building and SHT – North Portal Building;
- Cabling and Lighting installation and at ENT Tunnel;
- Partition wall at VA and road slab construction at ENT Tunnel;
- Tunnel drainage, E&M MSFD installation and VE panel at ENT Tunnel;
- Concreting of columns, walls and slab at South Portal, North Portal, Toll Plaza and Ventilation Adit;
- Plastering for concrete wall at South Portal Building and Plastering at North Portal Building;
- Metal door installation at South Portal Building;
- Plastering at North Portal Building;

- Footbridge and Toll Collector's staircase construction at Toll Plaza;
- Louver and curtain wall installation at Plastering at Administration Building;
- Aluminium Window installation at SHT-South Portal Building and SHT-North Portal Building;
- Plastering and painting of wall and switch broad installation at SHT-South Portal Building and SHT-North Portal Building;
- Chlorine barrier wall construction at Portion X; and
- E&M installation work within SHT 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
		Miss Attle Hui	Audit Team Leader	2151 2093	
		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 1-hour TSP monitoring in the reporting month.

2.16 No Action/Limit Level exceedance was recorded for 24-hours TSP monitoring in the reporting month.

2.17 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**.

2.18 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 3rd, 8th, 17th, 24th and 29th May 2006 by ET. The audit session on 8th May 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-RN0532-05	11/11/05	10/05/06	*Location:* ENT South Portal Site near Butterfly Valley *Time period:* General holiday including Sundays between 0900 and 2300 and any day not being a general holiday including Sundays between 1900 and 2300	Expired
GW-RN0537-05	11/11/05	10/05/06	*Location:* Toll Plaza *Time period:* General holiday (including Sundays) between 0900 and 2300 hours, and any other day between 1900 and 2300 hours.	Expired
GW-RN0593-05	08/12/05	07/06/06	*Location*: South and North Portal Buildings *Time period:* General holiday (including Sundays) between 0900 and 2400 hours, and any other day between 1900 and 2400 hours.	Valid

Permit No.	Valid Period		Details	Status
	From	To		
GW-RW0043-06	6/2/06	5/8/06	*Location*: Ventilation Adit *Time period*: General holiday (including Sundays) between 0700 and 2300 hours, and any other day between 1900 and 2300 hours.	Valid
GW-RW0073-06	07/2/06	4/5/06	*Location:* Butterfly Valley *Time period*: General holidays (including Sundays) between 2300 to 0700 hrs	Expired
GW-RW0086-06	6/3/06	10/5/06	*Location:* ENT South Portal Site at Butterfly Valley to North Portal Site near Garden Villa *Time period:* Any day not being a general holiday, immediately following a general holiday between 2300 and 2400 and not immediately following a general holiday between 0000 and 0700 & 2300 and 2400	Expired
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
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 (new)
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 (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**.

Summary of Exceedances

1-hr and 24-hr TSP Monitoring

4.7 No Action/Limit Level exceedance for 1-hour TSP was recorded in the reporting month.

4.8 No Action/Limit Level exceedance for 24-hours 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	3 May 06	Yellow surface runoff directly discharge to public drain was observed at toll plaza (wet set) and portion D6 at site boundary.	Rectification / improvement was observed during the site inspection on 8 May 06.
	3 May 06	Rain water washing sand and soil along the temporary drain directly down to the open channel was observed at step channel at Mui Kong Tsuen. Sand bag or other measures should be used as filter before discharge.	Rectification / improvement was observed during the site inspection on 17 May 06.
	8 May 06	It was observed that the gabion wall at step channel near Mui Kong Tsuen was damaged by heavy rainfall (Red/Yellow Rainstorm warming signal). Besides, silt and sand was settled on the channel. The Contractor was reminded to repair /maintain the gabion wall and to clear the sediment under a safe condition.	Rectification / improvement was observed during the site inspection on 17 May 06.
	29 May 06	The Contractor was reminded to repair the broken tarpaulin for covering the explored slope at BVS4.	The environmental situation would be followed up in June 06.
	29 May 06	Yellow surface runoff directly discharged to public drain was observed at site at Portion D4. De-silting measures should be provided before discharge.	The environmental situation would be followed up in June 06.
Chemical and Waste Management	3 May 06	Rain water collected at drip tray were almost full at site BV3 and toll plaza. The contractor was reminded to clean it up more frequent in heavy rainy day.	Rectification / improvement was observed during the site inspection on 8 May 06.
	8 May 06	A tank of admixture (chemical) was found placed on a bare ground at the Ventilation Adit. The Contractor was reminded to place the chemical container on a drip tray to avoid leakage and spillage.	Rectification / improvement was observed during the site inspection on 17 May 06.
	24 May 06	A diesel oil drum without drip tray was observed at bare ground at between slope BVS1 and slope BVS2. Drip tray should be provided to avoid spillage.	Rectification / improvement was observed during the site inspection on 29 May 06.
	24 May 06	Some admixture was leaked from chemical drum to the bare ground at south portal building and ventilation building. Drip tray should be provided and the leaked admixture should be cleaned up.	Rectification / improvement was observed during the site inspection on 29 May 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 coming months include:

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

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 coming months include:

ENT Tunnel
- Asphalts pavement construction, VE panel, E&M MSFD installation and cabling & lighting installation.

Butterfly Valley
- Cut slope & haul road, box culvert / open channel, soil nailing / rock dowel, retaining wall, drainage works and noise barrier foundation.

South Portal Building
- Concreting of columns, walls & slab from 4/F to 5/F level, plastering for concrete wall and metal door installation.

North Portal Building
- Concreting of columns, walls and slabs from 4/F to R/F level and plastering.

Toll Plaza's Structures and Administration Building
- Footbridge, drainage works, louver & curtain wall installation, concreting of walls & slabs for workshop and plastering for concrete wall.

Ventilation Adit Tunnel and Building
- Concreting of columns, walls and slabs at 2/F to exhaust vent shaft floor, and drainage works.

Other Works Areas
- Chlorine barrier wall panel installation construction at Portion X;
- E&M installation works within SHT 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.

Dust Impact

- To ensure that adequate water spray or other dust suppression measures are applied for slope cutting and the haul roads and stockpile areas in Butterfly Valley.
- To cover idle soil slope surface and stockpile of dusty materials to prevent wind erosion.

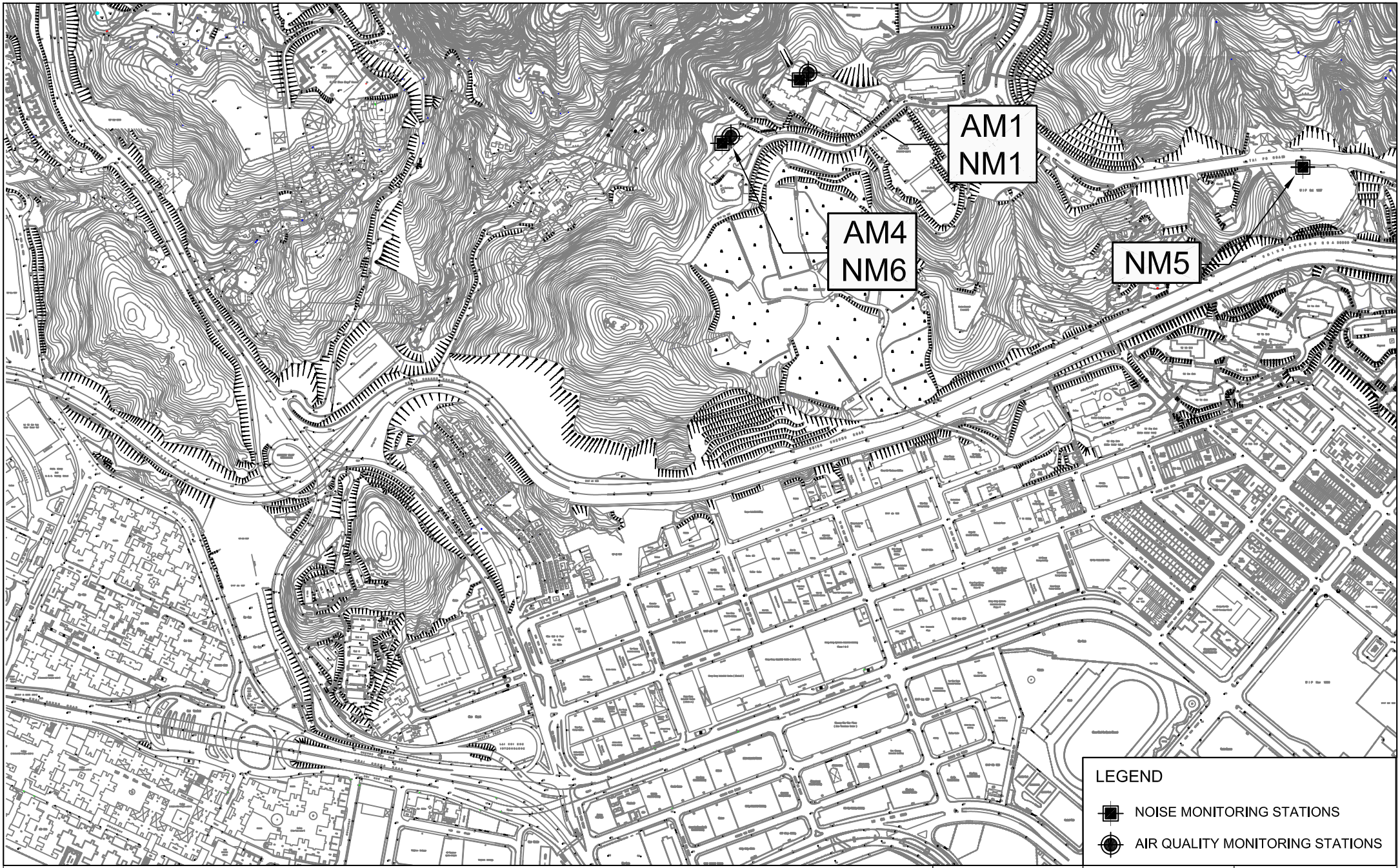
Noise Impact

- To closely observe the more stringent requirement for construction during school examination periods.
- To provide temporary noise barriers for noisy activities (such as breaking works).
- To 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

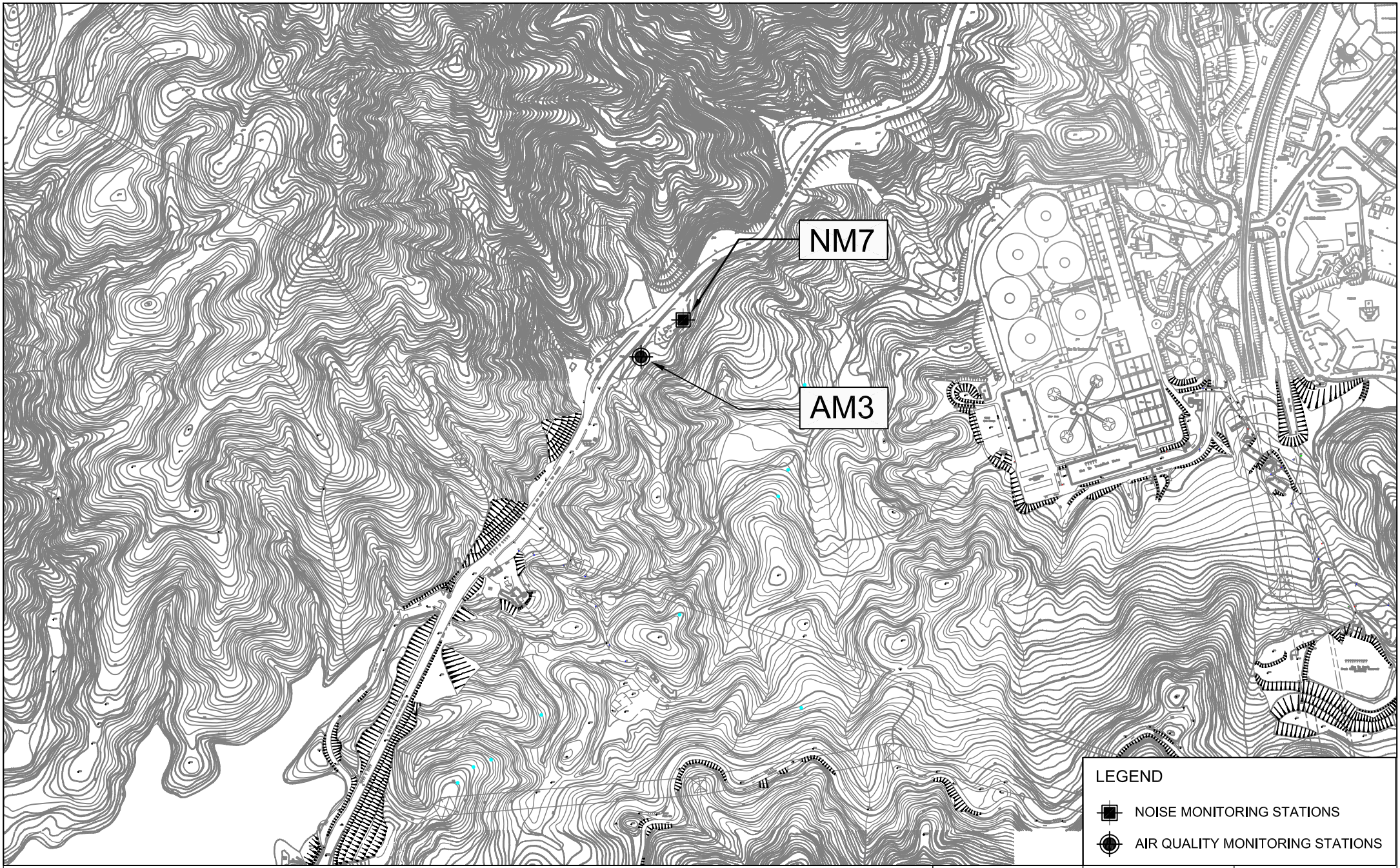
ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
CONTRACT NO. HY/2003/02 - EAGLE'S NEST TUNNEL AND ASSOCIATED WORKS

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. MA3024/18/0016

Station: Po Leung Kuk Choi Kai Yau School
Operator: KH
Date: 25-Mar-06
Next Due Date: 24-May-06
Equipment No.: A-01-18
Serial No. 0723

Ambient Condition			
Temperature, Ta (K)	296.9	Pressure, Pa (mmHg)	762.9

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

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	13.7	3.72	64.50	8.7	2.96
2	10.2	3.21	55.59	6.5	2.56
3	8.8	2.98	51.60	5.4	2.33
4	5.6	2.38	41.07	3.3	1.82
5	3.5	1.88	32.37	1.9	1.38

By Linear Regression of Y on X

Slope , mw = 0.0493 **Intercept, bw :** -0.2064

Correlation coefficient* = 0.9997

*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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.64**

Remarks:

Conducted by: KH Signature: Date: 25 Mar 06

Checked by: Signature: Date: 25/3/06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/18/0017

Station: Po Leung Kuk Choi Kai Yau School
Operator: WK
Date: 24-May-06
Next Due Date: 23-Jul-06
Equipment No.: A-01-18
Serial No. 0723

Ambient Condition			
Temperature, Ta (K)	301.8	Pressure, Pa (mmHg)	761.7

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	13.4	3.64	62.64	8.6	2.92
2	10.1	3.16	54.30	6.5	2.54
3	8.7	2.93	50.34	5.3	2.29
4	5.6	2.35	40.25	3.2	1.78
5	3.4	1.83	31.21	1.8	1.33

By Linear Regression of Y on X

Slope , mw = 0.0509 **Intercept, bw =** -0.2579

Correlation coefficient* = 0.9995

*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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.76**

Remarks:

Conducted by: W.K. Tang Signature: Date: 24 May 06

Checked by: Signature: Date: 24 May 2006

F:\Equipment\Calibration\HVS\A-01-18\20060524

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA2027/A14/0017

Station: Garden Vilia
Operator: WK
Date: 8-Apr-06
Next Due Date: 7-Jun-06
Equipment No.: A-01-14
Serial No. 1354

Ambient Condition			
Temperature, Ta (K)	295.2	Pressure, Pa (mmHg)	762.6

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

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	12.0	3.49	60.50	7.4	2.74
2	9.7	3.13	54.34	5.6	2.38
3	7.3	2.72	47.08	4.1	2.04
4	5.2	2.30	39.67	2.9	1.71
5	3.2	1.80	31.02	2.0	1.42

By Linear Regression of Y on X

Slope , mw = 0.0445 **Intercept, bw =** -0.0118

Correlation coefficient* = 0.9951

*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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ 3.57

Remarks:

Conducted by: W.K. Tang Signature: Kwan Date: 8 April 06

Checked by: HC Signature: Date: 8 April 06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/17/0018

Station: Government Quarter
Operator: KH
Date: 25-Mar-06
Next Due Date: 24-May-06
Equipment No.: A-01-17
Serial No. 3460

Ambient Condition			
Temperature, Ta (K)	296.9	Pressure, Pa (mmHg)	762.9

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

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	$[\Delta H \times (Pa/760) \times (298/Ta)]^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	$[\Delta W \times (Pa/760) \times (298/Ta)]^{1/2}$ **Y-axis**
1	14.0	3.76	65.20	8.6	2.94
2	10.6	3.27	56.68	6.6	2.58
3	8.1	2.86	49.49	4.9	2.22
4	5.6	2.38	41.07	3.3	1.82
5	3.6	1.90	32.84	2.2	1.49

By Linear Regression of Y on X

Slope , mw = 0.0456 **Intercept, bw =** -0.0254

Correlation coefficient* = 0.9995

*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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.72**

Remarks:

Conducted by: KH Signature: Date: 25 Mar 06

Checked by: HL Signature: Date: 25 Mar 06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/17/0019

Station: Government Quarter
Operator: WK
Date: 24-May-06
Next Due Date: 23-Jul-06
Equipment No.: A-01-17
Serial No. 3460

Ambient Condition			
Temperature, Ta (K)	301.8	Pressure, Pa (mmHg)	761.7

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	13.6	3.67	63.12	8.5	2.90
2	10.6	3.24	55.64	6.6	2.56
3	8.0	2.81	48.25	4.8	2.18
4	5.6	2.35	40.25	3.3	1.81
5	3.5	1.86	31.68	2.1	1.44

By Linear Regression of Y on X

Slope , mw = 0.0468 **Intercept, bw =** -0.0599

Correlation coefficient* = 0.9996

*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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.85**

Remarks:

Conducted by: W.K. Tang Signature: Date: 24 May 06

Checked by: Signature: Date: 24 May 06

F:\Equipment\Calibration\HVS\A-01-17\20060524

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/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.
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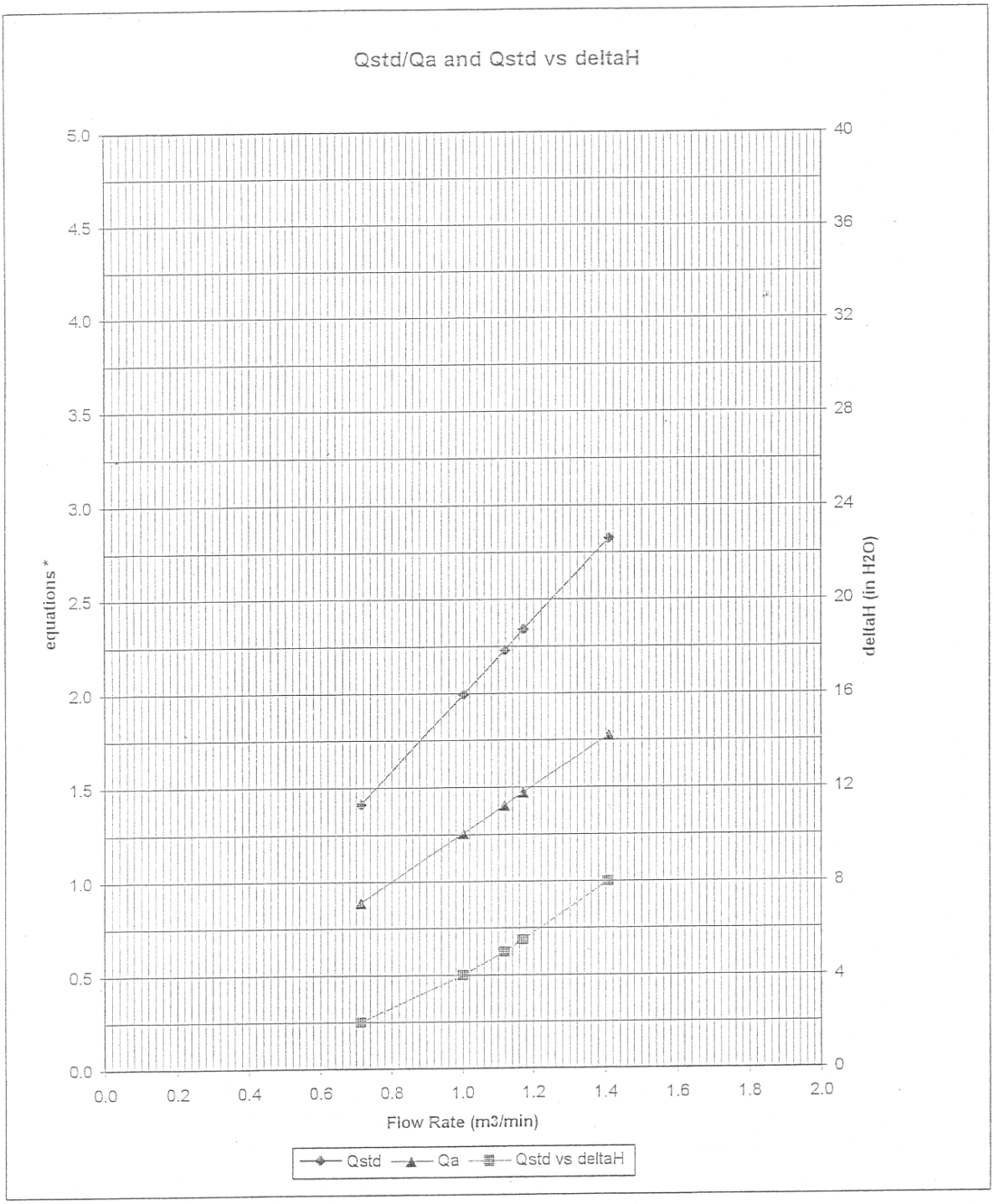
877.263.7610 TOLL FREE
513.467.9009 FAX
WWW.TISCH-ENV.COM

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.

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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**
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/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
Operation Manager

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/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

APPENDIX C
ENVIRONMENTAL MONITORING AND AUDIT SCHEDULE

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

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
30-Apr	**1-May**	2-May	3-May	4-May	**5-May**	6-May
		1 hr TSP 24 hrs TSP	1 hr TSP	1 hr TSP Noise		
7-May	8-May	9-May	10-May	11-May	12-May	13-May
	24 hrs TSP	1 hr TSP	1 hr TSP Noise	1 hr TSP		24 hrs TSP
14-May	15-May	16-May	17-May	18-May	19-May	20-May
		1 hr TSP	1 hr TSP Noise	1 hr TSP	24 hrs TSP	
21-May	22-May	23-May	24-May	25-May	26-May	27-May
		1 hr TSP		1 hr TSP Noise 24 hrs TSP	1 hr TSP	
28-May	29-May	30-May	**31-May**	1-Jun	2-Jun	3-Jun
	1 hr TSP Noise	24 hrs TSP		1 hr TSP	1 hr 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 Lai Chi Kok Viaduct
Tentative Air Quality and Noise Monitoring Schedule for June 2006

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

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

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

APPENDIX D
WIND DATA

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
5-May-2006	12:00	1.3	NNW
5-May-2006	13:00	1.8	N
5-May-2006	14:00	3.6	NNE
5-May-2006	15:00	4	N
5-May-2006	16:00	4	N
5-May-2006	17:00	4	NNE
5-May-2006	18:00	3.1	N
5-May-2006	19:00	3.1	NNE
5-May-2006	20:00	3.1	N
5-May-2006	21:00	3.1	NNE
5-May-2006	22:00	2.7	NNE
5-May-2006	23:00	3.6	NNE
6-May-2006	00:00	3.1	NE
6-May-2006	01:00	4	NNE
6-May-2006	02:00	3.1	NNE
6-May-2006	03:00	1.8	NNE
6-May-2006	04:00	1.8	NE
6-May-2006	05:00	1.8	ENE
6-May-2006	06:00	1.8	NE
6-May-2006	07:00	2.2	NNE
6-May-2006	08:00	2.7	NNE
6-May-2006	09:00	3.1	NNE
6-May-2006	10:00	3.1	NNE
6-May-2006	11:00	4.9	N
6-May-2006	12:00	4.9	NNE
6-May-2006	13:00	4.5	NNE
6-May-2006	14:00	5.4	NNE
6-May-2006	15:00	4.9	NNE
6-May-2006	16:00	4	NE
6-May-2006	17:00	3.6	NE
6-May-2006	18:00	3.1	NE
6-May-2006	19:00	3.6	NNE
6-May-2006	20:00	2.2	NNE
6-May-2006	21:00	1.8	NE
6-May-2006	22:00	1.3	NE
6-May-2006	23:00	0.4	ENE
7-May-2006	00:00	0	---
7-May-2006	01:00	0.9	E
7-May-2006	02:00	1.8	NE
7-May-2006	03:00	0.9	ENE
7-May-2006	04:00	0.4	ENE
7-May-2006	05:00	0.4	ENE
7-May-2006	06:00	0.4	E
7-May-2006	07:00	0	ENE
7-May-2006	08:00	1.3	NNE
7-May-2006	09:00	2.2	NE
7-May-2006	10:00	3.1	NE
7-May-2006	11:00	3.6	NNE
7-May-2006	12:00	3.6	NNE
7-May-2006	13:00	3.6	NE
7-May-2006	14:00	4	NNE
7-May-2006	15:00	2.7	NE
7-May-2006	16:00	2.7	NE
7-May-2006	17:00	2.7	NNE

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
12-May-2006	06:00	3.6	WNW
12-May-2006	07:00	3.1	WNW
12-May-2006	08:00	3.1	W
12-May-2006	09:00	3.1	WNW
12-May-2006	10:00	2.7	WNW
12-May-2006	11:00	2.2	W
12-May-2006	12:00	1.8	W
12-May-2006	13:00	2.2	SSW
12-May-2006	14:00	2.2	W
12-May-2006	15:00	1.3	WNW
12-May-2006	16:00	0.4	SSW
12-May-2006	17:00	0.9	W
12-May-2006	18:00	1.3	ENE
12-May-2006	19:00	0.4	NNE
12-May-2006	20:00	0.4	ENE
12-May-2006	21:00	0	---
12-May-2006	22:00	0	---
12-May-2006	23:00	0	---
13-May-2006	00:00	0	NE
13-May-2006	01:00	0	---
13-May-2006	02:00	0	---
13-May-2006	03:00	0	---
13-May-2006	04:00	0	---
13-May-2006	05:00	0	---
13-May-2006	06:00	0	---
13-May-2006	07:00	0	---
13-May-2006	08:00	0	NE
13-May-2006	09:00	0.4	WNW
13-May-2006	10:00	1.3	WNW
13-May-2006	11:00	1.8	W
13-May-2006	12:00	3.1	W
13-May-2006	13:00	5.8	WNW
13-May-2006	14:00	4.9	WSW
13-May-2006	15:00	4.5	W
13-May-2006	16:00	4	WSW
13-May-2006	17:00	3.6	SW
13-May-2006	18:00	4.5	WSW
13-May-2006	19:00	4.9	WSW
13-May-2006	20:00	4.5	WSW
13-May-2006	21:00	4	WSW
13-May-2006	22:00	3.6	WSW
13-May-2006	23:00	4	WSW
14-May-2006	00:00	3.1	W
14-May-2006	01:00	3.1	WSW
14-May-2006	02:00	3.1	WSW
14-May-2006	03:00	3.1	WSW
14-May-2006	04:00	2.7	WSW
14-May-2006	05:00	2.2	WSW
14-May-2006	06:00	3.1	WNW
14-May-2006	07:00	3.6	WNW
14-May-2006	08:00	3.1	WSW
14-May-2006	09:00	4	WSW
14-May-2006	10:00	3.1	WSW
14-May-2006	11:00	4.5	WNW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
14-May-2006	12:00	4.9	WSW
14-May-2006	13:00	7.6	WNW
14-May-2006	14:00	6.7	WNW
14-May-2006	15:00	4.9	W
14-May-2006	16:00	4.5	WSW
14-May-2006	17:00	4.5	W
14-May-2006	18:00	3.6	WSW
14-May-2006	19:00	1.3	SW
14-May-2006	20:00	0.9	S
14-May-2006	21:00	0.4	WNW
14-May-2006	22:00	0.4	S
14-May-2006	23:00	0	---
15-May-2006	00:00	0.4	WNW
15-May-2006	01:00	0.4	WNW
15-May-2006	02:00	1.8	SW
15-May-2006	03:00	2.2	SW
15-May-2006	04:00	2.7	SW
15-May-2006	05:00	3.1	SW
15-May-2006	06:00	4	WSW
15-May-2006	07:00	3.6	W
15-May-2006	08:00	4	WNW
15-May-2006	09:00	4	WNW
15-May-2006	10:00	3.6	WNW
15-May-2006	11:00	4.5	WNW
15-May-2006	12:00	4.5	W
15-May-2006	13:00	4	WNW
15-May-2006	14:00	3.6	WNW
15-May-2006	15:00	2.7	WSW
15-May-2006	16:00	3.1	WSW
15-May-2006	17:00	4.5	W
15-May-2006	18:00	3.6	W
15-May-2006	19:00	2.7	WNW
15-May-2006	20:00	2.2	W
15-May-2006	21:00	2.2	SW
15-May-2006	22:00	3.6	SW
15-May-2006	23:00	3.1	SW
16-May-2006	00:00	3.1	SW
16-May-2006	01:00	3.6	WSW
16-May-2006	02:00	3.6	SW
16-May-2006	03:00	3.1	WSW
16-May-2006	04:00	2.7	SW
16-May-2006	05:00	4.5	WSW
16-May-2006	06:00	4.9	WSW
16-May-2006	07:00	4.5	WSW
16-May-2006	08:00	4	WSW
16-May-2006	09:00	3.6	WSW
16-May-2006	10:00	3.6	WSW
16-May-2006	11:00	3.6	W
16-May-2006	12:00	5.4	WSW
16-May-2006	13:00	5.4	WSW
16-May-2006	14:00	4.5	WSW
16-May-2006	15:00	4	WSW
16-May-2006	16:00	4	WNW
16-May-2006	17:00	4.9	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
16-May-2006	18:00	6.3	WNW
16-May-2006	19:00	4.5	WNW
16-May-2006	20:00	5.8	WNW
16-May-2006	21:00	5.8	WNW
16-May-2006	22:00	5.8	WNW
16-May-2006	23:00	5.4	WSW
17-May-2006	00:00	4.5	WSW
17-May-2006	01:00	5.4	WSW
17-May-2006	02:00	4.9	WSW
17-May-2006	03:00	5.8	WSW
17-May-2006	04:00	6.3	WSW
17-May-2006	05:00	5.8	WSW
17-May-2006	06:00	5.8	WSW
17-May-2006	07:00	6.3	WSW
17-May-2006	08:00	6.3	WSW
17-May-2006	09:00	5.8	W
17-May-2006	10:00	5.8	WSW
17-May-2006	11:00	4.9	W
17-May-2006	12:00	4.5	W
17-May-2006	13:00	4.5	WNW
17-May-2006	14:00	4.5	W
17-May-2006	15:00	4.5	W
17-May-2006	16:00	4	WSW
17-May-2006	17:00	4	W
17-May-2006	18:00	4.5	WNW
17-May-2006	19:00	5.4	SSW
17-May-2006	20:00	5.4	WNW
17-May-2006	21:00	4.5	W
17-May-2006	22:00	2.7	N
17-May-2006	23:00	2.2	E
18-May-2006	00:00	2.2	N
18-May-2006	01:00	2.7	E
18-May-2006	02:00	1.3	N
18-May-2006	03:00	2.2	NE
18-May-2006	04:00	2.7	ENE
18-May-2006	05:00	1.3	NNE
18-May-2006	06:00	1.3	ESE
18-May-2006	07:00	1.3	ESE
18-May-2006	08:00	1.8	NW
18-May-2006	09:00	1.8	W
18-May-2006	10:00	2.7	W
18-May-2006	11:00	2.7	WNW
18-May-2006	12:00	2.7	WSW
18-May-2006	13:00	2.2	W
18-May-2006	14:00	2.2	W
18-May-2006	15:00	1.8	W
18-May-2006	16:00	1.8	W
18-May-2006	17:00	1.3	WSW
18-May-2006	18:00	0.9	WNW
18-May-2006	19:00	0.9	SSW
18-May-2006	20:00	0.4	SSW
18-May-2006	21:00	0	SSW
18-May-2006	22:00	0	SSW
18-May-2006	23:00	0	---

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

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

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
25-May-2006	18:00	2.2	NE
25-May-2006	19:00	1.8	NE
25-May-2006	20:00	1.3	NE
25-May-2006	21:00	0.9	NNE
25-May-2006	22:00	0.9	E
25-May-2006	23:00	0.9	E
26-May-2006	00:00	1.3	E
26-May-2006	01:00	0.9	NE
26-May-2006	02:00	0.9	NE
26-May-2006	03:00	0.9	NE
26-May-2006	04:00	1.8	NE
26-May-2006	05:00	1.8	NE
26-May-2006	06:00	2.2	NE
26-May-2006	07:00	2.2	NE
26-May-2006	08:00	2.7	NE
26-May-2006	09:00	3.1	NE
26-May-2006	10:00	3.1	NNE
26-May-2006	11:00	4.5	NNE
26-May-2006	12:00	4.9	NNE
26-May-2006	13:00	5.4	NNE
26-May-2006	14:00	5.4	NNE
26-May-2006	15:00	5.4	NNE
26-May-2006	16:00	4.9	NNE
26-May-2006	17:00	4.5	NE
26-May-2006	18:00	3.6	NE
26-May-2006	19:00	2.7	NE
26-May-2006	20:00	1.3	NE
26-May-2006	21:00	0.4	ENE
26-May-2006	22:00	0.4	E
26-May-2006	23:00	0.4	ENE
27-May-2006	00:00	0.9	NE
27-May-2006	01:00	1.3	NE
27-May-2006	02:00	1.3	NNE
27-May-2006	03:00	2.2	NNE
27-May-2006	04:00	1.8	NNE
27-May-2006	05:00	3.1	NNE
27-May-2006	06:00	2.2	NE
27-May-2006	07:00	2.7	NE
27-May-2006	08:00	2.7	NE
27-May-2006	09:00	3.1	NE
27-May-2006	10:00	3.6	NE
27-May-2006	11:00	4	NNE
27-May-2006	12:00	4	NNE
27-May-2006	13:00	3.6	NNE
27-May-2006	14:00	3.1	NNE
27-May-2006	15:00	2.2	NE
27-May-2006	16:00	2.2	ENE
27-May-2006	17:00	2.2	ENE
27-May-2006	18:00	0.4	E
27-May-2006	19:00	0	E
27-May-2006	20:00	0	E
27-May-2006	21:00	0	ENE
27-May-2006	22:00	0	W
27-May-2006	23:00	0	W

Appendix D - Wind Data

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

Appendix D - Wind Data

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

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. (μg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
2-May-06	Cloudy	2.8458	2.8574	1.20	1.20	4169.9	4170.9	302.1	759.3	0.0116	1.20	72.0	1.0	161.1
3-May-06	Cloudy	2.8793	2.8816	1.21	1.21	4194.9	4195.9	297.3	761.4	0.0023	1.21	72.6	1.0	31.7
4-May-06	Cloudy	2.8687	2.8737	1.21	1.21	4195.9	4196.9	298.5	762.1	0.0050	1.21	72.5	1.0	69.0
9-May-06	Sunny	2.8440	2.8464	1.20	1.20	4221.0	4221.9	302.9	759.5	0.0024	1.20	68.3	0.9	35.1
10-May-06	Sunny	2.8591	2.8637	1.20	1.20	4221.9	4222.9	302.7	760.3	0.0046	1.20	72.0	1.0	63.9
11-May-06	Sunny	2.8671	2.8712	1.20	1.20	4222.9	4223.9	304.3	758.3	0.0041	1.20	71.7	1.0	57.2
16-May-06	Rainy	2.8651	2.8720	1.21	1.21	4247.9	4248.9	296.8	757.7	0.0069	1.21	72.5	1.0	95.2
17-May-06	Rainy	2.8782	2.8821	1.21	1.21	4248.9	4249.9	295.2	753.4	0.0039	1.21	72.5	1.0	53.8
18-May-06	Sunny	2.8602	2.8648	1.21	1.21	4249.9	4250.9	296.6	757.1	0.0046	1.21	72.5	1.0	63.5
23-May-06	Cloudy	2.8885	2.8927	1.20	1.20	4279.5	4280.5	298.7	757.2	0.0042	1.20	72.3	1.0	58.1
25-May-06	Cloudy	2.8845	2.8890	1.22	1.22	4280.5	4281.5	300.7	759.5	0.0045	1.22	73.3	1.0	61.4
26-May-06	Sunny	2.8625	2.8678	1.22	1.22	4305.5	4306.5	302.2	760.2	0.0053	1.22	72.3	1.0	73.3
29-May-06	Cloudy	2.8799	2.8854	1.23	1.23	4306.5	4307.5	296.8	757.7	0.0055	1.23	73.7	1.0	74.7
													Min	31.7
													Max	161.1
													Average	69.1

Location AM 3 - Garden Villa

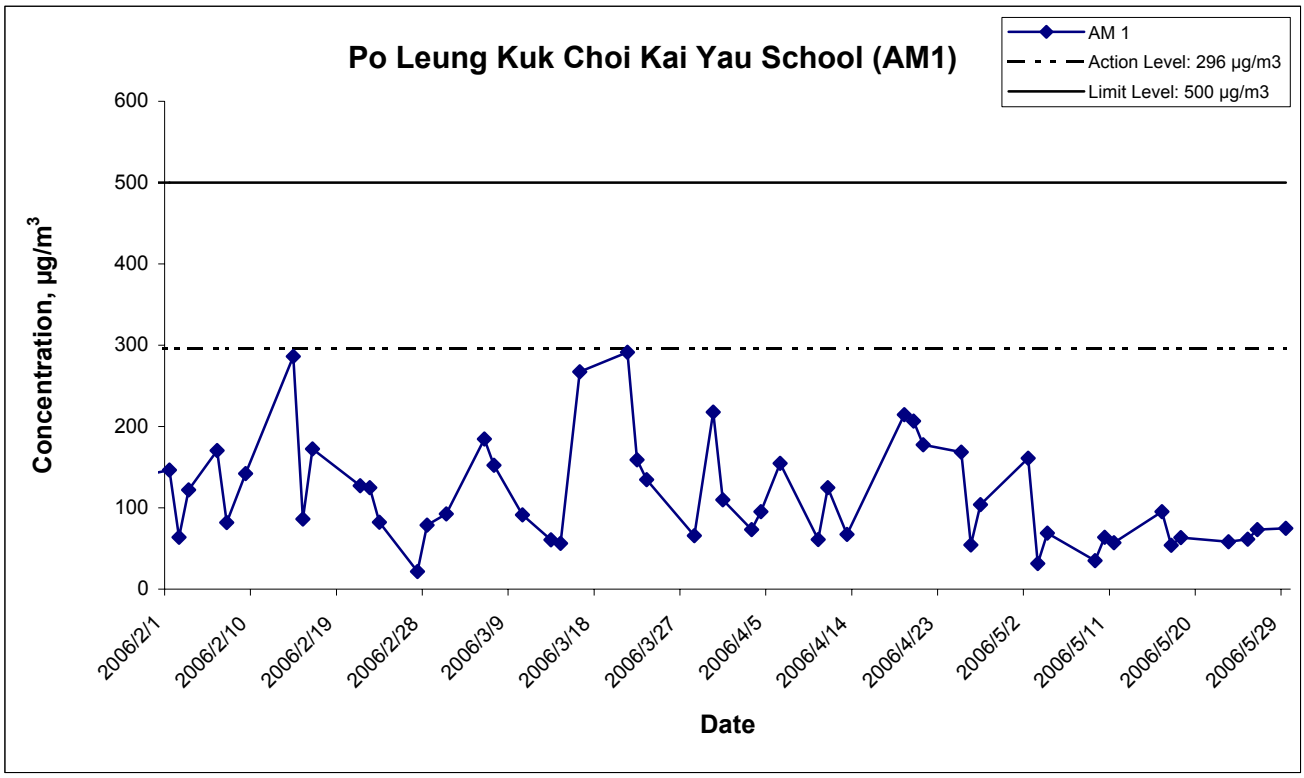
Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. (μg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
2-May-06	Sunny	2.8631	2.8734	1.21	1.21	4516.1	4517.1	302.1	759.3	0.0103	1.21	72.3	1.0	142.4
3-May-06	Cloudy	2.8628	2.8658	1.22	1.22	4541.1	4542.1	296.8	761.4	0.0030	1.22	73.1	1.0	41.1
4-May-06	Cloudy	2.8529	2.8598	1.21	1.21	4542.1	4543.1	298.5	762.1	0.0069	1.21	72.9	1.0	94.7
9-May-06	Sunny	2.8388	2.8433	1.21	1.21	4567.1	4568.1	302.4	759.9	0.0045	1.21	72.3	1.0	62.2
10-May-06	Sunny	2.8703	2.8747	1.21	1.21	4568.1	4569.1	302.7	760.3	0.0044	1.21	72.3	1.0	60.9
11-May-06	Cloudy	2.8612	2.8783	1.21	1.21	4569.1	4570.1	302.0	761.6	0.0171	1.21	72.5	1.0	236.0
16-May-06	Cloudy	2.8633	2.8736	1.22	1.22	4594.1	4595.1	296.8	757.7	0.0103	1.22	72.9	1.0	141.3
17-May-06	Rainy	2.8598	2.8692	1.21	1.21	4595.1	4596.1	295.2	753.2	0.0094	1.21	72.9	1.0	129.0
18-May-06	Sunny	2.8504	2.8568	1.21	1.21	4596.1	4597.1	296.6	757.1	0.0064	1.21	72.9	1.0	87.8
23-May-06	Cloudy	2.8833	2.8858	1.21	1.21	4621.1	4622.1	298.7	757.2	0.0025	1.21	72.6	1.0	34.4
25-May-06	Sunny	2.8873	2.8935	1.21	1.21	4622.1	4623.1	300.7	759.5	0.0062	1.21	72.5	1.0	85.5
26-May-06	Sunny	2.8512	2.8605	1.21	1.21	4647.1	4648.1	302.2	760.2	0.0093	1.21	72.4	1.0	128.5
29-May-06	Cloudy	2.8802	2.8860	1.20	1.20	4648.1	4649.1	296.8	757.7	0.0058	1.20	72.9	1.0	79.6
													Min	34.4
													Max	236.0
													Average	101.8

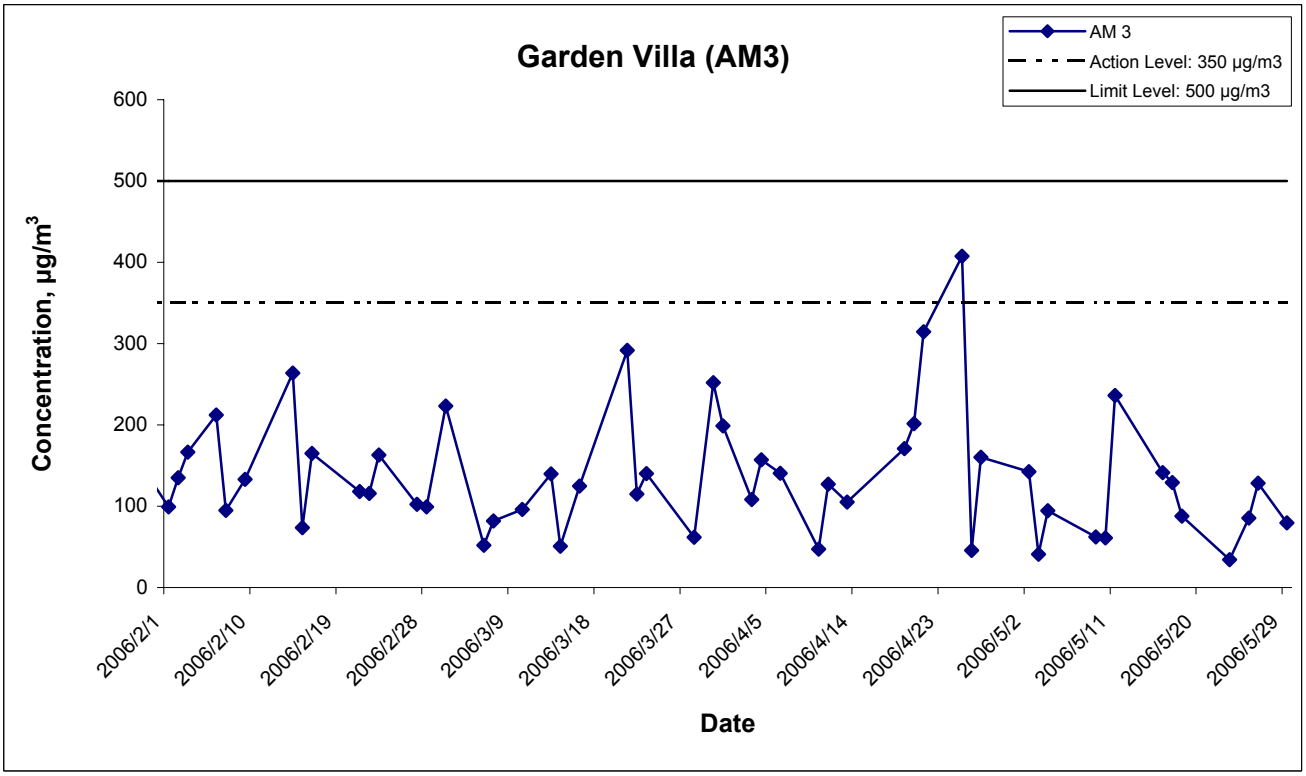
Appendix E - 1-hour TSP Monitoring Results

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							
2-May-06	Cloudy	2.8588	2.8665	1.20	1.20	4128.5	4129.5	302.1	759.3	0.0077	1.20	72.1	1.0	106.9
3-May-06	Cloudy	2.8386	2.8403	1.21	1.21	4153.5	4154.5	297.3	761.4	0.0017	1.21	72.7	1.0	23.4
4-May-06	Cloudy	2.8591	2.8647	1.21	1.21	4154.5	4155.5	298.5	762.1	0.0056	1.21	72.6	1.0	77.1
9-May-06	Sunny	2.8386	2.8410	1.20	1.20	4179.5	4180.5	302.9	759.5	0.0024	1.20	72.0	1.0	33.3
10-May-06	Sunny	2.8492	2.8535	1.20	1.20	4180.5	4181.5	302.7	760.3	0.0043	1.20	72.0	1.0	59.7
11-May-06	Sunny	2.8722	2.8783	1.20	1.20	4181.5	4182.5	304.3	758.3	0.0061	1.20	71.8	1.0	85.0
16-May-06	Rainy	2.8548	2.8622	1.21	1.21	4206.5	4207.5	296.8	757.7	0.0074	1.21	72.6	1.0	101.9
17-May-06	Rainy	2.8724	2.8810	1.21	1.21	4207.5	4208.5	295.2	753.2	0.0086	1.21	72.6	1.0	118.5
18-May-06	Sunny	2.8609	2.8653	1.21	1.21	4208.5	4209.5	296.6	757.1	0.0044	1.21	72.6	1.0	60.6
23-May-06	Cloudy	2.8438	2.8519	1.21	1.21	4233.5	4234.5	298.7	757.2	0.0081	1.21	72.4	1.0	111.9
25-May-06	Cloudy	2.8613	2.8657	1.22	1.22	4234.5	4235.5	300.7	759.5	0.0044	1.22	73.5	1.0	59.9
26-May-06	Sunny	2.8555	2.8616	1.22	1.22	4259.5	4260.5	302.2	760.2	0.0061	1.22	73.3	1.0	83.2
29-May-06	Cloudy	2.8867	2.8913	1.23	1.23	4260.5	4261.5	296.8	757.7	0.0046	1.23	73.9	1.0	62.3
													Min	23.4
													Max	118.5
													Average	75.7

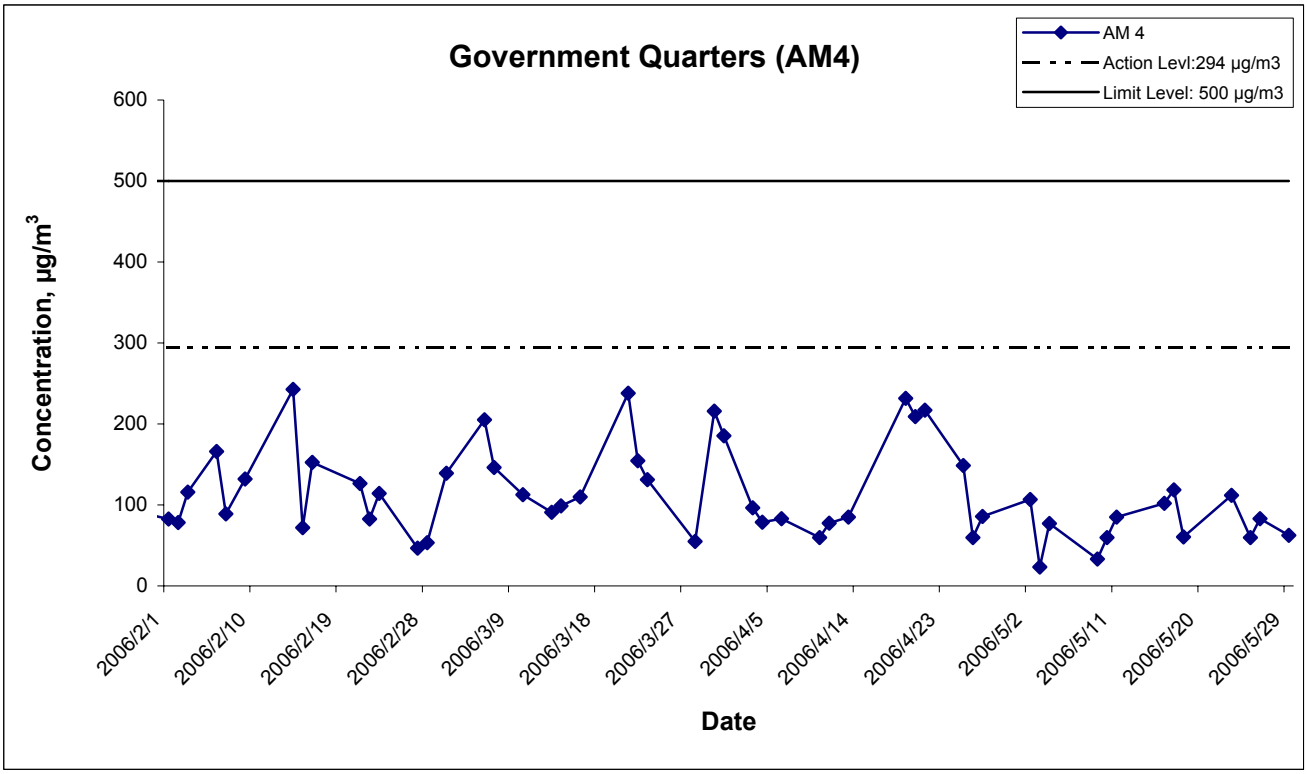
1-hr TSP Levels





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: May 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: May 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. (μg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
2-May-06	Rainy	2.8782	2.9152	1.20	1.20	4170.9	4194.9	302.3	759.1	0.0370	1.20	1726.9	24.0	21.4
8-May-06	Sunny	2.8576	2.9066	1.20	1.20	4196.9	4220.9	302.9	760.7	0.0490	1.20	1727.0	24.0	28.4
13-May-06	Sunny	2.8747	3.0059	1.20	1.20	4223.9	4247.9	301.1	762.1	0.1312	1.20	1733.1	24.0	75.7
19-May-06	Cloudy	2.8616	2.9070	1.21	1.21	4250.9	4274.9	298.6	759.3	0.0454	1.21	1736.7	24.0	26.1
25-May-06	Sunny	2.8499	2.8867	1.22	1.22	4281.5	4305.5	301.2	759.2	0.0368	1.22	1758.2	24.0	20.9
30-May-06	Cloudy	2.8547	2.8934	1.23	1.23	4307.5	4331.5	296.8	758.2	0.0387	1.23	1768.5	24.0	21.9
													Min	20.9
													Max	75.7
													Average	32.4

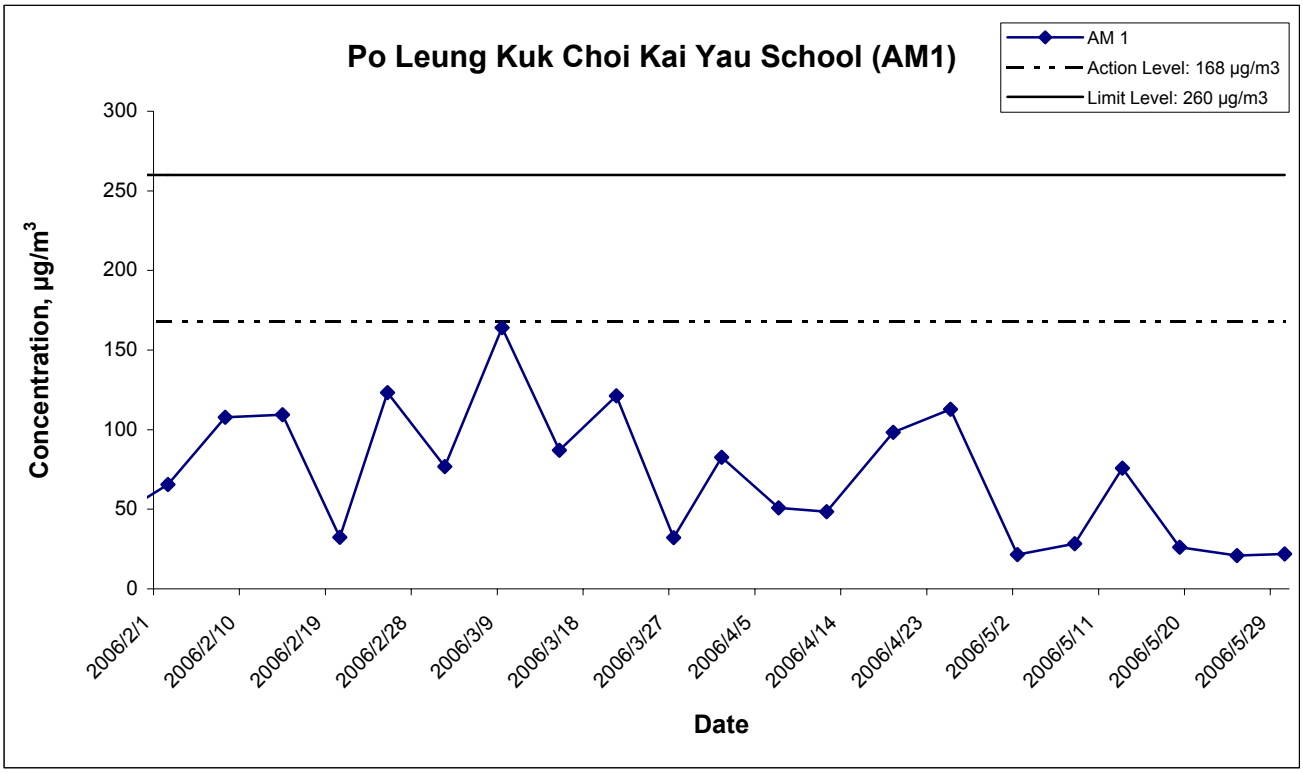
Location AM 3 - Garden Villa

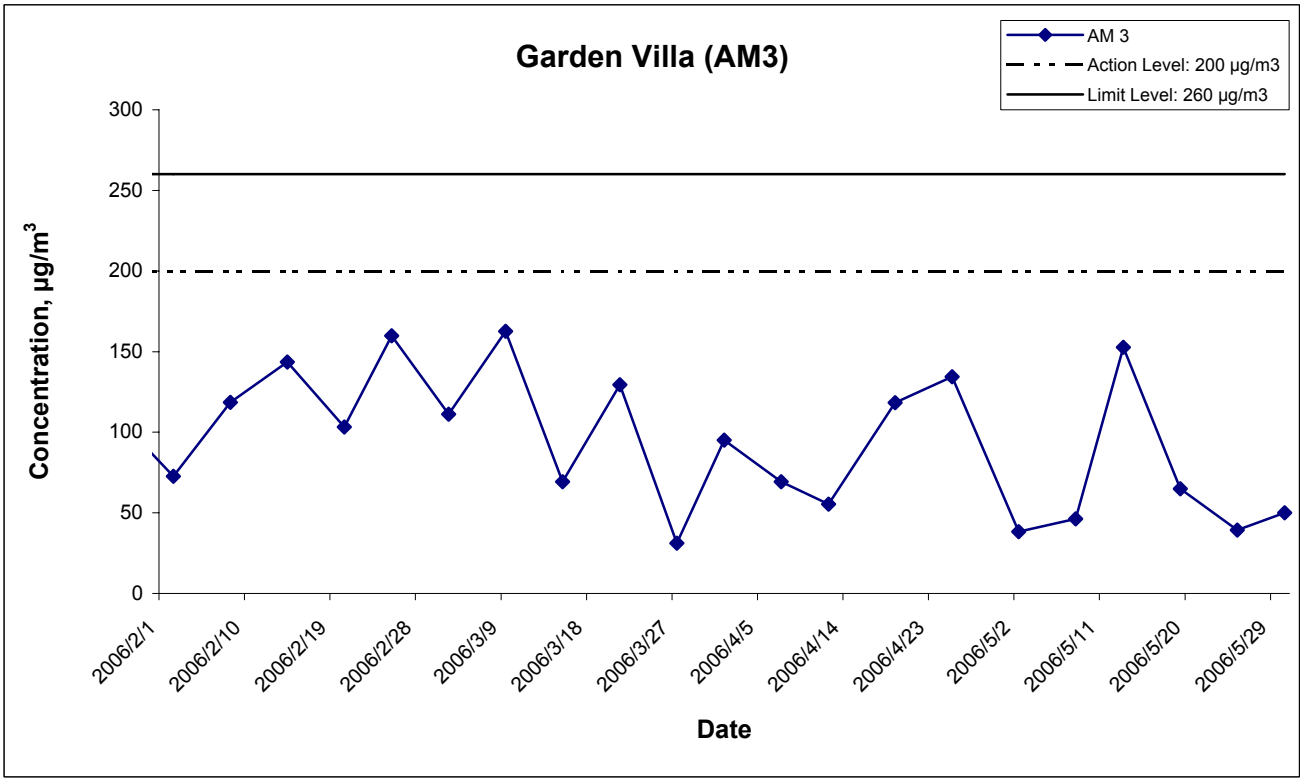
Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. (μg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
2-May-06	Rainy	2.8586	2.9252	1.21	1.21	4517.1	4541.1	302.1	759.3	0.0666	1.21	1735.7	24.0	38.4
8-May-06	Sunny	2.8708	2.9510	1.21	1.21	4543.1	4567.1	302.9	760.7	0.0802	1.21	1735.1	24.0	46.2
13-May-06	Sunny	2.8715	3.1388	1.22	1.22	4570.1	4594.1	297.2	760.6	0.2673	1.22	1751.4	24.0	152.6
19-May-06	Sunny	2.8592	2.9724	1.21	1.21	4597.1	4621.1	298.6	759.3	0.1132	1.21	1745.8	24.0	64.8
25-May-06	Sunny	2.8079	2.8764	1.21	1.21	4623.1	4647.1	301.2	759.2	0.0685	1.21	1738.4	24.0	39.4
30-May-06	Cloudy	2.8579	2.9455	1.22	1.22	4649.1	4673.1	296.6	758.4	0.0876	1.22	1750.6	24.0	50.0
													Min	38.4
													Max	152.6
													Average	65.2

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							
2-May-06	Rainy	2.8542	2.8988	1.20	1.20	4129.5	4153.5	302.3	759.1	0.0446	1.20	1728.5	24.0	25.8
8-May-06	Sunny	2.8679	2.9261	1.20	1.20	4155.5	4179.5	302.9	760.3	0.0582	1.20	1728.1	24.0	33.7
13-May-06	Sunny	2.8711	3.0433	1.20	1.20	4182.5	4206.5	301.1	762.1	0.1722	1.20	1735.2	24.0	99.2
19-May-06	Cloudy	2.8573	2.9328	1.21	1.21	4209.5	4233.5	298.6	759.3	0.0755	1.21	1739.2	24.0	43.4
25-May-06	Sunny	2.8488	2.9015	1.22	1.22	4235.5	4259.5	301.2	759.2	0.0527	1.22	1761.9	24.0	29.9
30-May-06	Cloudy	2.8480	2.8875	1.23	1.23	4261.5	4285.5	296.8	758.2	0.0395	1.23	1773.2	24.0	22.3
													Min	22.3
													Max	99.2
													Average	42.4

24-hr TSP Levels

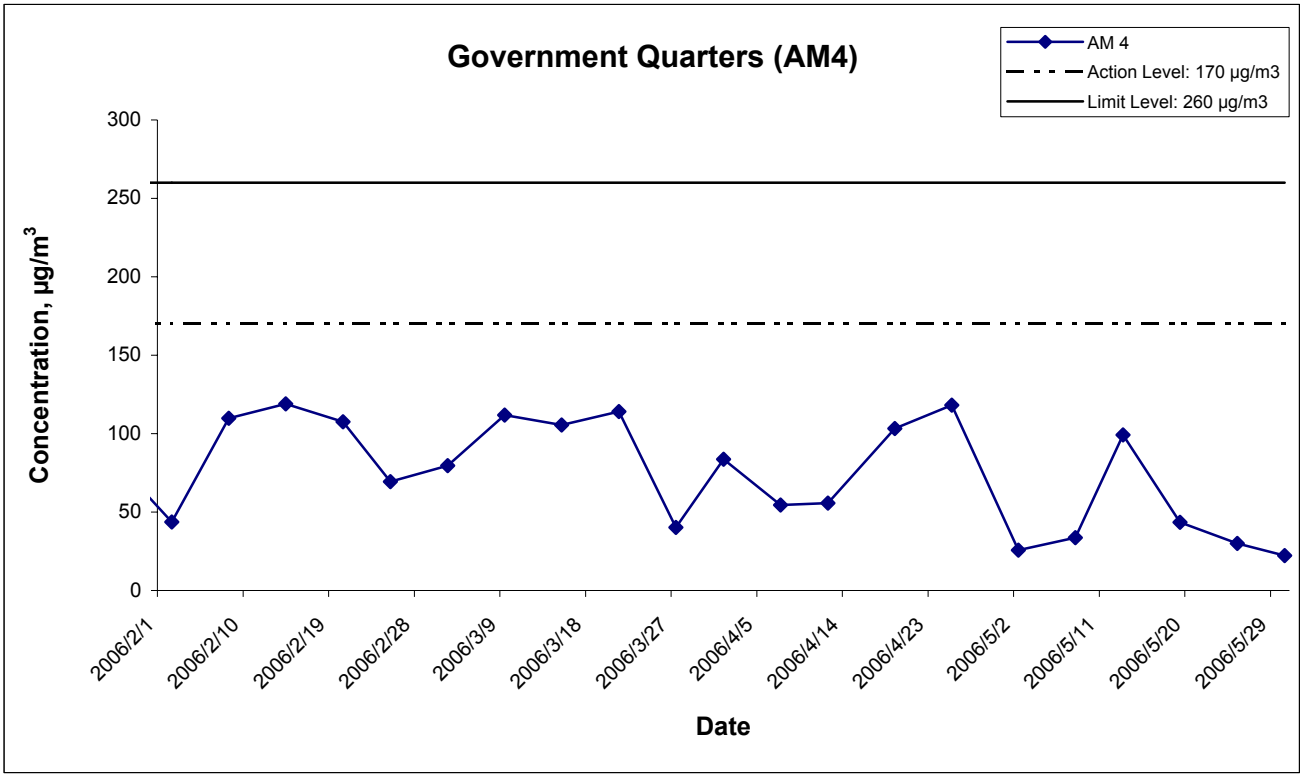




Title	Scale	Project No.
Route 8 (previously known as Route 9) between Cheung Sha Wan & Sha Tin Contract HY/2003/02 - Eagle's Nest Tunnel and Associated Works Graphical Presentation of 24-hour TSP Impact Monitoring Results	N.T.S	MA3024
	Date: May 06	Appendix: F

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 May 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}	
4-May-06	09:15	Cloudy	63.7	69.0	63.5	-
10-May-06	10:00	Fine	64.3	68.0	60.5	
17-May-06	09:00	Cloudy	63.2	65.0	59.5	
25-May-06	09:50	Sunny	64.4	69.0	60.0	
29-May-06	10:00	Cloudy	63.2	67.0	60.5	

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}	
4-May-06	11:15	Cloudy	78.6	80.5	70.0	77.1	73.3	The major noise source was identified as traffic noise from Tai Po Road.
10-May-06	09:06	Fine	77.8	80.5	71.0		69.5	
17-May-06	10:30	Cloudy	74.8	76.5	69.5		74.8, Measured ≤ Baseline	
25-May-06	13:15	Sunny	77.2	80.0	70.0		60.8	
29-May-06	16:15	Cloudy	78.1	80.0	70.5		71.2	

Location NM6 - Government Quarters						
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Remarks
			L_{eq}	L_{10}	L_{90}	
4-May-06	10:05	Cloudy	65.6	68.0	60.5	-
10-May-06	10:45	Fine	64.4	67.0	59.5	
17-May-06	09:45	Cloudy	65.2	67.5	61.0	
25-May-06	10:35	Sunny	65.7	69.0	60.5	
29-May-06	11:00	Cloudy	65.0	68.5	61.0	

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}	
4-May-06	16:05	Cloudy	66.4	68.5	61.5	59.0	65.5	-
10-May-06	10:50	Cloudy	67.9	70.0	62.5		67.3	
17-May-06	09:00	Cloudy	67.4	70.5	61.5		66.7	
25-May-06	16:00	Sunny	68.1	70.5	62.0		67.5	
29-May-06	13:00	Cloudy	69.7	71.0	67.5		69.3	

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}	
4-May-06	19:10	Cloudy	73.2	77.0	69.5	73.6	75.8	73.6, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	19:15		73.3	77.0	69.5				
	19:20		74.1	77.5	70.0				
10-May-06	19:00	Cloudy	74.7	79.5	69.0	74.7		74.7, Measured ≤ Baseline	
	19:05		74.5	79.5	69.0				
	19:10		74.8	79.5	69.5				
25-May-06	19:05	Fine	74.0	79.0	70.5	73.9		73.9, Measured ≤ Baseline	
	19:10		74.1	79.0	70.5				
	19:15		73.7	79.0	70.0				
29-May-06	19:15	Cloudy	74.1	77.5	69.5	74.1		74.1, Measured ≤ Baseline	
	19:20		74.2	77.5	69.5				
	19:25		74.1	77.5	69.5				

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}	
4-May-06	19:45	Cloudy	55.2	58.0	51.0	55	56.1	55.0, Measured ≤ Baseline	-
	19:50		55.0	58.0	51.0				
	19:55		54.7	57.5	50.5				
10-May-06	19:45	Cloudy	55.0	59.0	51.0	55.2		55.2, Measured ≤ Baseline	
	19:50		55.2	59.0	51.0				
	19:55		55.3	59.5	51.0				
25-May-06	19:40	Fine	54.8	59.0	50.0	54.8		54.8, Measured ≤ Baseline	
	19:45		54.7	59.0	50.0				
	19:50		54.1	58.0	50.0				
29-May-06	20:00	Cloudy	54.9	58.0	50.0	55.1		55.1, Measured ≤ Baseline	
	20:05		55.2	58.0	50.5				
	20:10		55.3	58.0	50.5				

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}	
4-May-06	19:05	Cloudy	59.4	61.5	57.0	59.1	58.3	51.4	The major noise source was identified as traffic noise from Tai Po Road.
	19:10		59.6	61.5	57.0				
	19:15		58.3	61.0	57.0				
10-May-06	19:35	Cloudy	57.4	60.0	54.5	57.4		57.4, Measured ≤ Baseline	
	19:40		57.0	59.5	54.0				
	19:45		57.9	59.5	54.0				
25-May-06	19:00	Fine	58.5	62.0	53.0	58.6		46.8	
	19:05		58.6	62.0	53.5				
	19:10		58.8	62.0	53.5				
29-May-06	19:15	Cloudy	57.4	60.5	52.5	57.5		57.5, Measured ≤ Baseline	
	19:20		57.5	60.0	52.0				
	19:25		57.6	60.5	53.0				

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}	
4-May-06	23:05	Cloudy	73.1	78.0	69.0	73.2	74.3	73.2, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	23:10		73.1	78.0	69.0				
	23:15		73.5	78.5	69.5				
10-May-06	23:00	Cloudy	72.1	78.0	69.0	72.0		72.0, Measured ≤ Baseline	
	23:05		72.0	78.0	69.0				
	23:10		72.0	78.0	69.0				
25-May-06	23:02	Fine	73.0	77.0	70.0	72.8		72.8, Measured ≤ Baseline	
	23:07		72.9	77.0	70.0				
	23:12		72.6	76.5	70.0				
29-May-06	23:00	Cloudy	72.8	77.0	69.5	72.3		72.3, Measured ≤ Baseline	
	23:05		72.1	76.0	69.0				
	23:10		72.1	76.0	69.0				

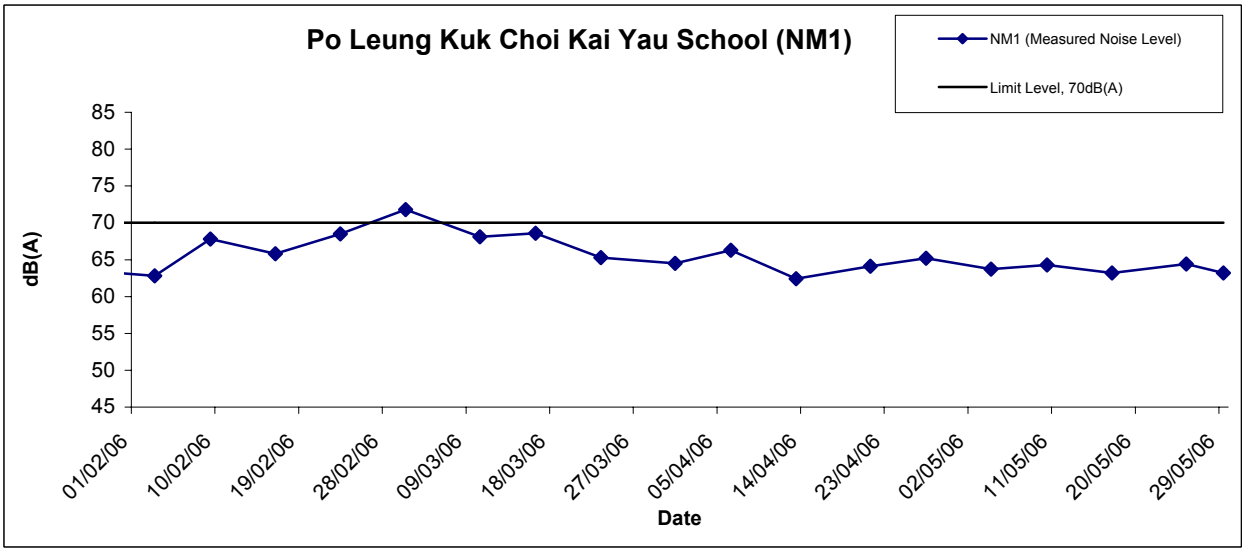
Location NM6 - Government Quarters									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
4-May-06	23:35	Cloudy	51.7	55.0	47.5	51.4	52.8	51.4, Measured ≤ Baseline	-
	23:40		51.3	55.0	47.0				
	23:45		51.2	55.0	47.0				
10-May-06	23:25	Cloudy	51.2	55.5	48.0	51.1		51.1, Measured ≤ Baseline	
	23:30		51.2	55.5	48.0				
	23:35		50.8	55.0	47.5				
25-May-06	23:25	Fine	52.0	55.0	50.0	51.9		51.9, Measured ≤ Baseline	
	23:30		51.7	55.0	49.5				
	23:35		52.0	55.0	50.0				
29-May-06	23:20	Cloudy	51.6	56.0	49.0	51.7		51.7, Measured ≤ Baseline	
	23:25		51.5	56.0	49.0				
	23:30		51.9	56.5	49.5				

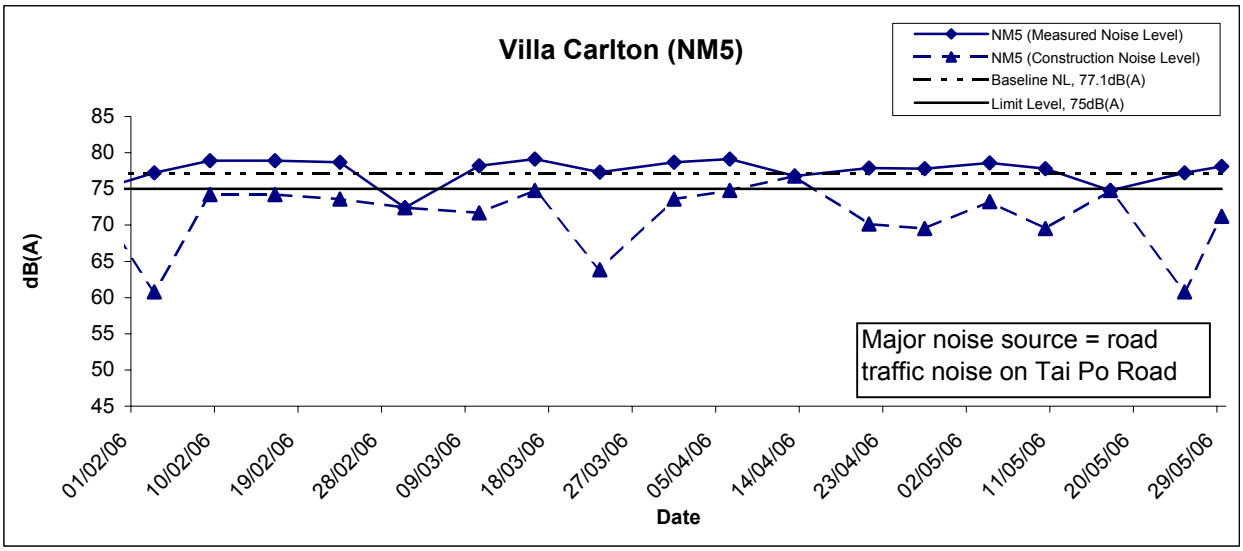
Location NM7 - Garden Villa									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
4-May-06	23:55	Cloudy	55.3	60.0	51.0	55.5	56.5	55.5, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	00:00		55.4	60.0	51.0				
	00:05		55.9	60.5	52.0				
10-May-06	23:55	Cloudy	55.8	59.5	51.0	56.0		56.0, Measured ≤ Baseline	
	00:00		55.9	59.5	51.0				
	00:05		56.3	59.5	51.5				
25-May-06	23:48	Fine	55.3	59.0	52.0	55.7		55.7, Measured ≤ Baseline	
	23:53		55.9	59.5	52.5				
	23:58		55.8	59.5	52.5				
29-May-06	23:45	Cloudy	56.0	59.5	51.0	56.1		56.1, Measured ≤ Baseline	
	23:50		56.2	59.5	51.0				
	23:55		56.2	59.5	51.0				

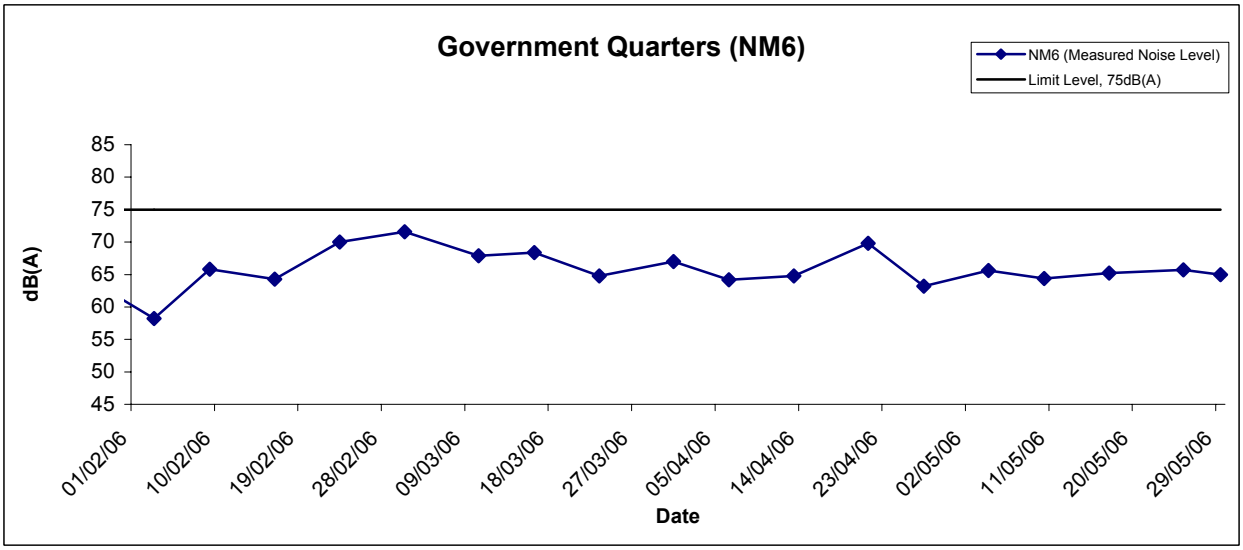
Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

*Bolded value indicated limit level exceedance

Noise Levels



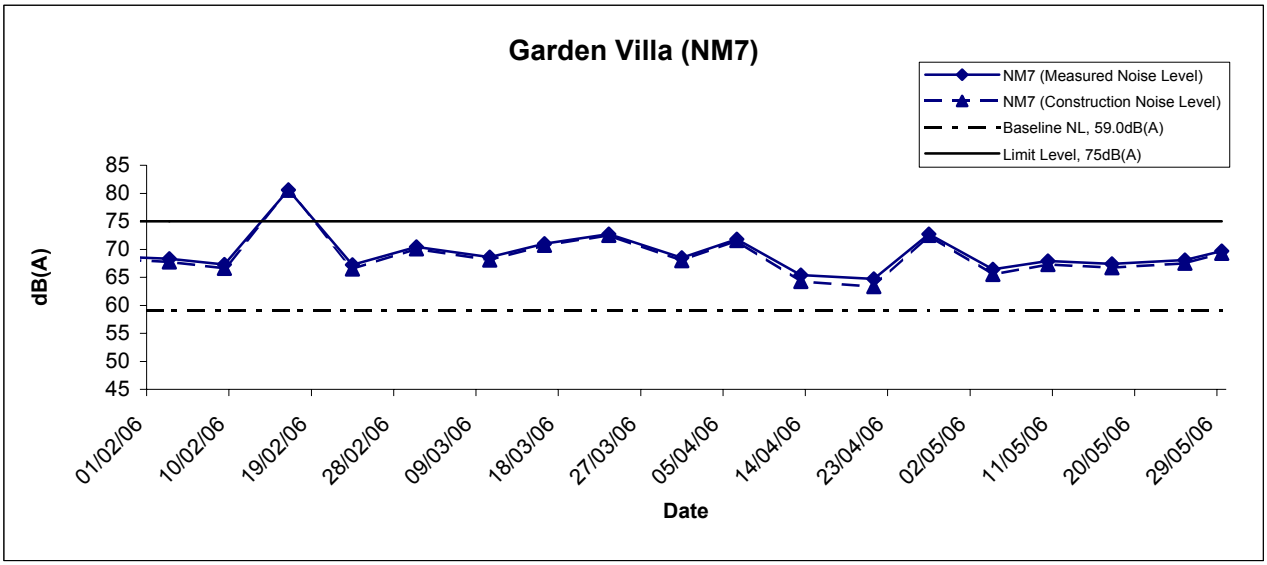




* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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 Date: May 06	Project No.: MA3024 Appendix: G	CINOTECH

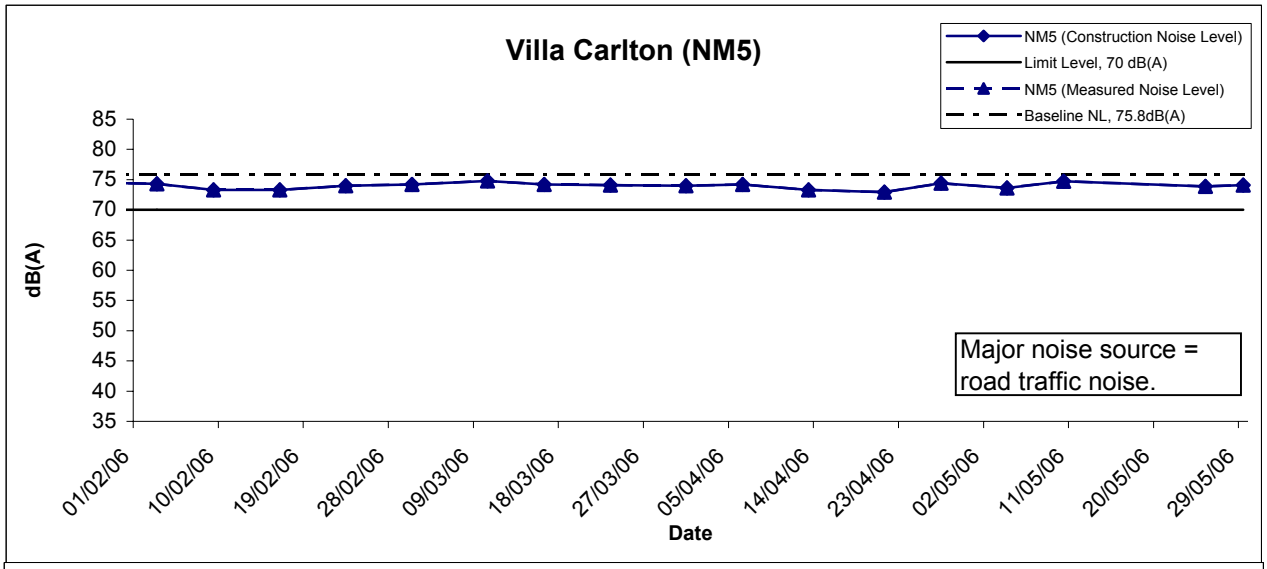
Noise Levels

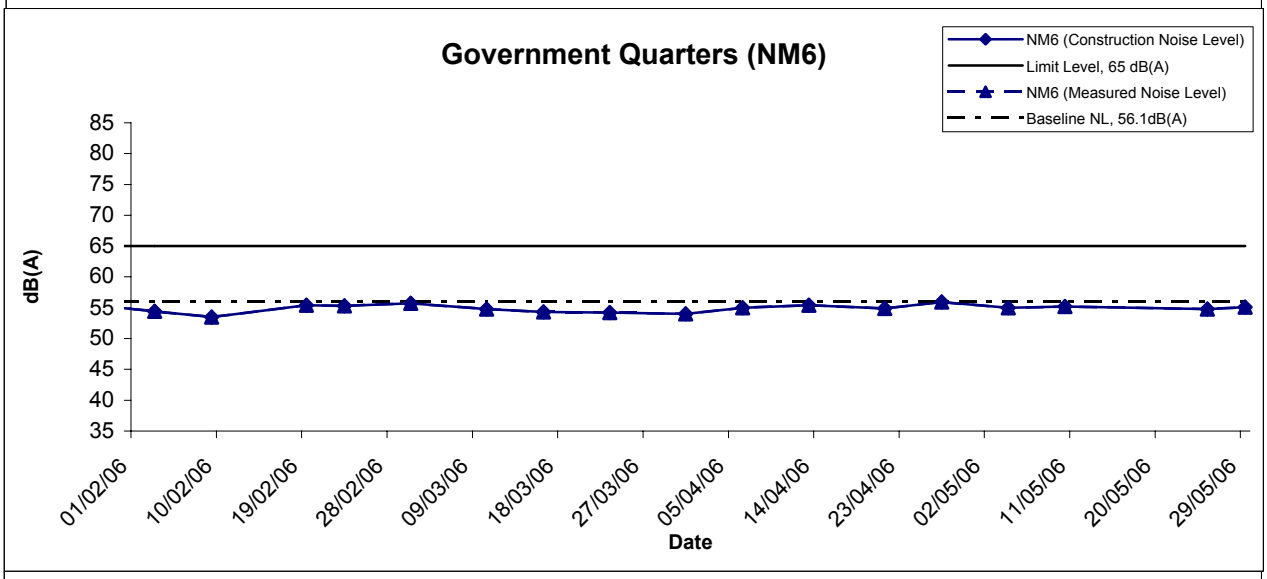


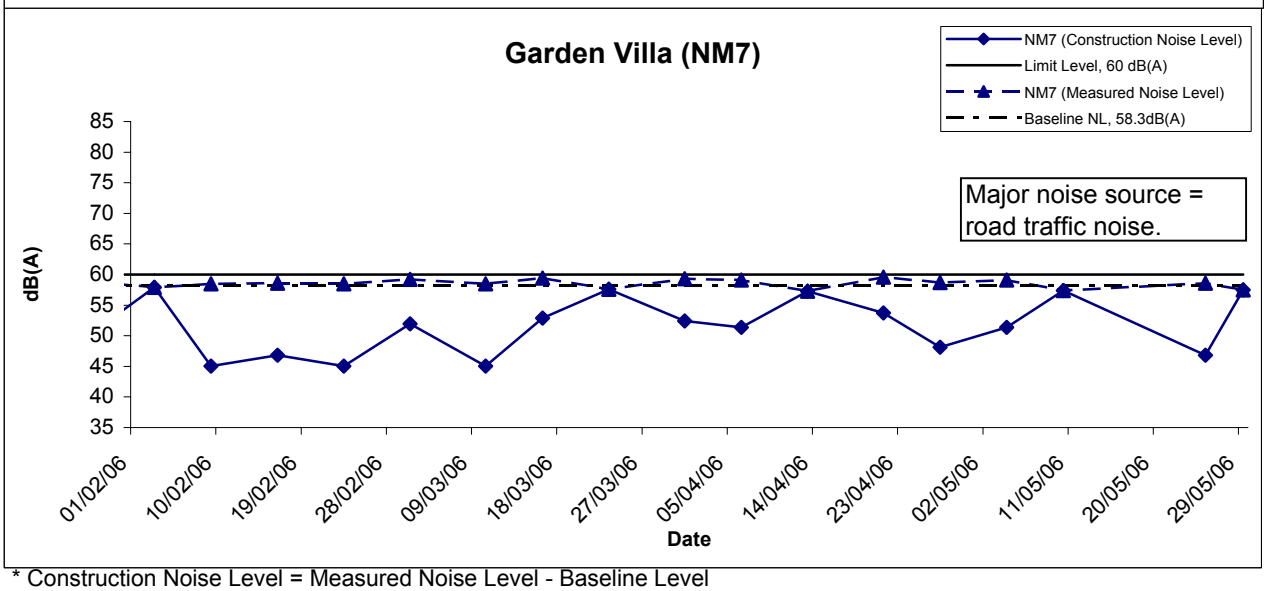
* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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: May 06	Project No.: MA3024 Appendix: G	CINOTECH

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



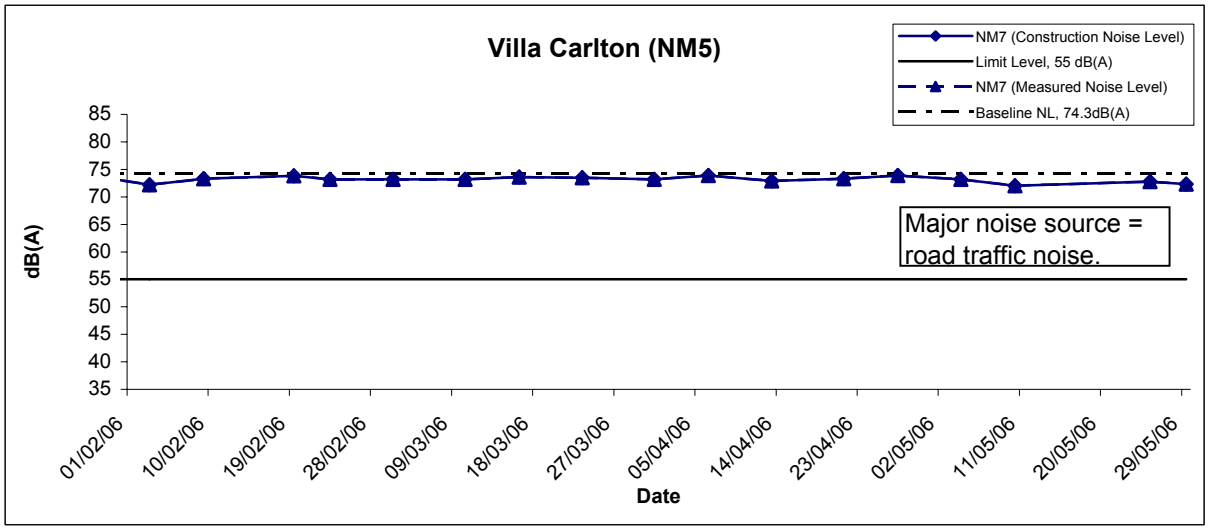


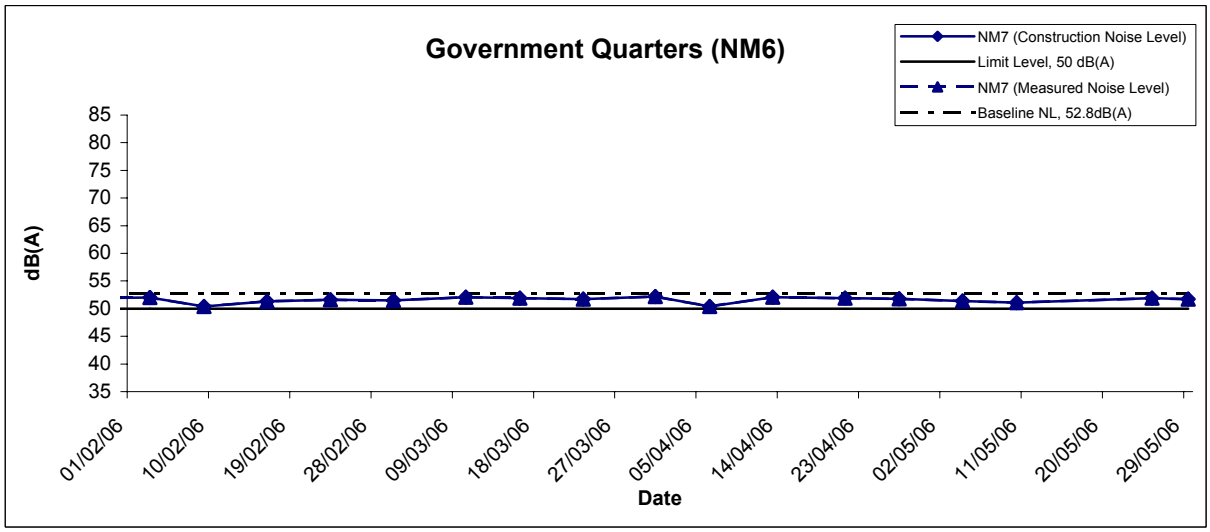


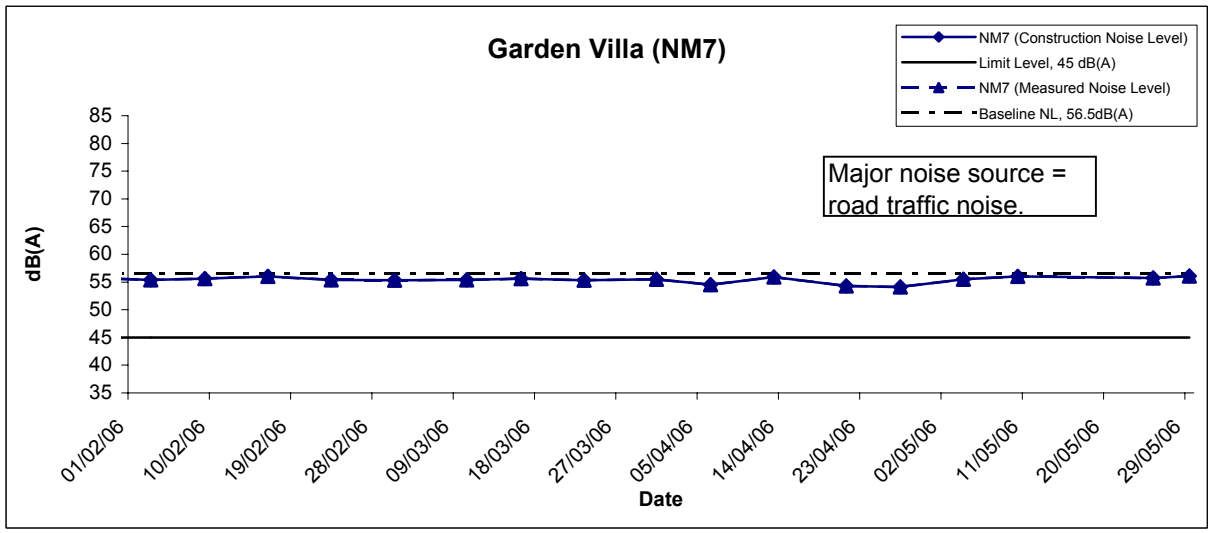
* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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: May 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: May 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	60503-ENT
Date	03 May 2006 (Wed)
Time	0930 – 1145

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

Ref. No.	Remarks/Observations	Related Item No.
60503E-01	*A. Water Quality* • Rain water washing sand and soil along the temporary drain directly down to the open channel was observed at step channel at Mui Kong Tsuen. Sand bag or other measures should be used as filter before discharge.	B7i&B9
60503E-03	• Yellow surface runoff directly discharge to public drain was observed at toll plaza (wet set) and portion D6 at site boundary	B7i&B9
	B. Air Quality • No environmental deficiency was identified during the site inspection.	
	C. Noise • No environmental deficiency was identified during the site inspection.	
60503E-02	*D. Waste / Chemical Management* Rain water collected at drip tray were almost full at site BV3 and toll plaza. The contractor was reminded to clean it up more frequent in heavy rainy day.	E17
	E. Permit / Licenses • No environmental deficiency was identified during the site inspection.	
	F. Others • The deficiencies identified during last audit (ref. 60426-ENT) on 26 April 2006 were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Tommy Ho		3 May 2006
Checked by	Attle Hui		3 May 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60508-ENT
Date	08 May 2006 (Mon)
Time	1400 – 1645

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

Ref. No.	Remarks/Observations	Related Item No.
60508E-01	***A. Water Quality*** • It was observed that the gabion wall at step channel near Mui Kong Tsuen was damaged by heavy rainfall (Red/Yellow Rainstorm warming signal). Besides, silt and sand was settled on the channel. The Contractor was reminded to repair /maintain the gabion wall and to clear the sediment under a safe condition. ***B. Air Quality*** • No environmental deficiency was identified during the site inspection. ***C. Noise*** • No environmental deficiency was identified during the site inspection.	B7i&B9
60508E-02	***D. Waste / Chemical Management*** • A tank of admixture (chemical) was found placed on a bore ground at the Ventilation Adit. The Contractor was reminded to place the chemical container on a drip tray to avoid leakage and spillage. ***E. Permit / Licenses*** • No environmental deficiency was identified during the site inspection. ***F. Others*** • The deficiencies identified during last audit (ref. 60503-ENT) on 3 May 2006 were rectified by the Contractor. • Last audit (ref no. 60503E-01 (E17)) on 3 May 2006, this item will be checked on next site inspection.	E3i&E3ii

	Name	Signature	Date
Recorded by	Jesse Yuen		8 May 2006
Checked by	Kenneth Lam		8 May 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60517-ENT
Date	17 May 2006 (Wed)
Time	0915 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality • No environmental deficiency was identified during the site inspection. *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 deficiencies identified during last audit (ref. 60509-ENT) on 9 May 2006 were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Tommy Ho		17 May 2006
Checked by	Attle Hui		17 May 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60524-ENT
Date	24 May 2006 (Wed)
Time	0920 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality • No environmental deficiency was identified during the site inspection..	
	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	
60524E-01	• A diesel oil drum without drip tray was observed at bare ground at between slope BVS1 and slope BVS2. Drip tray should be provided to avoid spillage.	E3i
60524E-02	• Some admixture was leaked from chemical drum to the bare ground at south portal building and ventilation building. Drip tray should be provided and the leaked admixture should be cleaned up.	E3i
	E. Permit / Licenses • No environmental deficiency was identified during the site inspection.	
	F. Others • No deficiencies identified during last audit.	

	Name	Signature	Date
Recorded by	Tommy Ho		24 May 2006
Checked by	Attle Hui		24 May 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60529-ENT
Date	29 May 2006 (Wed)
Time	1330 – 1600

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

Ref. No.	Remarks/Observations	Related Item No.
60529E-01 60529E-02	*A. Water Quality* • The contractor was reminded to repair the broken tarpaulin for covering the explored slope at BVS4 • Yellow surface runoff directly discharged to public drain was observed at site at Portion D4. De-silting measures should be provided before discharge. *B. Air Quality* • No environmental deficiency was identified during the site inspection. *C. Noise* • No environmental deficiency was identified during the site inspection. *D. Waste / Chemical Management* • No environmental deficiency was identified during the site inspection. *E. Permit / Licenses* • No environmental deficiency was identified during the site inspection. *F. Others* • The environmental deficiency identified during last audit (ref. 60524-ENT) 24 May 2006, was rectified / improved by the Contractor.	B11 B7i

	Name	Signature	Date
Recorded by	Tommy Ho		29 May 2006
Checked by	Attle Hui		29 May 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

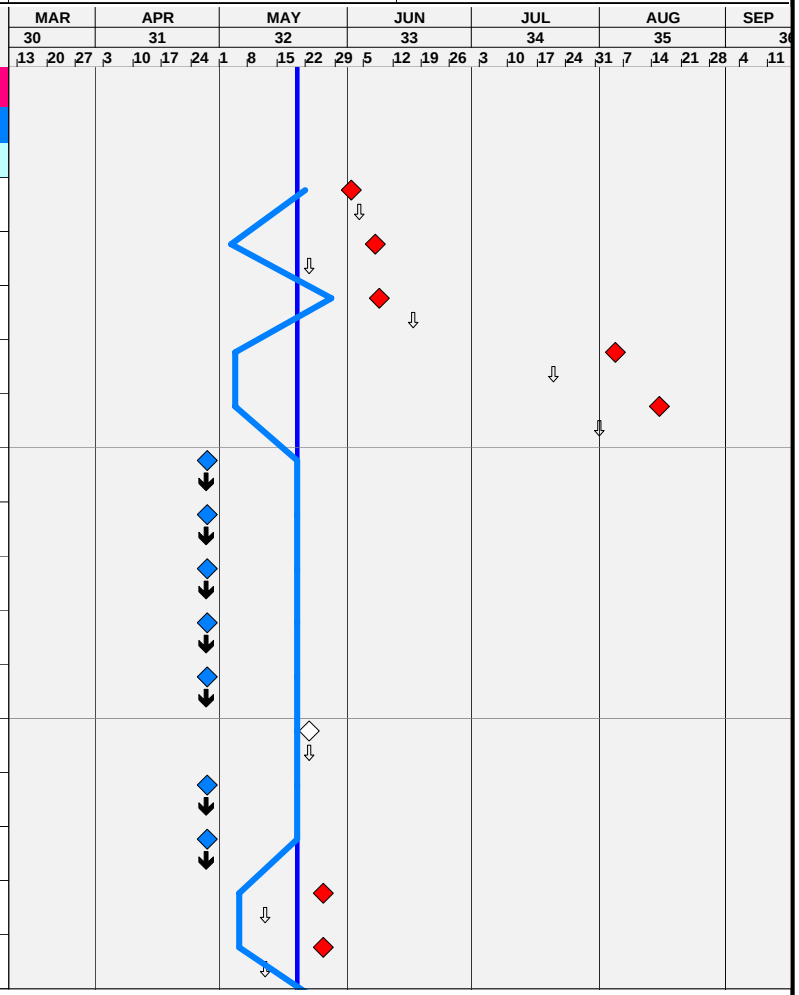
APPENDIX L
CONSTRUCTION PROGRAMME

Data Date 20MAY06
Run Date 25MAY06 18:35

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									
Stages of the Works									
KD04A	KD04 Proposed - Noise Barrier Founds (17Apr06)	0		01JUN06	0	0	0	-45	2
KD05B	KD-5B TCSS Access NB SPB (04Apr06)	0		07JUN06	0	0	0	-64	-16
KD05D	KD-5D TCSS Access SB SPB (24Apr06)	0		08JUN06	0	0	0	-45	8
KD05C1	KD-5C TCSS Access Toll Plaza East(30Jun06)	0		04AUG06	0	0	0	-35	-15
KD05A2	KD-05A Proposed - TCSS Access BV West (15May06)	0		15AUG06	0	0	0	-92	-15
KD06NA2	TCSS Acc to NB Tun Soffit Ch2000-1700 (27Apr06)	0		27APR06A	100	100	0		0
KD06NB1	TCSS Acc Dct,Cont SwtRm SthPtl-1700 (1May06)	0		27APR06A	100	100	0		0
KD06NB2	TCSS Acc Dct,Cont SwtRm Ch2000-1700 (15May06)	0		27APR06A	100	100	0		0
KD06NE	TCSS Access outside CblT NthASthPtl (1May06)	0		27APR06A	100	100	0		0
KD06SA1	TCSS Acc SB Tun Soffit SthPtl-1700 (11May06)	0		27APR06A	100	100	0		0
KD06SA2	TCSS Acc SB Tun Soffit Ch2000-1700 (31May06)	0		22MAY06	0	0	0	551	0
KD06SB1	TCSS Acc to SB Tun Soffit SthPtl-1700 (11May06)	0		27APR06A	100	100	0		0
KD06SB2	TCSS Acc to SB Tun Soffit Ch2000-1700 (31May06)	0		27APR06A	100	100	0		0
KD06SC1	TCSS Acc SB Tun XPS CblT Ch1700-SthPtl (31May06)	0		25MAY06	0	0	0	-14	-14
KD06SC2	TCSS Acc SB Tun XPS CblT Ch2000-~1700 (11May06)	0		25MAY06	0	0	0	-14	-14



Leighton - Kumagai Joint Venture

LEIGHTON - KUMUGAI JV

R8 - EAGLES'S NEST TUNNEL

CONTRACTORS TARGET PROGRAMME REV.1

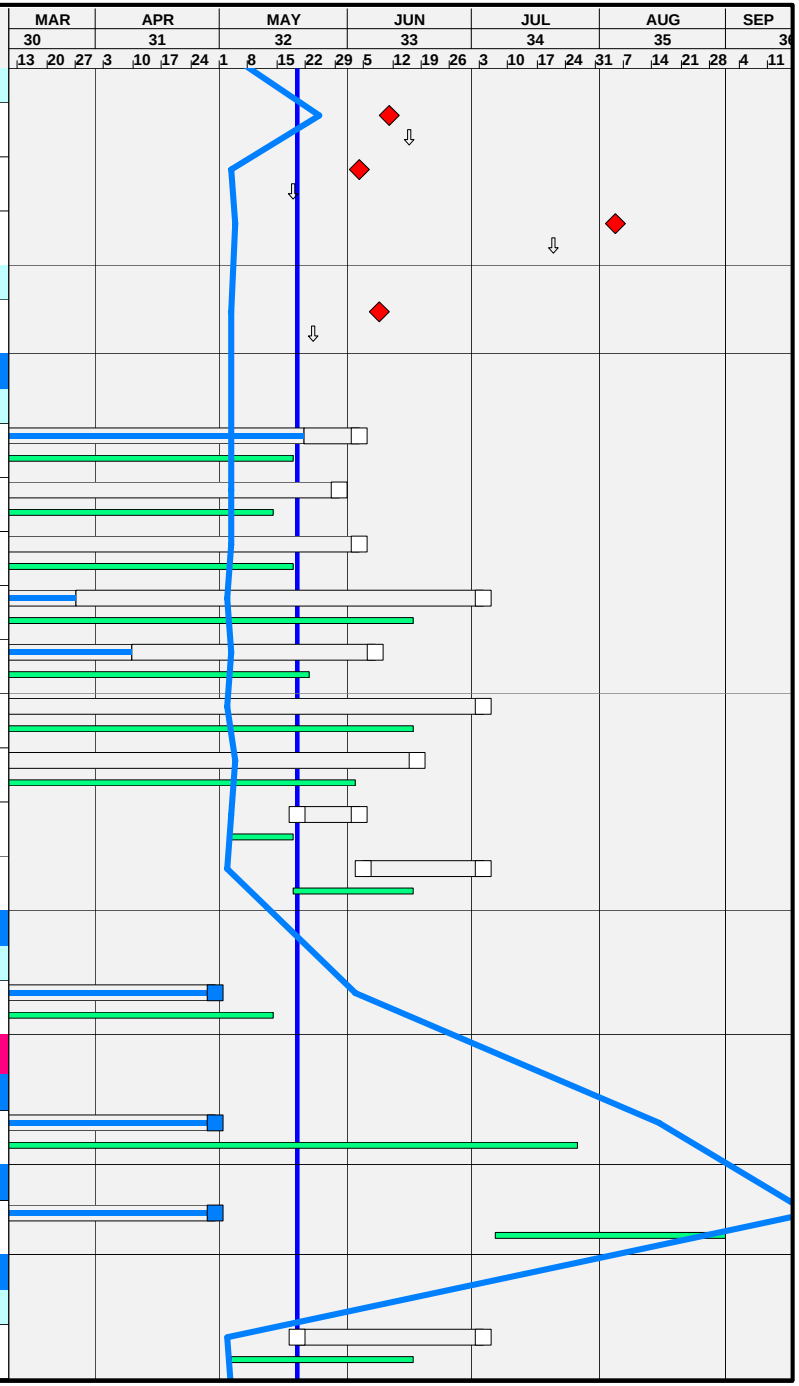
Proj. Name: W19E
Layout: 3 MONTHS ROLLING PROGRAMME
Filter: 3 MONTH ROLLING PROGRAMME
Current Proj: W19E
Target 1 Proj: BE02

Sheet 1 of 56

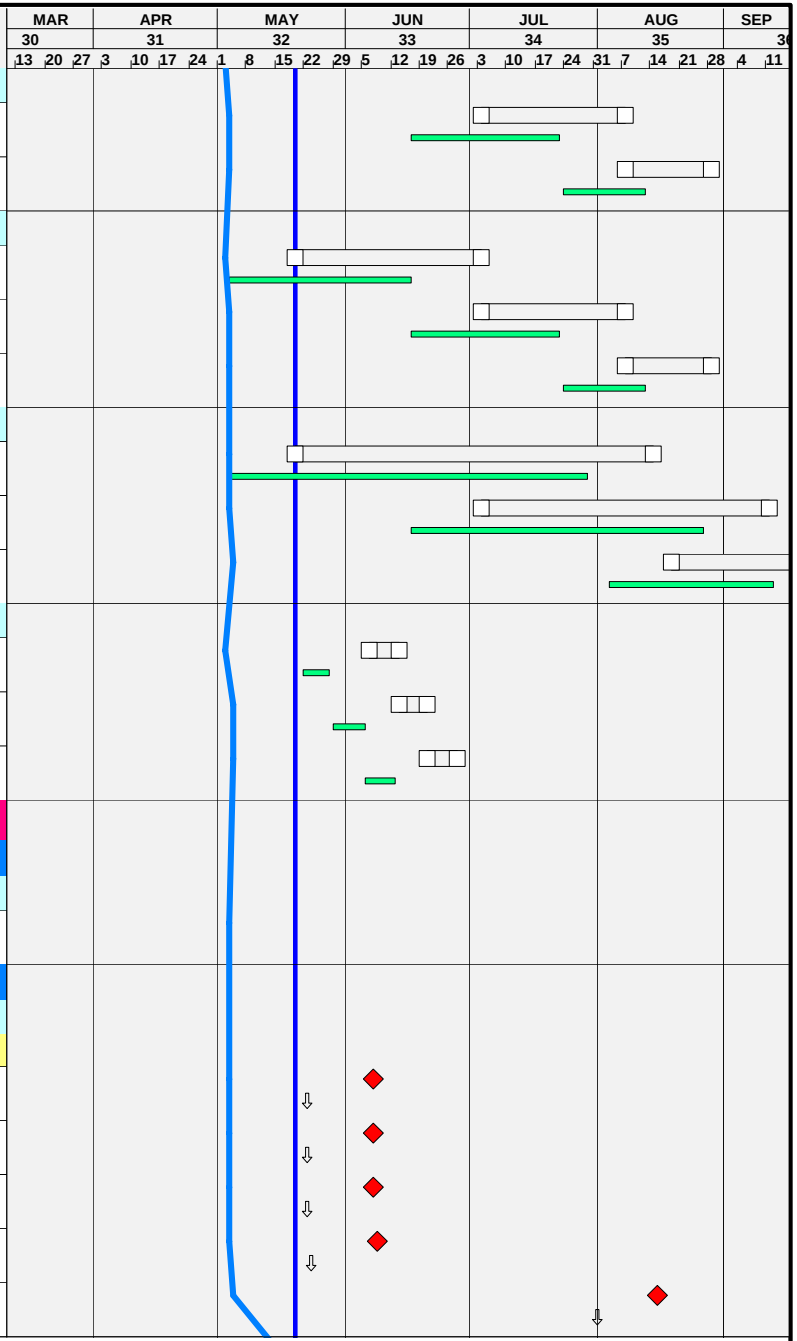
LKJV/ENT/DWP/B

Date	Revision	Checked	Approved
20MAY0	Programme update May	GW	RB

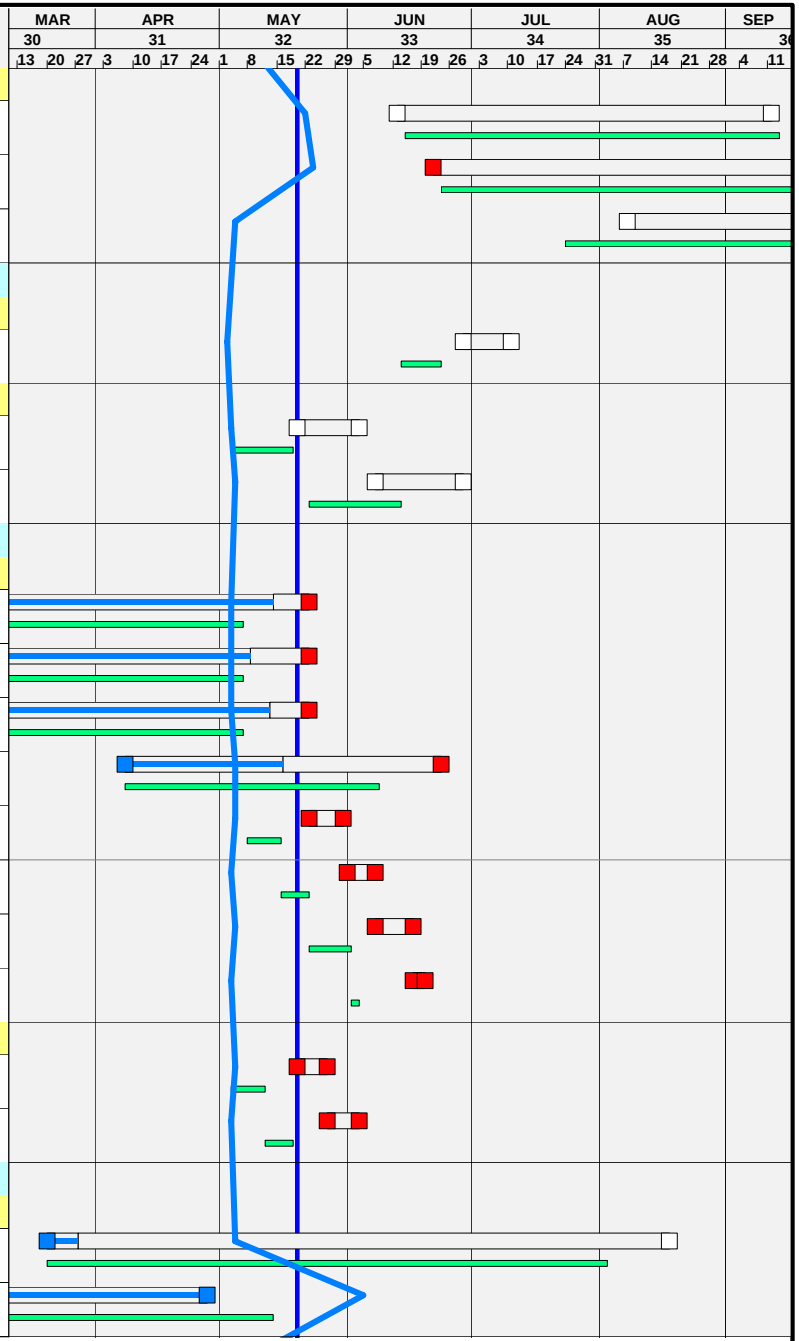
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Stages of the Works									
KD06V	KD-6V TCSS Acc to Adit - incl VB & CP7 (12Jun06)	0		10JUN06	0	0	0	2	5
KD06C	KD-6C TCSS Access to NPB OHVD SB (27.Mar.06)	0		03JUN06	0	0	0	-68	-16
KD07A	KD-7 TCSS Access Toll Plaza east (30.Jun.06)	0		04AUG06	0	0	0	-35	-15
Sections of the Works									
KD22A	KD22 Proposed - Noise enclosure founds (7Jan06)	0		08JUN06	0	0	0	-152	-16
Submittals & Approvals									
Drawing Submittal & Approval									
8034	Prep.& Sub. Independ't Serv. Dwgs for SHT&T3&LCK	48	04AUG04A	03JUN06	98	98	12	437	-13
8024	Engineer Comment / Approve ENT ISD Submissions	18	06AUG04A	29MAY06	85	85	8	91	-13
8030	Res-sub. & Approv of ENT ISD	24	06SEP04A	03JUN06	70	70	12	91	-13
8035	Engineer Comment / Approve SHT&T3LCK ISD Sub.	24	13SEP04A	03JUL06	85	85	12	413	-13
8032	Engineer Comment / Approve SHT&T3&LCK CSD Sub.	18	25OCT04A	07JUN06	90	90	15	413	-13
8036	Re-sub. & Approv of SHT & T3 & LCK ISD	36	31MAR05A	03JUL06	70	70	36	413	-13
8033	Re-sub. & Approv. of SHT & T3 & LCK CSD	24	28JUN05A	17JUN06	60	60	24	413	-13
8022	Engineer Comment / Approve ENT CSD Submissions	12	20MAY06	03JUN06	0	0	12	413	-13
8029	Re-sub. & Approv. of ENT CSD	24	05JUN06	03JUL06	0	0	24	413	-13
SEM Interface with SHT & T3									
SHT RC Full Enclosure									
2473	Apprv.for Det.Engineering of Encl.Vent.Fans	12	07JUL04A	29APR06A	100	99	0		10
LAI CHI KOK VIADUCT									
Procurement - Material									
8315	LCKVd-Proc & Manuf. Encl. Lgt sys (incl Excision	180	20JAN06A	29APR06A	100	20	0		71
Major Equipment Delivery									
8317	LCKVd- Deliver Lighting sys (incl Excision NEs)	48	06FEB06A	29APR06A	100	0	0		102
Construction Works									
LCK Viaduct Noise Enclosure 1									
8322	LckVd NE1-Elect Works 1st Fix	36	20MAY06*	03JUL06	0	0	36	47	-13



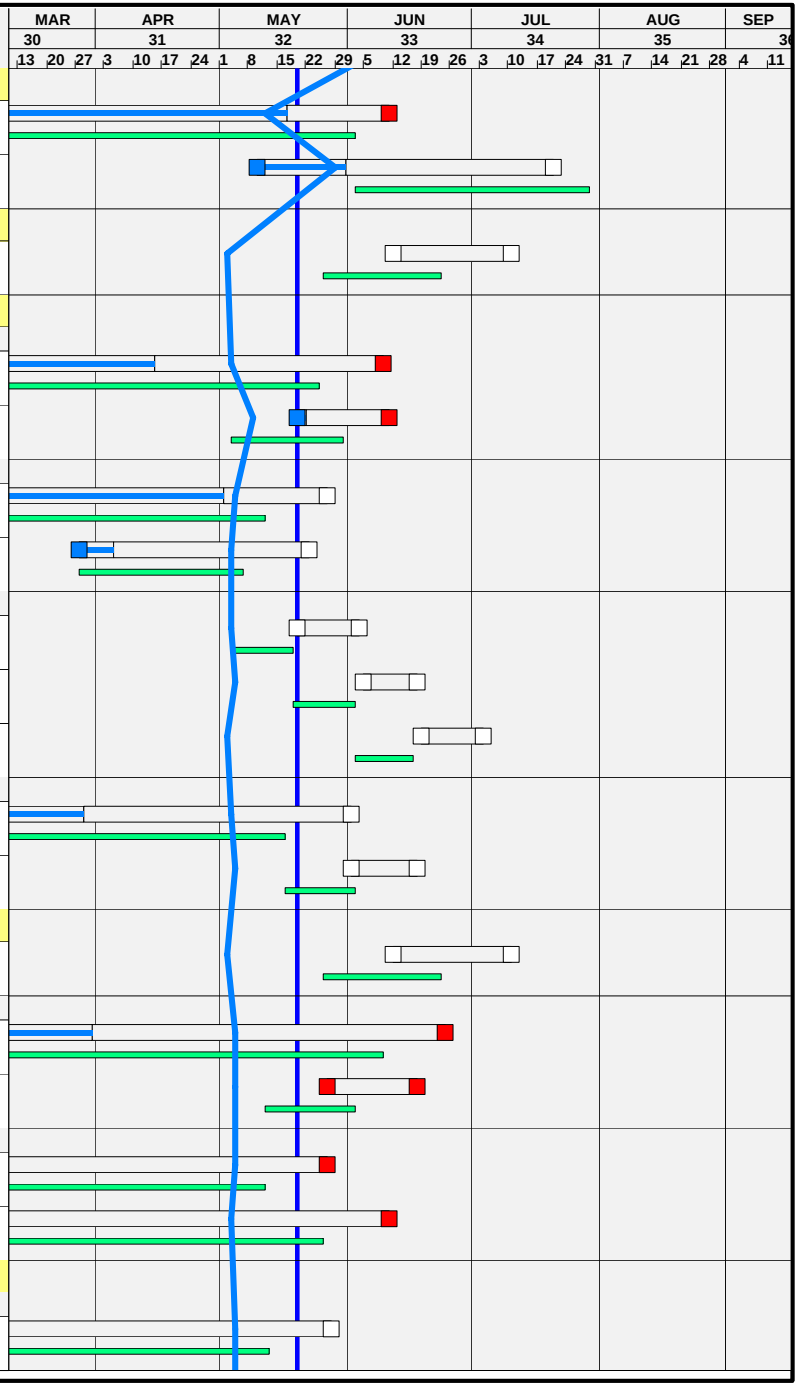
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
LCK Viaduct Noise Enclosure 1									
8332	LckVd NE1-Elect Works 2nd Fix	30	04JUL06	07AUG06	0	0	30	47	-13
8352	LckVd NE1 Elect Works Fin Fix	18	08AUG06	28AUG06	0	0	18	47	-13
LCK Viaduct Noise Enclosure 2									
7400	LckVd NE2-Elect Works 1st Fix	36	20MAY06*	03JUL06	0	0	36	47	-13
7410	LckVd NE2-Elect Works 2nd Fix	30	04JUL06	07AUG06	0	0	30	47	-13
7430	LckVd NE2 Elect Works Fin Fix	18	08AUG06	28AUG06	0	0	18	47	-13
LCK Viaduct Noise Enclosure 3									
6737	LckVd NE3 & Elect Works 1st Fix	72	20MAY06*	14AUG06	0	0	72	17	-13
6747	LckVd NE3 Elect Works 2nd Fix	60	04JUL06	11SEP06	0	0	60	17	-13
6767	LckVd NE3 Elect Works Fin Fix	24	19AUG06	27SEP06	0	0	24	17	-13
CMCS Leased Lines at Pump Houses									
6807	E&M at Lai Wan Overpass Pump House	6	07JUN06	13JUN06	0	0	6	125	-13
6817	E&M at Lai Po Rd Pump House	6	14JUN06	20JUN06	0	0	6	125	-13
6827	E&M at Wai Man Tsuen Pump House	6	21JUN06	27JUN06	0	0	6	125	-13
BUTTERFLY VALLEY									
Contract Key Dates & Milestones									
Area Access & Vacation Dates									
ACS_A	Access to Portions - A	0	20OCT03A		100	100	0		-16
Construction Works									
BUTTERFLY VALLEY 3RD PARTY WORKS									
TCSS at Butterfly valley Approach									
S2462	TCSS Access to Gantry MLS-CAP13 (NB) (15MAY06)	0		07JUN06	0	0	0	-19	-13
S2602	TCSS Access to Gantry MLS-CAP11 (NB) (15MAY06)	0		07JUN06	0	0	0	-19	-13
S2622	TCSS Access to Gantry MLS-CAP12 (SB) (11JUN06)	0		07JUN06	0	0	0	3	-13
S2632	TCSS Access to VMS MLS-CAP14,15 (11JUN06)	0		08JUN06	0	0	0	2	-13
S2592	TCSS Access to Duct & D.Pit West BV (15MAY06)	0		15AUG06	0	0	0	-77	-13



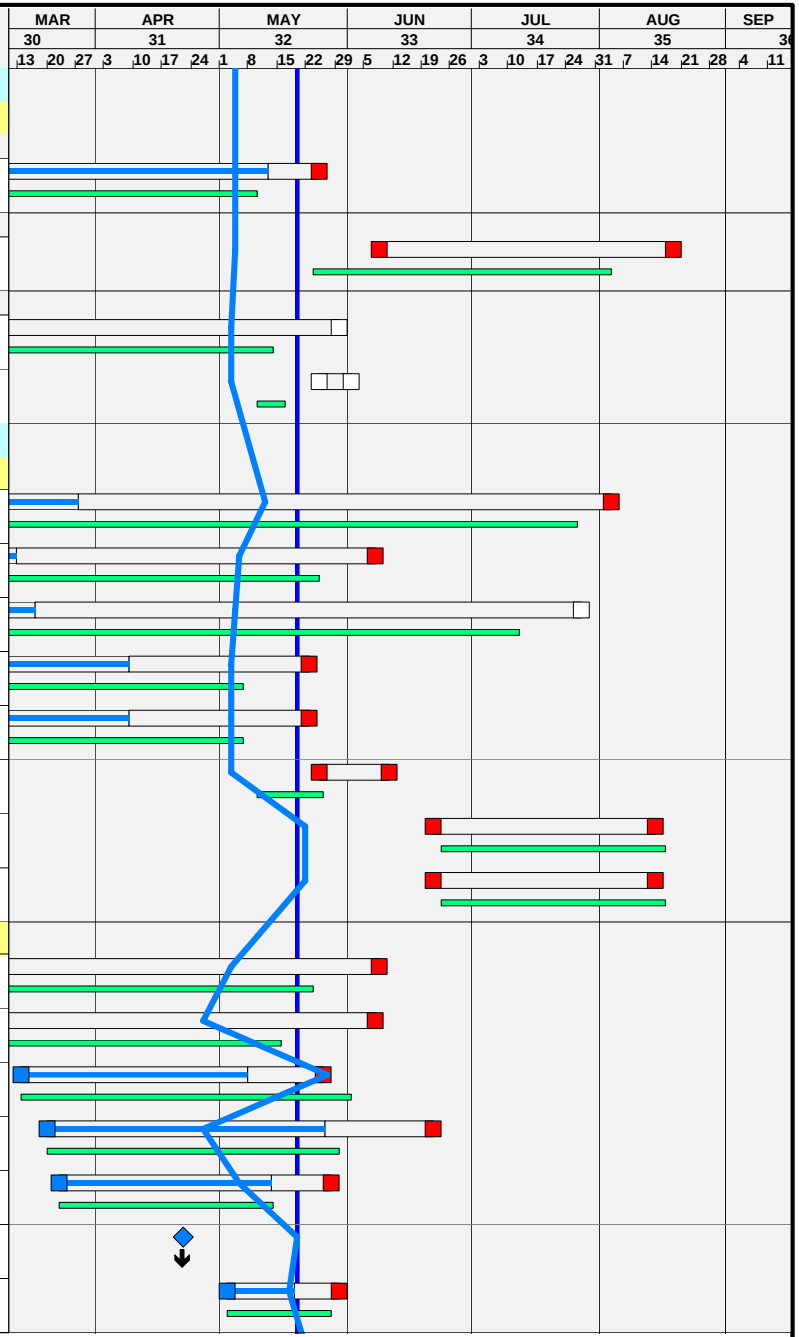
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Noise Barrier Works by ACCIONA									
S2562	Access for 7m N.B. Works by Acciona at BV South	77	13JUN06	11SEP06	0	0	77	24	2
S2612	Access for S-Enclosure Works (Primary Elements)	90	22JUN06	06OCT06	0	0	90	-103	2
S2662	Access for 5m N.B. Works by Acciona at BV South	90	08AUG06	23NOV06	0	0	90	293	-13
MAJOR DRAINAGE DIVERSIONS									
Filling									
S2680	Fill on top of Box Culvert 45 & culvert A	9	29JUN06	10JUL06	0	0	9	58	-13
Box Culvert									
S2710	Box Cul. Final Structure (Strip, Clean & Fill)	12	20MAY06	03JUN06	0	0	12	88	-13
S2800	Culvert A Structure & connection to Bay 45	18	08JUN06	28JUN06	0	0	18	58	-13
MAJOR UTILITY DIVERSIONS									
WSD twin 600mm watermain									
S2191	Ch.100-150 (MB2-12) - on natural slope	19	25FEB06A	22MAY06	90	90	2	-95	-13
S2171	Ch. 150-312 (MB12-19) - at Toe of Slope BV-S2	56	31DEC05A	22MAY06	90	90	2	-95	-13
S2211	Ch355-412 (across Box Culvert)	28	16FEB06A	22MAY06	90	90	2	-95	-13
S2301	Outstanding thrust blocks (NB/MB01 & NB/MB28)	6	08APR06A	23JUN06	50	50	4	-95	-13
S2231	Testing	7	23MAY06	30MAY06	0	0	7	-95	-13
S2241	Sterilization	6	01JUN06	07JUN06	0	0	6	-95	-13
S2261	Water Sampling (by WSD)	8	08JUN06	16JUN06	0	0	8	-95	-13
S2281	Connection (by WSD)	2	17JUN06	19JUN06	0	0	2	-95	-13
900mm watermain									
S2311	900mm - Connection by WSD	6	20MAY06	26MAY06	0	0	6	-58	-13
S2331	900mm - Complete Thrust Blocks at Tie-in	6	27MAY06	03JUN06	0	0	6	-58	-13
EARTHWORKS & SLOPEWORKS									
BV-R1 Remaining Works									
S3240	BV-R1 - Construction of Lagging Wall	91	20MAR06A	17AUG06	5	5	75	22	-13
S2110	Retaining Wall BV-R1 Structure (Base)	72	07JAN06A	27APR06A	100	90	0		12



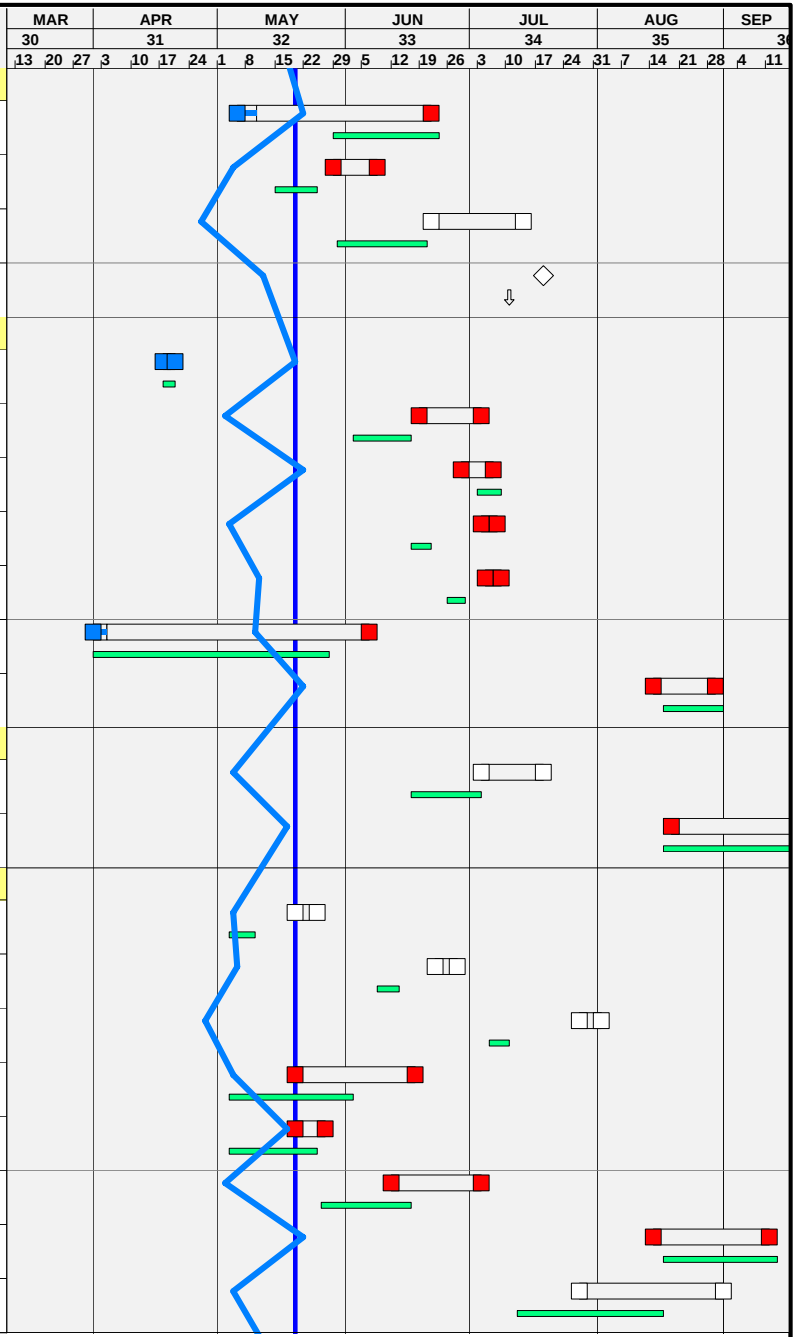
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
BV-R1 Remaining Works									
S2120	Retaining Wall BV-R1 Structure (Wall)	87	13FEB06A	10JUN06	79	70	18	-129	-7
S2360	BV-R1 - Backfill	48	10MAY06A	20JUL06	30	0	33	97	8
SLOPE SP-S2 & SP-S3									
S2370	Remaining Works to Slopes SP-S3 & SP-S2	24	12JUN06	10JUL06	0	0	24	116	-13
SLOPE BV-S2									
EXCAVATION (SOFT & ROCK)									
102692	BV-S2/9 (South)Slope excvtn (rock & some soft)	83	05SEP05A	09JUN06	80	80	17	-165	-13
102695	BV-S2/10 (South)Slope excvtn (rock & some soft)	22	20MAY06A	10JUN06	10	0	18	-165	-9
SLOPE STABILISATION (SOIL NAILS,ROCK BOLTS ETC)									
102691	BV-S2/8 Inst.Rock bolts & Test (60nr.w/3.rig)	22	15FEB06A	26MAY06	75	75	6	128	-13
102694	BV-S2/9 Inst.Rock bolts & Test (4nr.w/1.rig)	5	28MAR06A	22MAY06	15	15	2	132	-13
20.500.130.180.035									
103805	BV-S2 Berm 8 hydro-seeding & tensar mat	12	20MAY06	03JUN06	0	0	12	122	-13
103811	BV-S2 Berm 9 hydro-seeding & tensar mat	12	05JUN06	17JUN06	0	0	12	122	-13
103812	BV-S2 Berm 10 hydro-seeding & tensar mat	12	19JUN06	03JUL06	0	0	12	122	-13
SURFACE DRAINAGE									
103696	BV-S2 Berm 9 Surface drainage	14	01MAR06A	01JUN06	30	30	10	122	-13
103697	BV-S2 Berm 10 Surface drainage	14	02JUN06	17JUN06	0	0	14	122	-13
SLOPE BV-S4									
S3580	Additional Soil Nails - Base of Pier 19	24	12JUN06	10JUL06	0	0	24	98	-13
SLOPE FINISHES									
102380	BV-S4/3a-4a & 5 hydro-seeding & tensarmat	12	12SEP05A	24JUN06	70	70	10	-56	-13
101139	11nw/434 BV-S4/1-2-3bcd-4b Hydro-seed/Tensarmat	18	27MAY06	17JUN06	0	0	18	-50	-13
SURFACE DRAINAGE									
103705	BV-S4/3 Surface Drainage	8	17MAR05A	26MAY06	70	70	6	-56	-13
103706	BV-S4/4 Surface Drainage	12	07SEP05A	10JUN06	5	5	10	-56	-13
SLOPE SP-S1									
SURFACE DRAINAGE									
103711	Sp-S1/4 Surface Drainage	7	06JUL04A	27MAY06	40	40	7	151	-13



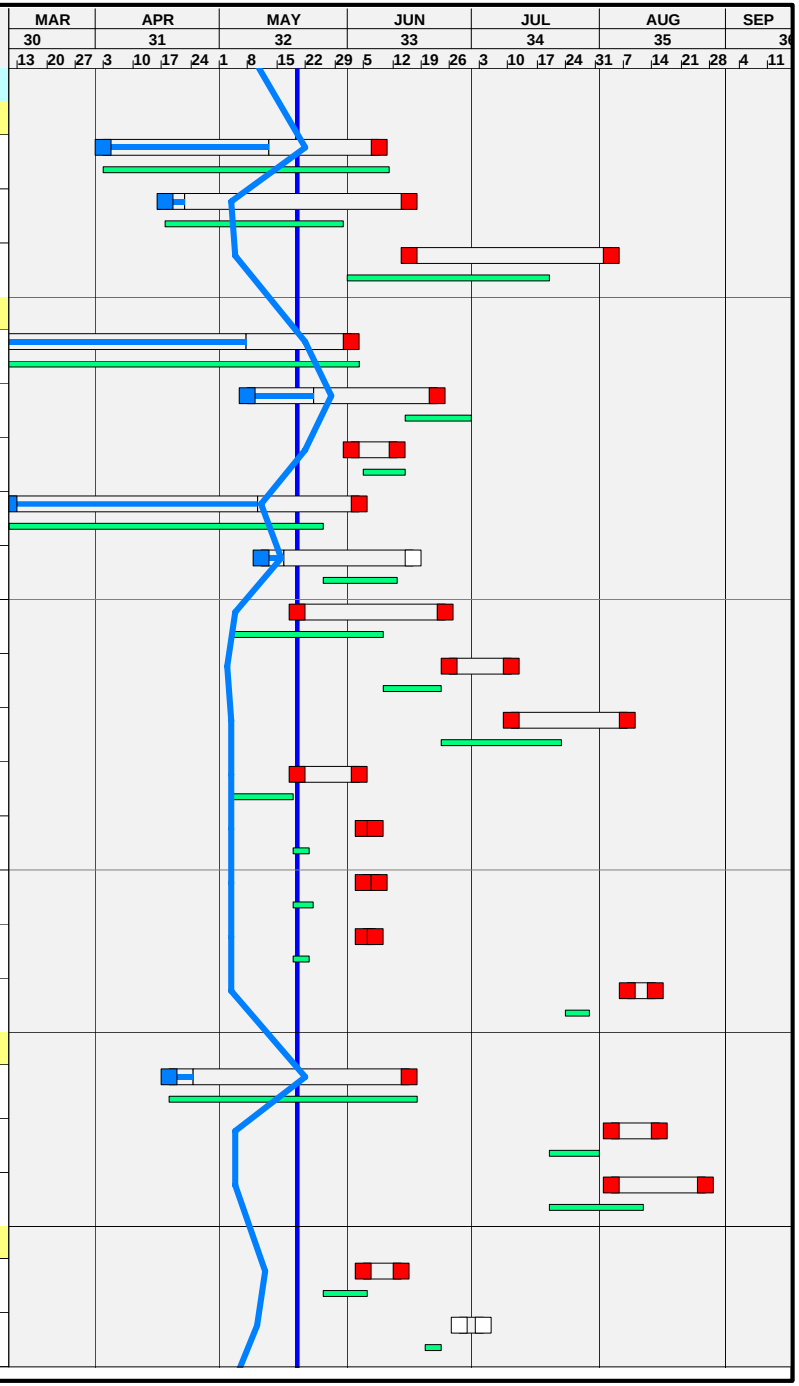
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
RC STRUCTURES									
RETAINING WALL BV-R2									
CONCRETE WORKS									
101117	BV-R2 (8) Capping Beam and wall	30	03MAR06A	24MAY06	85	85	4	-142	-13
FINISHES									
101123	BV-R2 Wall finishes	60	09JUN06	18AUG06	0	0	60	-142	-13
BACKFILLING									
101122	BV-R2(A&B) Granular Drain & Compacted Backfill	36	07APR05A	29MAY06	80	80	8	137	-13
101126	BV-R2(C) Granular Drain & Compacted Backfill	6	25MAY06	01JUN06	0	0	6	135	-13
ROADWORKS - North End of BV									
Stormwater Drainage									
S2440	Storm Drainage to Nrth Bnd (Nr. Typ C&E N.B.)	37	31DEC05A	03AUG06	40	40	20	-129	-7
S3200	Storm Drainage to Sth Bnd (Nr. Typ D N.B.)	37	31DEC05A	07JUN06	45	45	15	-81	-11
S2430	West Loop Rd. Drainage	20	19JAN06A	27JUL06	30	30	15	58	-13
S3020	Storm Drainage to enable TCSS Works at Median	12	24FEB06A	22MAY06	50	50	2	-113	-13
S3040	Storm Drainage to enable CLP Works	12	24FEB06A	22MAY06	50	50	2	-113	-13
S2420	Outstanding East Loop Rd. Drainage	28	25MAY06	10JUN06	0	0	14	-59	-13
S2450	Storm Drainage to Sth Bnd (Nr. Typ B N.B.)	45	22JUN06	14AUG06	0	0	45	-138	2
S2630	250mm pipe connect E./W. stream + 3No. Chamber	24	22JUN06	14AUG06	0	0	24	-138	2
Noise Barrier Footings & Sign Gantries									
S2230	Semi Enclosure Footing (Typ B) R-Bay 15-17	16	13DEC05A	08JUN06	23	35	12	-116	-13
S2240	Semi Enclosure Ftng (Typ B) R-Bay 14-7	25	13DEC05A	07JUN06	41	18	15	-126	-19
S3260	Semi Enclosure Footing (Typ E) L-Bay 14-17	18	14MAR06A	25MAY06	75	75	5	-81	5
S3030	Semi Enclosure Ftng (Typ B) R-Bay 1-6	25	20MAR06A	21JUN06	72	45	7	-103	-19
S3270	Semi Enclosure Ftng (Type C) L-Bay 1-6	36	23MAR06A	27MAY06	78	73	7	-118	-12
S3110	Relocation of WSD Access Rd.	0		21APR06A	100	100	0		0
S2310	Semi Enclosure Footing (Typ D) L-Bay 7-10	20	03MAY06A	29MAY06	60	23	8	-138	-1



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Noise Barrier Footings & Sign Gantries									
S2270	Semi Enclosure Footing (Type D) L-Bay 11-13	22	06MAY06A	21JUN06	10	0	19	-138	2
S3530	Base for HML 1	9	29MAY06	08JUN06	0	0	9	-82	-12
S3550	Base for HML 3 & Dwarf Walls	18	22JUN06	13JUL06	0	0	18	97	-19
S3300	SP Bldg Tower Crane Removed	0		18JUL06*	0	0	0	109	-7
Ducting & Drawpits									
S3610	BV North - CLP Ducts Across 600mm Watermain	4	18APR06A	20APR06A	100	100	0		0
S2570	Bv North - CLP Ducts near DSD Access Ramp	4	19JUN06	03JUL06	0	0	0	-55	-13
S3630	BV North - CLP Ducts at Median	6	29JUN06	06JUL06	0	0	6	-1	2
S3620	BV North - CLP Ducts Across SB Carriageway	4	04JUL06	07JUL06	0	0	4	-59	-13
S3640	BV North - CLP Ducts at SP Bldg	4	05JUL06	08JUL06	0	0	4	-3	-7
S2560	BV North - TCSS Ducting & Drawpits (West)	18	01APR06A	06JUN06	5	5	9	-18	-7
S2770	BV North - LV Ducting & Drawpits	13	15AUG06	29AUG06	0	0	13	-83	2
Road Pavement & Associated Work									
S2920	Road Works to East Loop Rd Typ III (EVA)	13	04JUL06	18JUL06	0	0	13	109	-13
S2232	BV North - Subbase to Sth Bound Carriageway	40	19AUG06	05OCT06	0	0	40	-142	-2
Miscellaenous Works									
S3100	Erect HML 2	4	20MAY06	24MAY06	0	0	4	154	-13
S2870	Erect HML 1	4	23JUN06	27JUN06	0	0	4	126	-12
S3450	Erect HML 3	4	28JUL06	01AUG06	0	0	4	97	-19
S2660	Construct Foul Holding Tank & Connections	24	20MAY06	17JUN06	0	0	24	-90	-13
S2910	Foul Drain Pipe Across SB Tube (3m Below FRL)	6	20MAY06	26MAY06	0	0	6	-72	-2
S2670	Install Twin DN200 Pipes to SPB via E. Loop Rd	18	12JUN06	03JUL06	0	0	18	-59	-13
S2590	Installation of DN200 Fire Hydrant Pipe and FH's	24	15AUG06	11SEP06	0	0	24	-138	2
S3000	Construct Recreated Stream	30	28JUL06	31AUG06	0	0	30	58	-13



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ROADWORKS - South End of BV									
Stormwater Drainage									
S2640	Storm Drainage to Sth Bnd (Near. 7m N.B.)	30	03APR06A	08JUN06	60	60	12	-122	2
S2810	Removal of Stockpile at BV-S2	24	18APR06A	15JUN06	8	8	16	-169	-13
S2490	Storm Drainage to Nrth Bnd (Foot of BVS2)	41	16JUN06	03AUG06	0	0	41	-169	-13
Noise Barrier Footings & Sign Gantries									
S2400	7 Barrier (Typ A) Bay 3-16	54	11JAN06A	01JUN06	82	52	10	-122	2
S3180	7m Barrier Ftg (Typ A1, A2) Bay 1-2	14	08MAY06A	22JUN06	35	0	9	-105	7
S3560	7m Barrier (Typ A) Bay 8 - Including Gantry Foot	9	02JUN06	12JUN06	0	0	9	-105	2
S3170	5.5m Barrier Footings Bay 3-14	42	11MAR06A	03JUN06	71	62	12	-147	-7
S2491	5.5m Barrier Footings Bay 1-2	14	11MAY06A	16JUN06	15	0	11	75	-4
S2471	Mini-piling	30	20MAY06	24JUN06	0	0	30	-158	-13
S3330	Load Test for mini-piles	12	26JUN06	10JUL06	0	0	12	-158	-13
S2481	5.5m Barrier Footings Bay 15-17	24	11JUL06	07AUG06	0	0	24	-158	-13
S2620	BV South - Sign / Lane Signal Gantry Bases (5no)	12	20MAY06	03JUN06	0	0	12	-19	-13
S2461	Sign gantry Installation MLS-CAP12	3	05JUN06	07JUN06	0	0	3	3	-13
S3370	Signal Gantry Installation MLS-CAP14 & 15	4	05JUN06	08JUN06	0	0	4	2	-13
S3380	Sign Gantry Installation MLS-CAP11,13	3	05JUN06	07JUN06	0	0	3	-19	-13
S2250	Footing for CCTV mast	6	08AUG06	14AUG06	0	0	6	-158	-13
Ducting & Drawpits									
S2530	BV South - TCSS Ducts & Drawpits (East)	10	19APR06A	15JUN06	10	10	18	-108	2
S3350	BV South - TCSS Ducts & Drawpits (West)	10	04AUG06	15AUG06	0	0	10	-77	-13
S2740	BV South - LV Ducts & Drawpits	20	04AUG06	26AUG06	0	0	20	-169	-13
Miscellaneous Works									
S2610	BV South - Footing HML9 (Adjacent 5.5m NB)	8	05JUN06	13JUN06	0	0	8	-106	-7
S2850	Erect HML9	4	28JUN06	03JUL06	0	0	4	122	-7



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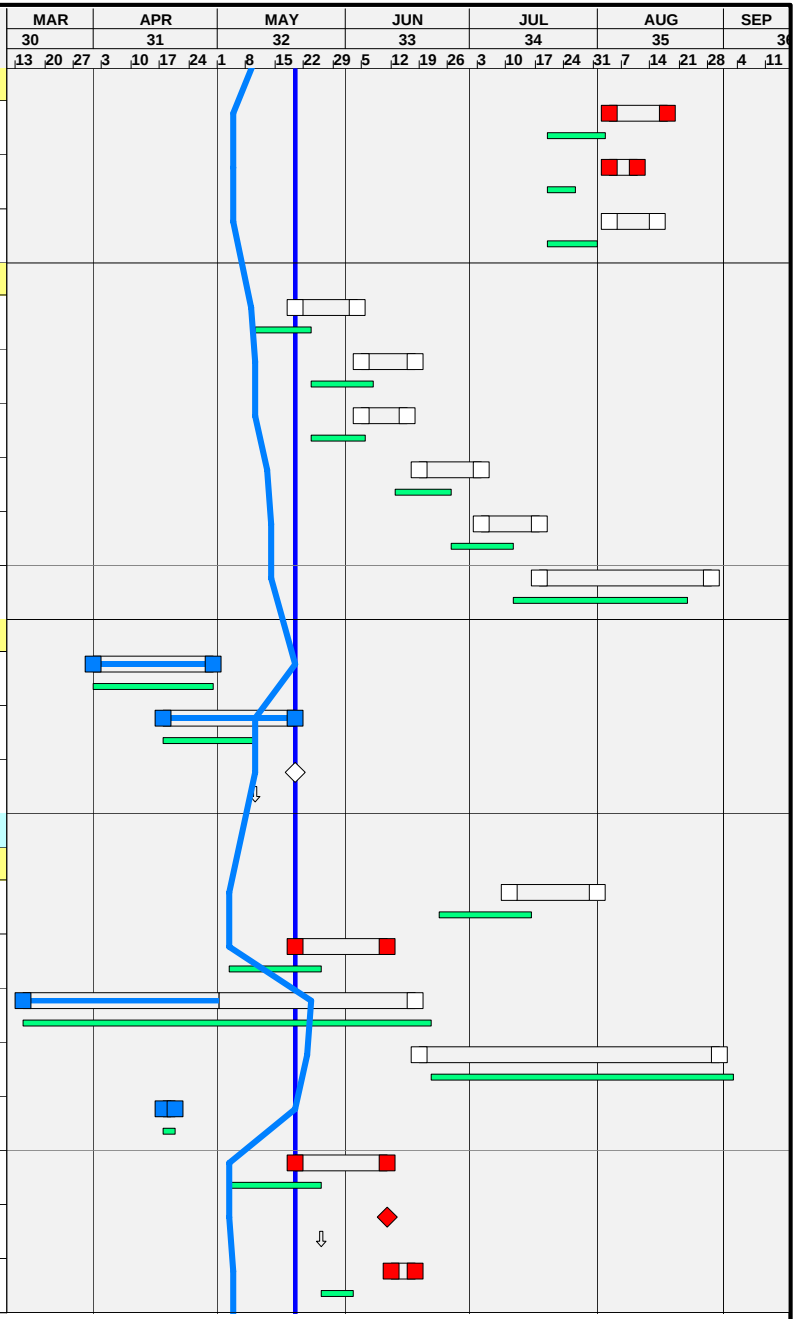
Miscellaneous Works									
S2790	Installation of DN 200 Fire Hydrant Pipe & FH's	12	04AUG06	17AUG06	0	0	12	-161	-13
S3320	Base for kiosk K4	6	04AUG06	10AUG06	0	0	6	-79	-13
S3340	Construction of Weighbridge Pit	10	04AUG06	15AUG06	0	0	10	61	-13
LKJV Works at Abutment M									
S3250	Backfilling behind Abutment	12	20MAY06	03JUN06	0	0	12	74	-9
S3430	Storm Drainage (MH02 & MH09 + 5 Gullies)	12	05JUN06	17JUN06	0	0	12	74	-9
S3600	Storm Drainage (MH07 & MH04)	10	05JUN06	15JUN06	0	0	10	76	-9
S3440	200mm Watermain, valve pit & FH-6	12	19JUN06	03JUL06	0	0	12	74	-5
S3470	Ducting & drawpits in Portion B	12	04JUL06	17JUL06	0	0	12	74	-5
S3420	Complete remaining roadworks within Portion B	36	18JUL06	28AUG06	0	0	36	74	-5
ACCIONA Works at Abutment									
S3080	ACCIONA - Cure, Strip & Reinstate Area - Abut. M	24	01APR06A	29APR06A	100	100	0		0
S3090	ACCIONA - Construct end wall and wing walls	36	18APR06A	19MAY06A	100	80	0		-9
S3590	ACCIONA Vacate Area at Abutment M	0	20MAY06		0	0	0	74	-9
DSD MAINTENANCE ROAD									
DSD Maintenance Rd DSD1-1 (Acciona Interface)									
S3570	WSD Slope Reinstatement	18	11JUL06	31JUL06	0	0	18	98	-13
S2340	ACCIONA - Remove Crane Platform	18	20MAY06	10JUN06	0	0	18	-67	-13
S2500	ACCIONA - Construct Pierhead & X-Head - Pier P21	90	15MAR06A	17JUN06	50	50	24	18	3
S2550	ACCIONA - Cure, Strip & Reinstate Area - Pier 21	62	19JUN06	30AUG06	0	0	62	18	3
S3410	CLP Ducts Under Access Rd DSD1-1 Lay-by	10	18APR06A	20APR06A	100	100	0		0
S2330	Com DN200 Div along DSD1-1 - inc. Leak Collect	18	20MAY06*	10JUN06	0	0	18	-52	-13
S2460	LKJV Regain Access at Pier 20	0		10JUN06	0	0	0	-67	-13
S2390	Remaining DN200 Watermain at Pier 20 Access	6	12JUN06	17JUN06	0	0	6	-67	-13



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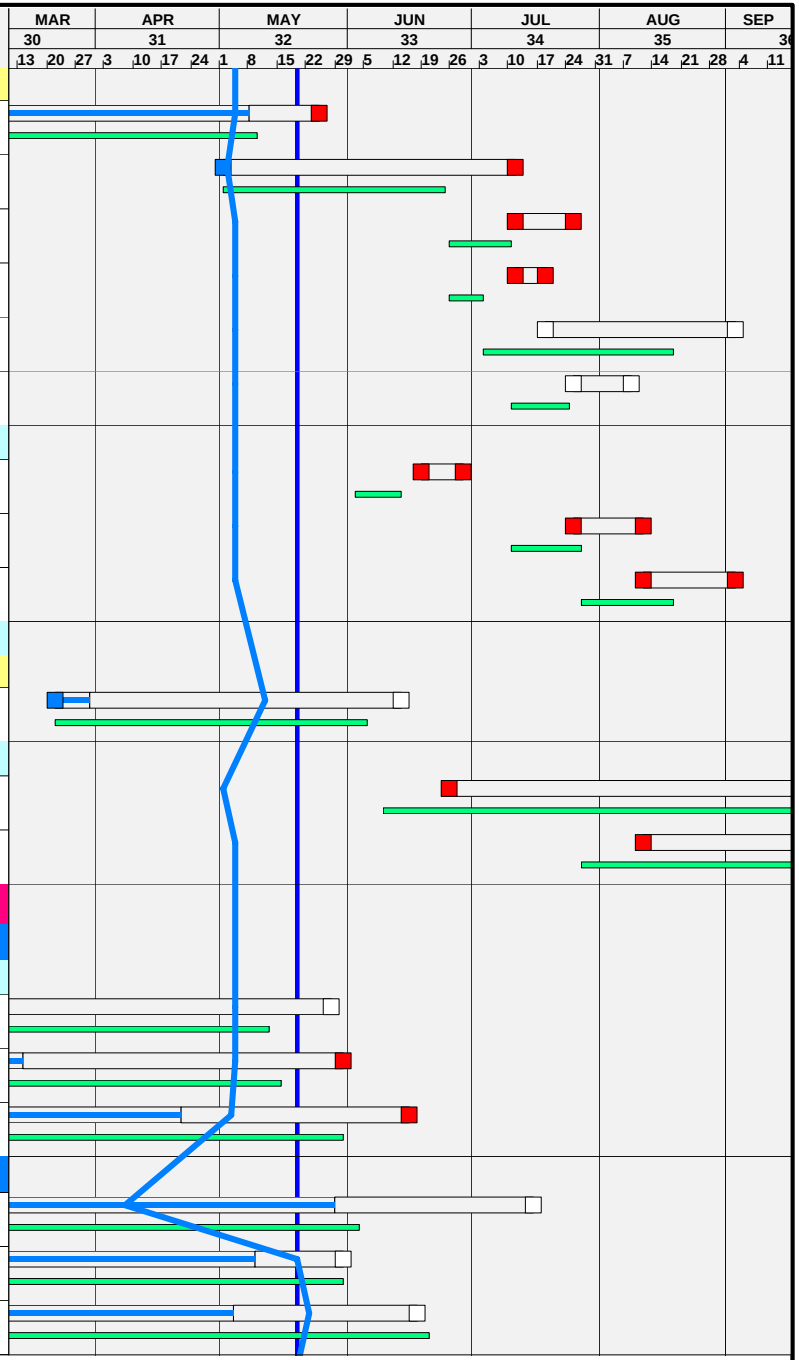
DSD Maintenanace Rd DSD1 (Parallel to Channel)									
S3210	2 No. Cross Rd Pipes & Roadside Gullies	12	01MAR06A	24MAY06	80	80	4	-89	-13
S2830	Twin DN200 Water Pipe	45	02MAY06A	11JUL06	1	1	43	-89	-13
S2700	Access rd DSD1 -barrier footings	12	12JUL06	25JUL06	0	0	12	-89	-13
S3390	Complete Formation at DSD1	6	12JUL06	18JUL06	0	0	6	-89	-13
S3120	DN 200 Watermain Diversion EB18 - EB70	40	19JUL06	02SEP06	0	0	40	24	-13
S2720	Access rd DSD1 - Barriers	12	26JUL06	08AUG06	0	0	12	91	-13
Works By CLP									
S3650	Lay CLP Cables Ch30 - Ch110	9	19JUN06	28JUN06	0	0	9	-67	-13
S2840	Lay CLP Cables Ch110 - Ch230	15	26JUL06	11AUG06	0	0	15	-89	-13
S2860	Lay CLP Cables Ch230 - Ch395 (SB Carriageway)	19	12AUG06	02SEP06	0	0	19	-89	-13
Terrain Mitigation									
NTMM - BV-S2									
102350	NTMM - Afforestation of Area	60	22MAR06A	13JUN06	10	5	20	138	-7
Landscaping & Establishment									
101475	BV - Hard Landscaping	90	26JUN06	11OCT06	0	0	90	-56	-13
101476	BV - Soft Landscaping & Planting	100	12AUG06	05MAY07	0	0	100	-57	-13
ENT SOUTH PORTAL VENTILATION BUILDING									
SUBMITTALS & APPROVALS									
E&M EQPT.& MATERIAL APPROVALS									
6004	EntSpBldg-App. PD irrig. sys	18	05MAY05A	27MAY06	70	70	7	407	-13
1919	SP.Bldg. - Approve doors details	24	07MAY05A	30MAY06	80	80	9	-74	-13
1943	SP.Bldg. - Approve aluminium composite cladding	24	13DEC05A	15JUN06	70	70	22	-15	-13
PROCUREMENT - MATERIAL									
6008	EntSpBldg-Proc & Manuf. LV power dist. equip't	180	21MAR05A	15JUL06	90	80	47	402	-35
6079	EntSpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	30MAY06	95	90	9	392	0
6193	EntSpBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	17JUN06	90	85	24	377	2



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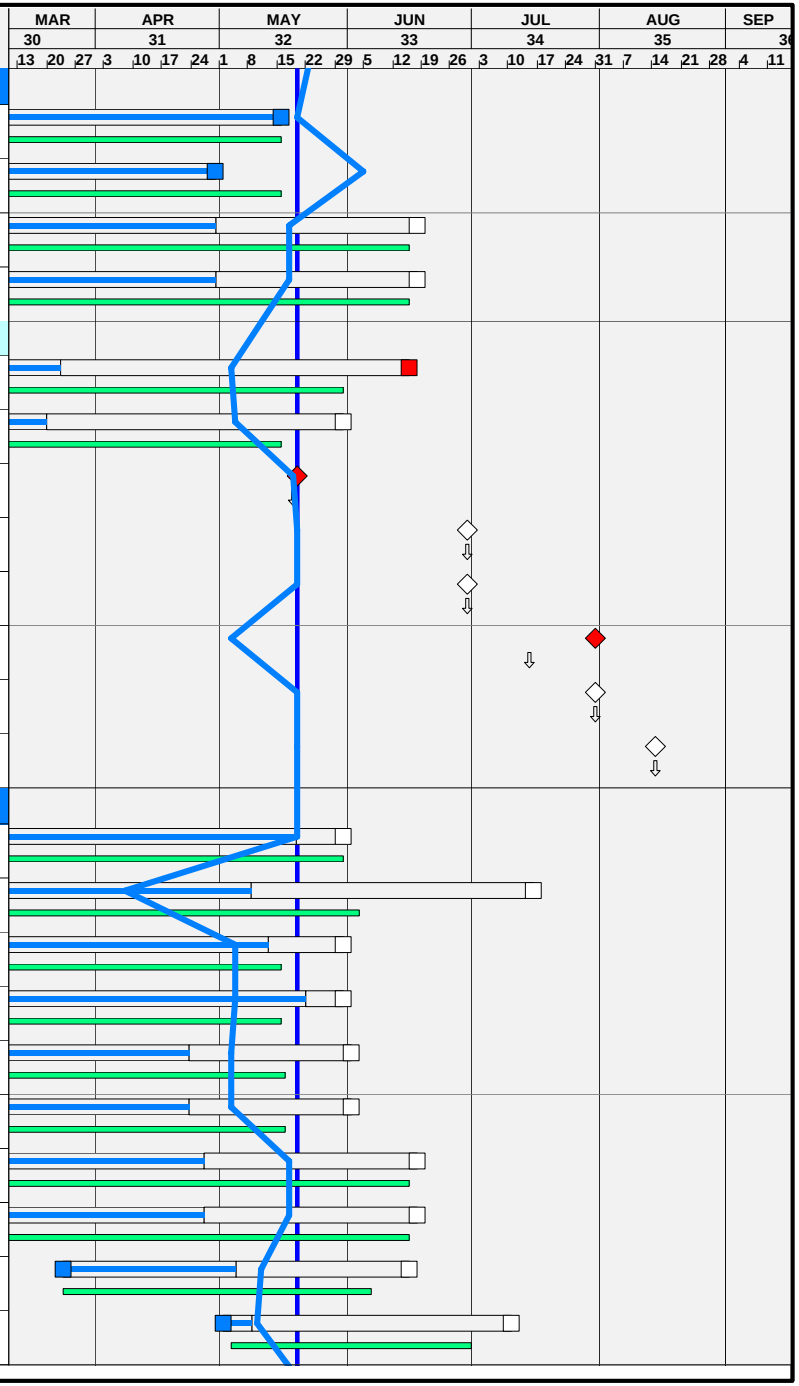
PROCUREMENT - MATERIAL									
6743	EntSpBldg-Proc & Manuf. MCC, power & control sys	180	29MAR05A	15MAY06A	100	95	0		0
6011	EntSpBldg-Proc & Manuf. PD irrig. sys	120	17DEC05A	29APR06A	100	80	0		11
6009	EntSpBldg-Proc & Manuf. MVAC mech.vent. sys	120	06JAN06A	17JUN06	70	60	24	425	-2
6035	EntSpBldg-Proc & Manuf. MVAC Package AC Units	120	06JAN06A	17JUN06	70	60	24	425	-2
ABWF WORKS									
1951	SP.Bldg. - Procure aluminium composite cladding	180	19APR05A	15JUN06	80	80	22	-15	-13
1979	SP.Bldg. - Procure expanded metal mesh cladding	180	05JUN05A	30MAY06	80	80	9	46	-13
2017	SP.Bldg. - Initial delivery of louvres	0	20MAY06*		0	0	0	-15	-1
2018	SP.Bldg. - Initial deliver fall arrest roof syst	0	30JUN06*		0	0	0	81	0
2030	SP.Bldg. - Initial deliver balust & metal works	0	30JUN06*		0	0	0	81	0
1977	SP.Bldg. - Initial deliver of doors	0	31JUL06*		0	0	0	-74	-13
2019	SP.Bldg. - Initial deliver of slate cladding	0	31JUL06*		0	0	0	32	0
2025	SP.Bldg- Initial deliver exp metal mesh cladding	0	15AUG06*		0	0	0	19	0
MAJOR EQUIPMENT DELIVERY									
7617	EntSpBldg-Del. HV/LV main & submain cable	48	06FEB06A	30MAY06	90	60	9	440	0
6037	EntSpBldg-Del. LV power dist. equip't to 3/F	48	01MAR06A	15JUL06	50	35	47	402	-35
6762	EntSpBldg-Del. TVS to Plenum & 3/F	48	01MAR06A	30MAY06	80	70	9	440	-13
8493	EntSpBldg-Del. building related luminaries	48	01MAR06A	30MAY06	90	90	9	440	-13
6033	EntSpBldg-Del. PD pump & tank to G/F	48	06MAR06A	01JUN06	55	55	10	439	-13
6038	EntSpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	01JUN06	55	55	10	439	-13
6050	EntSpBldg-Del. building vent. fans	64	06MAR06A	17JUN06	50	40	24	425	-2
6133	EntSpBldg-Del. Package AC Units	64	06MAR06A	17JUN06	50	40	24	425	-2
6752	EntSpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	24MAR06A	15JUN06	50	20	22	427	-8
6034	EntSpBldg-Del. PD irrig. pump & tank to G/F	48	02MAY06A	10JUL06	10	0	35	407	-7



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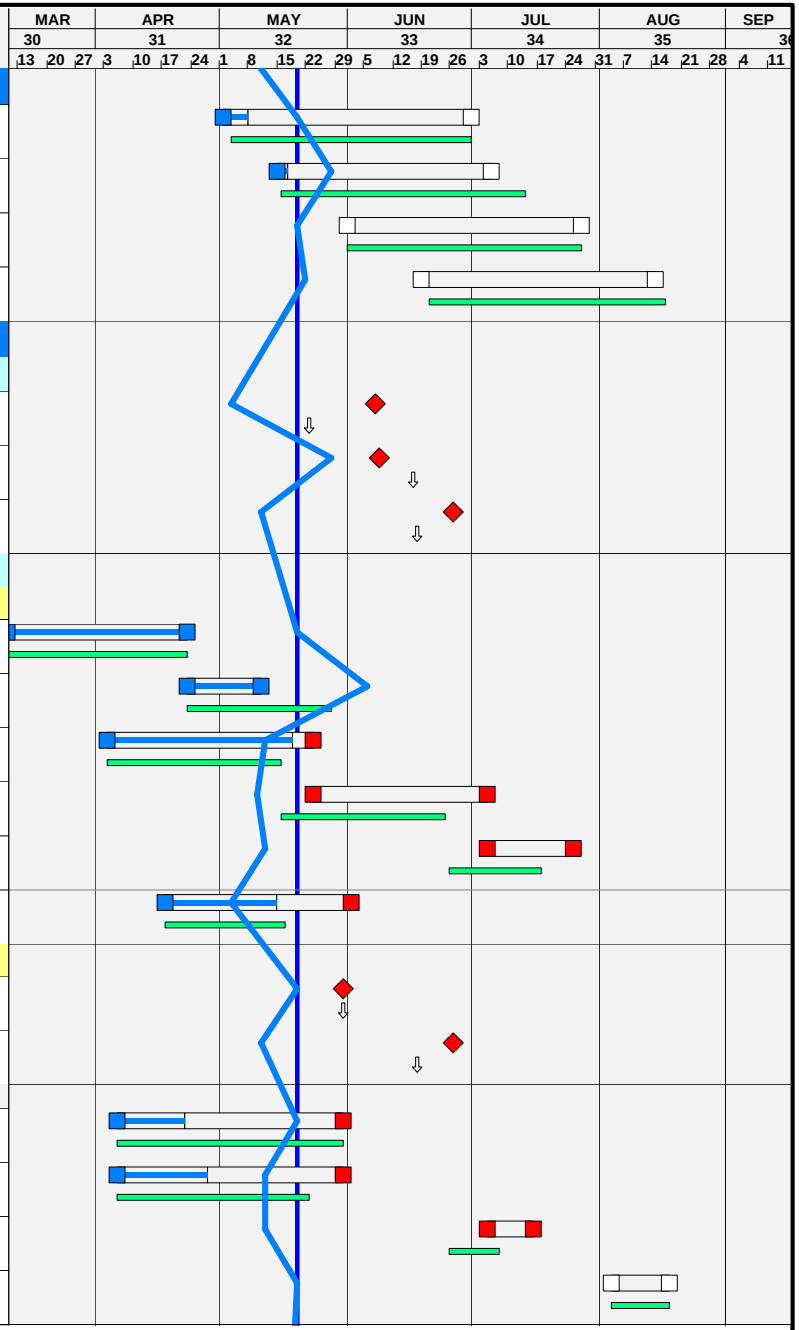
MAJOR EQUIPMENT DELIVERY									
6778	EntSpBldg-Del. ENT Tunnel (Hyd/HR) pumps to G/F	48	02MAY06A	30JUN06	10	0	35	414	0
6744	EntSpBldg-Del. MVAC MCC, & control sys to 3/F	48	15MAY06A	05JUL06	5	0	38	411	7
6163	EntSpBldg-Del. AFA & FM200 sys	48	01JUN06	27JUL06	0	0	48	392	0
6194	EntSpBldg-Del. CMCS & ELV equip't	48	19JUN06	14AUG06	0	0	48	377	2
CONSTRUCTION									
South Portal Bldg. - TCSS Access									
T2620	NB carriageway OHVD slab TCSS initial access	0		07JUN06	0	0	0	-64	-16
T2640	SB carriageway OHVD slab TCSS initial access	0		08JUN06	0	0	0	-45	8
T2720	SP Bldg - TCSS Access Entire Structure	0		26JUN06	0	0	0	-51	-7
South Portal Bldg. - CIVIL & ABWF WORKS									
STRUCTURES									
T2500	SB carriageway OHVD slab +74	12	10MAR06A	22APR06A	100	100	0		0
T2570	SB carriageway OHVD slab +74 cure/strike	24	23APR06A	10MAY06A	100	10	0		17
T2480	3rd Flr Walls & Cols & 4th Flr Slab (+95.3mPD)	43	04APR06A	23MAY06	90	65	3	-83	-7
T2740	4th Flr Walls & Cols & Roof Slab (+102.3mPD)	34	24MAY06	04JUL06	0	0	34	-70	-7
T2750	Exhaust Shaft (+111.85mPD)	18	05JUL06	25JUL06	0	0	18	-70	-7
T2920	Backfilling at South Portal Building	18	18APR06A	01JUN06	60	60	10	-169	-13
ABWF WORKS									
T2370	Below Transf slab- Available for BB deliveries	0		30MAY06	0	0	0	-78	0
T2380	Above Transf slab - Available for BB delivery	0		26JUN06	0	0	0	-67	-7
SB Bldg - Internal Works GF									
T2650	ABWF Initial finishes & Doors to CLP Rm & GF	18	06APR06A	30MAY06	30	5	9	-78	0
T3290	CLP Rm, Scrd, Tile, Paint and Doors	18	06APR06A	30MAY06	40	20	9	-13	-7
T3300	Complete Works to HV & LV Cable Risers	10	05JUL06	15JUL06	0	0	10	-63	-7
T2760	GF - Paint touch up & Doors	12	04AUG06	17AUG06	0	0	12	83	0



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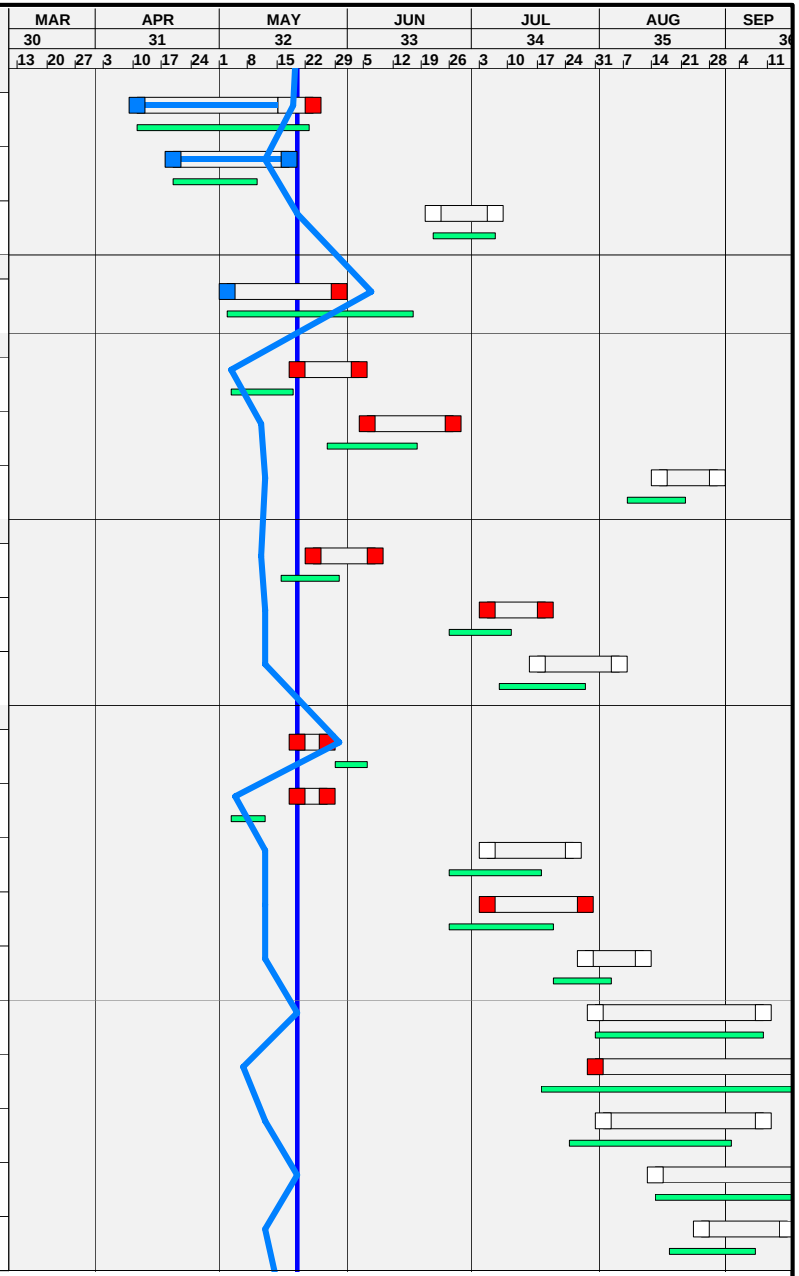
SP Bldg - Internal Works 1F & LP									
T2670	ABWF Initial finishes LP & 1F	18	11APR06A	23MAY06	80	15	3	-72	-1
T3310	110V DC Battery Rm	6	20APR06A	17MAY06A	100	35	0		-7
T2770	1F & LP - Paint touch up & Doors	12	22JUN06	06JUL06	0	0	12	119	0
SP Bldg - Internal Works 2F									
T2660	ABWF Initial finishes 2F	18	03MAY06A	29MAY06	5	5	8	-44	15
SP Bldg - Internal Works 3/F									
T3160	Installation of Crane beam to underside of 3FL	12	20MAY06	03JUN06	0	0	12	-21	-13
T2680	ABWF Initial finishes 3F	18	06JUN06	26JUN06	0	0	18	-83	-7
T2800	3F - Paint touch up & Doors	12	16AUG06	29AUG06	0	0	12	73	-7
SP Bldg - Internal Works 4F & Above									
T3170	Installation of Crane beam to underside of 4FL	12	24MAY06	07JUN06	0	0	12	-24	-7
T3150	Intallation of Crane beam to underside of 5FL	12	05JUL06	18JUL06	0	0	12	-52	-7
T2690	ABWF Initial finishes 4F	18	17JUL06	05AUG06	0	0	18	81	-7
Roof & External Facade									
T2580	SB carriageway OHVD slab +74 finishes	6	20MAY06	26MAY06	0	0	6	-36	7
T2600	NB carriageway OHVD slab +74 finishes	6	20MAY06	26MAY06	0	0	6	-48	-13
T2820	Ent SPB - Ext. Wall Waterproof Render	18	05JUL06	25JUL06	0	0	18	20	-7
T2825	Ent SPB - Ext. Wall Waterproof Membrane	21	05JUL06	28JUL06	0	0	21	9	-7
T2530	Ent SPB - Roof Waterproofing & Test	12	29JUL06	11AUG06	0	0	12	15	-7
T2540	Ent SPB - Slate Cladding above NB/SB Carriageway	36	31JUL06	09SEP06	0	0	36	32	0
T2710	Ent SPB - Install Aluminum louvres & doors	90	31JUL06	15NOV06	0	0	90	-74	-11
T2410	Ent SPB - External Wall Painting	34	02AUG06	09SEP06	0	0	34	20	-7
T2390	Ent SPB - Expanded metal cladding to Ext Walls	36	15AUG06	25SEP06	0	0	36	19	0
T2730	Ent SPB - 25thk Roof Screed & Roofing Tiles	18	26AUG06	15SEP06	0	0	18	15	-7



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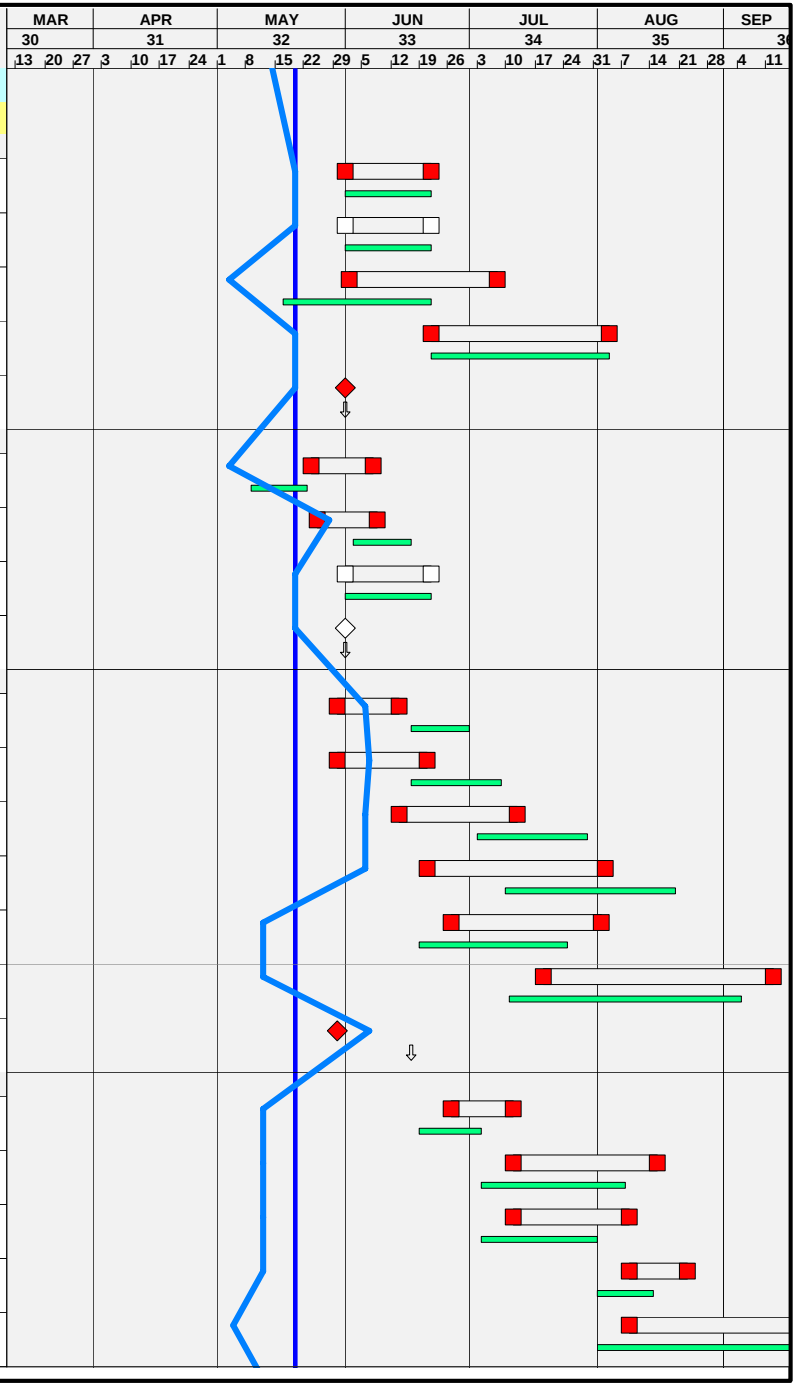
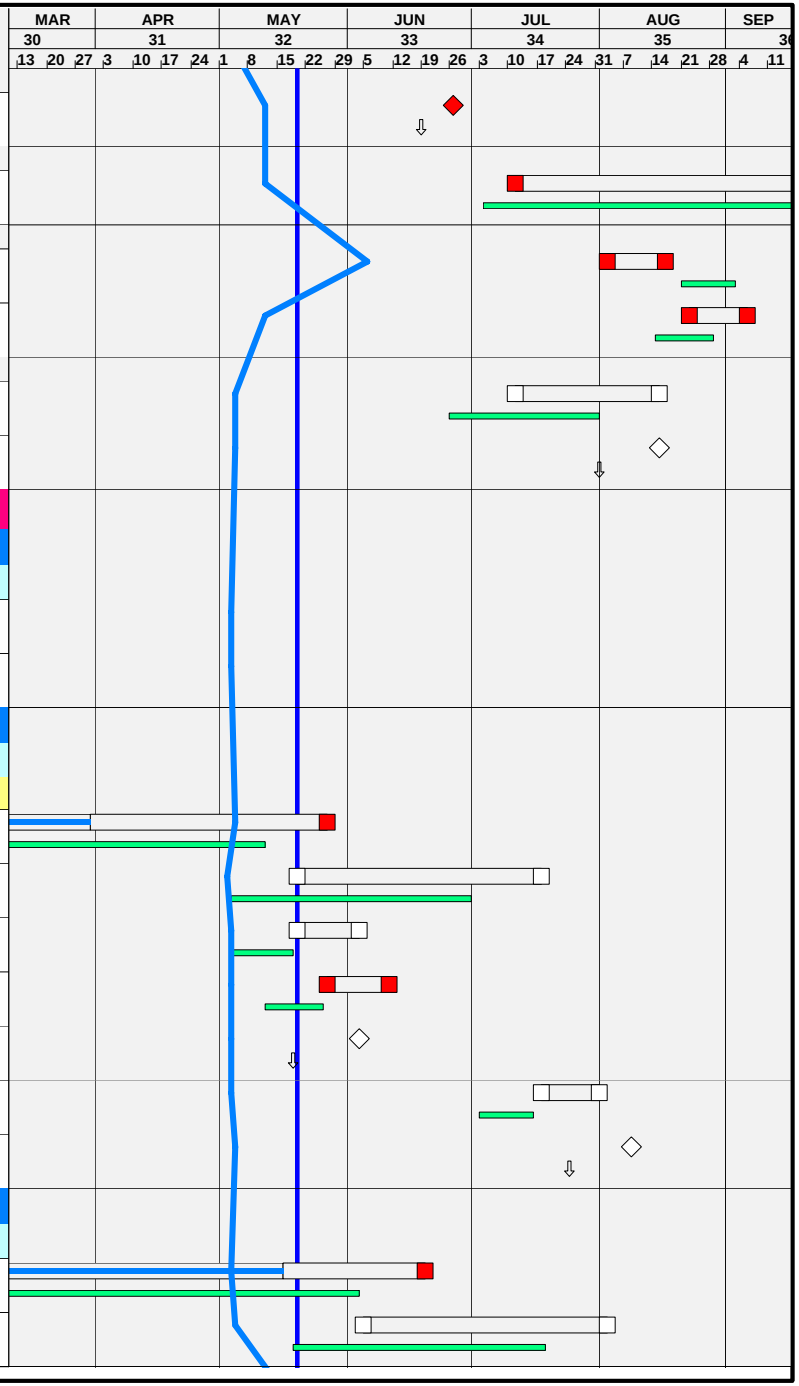
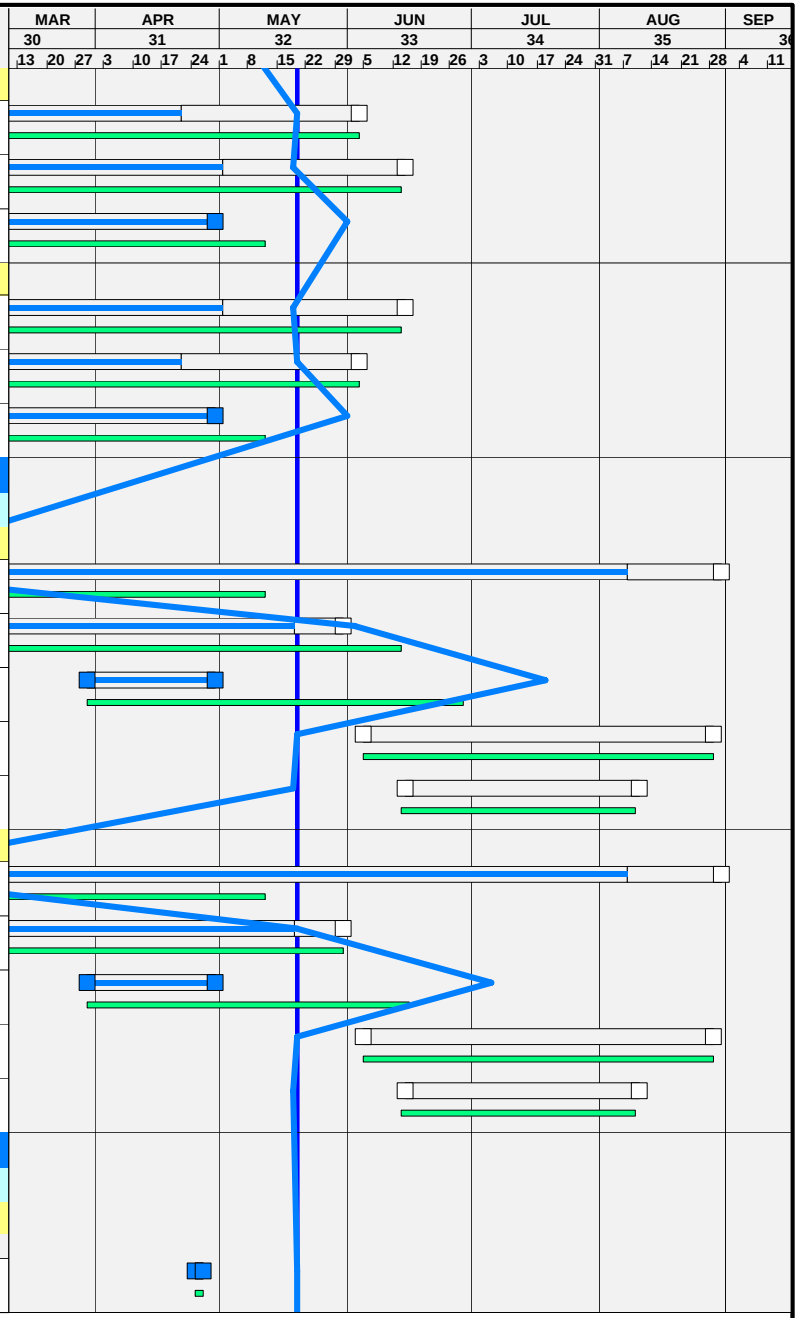
ENT South Portal Bldg. - BUILDING SERVICES									
E & M WORKS									
ENT South Portal Bldg (G/F) - E & M Works									
EM1290	BB Work to CLP Room	18	01JUN06	21JUN06	0	0	18	-13	0
EM1300	Installation of FS Pumps and Pipework at GF	18	01JUN06	21JUN06	0	0	18	119	0
T2320	Installation of Earth Mat at SP Bldg	30	02JUN06	07JUL06	0	0	30	11	-13
T2310	CLP work in CLP room	36	22JUN06	03AUG06	0	0	36	-13	0
EM1280	E&M Access to G/F	0	01JUN06		0	0	0	-13	0
ENT South Portal Bldg (1F/Lwr Plen) - E & M Work									
T2610	NB carriageway OHVD slab + 74 - BB 1st fix	12	24MAY06	07JUN06	0	0	12	-48	-13
T2630	SB Carriageway OHVD slab +74 BB 1st Fix	12	25MAY06	08JUN06	0	0	12	-36	7
EM1310	Installation of Compressor	18	01JUN06	21JUN06	0	0	18	119	0
EM1020	E&M Access to 1/F	0	01JUN06*		0	0	0	119	0
ENT South Portal Bldg (2F/Silencer) - E & M Work									
EM1030	BS Works for HV Sw + Tx	12	30MAY06	13JUN06	0	0	12	-29	15
EM1110	BS Works for Genset	18	30MAY06	20JUN06	0	0	18	1	15
EM1140	E&M Works in Corridors 2/F	24	14JUN06	12JUL06	0	0	24	-42	15
EM1120	Genset Installation	36	21JUN06	02AUG06	0	0	36	1	15
EM1175	BS Works for TVS Plenums	30	27JUN06	01AUG06	0	0	30	-60	-7
EM1160	E&M Works in Risers	48	19JUL06	12SEP06	0	0	48	-65	-7
EM1010	E&M access to 2/F	0	30MAY06*		0	0	0	-42	15
ENT South Portal Bldg (3F/ Fan Rm) - E & M Works									
EM1060	BS Works for LV Sw, MCC, UPS, LCC	12	27JUN06	11JUL06	0	0	12	-53	-7
EM1070	LV Sw, MCC, UPS, LCC Installation	30	12JUL06	15AUG06	0	0	30	-53	-7
EM1150	E&M Works in Corridors 3/F	24	12JUL06	08AUG06	0	0	24	-71	-7
EM1090	BS Works for 110V Charger Rm	12	09AUG06	22AUG06	0	0	12	-71	-7
EM1170	Termination of overall Elect HV & LV Sys	30	09AUG06	11NOV06	0	0	30	-96	-12



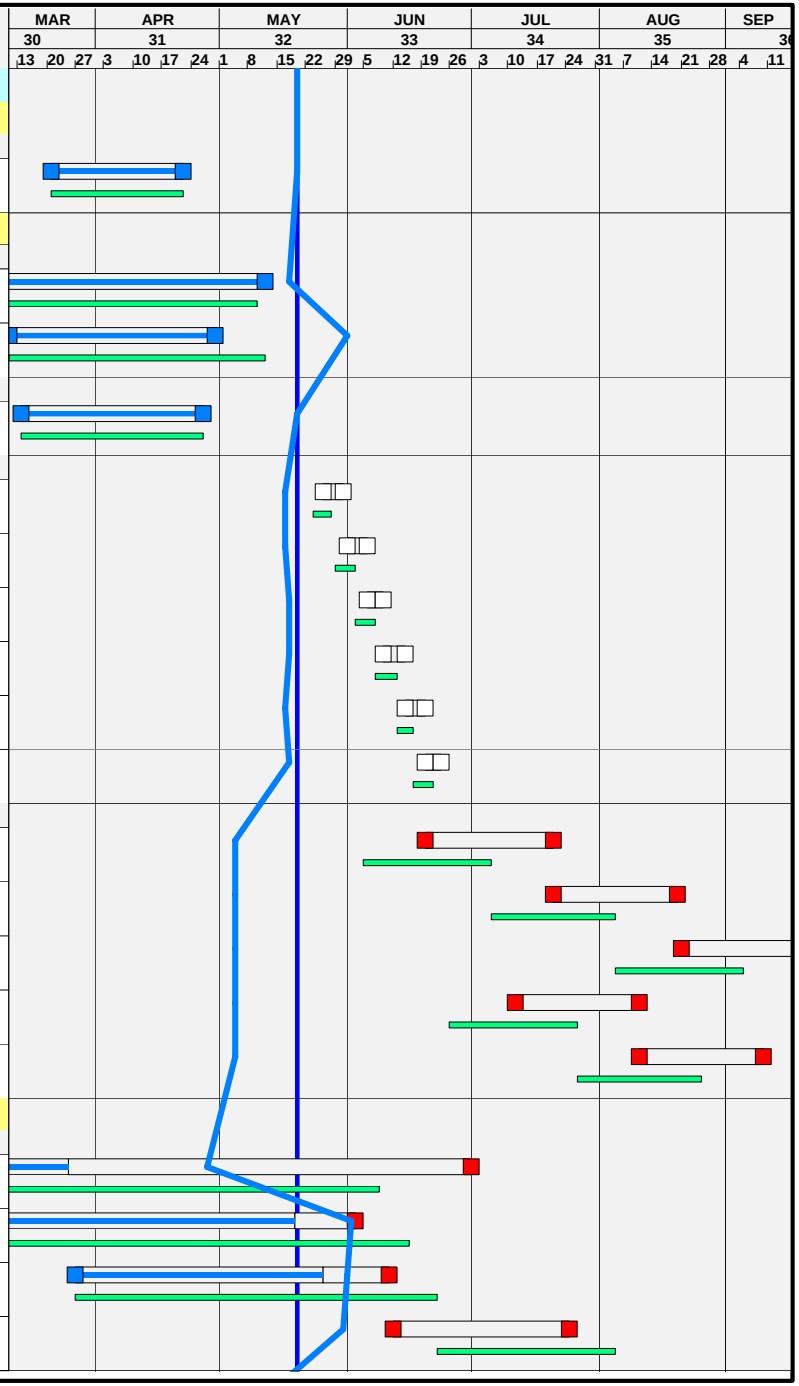
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
ENT South Portal Bldg (3F/ Fan Rm) - E & M Works									
EM1000	E&M access to 3/F	0	27JUN06*		0	0	0	-71	-7
ENT South Portal Bldg (4F/Upr Plen) - E & M Work									
EM1180	TVS Installation	100	12JUL06	17NOV06	0	0	100	-60	-7
Testing and Commissioning									
EM1130	Genset Termination + T&C	12	03AUG06	16AUG06	0	0	12	1	15
EM1100	110V Charger Rm Installation + T&C	12	23AUG06	05SEP06	0	0	12	-71	-7
Statutory Inspection & Issued Certificates									
EM1320	Submit Form WWO46 for Water Supply to WSD	30	12JUL06	15AUG06	0	0	30	54	-13
EM1340	Water Supply Certificate issued	0		15AUG06	0	0	0	54	-13
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		-16
ACS_F2	Access to Portions - F2 (U/Gnd Sth Tunnel)	0	20OCT03A		100	100	0		-16
Design & Engineering - Temporary Works									
Permanent Works									
Tunnel									
1657	Design/ICE Check Tunnel Clading	24	03JAN06A	26MAY06	60	60	6	-50	-13
1662	Design/ICE Check Niche Cabinets	48	20MAY06	17JUL06	0	0	48	382	-13
1668	Eng Approve Dsg X-passage/Adit Fire Doors	12	20MAY06	03JUN06	0	0	12	387	-13
1659	Eng Approve Dsg Tunnel Clading	12	27MAY06	10JUN06	0	0	12	-50	-13
1669	Issue Constr Dwgs X-passage/Adit Fire Doors	0		03JUN06	0	0	0	387	-13
1663	Eng Approve Dsg Niche Cabinets	12	18JUL06	31JUL06	0	0	12	382	-13
1664	Issue Constr Dwgs Niche Cabinets	0		08AUG06	0	0	0	382	-13
Procurement - Material									
Tunnelling Project Wide									
1660	Order/Manufact/Del Tunnel Cladding	200	29DEC05A	19JUN06	80	80	25	-57	-13
1685	Order/Manufact/Del Fire Doors	50	05JUN06	02AUG06	0	0	50	387	-13



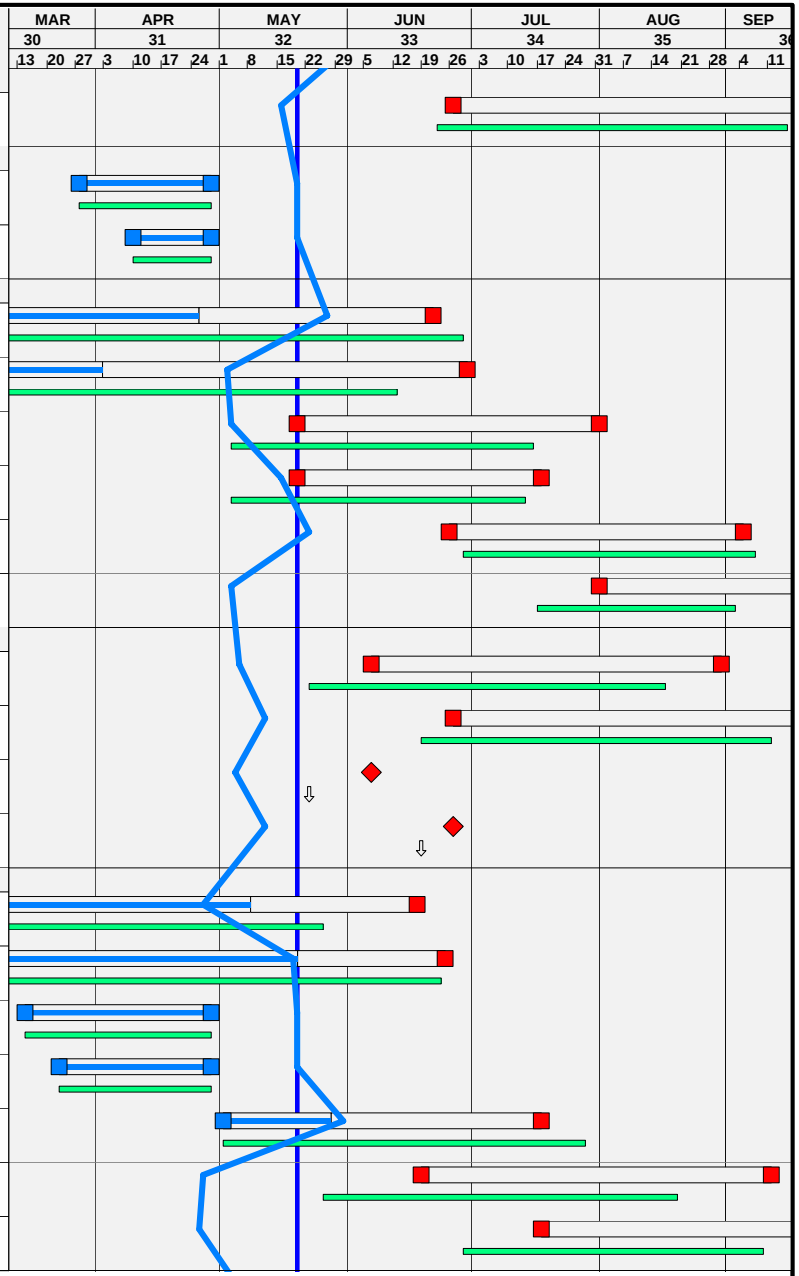
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
NB Tunnel									
6879	EntRtNb-Proc & Manuf. CMCS & ELV sys	180	29MAR05A	03JUN06	90	90	12	365	0
6883	EntRtNb-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	14JUN06	90	90	21	428	-1
6887	EntRtNb-Proc & Manuf. TVS control sys	180	01NOV05A	29APR06A	100	90	0		8
SB Tunnel									
6786	EntRtSb&VA-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	14JUN06	90	90	21	380	-1
6799	EntRtSb&VA-Proc & Manuf. CMCS & ELV sys	180	29MAR05A	03JUN06	90	90	12	365	0
6796	EntRtSb&VA-Proc & Manuf. TVS control sys	180	01NOV05A	29APR06A	100	90	0		8
Major Equipemnt Delivery									
Tunnelling Project Wide									
NB Tunnel									
6891	EntRtNb-Del. TVS control sys	48	14JAN06A	30AUG06	90	90	86	363	-93
6890	EntRtNb-Del. LV main & submain dist. sys	96	01FEB06A	30MAY06	90	60	9	440	11
6889	EntRtNb-Del. Tunnel Lgt	48	30MAR06A	29APR06A	100	95	0		48
6886	EntRtNb-Del. CMCS & ELV sys	72	05JUN06	28AUG06	0	0	72	365	0
6888	EntRtNb-Del. AFA & Linear sys	48	15JUN06	14JUN06	0	0	0	428	-1
SB Tunnel									
6797	EntRtSb&VA-Del. TVS control sys	48	14JAN06A	30AUG06	90	90	86	363	-93
6804	EntRtSb&VA-Del. LV main & submain dist. sys	96	01FEB06A	30MAY06	90	40	9	440	0
6810	EntRtSb&VA-Del. Tunnel Lgt	48	30MAR06A	29APR06A	100	95	0		37
6801	EntRtSb&VA-Del. CMCS & ELV sys	72	05JUN06	28AUG06	0	0	72	365	0
6787	EntRtSb&VA-Del. AFA & Linear sys	48	15JUN06	10AUG06	0	0	48	380	-1
Construction Works									
ENT NORTH PORTAL - ADVANCED WORKS									
Tunnel Lining									
South Portal									
103735	Demobilise lining form SB (from SP) at VA/CP7	12	25APR06A	26APR06A	100	100	0		0



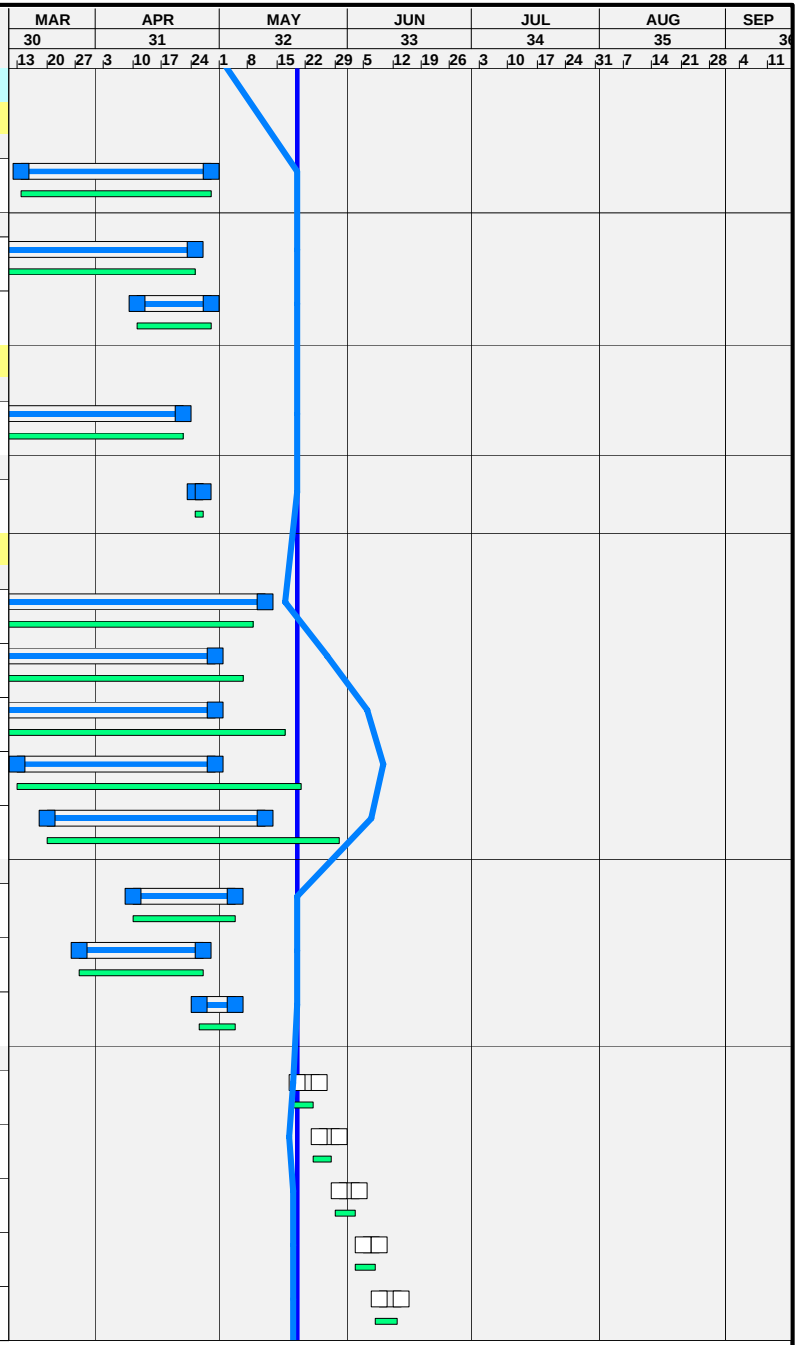
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Tunnel Drive North Bound									
Tunnel Invert									
Works progressed from South Portal									
103220	NB Invert Cleaning Ch1653->1862	23	21MAR06A	21APR06A	100	100	0		0
Tunnel Finishing Works									
TCSS, FS & Works Within Trough									
3535	NB Cable/Svc trough 175m Ch.1830 to 1673 fr.NP	13	25FEB06A	11MAY06A	100	70	0		-2
3540	NB Cable/Svc trough 160m Ch.1513 to 1673 fr.SP	12	11MAR06A	29APR06A	100	50	0		8
Sub-base & Concrete Pavement									
5568	NB Sub-base & conc pavement fr SP CP7->CP8	6	14MAR06A	26APR06A	100	100	0		0
Bituminous Pavement									
3599	NB Base Course - RHS 650m Ch 3030->2380	4	26MAY06	30MAY06	0	0	4	105	-2
3600	NB Base Course - RHS 650m Ch 2380->1730	4	01JUN06	05JUN06	0	0	4	105	-2
3601	NB Base Course - RHS 650m Ch 1730->1080	4	06JUN06	09JUN06	0	0	4	105	-2
3603	NB Base Course - LHS 650m Ch 3030->2380	4	10JUN06	14JUN06	0	0	4	105	-2
3604	NB Base Course - LHS 650m Ch 2380->1730	4	15JUN06	19JUN06	0	0	4	105	-2
3605	NB Base Course - LHS 650m Ch 1730->1080	4	20JUN06	23JUN06	0	0	4	105	-2
VE Panel Installation									
3606	NB - VE Panel Supt Sys RHS @ CH3030-2380 (650m)	26	20JUN06	20JUL06	0	0	26	-45	-13
3607	NB - VE Panel Supt Sys RHS @ CH2380-1730 (650m)	26	21JUL06	19AUG06	0	0	26	-45	-13
3608	NB - VE Panel Supt Sys RHS @ CH1730-1080 (650m)	26	21AUG06	19SEP06	0	0	26	-45	-13
3627	NB - VE Panel Claddings RHS @ CH3030-2380 (650m)	26	12JUL06	10AUG06	0	0	26	-45	-13
3628	NB - VE Panel Claddings RHS @ CH2380-1730 (650m)	26	11AUG06	09SEP06	0	0	26	-45	-13
ENT NB TUNNEL - (E&M) BUILDING SERVICES									
MVAC / Tunnel Ventilation Syst Above OHVD									
277963	Ent NB - Install Motorised Smoke & Fire Dampers	72	04JAN06A	30JUN06	45	45	35	-50	-19
277964	Ent NB - Comp Air Pipes/Condts to E/P16 to E/P21	36	10FEB06A	02JUN06	87	40	5	-50	11
277965	Ent NB - Comp Air Pipes/Condts to E/P15 to E/P8	36	27MAR06A	10JUN06	79	30	8	-57	10
277966	Ent NB - Comp Air Pipes/ Condts to E/P1to E/P7	36	12JUN06	24JUL06	0	0	36	-45	10



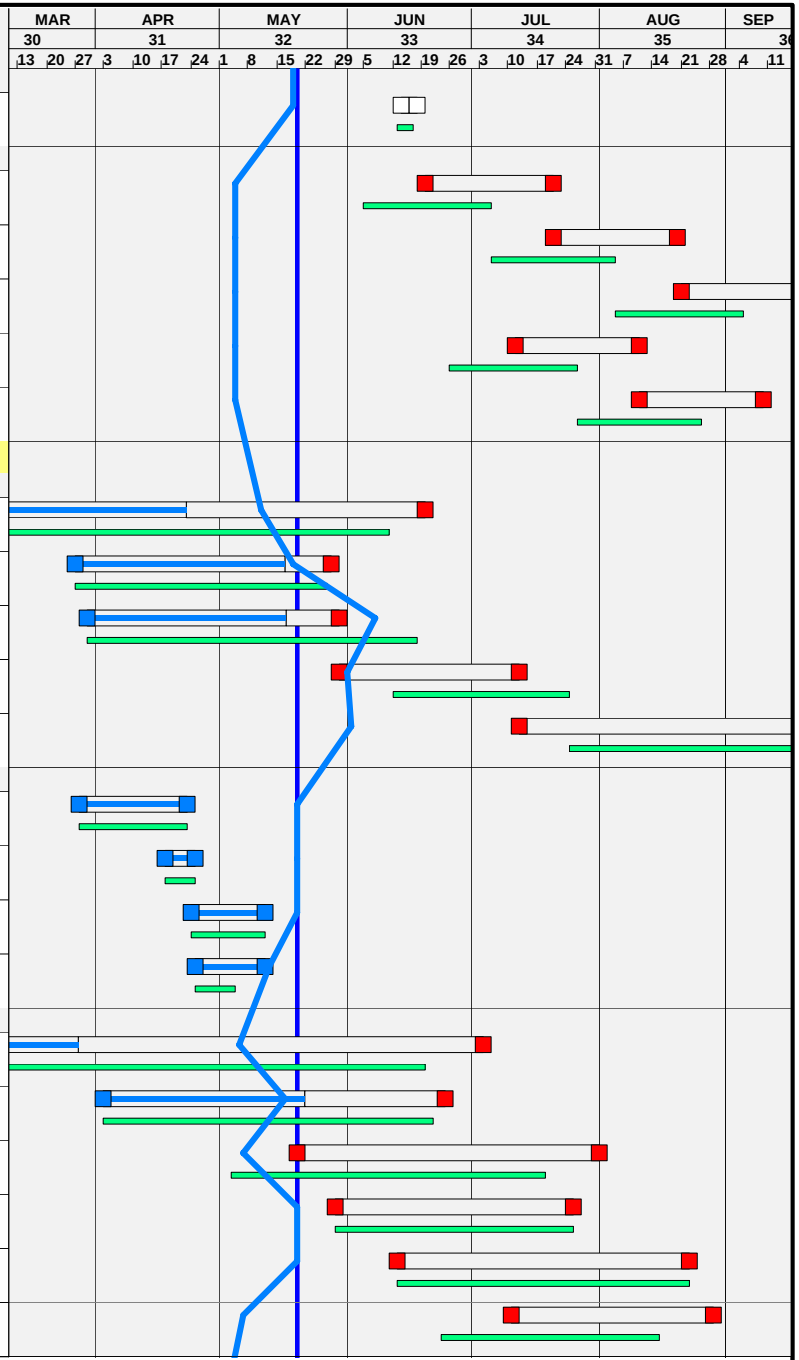
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
MVAC / Tunnel Ventilation Syst Above OHVD									
277967	Ent NB - Cabling, Wiring and Termination	72	27JUN06	19SEP06	0	0	72	-70	-3
Plumbing and Drainage									
277978	Ent NB - 200d W.Main/Brackt @ Ch1830-1673 (157m)	6	28MAR06A	28APR06A	100	100	0		0
277982	Ent NB - 200d W.Main/Brackt @ Ch1513-1673 (160m)	7	10APR06A	28APR06A	100	100	0		0
Fire Protection System									
277993	Ent NB - 150d FS Main pipeworks / brackets @ G/L	72	23JAN06A	21JUN06	62	36	27	-25	6
277990	Ent NB - Install FS Conduit @ C/L to AFA Panels	54	07FEB06A	29JUN06	38	40	34	-11	-15
277991	Ent NB - Install brckts/ Supt for FS dectn @ C/L	60	20MAY06	31JUL06	0	0	60	-11	-13
277994	Ent NB - Install Hose Reel Cabinets & Eqpt @ G/L	48	20MAY06	17JUL06	0	0	48	-17	-3
277995	Ent NB - 100d FH / HR Pipeworks & Fittings @ G/L	60	26JUN06	04SEP06	0	0	60	-17	3
277992	Ent NB - Install Fire Alarm Detention @ C/L	42	01AUG06	18SEP06	0	0	42	-11	-13
Electrical Works Above OHVD									
278000	Ent NB - HV & LV Mn/Submain Cables to CP21-CP11	72	07JUN06	30AUG06	0	0	72	-96	-12
278001	Ent NB - HV & LV Mn/Submain Cables to CP01-CP10	72	27JUN06	19SEP06	0	0	72	-83	-7
277998	Ent NB - E&M Access to 3/F UPS Room (NPVB)	0	07JUN06		0	0	0	-96	-12
277999	Ent NB - E&M Access to 3/F UPS Room (SPVB)	0	27JUN06		0	0	0	-83	-7
Electrical Works Below OHVD									
278008	Ent NB - Brkts for Lights,CCTV,Camera,Eqpt @ C/L	96	07JAN06A	17JUN06	75	82	24	-64	-19
278009	Ent NB - Conduit Works (Above & Below OHVD)	60	01MAR06A	24JUN06	69	30	18	-22	-1
278006	Ent NB - TCSS Brkt @ C.Trough Ch1010-1673 (663m)	18	15MAR06A	28APR06A	100	100	0		0
278007	Ent NB - TCSS Brkt @ C.Trough Ch2000-1673 (327m)	9	23MAR06A	28APR06A	100	100	0		0
278010	Ent NB - Earthing & Lighting Fixture @ C/Lvl	72	02MAY06A	17JUL06	34	2	48	-16	10
278011	Ent NB-Install CCTV,Camera,Eqpt @C/Lvl (By TCSS)	72	19JUN06	11SEP06	0	0	72	-64	-19
278012	Ent NB - Cabling,Wirings&Term @ Ceiling/ Grd Lvl	48	18JUL06	03OCT06	0	0	48	-64	-19



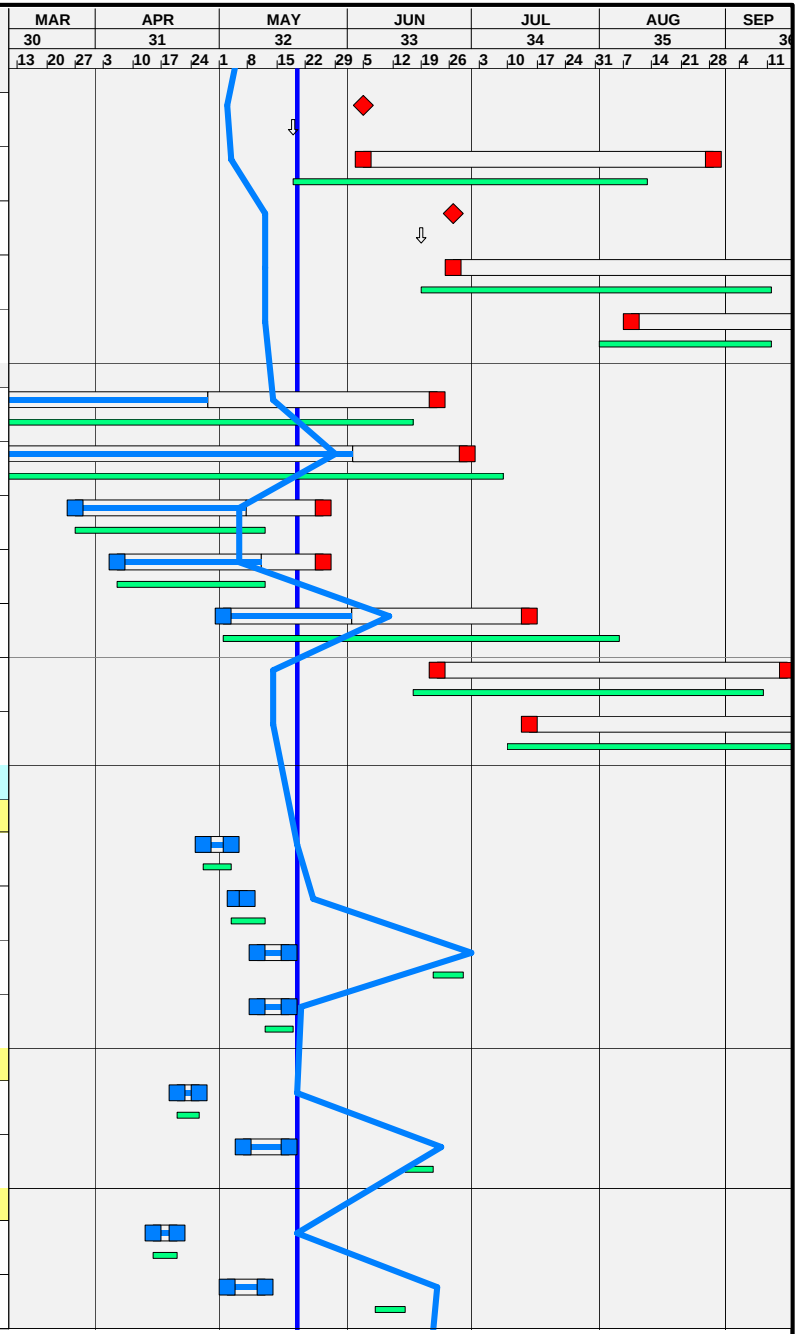
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Tunnel Drive South Bound									
Tunnel Invert									
Works progressed from North Portal									
5613	SB Invert Drainage fr NP CP8 -> CP7	12	14MAR06A	28APR06A	100	100	0		0
Works progressed from South Portal									
101586	SB exc.grnd/foul water drain trough 342m	60	07MAR06A	24APR06A	100	100	0		0
5615	SB Invert Drainage fr SP CP6 -> CP7	8	11APR06A	28APR06A	100	100	0		0
Tunnel Lining									
Works progressed from North Portal									
3161	SB NP OHVD 175m Tch.1+835 to 1+660 VA	30	21JAN06A	21APR06A	100	100	0		0
Works progressed from South portal									
3738	Demobilise OHVD form SB from SP	12	25APR06A	26APR06A	100	100	0		0
Tunnel Finishing Works									
TCSS, FS & Works Within Trough									
3568	SB Cable/Svc trough 175m Ch.1835 to 1660 fr.NP	11	06MAR06A	11MAY06A	100	75	0		-3
3570	SB Cable/Svc trough 150m Ch.1063 to 1213 fr.SP	9	24FEB06A	29APR06A	100	80	0		4
3571	SB Cable/Svc trough 150m Ch.1213 to 1363 fr.SP	9	03MAR06A	29APR06A	100	10	0		12
3572	SB Cable/Svc trough 150m Ch.1363 to 1513 fr.SP	9	13MAR06A	29APR06A	100	50	0		16
3573	SB Cable/Svc trough 150m Ch.1513 to 1660 fr.SP	9	20MAR06A	11MAY06A	100	15	0		15
Sub-base & Concrete Pavement									
5634	SB Sub-base & conc pavement fr NP CP8 -> CP7	6	10APR06A	04MAY06A	100	100	0		0
5637	SB Sub-base & conc pavement fr SP CP5 -> CP6	6	28MAR06A	26APR06A	100	100	0		0
5636	SB Sub-base & conc pavement fr NP CP6 -> CP7	6	26APR06A	04MAY06A	100	100	0		0
Bituminous Pavement									
3591	SB Base Course - RHS 650m Ch 3030->2380	4	20MAY06	24MAY06	0	0	4	104	-1
3592	SB Base Course - RHS 650m Ch 2380->1730	4	25MAY06	29MAY06	0	0	4	104	-1
3593	SB Base Course - RHS 650m Ch 1730->1080	4	30MAY06	03JUN06	0	0	4	104	-1
3595	SB Base Course - LHS 650m Ch 3030->2380	4	05JUN06	08JUN06	0	0	4	104	-1
3596	SB Base Course - LHS 650m Ch 2380->1730	4	09JUN06	13JUN06	0	0	4	104	-1



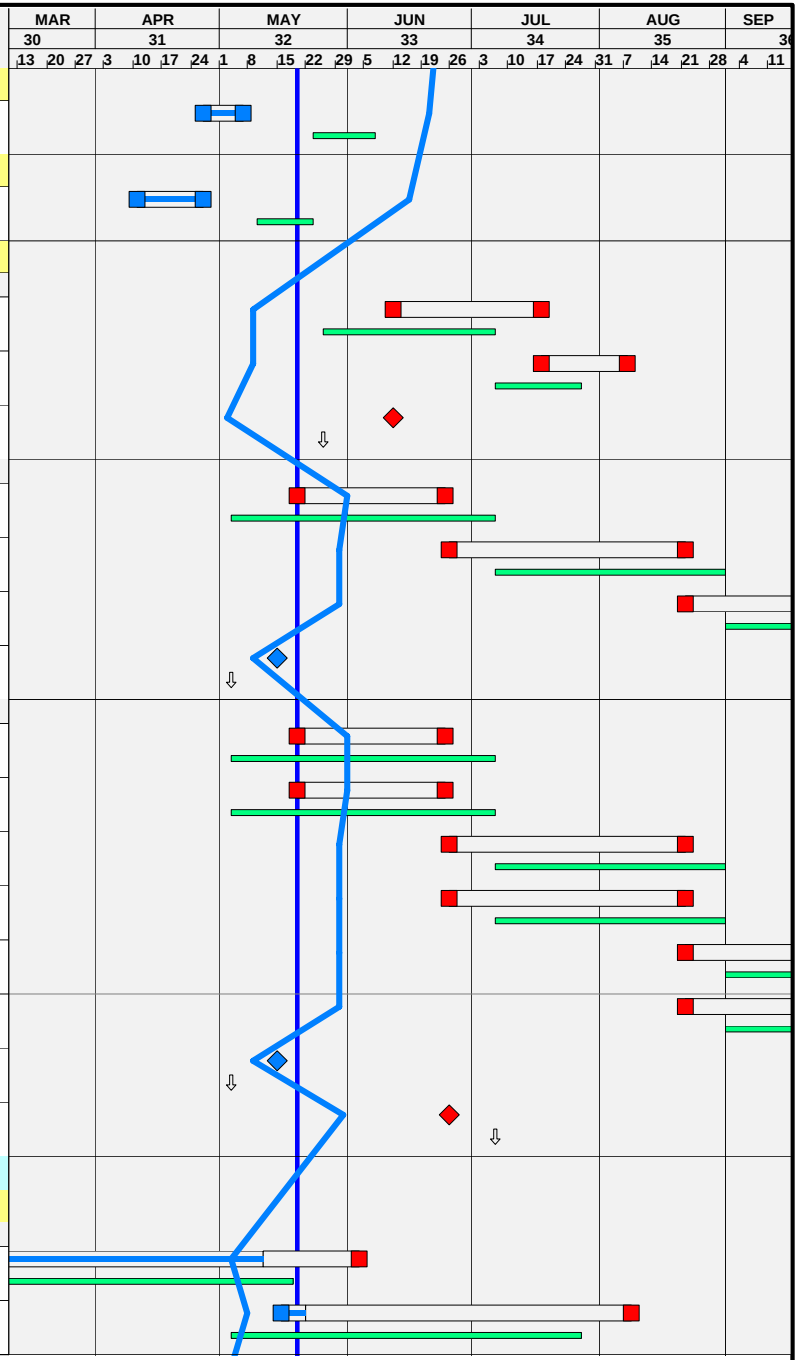
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Bituminous Pavement									
3597	SB Base Course - LHS 650m Ch 1730->1080	4	14JUN06	17JUN06	0	0	4	104	-1
VE Panel Installation									
3613	SB - VE Panel Supt Sys RHS @ CH3030-2380 (650m)	26	20JUN06	20JUL06	0	0	26	-57	-13
3614	SB - VE Panel Supt Sys RHS @ CH2380-1730 (650m)	26	21JUL06	19AUG06	0	0	26	-57	-13
3615	SB - VE Panel Supt Sys RHS @ CH1730-1080 (650m)	26	21AUG06	19SEP06	0	0	26	-57	-13
3620	SB - VE Panel Claddings RHS @ CH3030-2380 (650m)	26	12JUL06	10AUG06	0	0	26	-57	-13
3621	SB - VE Panel Claddings RHS @ CH2380-1730 (650m)	26	11AUG06	09SEP06	0	0	26	-57	-13
ENT SB TUNNEL - (E&M) BUILDING SERVICES									
MVAC / Tunnel Ventillation System Above OHVD									
278014	Ent SB - Install Motorised Smoke & Fire Dampers	72	31DEC05A	19JUN06	66	40	25	-61	-7
278015	Ent SB - Comp Air Pipes/Condts to E/P16 to E/P21	36	27MAR06A	27MAY06	82	58	7	-61	-1
278016	Ent SB - Comp Air Pipes/Condts to E/P15 to E/P8	36	30MAR06A	29MAY06	79	28	8	-61	16
278017	Ent SB - Comp Air Pipes/ Condts to E/P1 to E/P7	36	30MAY06	12JUL06	0	0	36	-61	10
278018	Ent SB - Cabling, Wiring and Termination	60	13JUL06	20SEP06	0	0	60	-61	10
Plumbing and Drainage									
278027	Ent SB - 200d W.Main/Brackt @ Ch2000-1835 (150m)	7	28MAR06A	22APR06A	100	100	0		0
278031	Ent SB - 200d W.Main/Brackt @ Ch1363-1513 (150m)	7	18APR06A	24APR06A	100	100	0		0
278028	Ent SB - 200d W.Main/Brackt @ Ch1835-1660 (175m)	8	24APR06A	11MAY06A	100	50	0		0
278032	Ent SB - 200d W.Main/Brackt @ Ch1513-1660 (150m)	7	25APR06A	11MAY06A	100	50	0		-5
Fire Protection System									
278033	Ent SB - Install FS Conduit @ C/L to AFA Panels	54	07FEB06A	03JUL06	33	30	36	-63	-11
278036	Ent SB - 150d FS Main pipeworks / brackets @ G/L	72	03APR06A	24JUN06	59	45	30	-58	-3
278034	Ent SB - Install brcts/ Supt for FS detecn @ C/L	60	20MAY06	31JUL06	0	0	60	-63	-11
278037	Ent SB - Install Hose Reel Cabinets & Eqpt @ G/L	48	29MAY06	25JUL06	0	0	48	-58	0
278038	Ent SB - 100d FH / HR Pipeworks & Fittings @ G/L	60	13JUN06	22AUG06	0	0	60	-58	0
278035	Ent SB - Install Fire Alarm Detention @ C/L	42	11JUL06	28AUG06	0	0	42	-63	-11



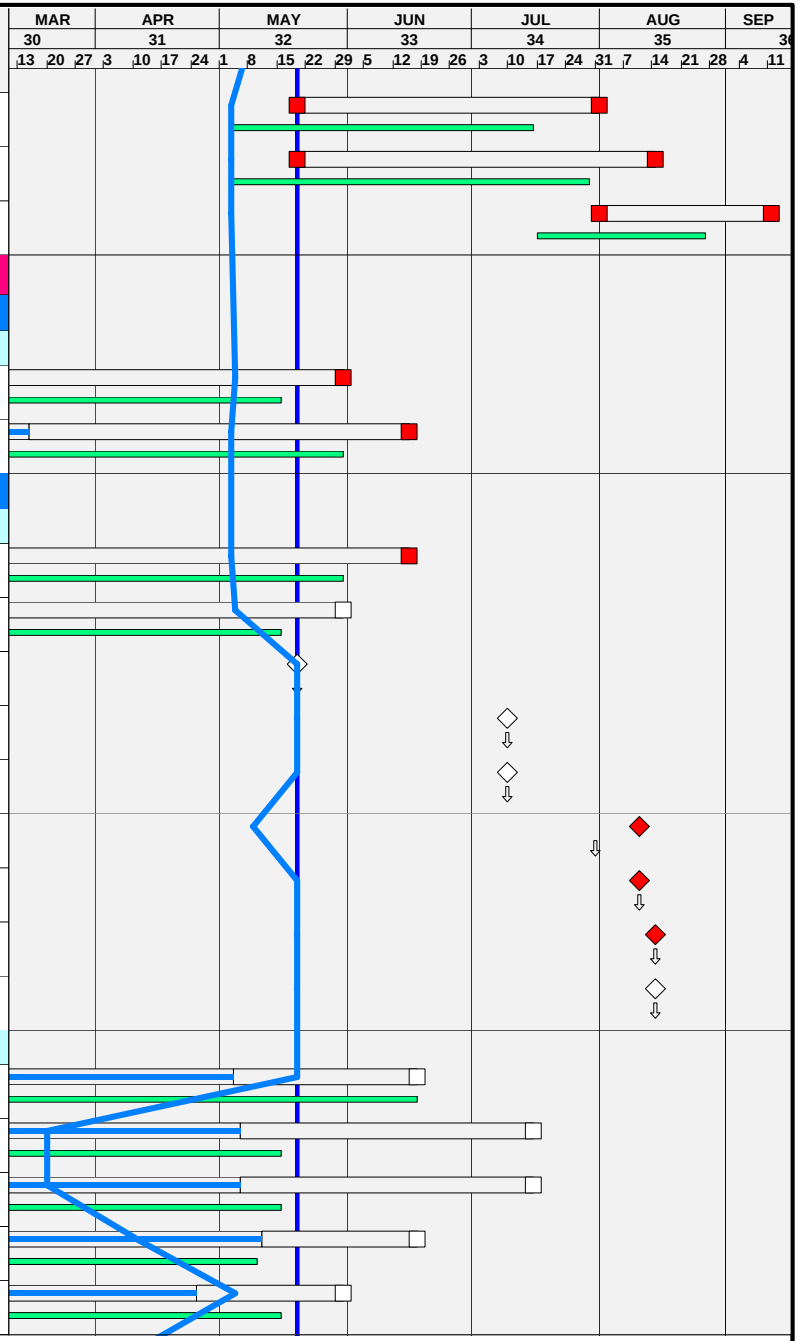
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Electrical Works Above OHVD									
278041	Ent SB - E&M Access to 2/F LV Switch Room (NPVB)	0	05JUN06		0	0	0	-94	-13
278043	Ent SB - HV & LV Mn/Submain Cables to CP21-CP11	72	05JUN06	28AUG06	0	0	72	-94	-13
278042	Ent SB - E&M Access to 3/F LV Switch Room (SPVB)	0	27JUN06		0	0	0	-83	-7
278044	Ent SB - HV & LV Mn/submain Cables to CP01-CP10	72	27JUN06	19SEP06	0	0	72	-83	-7
278086	HGC - Cabling	36	09AUG06	19SEP06	0	0	36	-70	-7
Electrical Works Below OHVD									
278051	Ent SB - Brkts for Lights,CCTV,Camera,Eqpt @ C/L	96	19DEC05A	22JUN06	70	62	28	-74	-5
278052	Ent SB - Conduit Works (Above & Below OHVD)	60	01MAR06A	29JUN06	77	30	14	-32	7
278049	Ent SB - TCSS Brkt @ C.Trough Ch1010-1660 (650m)	18	27MAR06A	25MAY06	69	69	5	-12	-12
278050	Ent SB - TCSS Brkt @ C.Trough Ch2000-1660 (340m)	10	06APR06A	25MAY06	70	70	5	-12	-12
278053	Ent SB - Earthing & Lighting Fixture @ C/Lvl	72	02MAY06A	14JUL06	42	2	42	-20	19
278054	Ent SB-Install CCTV,Camera,Eqpt @C/Lvl (by TCSS)	72	23JUN06	15SEP06	0	0	72	-74	-5
278055	Ent SB - Cabling,Wirings&Term @ Ceiling/ Grd Lvl	48	15JUL06	16OCT06	0	0	48	-74	-5
Cross Passage 7									
Type N3 - Northbound Tunnel									
0360	CP7 - Type N3 (NB) - SFRC arch (4 bays @ 1d/bay)	4	27APR06A	03MAY06A	100	100	0		0
0372	CP7 - Type N3 (NB) - Arch formwork dismantle	6	05MAY06A	07MAY06A	100	0	0		4
0362	CP7 - Type N3 (NB) - Maint Acc side wall & roof	6	10MAY06A	17MAY06A	100	0	0		35
0374	CP7 - Type N3 (NB) - Maint Acc end wall	6	10MAY06A	17MAY06A	100	0	0		1
Type N2									
0573	CP7 - Type N2 - SFRC arch (4 bays @ 1d/bay)	4	21APR06A	25APR06A	100	100	0		0
0574	CP7 - Type N2 - Maint Acc Walls & Roof	6	07MAY06A	17MAY06A	100	0	0		29
Type N3 - Southbound Tunnel									
0364	CP7 - Type N3 (SB) - SFRC arch (4 bays @ 1d/bay)	4	15APR06A	20APR06A	100	100	0		0
0367	CP7 - Type N3 (SB) - Maint Acc Walls & Roof	6	03MAY06A	11MAY06A	100	0	0		28



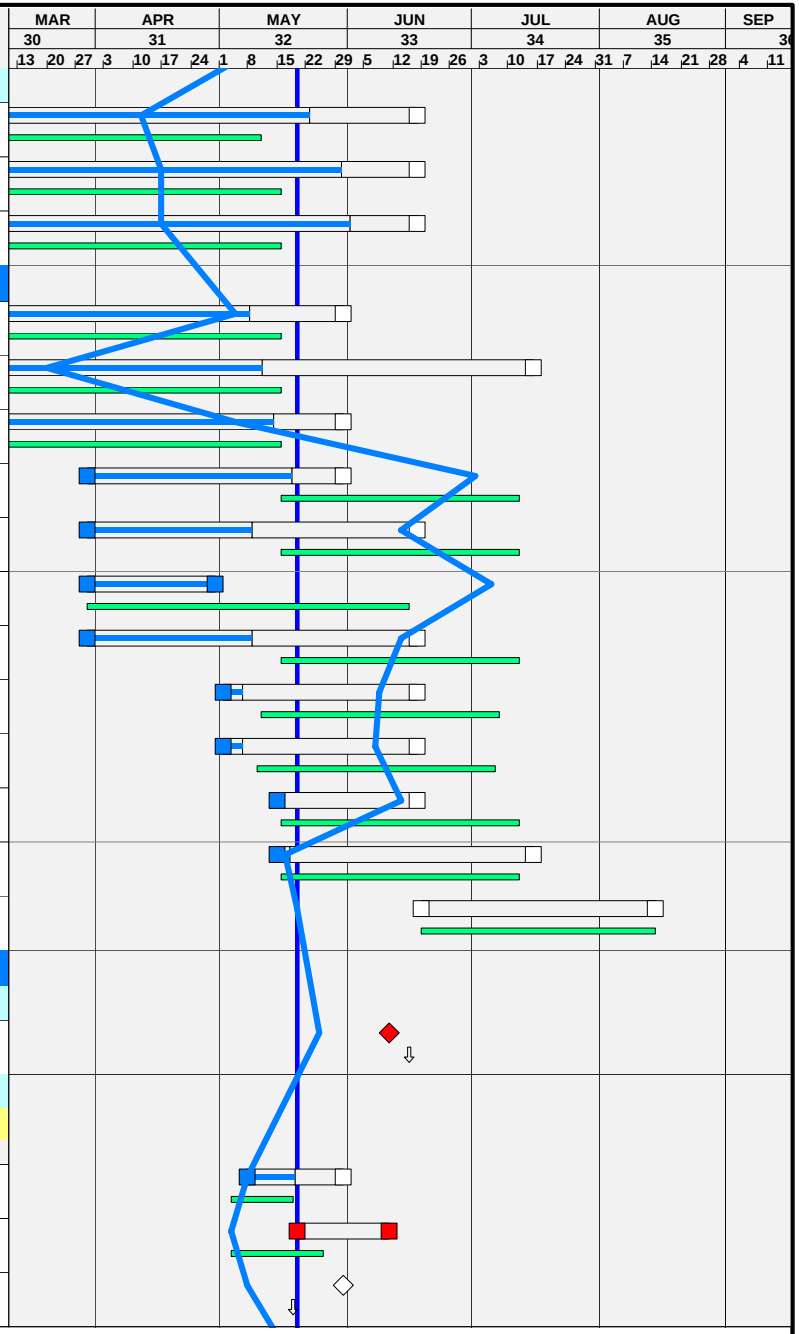
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Type N4 - Combined Section									
0580	CP7 - Type N4-CS - Maint Acc Walls & Roof	12	27APR06A	06MAY06A	100	0	0		26
Type T - Transition									
0585	CP7 - Type N4-T - Maint Acc Walls & Roof	12	11APR06A	26APR06A	100	0	0		21
ENT CROSS PASSAGE CP07 - (E&M) BUILDING SERVICES									
MVAC / Tunnel Ventillation System Above OHVD									
278058	CP7 - Comp Air Pipes / Conduits to ENT NB & SB	30	12JUN06	17JUL06	0	0	30	9	-9
278059	CP7 - Cabling, Wiring, Termination & Test	18	18JUL06	07AUG06	0	0	18	9	-9
278057	E&M Access to 1/F of Ventilation Adit Bldg.	0	12JUN06		0	0	0	9	-13
Fire Protection System									
278061	CP7 - FS Conduit @ Ceiling Lvl	30	20MAY06	24JUN06	0	0	30	-27	9
278062	CP7 - Cabling, Wiring, FS detectn & Alarm Bell	48	26JUN06	21AUG06	0	0	48	-27	9
278063	CP7 - FS Termination & Test	24	22AUG06	18SEP06	0	0	24	-27	9
278060	E&M Access to CP7 Cable & Maintence Access Ducts	0	15MAY06A		100	0	0		-8
Electrical Works									
278065	CP7 - HV / LV Cable Brackets & Containment	30	20MAY06	24JUN06	0	0	30	-33	9
278088	HGC - Cable Containment	30	20MAY06	24JUN06	0	0	30	-33	9
278066	CP7 - Install Conduit, lighting & switches @ C/L	48	26JUN06	21AUG06	0	0	48	-27	9
278069	CP7 - HV/ LV Cabling, Wiring & Term to CP7 LV Rm	48	26JUN06	21AUG06	0	0	48	-27	9
278067	CP7 - Cabling, Wiring & Termination and Test	24	22AUG06	18SEP06	0	0	24	-27	9
278070	CP7 - HV / LV Cables Testing and T&C	24	22AUG06	18SEP06	0	0	24	-27	9
278064	E&M Access to CP7 Cable & Maintence Access Ducts	0	15MAY06A		100	0	0		-8
278068	E&M Access to Vent Adit Bldg 1/F LV Switch Rm	0	26JUN06		0	0	0	-27	9
ENT Cross Passages									
CROSS PASSAGES (CP1-CP6 & CP8-CP21) - (E&M) WORK									
Electrical Works									
278074	(CP1-CP21) - Cable Containment & Equipt Support	60	07FEB06A	03JUN06	80	80	12	-21	-13
278078	(CP1-CP10) - MCCB/ MCB Brd,CMCS,Busbar,Switches	70	16MAY06A	08AUG06	7	0	67	-42	-10



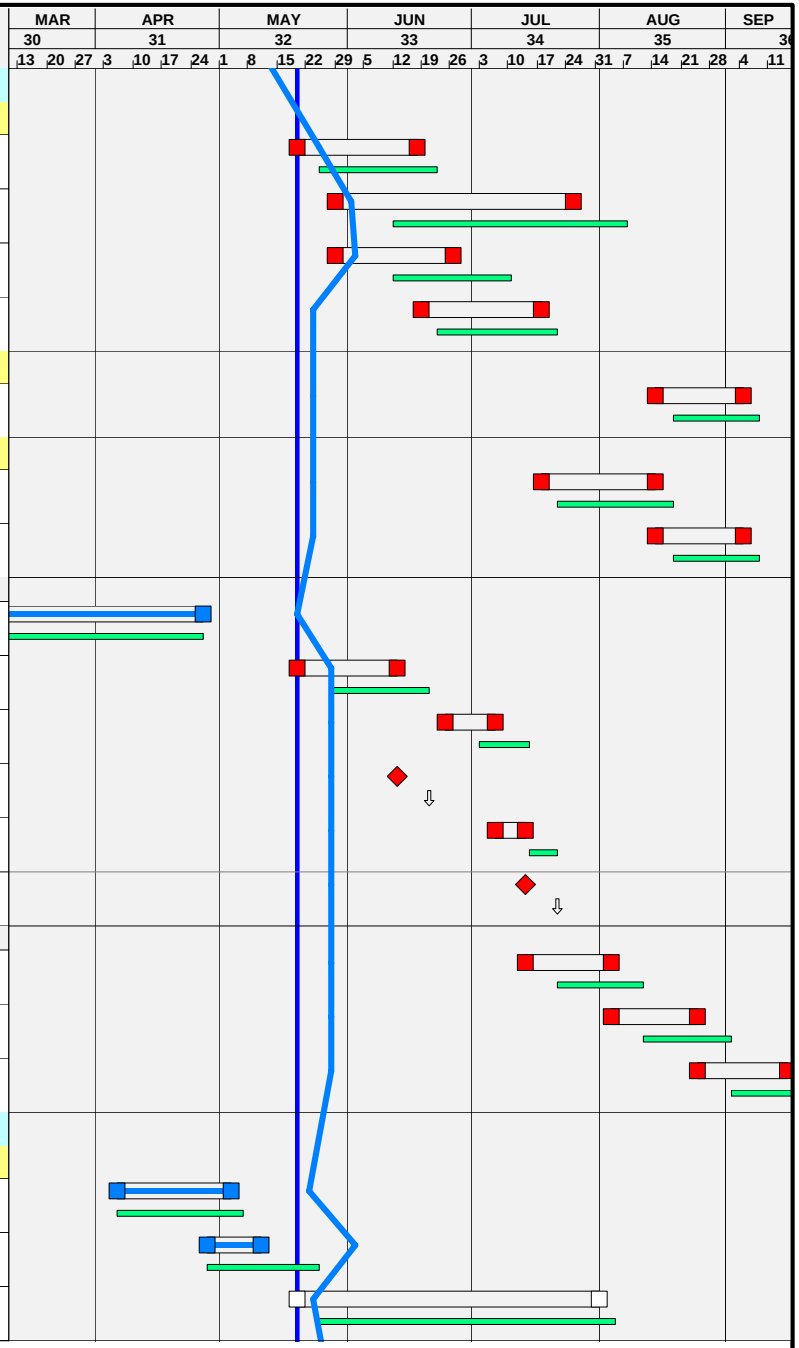
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Electrical Works									
278075	(CP1-CP21) - Conduit,light,Signage fixt,Switches	60	20MAY06	31JUL06	0	0	60	-57	-13
278077	(CP21-CP11) - MCCB/ MCB Brd,CMCS,Busbar,Switches	72	20MAY06	14AUG06	0	0	72	-58	-13
278076	(CP1-CP21) - Cabling, Wiring, Termination & Test	36	01AUG06	11SEP06	0	0	36	-57	-13
VENTILATION ADIT & BUILDING									
Submittals & Approvals									
ABWF & Builders Works									
1972	VA Bldg. - Approve door details	24	07MAY05A	30MAY06	70	70	9	-24	-13
1988	VA Bldg. - Approve aluminium composite cladding	24	13DEC05A	15JUN06	50	50	22	-13	-13
PROCUREMENT									
ARCHITECTURAL									
1995	VA Bldg. - Procure aluminium composite cladding	90	19APR05A	15JUN06	60	60	22	-7	-13
2026	VA Bldg. - Procure expanded metal mesh cladding	60	05JUN05A	30MAY06	50	50	9	24	-13
2033	VA Bldg. - Initial delivery louvres	0	20MAY06*		0	0	0	15	0
2034	VA Bldg. - Initial delivery fall arrest roof sys	0	10JUL06*		0	0	0	68	0
2035	VA Bldg. - Initial delivery balust & metal works	0	10JUL06*		0	0	0	68	0
2032	VA Bldg. - Initial delivery doors	0	11AUG06*		0	0	0	-24	-10
2038	VA Bldg. - Initial delivery alum comp cladding	0	11AUG06*		0	0	0	-14	0
2031	VA Bldg. - Initial delivery slate cladding	0	15AUG06*		0	0	0	-1	0
2043	VA Bldg. - Initial deliv exp metal mesh cladding	0	15AUG06*		0	0	0	21	0
E&M MATERIALS									
6591	VaBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	17JUN06	90	85	24	377	0
6636	VaBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	15JUL06	85	90	47	402	-51
6865	VaBldg-Proc & Manuf. MCC, power & control sys	180	29MAR05A	15JUL06	85	90	47	402	-51
6586	VaBldg-Proc & Manuf. FS wet sys	120	06JUN05A	17JUN06	90	95	24	425	-33
6851	VaBldg-Proc & Manuf. TVF, Ductwks & Cont'l sys	180	09JUN05A	30MAY06	90	90	9	440	-13



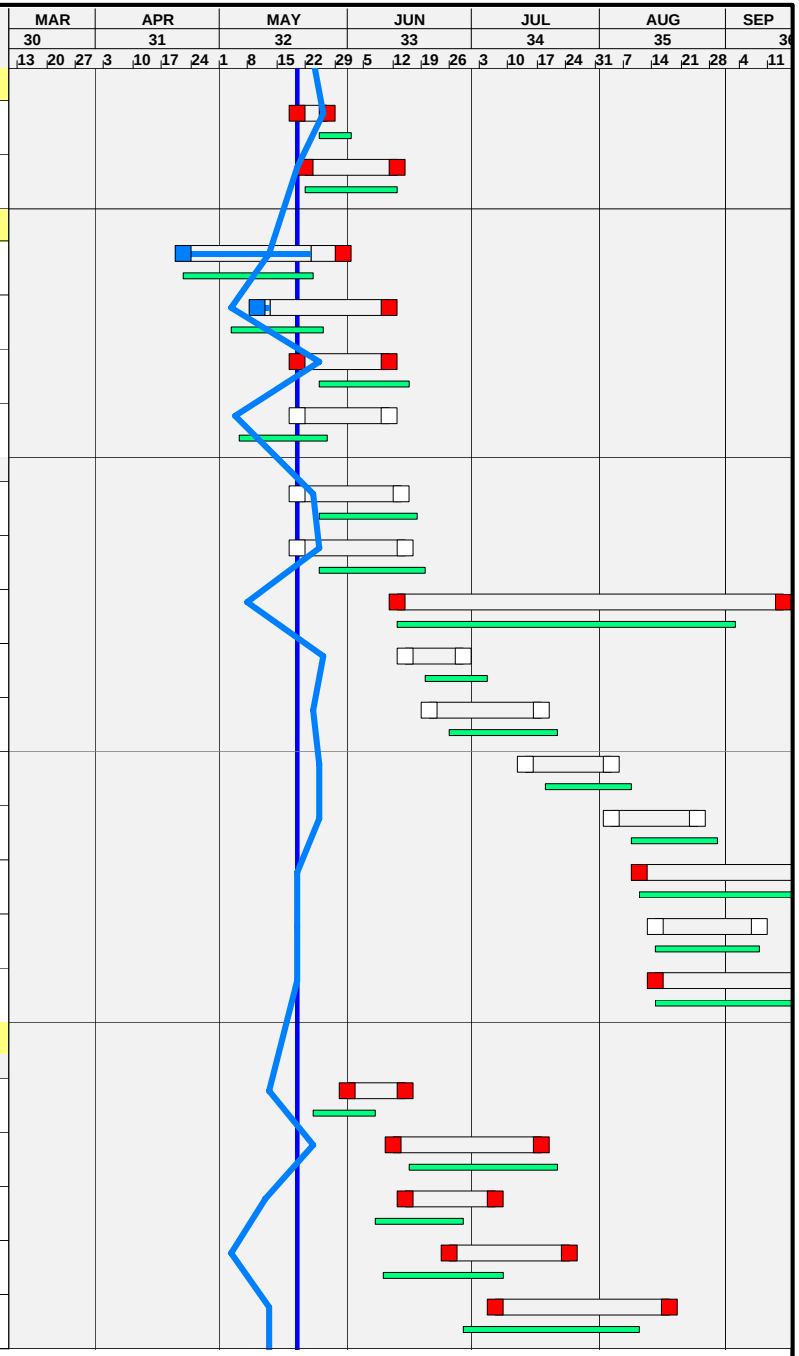
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
E&M MATERIALS									
6585	VaBldg-Proc & Manuf. PD fresh & flush water sys	120	30SEP05A	17JUN06	90	85	24	425	-32
8516	VaBldg-Proc & Manuf. MVAC Package AC Units	120	16DEC05A	17JUN06	90	80	24	425	-28
6588	VaBldg-Proc & Manuf. MVAC mech.vent. sys	180	06JAN06A	17JUN06	90	80	24	425	-28
MAJOR EQUIPMENT DELIVERY									
6593	VaBldg-Del. LV power dist. equip't to 2/F	48	06FEB06A	30MAY06	80	20	9	440	-13
6866	VaBldg-Del. MVAC MCC, & control sys to 3/F	48	06MAR06A	15JUL06	50	60	47	402	-51
7592	VaBldg-Del. PD irrig. pump & tank to G/F	48	07MAR06A	30MAY06	80	55	9	440	-13
6852	VaBldg-Del. TVS to Plenum & 3/F	48	30MAR06A	30MAY06	80	0	9	440	35
6859	VaBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	30MAR06A	17JUN06	50	0	24	425	20
8497	VaBldg-Del. building related luminaires	48	30MAR06A	29APR06A	100	70	0		37
8517	VaBldg-Del. Package AC Units	48	30MAR06A	17JUN06	50	0	24	425	20
6608	VaBldg-Del. PD pump & tank to G/F	48	02MAY06A	17JUN06	10	0	24	425	16
6609	VaBldg-Del. FS pumps & tank to G/F	48	02MAY06A	17JUN06	10	0	24	425	15
6619	VaBldg-Del. building vent. fans	48	15MAY06A	17JUN06	5	0	0	425	20
6698	VaBldg-Del. AFA & FM200 sys	48	15MAY06A	15JUL06	5	0	47	402	-3
6666	VaBldg-Del. CMCS & ELV equip't	48	19JUN06	14AUG06	0	0	48	377	0
CONSTRUCTION WORKS									
Vent Bldg & Adit TCSS Access									
0295	Vent Bldg & Adt - TCSS Access	0		10JUN06	0	0	0	1	4
ADIT TUNNEL									
Vent Adit									
Type M									
0325	Vent Adit - Cable Bracket Installation	12	08MAY06A	30MAY06	50	0	9	440	-10
0379	Vent Adit - HGC Cable Containment	18	20MAY06	10JUN06	0	0	18	-21	-13
0359	Vent Adit - E&M Access	0		30MAY06	0	0	0	440	-10



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
EXTERNAL WORKS									
Drainage									
S1960	Storm Drain at West Side	24	20MAY06	17JUN06	0	0	24	-29	4
S1900	Petrol interceptor & Storm Drain at East Side	48	29MAY06	25JUL06	0	0	48	-12	11
S1940	Foul Drain Pipe & Holding Tank	24	29MAY06	26JUN06	0	0	24	12	11
S1970	Storm Drain & Gullies at Access Apron	24	19JUN06	17JUL06	0	0	24	-29	4
Ducting & Drawpits									
S1910	Ducting & Drawpits	18	15AUG06	04SEP06	0	0	18	-29	4
Watermain Works									
S1950	Watermain & Valve Chambers at Building Apron	24	18JUL06	14AUG06	0	0	24	-29	4
S1990	Irrigation Pipework	18	15AUG06	04SEP06	0	0	18	-11	4
TTA for Tai Po Road									
SB3140	Prepare & Submit TTM Scheme	100	16DEC05A	26APR06A	100	100	0		0
SB3040	Submit TTM Scheme to TMLG for approval	24	20MAY06	12JUN06	0	0	24	-63	8
SB3010	Apply for Excavation Permit	12	25JUN06	06JUL06	0	0	12	-63	8
SB3000	TMLG Meeting	0		12JUN06	0	0	0	-63	8
SB3030	Apply for Road Works Advice from RMO of HKPF	7	07JUL06	13JUL06	0	0	7	-63	8
SB3050	TTM Scheme Implemented	0	14JUL06		0	0	0	-63	8
Construction of Watermains Across Tai Po Rd									
SB3070	Stage 1 - Watermain Crossing Tai Po Rd	18	14JUL06*	03AUG06	0	0	18	-52	7
SB3080	Stage 2 - Watermain Crossing Tai Po Rd	18	04AUG06	24AUG06	0	0	18	-52	7
SB3090	Stage 3 - Watermain Crossing Tai Po Rd	19	25AUG06	15SEP06	0	0	19	-52	7
VENTILATION BUILDING									
VA Building - Structure									
T2100	Walls/Columns and slab to +124.95 (2FL/UP)	22	06APR06A	03MAY06A	100	80	0		2
T2080	Roof at +131.65mPD	27	28APR06A	10MAY06A	100	40	0		14
T3130	Installation of Earth mat	60	20MAY06	31JUL06	0	0	60	19	4



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
VA Building - Structure									
T3330	Completion of Cable Riser at Grid D3	6	20MAY06	26MAY06	0	0	6	-9	4
T2130	Installation of Exhaust Shaft Steelwork	18	22MAY06	12JUN06	0	0	18	-4	0
VA Building - ABWF									
T2200	ABWF Initial finishes GL	18	22APR06A	30MAY06	80	10	9	-48	-6
T2210	ABWF Initial Finishes 1FL	18	10MAY06A	10JUN06	10	0	18	-59	-13
T2290	ABWF Initial Finishes Fan Rooms & Plemums	18	20MAY06	10JUN06	0	0	18	-53	4
T3190	Installation of Hoist Beam at 1/F	18	20MAY06	10JUN06	0	0	18	27	-12
VA Building - External Finishes									
T2050	VA Bldg. - Ext. Wall Waterproof Render	20	20MAY06	13JUN06	0	0	20	61	4
T3060	VA Bldg. - Ext. Wall Waterproof Membrane	21	20MAY06	14JUN06	0	0	21	34	4
T3110	VA Bldg. - Install Aluminum louvres & doors	60	13JUN06	14SEP06	0	0	60	-24	-10
T3080	VA Bldg. - Roof Waterproofing & Test	12	15JUN06	28JUN06	0	0	12	46	4
T3070	VA Bldg. - External Wall Painting	22	21JUN06	17JUL06	0	0	22	61	4
T3090	VA Bldg. - 25thk Roof Screed & Roofing Tiles	18	14JUL06	03AUG06	0	0	18	46	4
T3100	VA Bldg. - GMS,S/S Channel, Balustrade & Railing	18	04AUG06	24AUG06	0	0	18	46	4
T3120	VA Bldg. - Alum Comp Panel Cladding to Ext Walls	60	11AUG06	21OCT06	0	0	60	-14	0
T2110	VA Bldg. - Expanded metal cladding to Ext Walls	22	15AUG06	08SEP06	0	0	22	21	0
T2140	VA Bldg. - Slate Cladding	44	15AUG06	05OCT06	0	0	44	-1	0
E & M WORKS									
Ventilation Adit Bldg (GF/Lwr Plen) - E & M Work									
EM2040	BS Works for HV Sw + Tx	12	01JUN06	14JUN06	0	0	12	-48	-6
EM2310	BS Works in TVS Plenums	30	12JUN06	17JUL06	0	0	30	-53	4
EM2200	BS Works for Genset	18	15JUN06	06JUL06	0	0	18	-42	-6
EM2260	E&M Works in Corridors G/F	24	26JUN06	24JUL06	0	0	24	-45	-13
EM2220	Genset Installation	36	07JUL06	17AUG06	0	0	36	-42	-6



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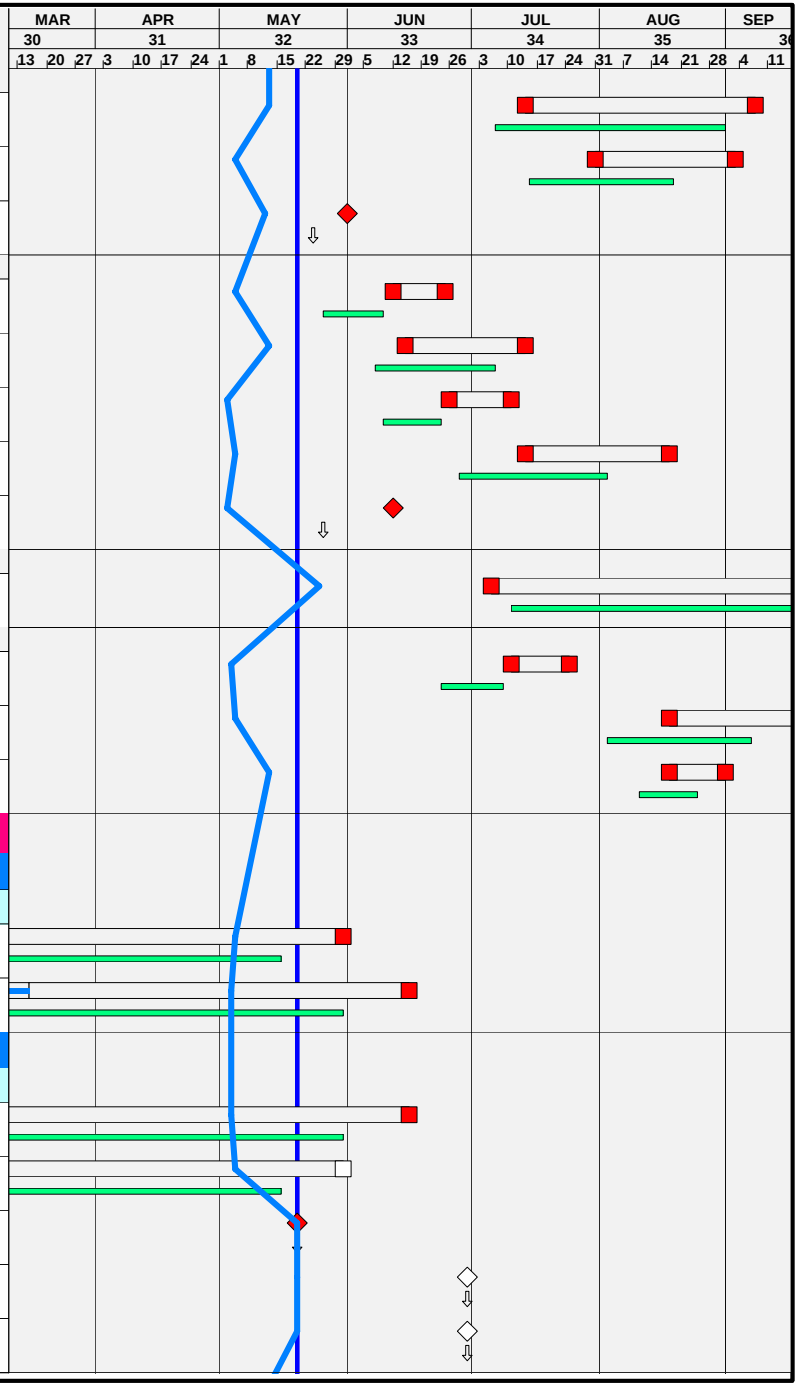
Ventilation Adit Bldg (GF/Lwr Plen) - E & M Work									
EM2300	E&M Works in Risers	48	14JUL06	07SEP06	0	0	48	-48	-6
EM2060	HV Sw + Tx Installation	30	31JUL06	02SEP06	0	0	30	-44	-13
EM2000	E&M access to G/F	0	01JUN06*		0	0	0	-48	-6
Ventilation Adit Bldg (1F) - E & M Work									
EM2100	BS Works for LV Sw, MCC, UPS, LCC	12	12JUN06	24JUN06	0	0	12	-45	-13
EM2280	E&M Works in Corridors 1/F	24	15JUN06	13JUL06	0	0	24	-48	-6
EM2160	BS Works for 110V Charger Rm	12	26JUN06	10JUL06	0	0	12	-27	-13
EM2120	LV Sw, MCC, UPS, LCC Installation	30	14JUL06	17AUG06	0	0	30	-48	-13
EM2020	E&M access to 1/F	0	12JUN06*		0	0	0	-59	-13
Ventilation Adit Bldg (2F/Upr Plen) - E & M Work									
EM2320	TVS Installation	90	06JUL06	20OCT06	0	0	90	-53	4
Testing and Commissioning									
EM2180	110V Charger Rm Installation + T&C	12	11JUL06	24JUL06	0	0	12	-27	-13
EM2140	LV Sw, MCC, UPS, LCC Termination + T&C	30	18AUG06	21SEP06	0	0	30	-48	-13
EM2240	Genset Termination + T&C	12	18AUG06	31AUG06	0	0	12	-42	-6
ENT NORTH PORTAL VENTILATION BUILDING									
SUBMITTALS & APPROVALS									
ABWF & Builders Works									
1954	NP.Bldg. - Approve door details	24	06APR05A	30MAY06	80	80	9	6	-13
1960	NP.Bldg. - Approve aluminium composite cladding	24	13DEC05A	15JUN06	50	50	22	-15	-13
PROCUREMENT - MATERIAL									
ABWF WORKS									
1967	NP.Bldg. - Procure aluminium composite cladding	180	19APR05A	15JUN06	50	50	22	-15	-13
1981	NP.Bldg. - Procure expanded metal cladding	180	05JUN05A	30MAY06	50	50	9	52	-13
2049	NP.Bldg. - Initial delivery of louvres	0	20MAY06*		0	0	0	-15	0
2052	NP.Bldg. - Initial delivery balust & metal works	0	30JUN06*		0	0	0	69	0
2053	NP.Bldg. - Initial delivery fall arrest roof sys	0	30JUN06*		0	0	0	69	0



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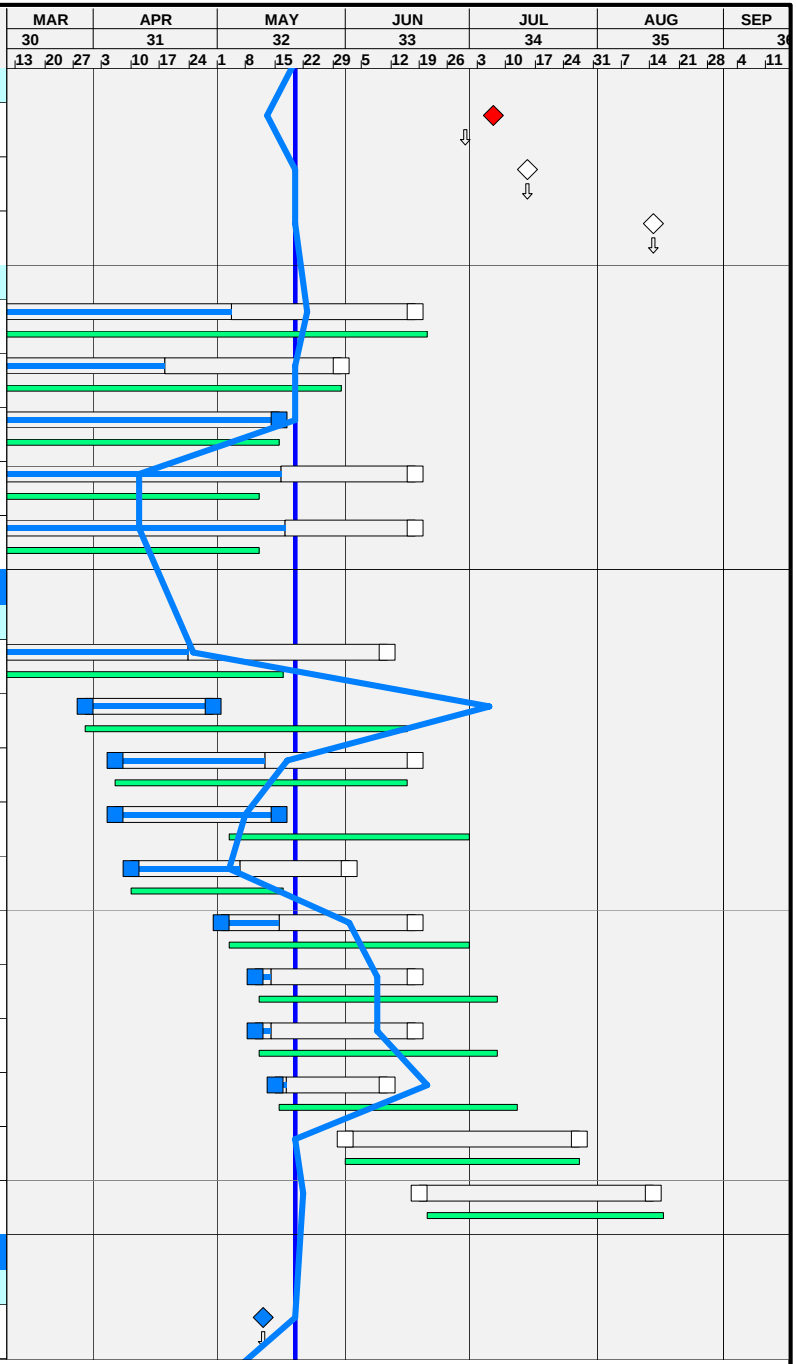
ABWF WORKS									
2039	NP.Bldg. - Initial delivery of doors	0	07JUL06*		0	0	0	6	-5
2051	NP.Bldg. - Initial delivery slate cladding	0	15JUL06*		0	0	0	45	0
2066	NP.Bldg. - Initial deliv expanded metal cladding	0	15AUG06*		0	0	0	19	0
E&M WORKS									
6208	EntNpBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	17JUN06	90	85	24	377	2
6269	EntNpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	30MAY06	90	90	9	392	0
6204	EntNpBldg-Proc & Manuf. Cleans & flush water sys	120	30SEP05A	15MAY06A	100	85	0		0
6206	EntNpBldg-Proc & Manuf. MVAC mech.vent. sys	180	06JAN06A	17JUN06	80	95	24	425	-32
6230	EntNpBldg-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	17JUN06	80	95	24	425	-32
MAJOR EQUIPMENT DELIVERY									
ENT NORTH PORTAL BUILDING									
6231	EntNpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	10JUN06	50	50	18	431	-21
8501	EntNpBldg-Del. building related luminaires	48	30MAR06A	29APR06A	100	70	0		37
6832	EntNpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	06APR06A	17JUN06	50	10	24	425	-2
6839	EntNpBldg-Del. MVAC MCC, & control sys to 3/F	48	06APR06A	15MAY06A	100	0	0		-9
6825	EntNpBldg-Del. TVS to Plenum & 3/F	48	10APR06A	01JUN06	50	20	10	439	-13
6845	EntNpBldg-Del. ENT Tunnel (Hyd/HR) pumps to G/F	48	02MAY06A	17JUN06	30	0	24	425	11
6242	EntNpBldg-Del. building vent. fans	48	10MAY06A	17JUN06	10	0	24	425	16
6327	EntNpBldg-Del. Package AC Units	48	10MAY06A	17JUN06	10	0	24	425	16
6229	EntNpBldg-Del. PD pump & tank to G/F	48	15MAY06A	10JUN06	10	0	18	431	26
6359	EntNpBldg-Del. AFA & FM200 sys	48	01JUN06	27JUL06	0	0	48	392	0
6288	EntNpBldg-Del. CMCS & ELV equip't	48	19JUN06	14AUG06	0	0	48	377	2
CONSTRUCTION									
North Portal Bldg. - TCSS Access									
T1580	SB Below NP Bldg TCSS initial Access	0		11MAY06A	100	0	0		0



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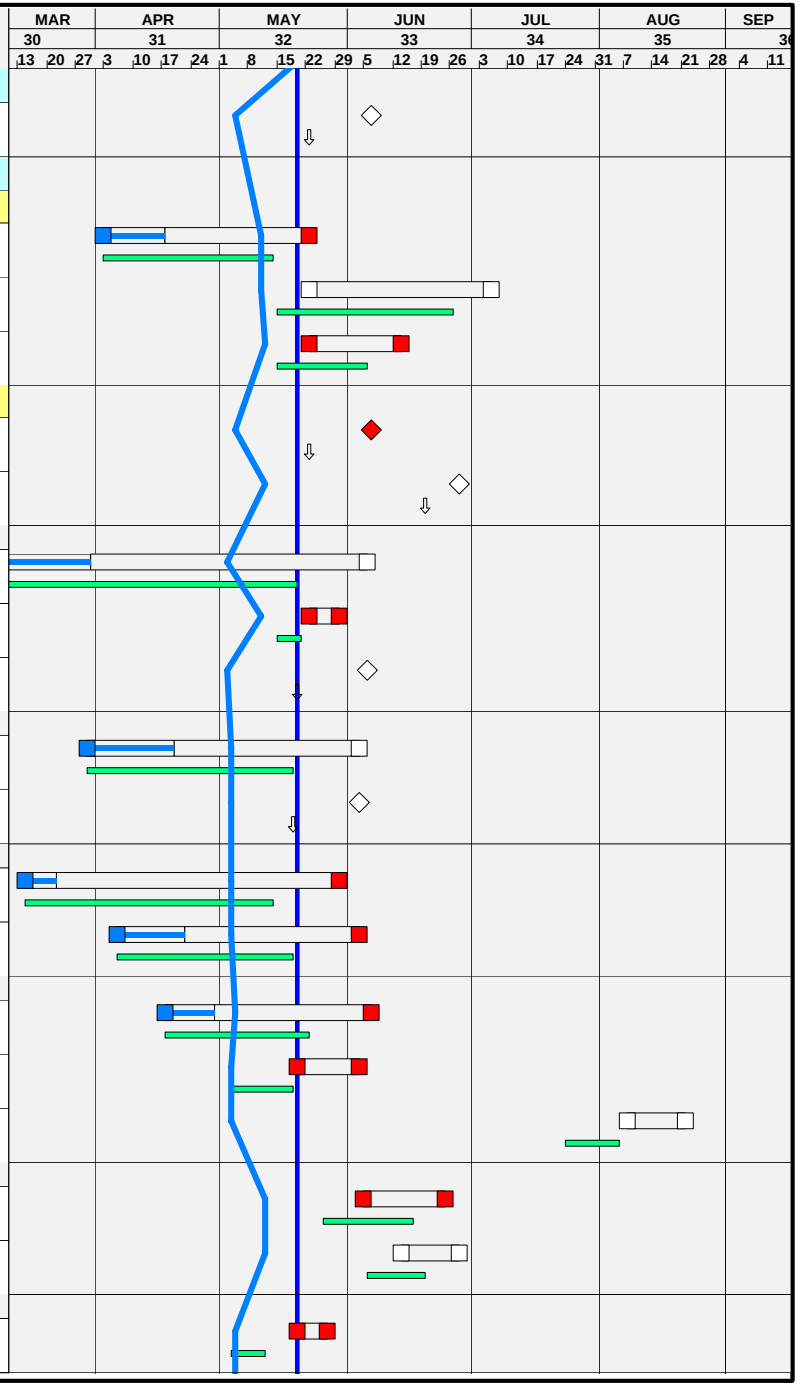
North Portal Bldg. - TCSS Access									
T1400	NP Bldg - TCSS Access within entire structure	0		06JUN06	0	0	0	435	-12
North Portal Bldg. - CIVIL & ABWF WORKS									
STRUCTURE									
T1310	NP Bldg - 4th Floor - walls and Roof(+100.63mPD)	34	03APR06A	22MAY06	30	30	2	-45	-7
S1370	Construct earth mat	36	23MAY06	05JUL06	0	0	36	31	-7
T1390	NP Bldg - Exhaust Shaft (+110.38mPD)	18	23MAY06	13JUN06	0	0	18	-35	-7
ABWF WORKS									
T1350	BB Access 3rd Floor - critical rooms	0		06JUN06	0	0	0	-95	-12
T1360	BB Access 4th Floor/Roof - critical rooms	0		27JUN06	0	0	0	515	-8
Internal Works GF									
T1650	GF ABWF Initial finishes	18	04MAR06A	05JUN06	28	28	13	66	-13
T3320	Complete Works to Cable Risers	6	23MAY06	29MAY06	0	0	6	1	-7
T1320	GF BB Access grnd Floor	0		05JUN06*	0	0	0	66	-13
NP Bldg - Internal Works 1F									
T1590	1F & LP ABWF Initial finishes	18	30MAR06A	03JUN06	32	32	12	121	-13
T1330	1F BB access 1st Floor/LPL - critical rooms	0		03JUN06	0	0	0	121	-13
NP Bldg - Internal Works 2F									
T1990	Installation of Crane beam to underside of 3FL	12	15MAR06A	29MAY06	10	10	8	-35	-13
T1600	2F ABWF Initial Finishes	18	06APR06A	03JUN06	28	28	12	-94	-13
NP Bldg Internal Works 3/F									
T1610	3F ABWF initial finishes	18	18APR06A	06JUN06	24	18	14	-96	-12
T2000	Installation of Crane beam to underside of 4FL	12	20MAY06	03JUN06	0	0	12	-39	-13
T1880	3F - paint touch up & doors	12	08AUG06	21AUG06	0	0	12	79	-13
NP Building - Internal Works									
T2430	Installation of Crane beam to underside of 5FL	18	05JUN06	24JUN06	0	0	18	-45	-7
T1620	4F ABWF initial finishes	12	14JUN06	27JUN06	0	0	12	417	-7
NP Bldg - Roofing & External Facade									
T1530	Ent NPB - OHVD Slab NB - Finishes	6	20MAY06	26MAY06	0	0	6	-46	-13



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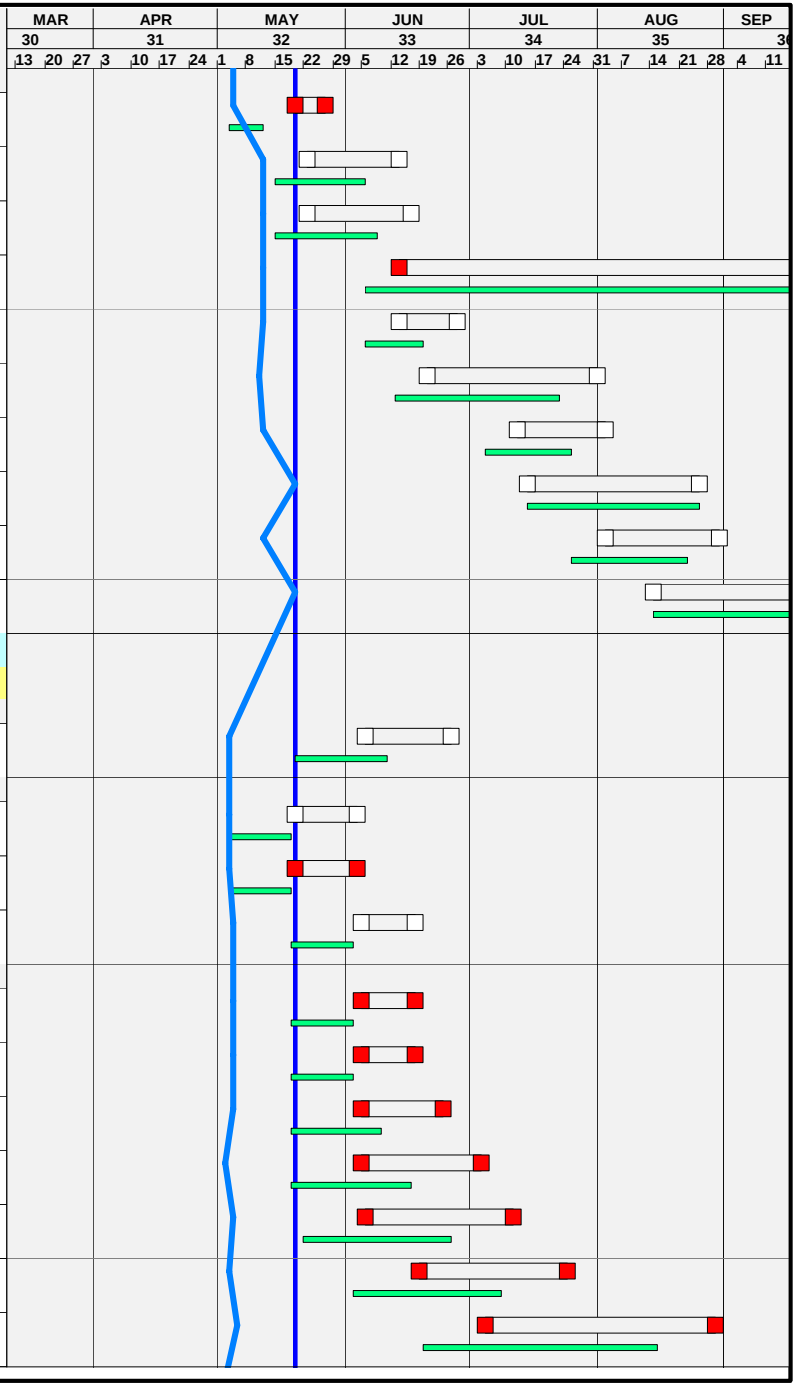
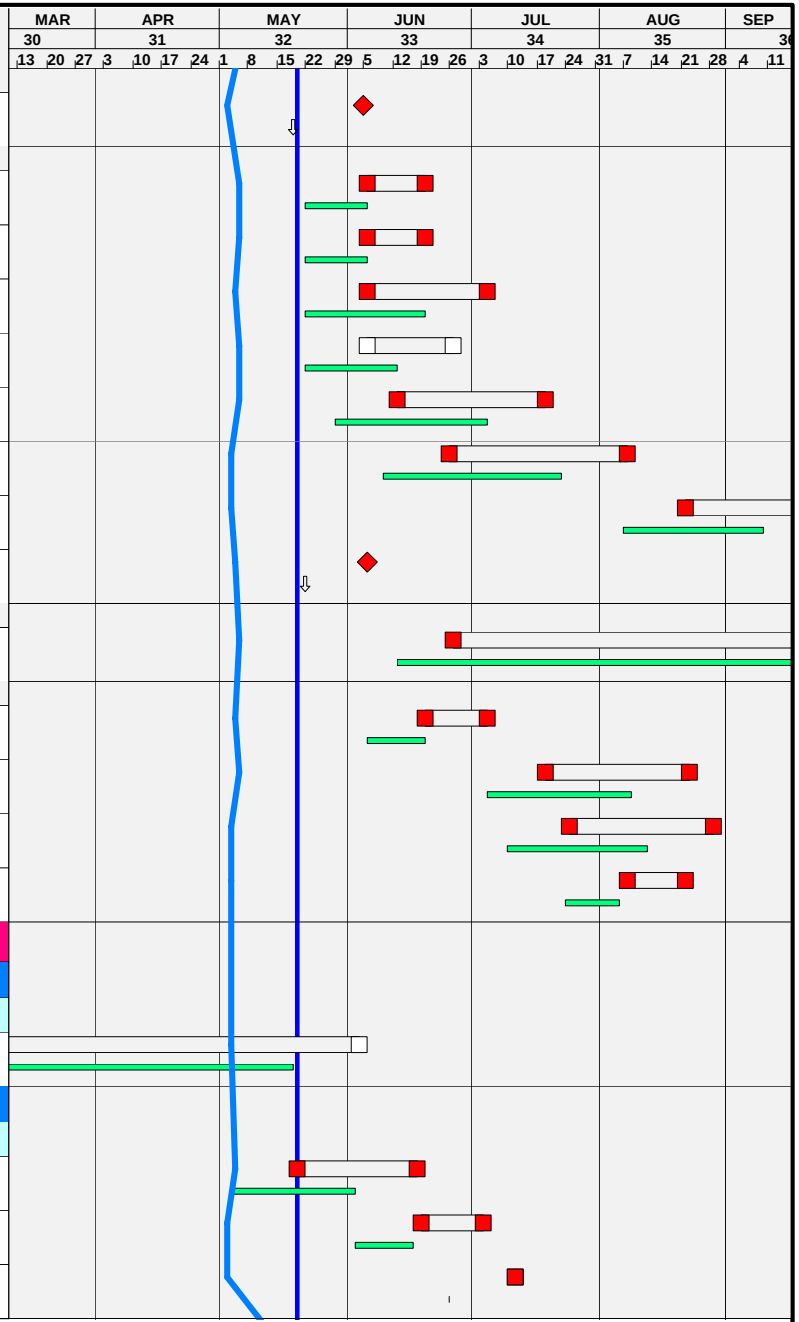
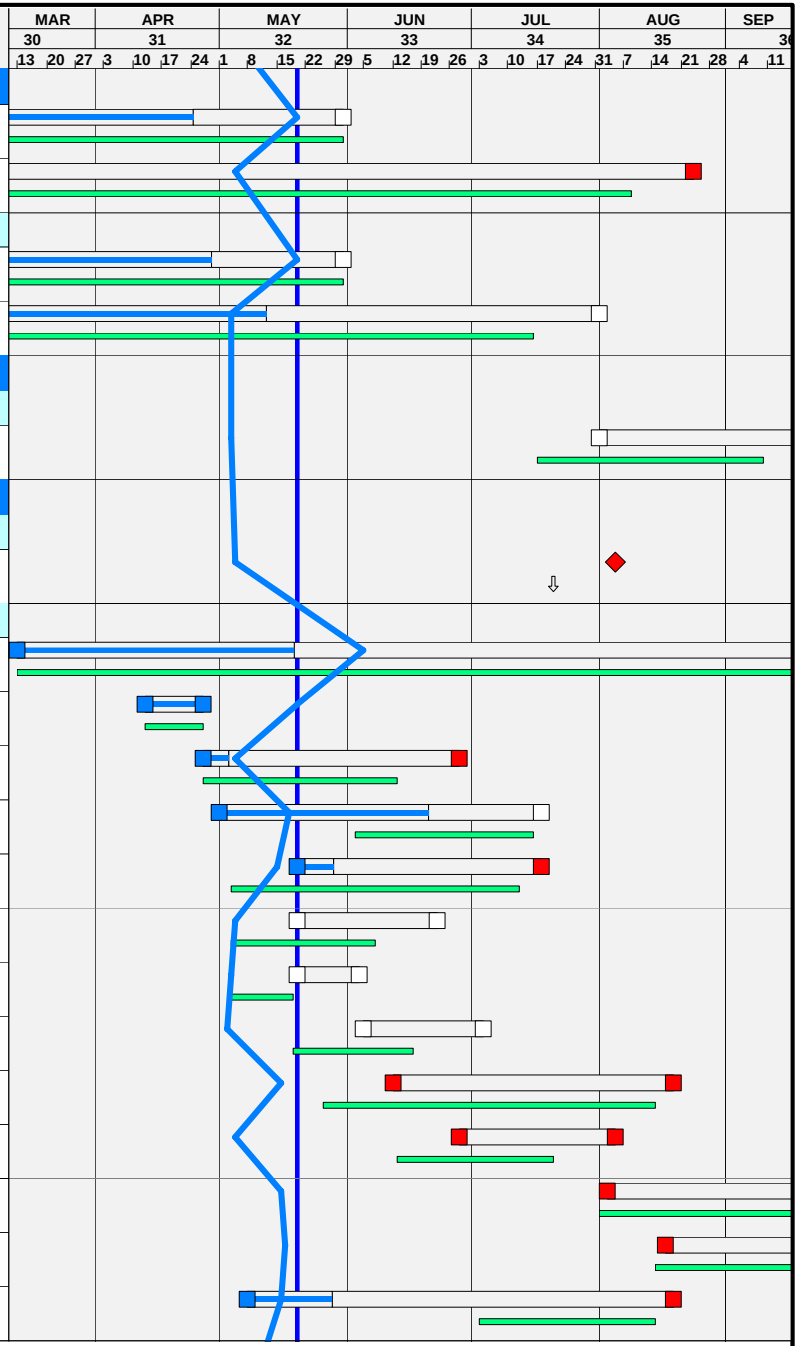
NP Bldg - Roofing & External Facade									
T1560	Ent NPB - OHVD Slab SB - Finishes	6	20MAY06	26MAY06	0	0	6	-46	-13
T2238	Ent NPB - Ext. Wall Waterproof Render	18	23MAY06	13JUN06	0	0	18	43	-7
T2240	Ent NPB - Ext. Wall Waterproof Membrane	21	23MAY06	16JUN06	0	0	21	44	-7
T1740	Ent NPB - Install Aluminum louvres & doors	90	14JUN06	27SEP06	0	0	90	-35	-7
T1800	Ent NPB - Roof Waterproofing & Test	12	14JUN06	27JUN06	0	0	12	41	-7
T1730	Ent NPB - External Wall Painting	34	21JUN06	31JUL06	0	0	34	43	-7
T1700	Ent NPB - 25thk Roof Screed & Roofing Tiles	18	13JUL06	02AUG06	0	0	18	41	-7
T1780	Ent NPB - Slate cladding above NB/SB carriageway	36	15JUL06	25AUG06	0	0	36	45	0
T1790	Ent NPB - GMS,S/S Channel, Balustrade & Railing	24	03AUG06	30AUG06	0	0	24	41	-7
T1770	Ent NPB - Expanded metal cladding to Ext Walls	36	15AUG06	25SEP06	0	0	36	19	0
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	06JUN06	26JUN06	0	0	18	66	-13
ENT North Portal Bldg (1F/Lwr Plen) - E & M Work									
T1540	NP Bldg - OHVD Slab NB - BB 1st fix	12	20MAY06	03JUN06	0	0	12	437	-13
T1570	NP Bldg - OHVD Slab SB - BB 1st Fix	12	20MAY06	03JUN06	0	0	12	-52	-13
T1810	Installation of FM200 at 1F	12	05JUN06	17JUN06	0	0	12	121	-13
ENT North Portal Bldg (2F/Silencer) - E & M Work									
EM2580	BS Works for HV Sw + Tx	12	05JUN06	17JUN06	0	0	12	-3	-13
EM2700	BS Works for LV Sw	12	05JUN06	17JUN06	0	0	12	-48	-13
EM2800	BS Works for Genset	18	05JUN06	24JUN06	0	0	18	-33	-13
EM2860	E&M Works in Corridors 2/F	24	05JUN06	03JUL06	0	0	24	-27	-13
EM2930	BS Works for TVS Plenums	30	06JUN06	11JUL06	0	0	30	-58	-12
EM2720	LV Sw Installation	30	19JUN06	24JUL06	0	0	30	-48	-13
EM2900	E&M Works in Risers	48	05JUL06	29AUG06	0	0	48	-28	-12



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								
EM2560	E&M access to 2/F	0	05JUN06*		0	0	0	-94	-13
	ENT North Portal Bldg (3F/ Fan Rm) - E & M Works								
EM2640	BS Works for MCC, UPS, LCC	12	06JUN06	19JUN06	0	0	12	-22	-12
EM2760	BS Works for 110V Charger Rm	12	06JUN06	19JUN06	0	0	12	-10	-12
EM2880	E&M Works in Corridors 3/F	24	06JUN06	04JUL06	0	0	24	-28	-12
EM2890	Compressor Room Installation	18	06JUN06	26JUN06	0	0	18	44	-12
EM2660	MCC, UPS, LCC Installation	30	13JUN06	18JUL06	0	0	30	-22	-12
EM2820	Genset Installation	36	26JUN06	07AUG06	0	0	36	-33	-13
EM2920	Termination of overall Elect HV & LV Sys	30	22AUG06	25SEP06	0	0	30	-33	-13
EM2540	E&M access to 3/F (rev C Access date 08Oct05)	0	06JUN06*		0	0	0	-95	-12
	ENT North Portal Bldg (4F/Upr Plen) - E & M Work								
EM2940	TVS Installation	100	27JUN06	24OCT06	0	0	100	-58	-12
	Testing and Commissioning								
EM2780	110V Charger Rm Installation + T&C	12	20JUN06	04JUL06	0	0	12	-10	-12
EM2680	MCC, LCC Termination + T&C	30	19JUL06	22AUG06	0	0	30	-22	-12
EM2740	LV Sw Termination + T&C	30	25JUL06	28AUG06	0	0	30	-27	-13
EM2840	Genset Termination + T&C	12	08AUG06	21AUG06	0	0	12	-33	-13
	TOLL PLAZA & ANCILLIARY STRUCTURES								
	SUBMITTALS & APPROVALS								
	ABWF & BW SUBMITTALS								
1522	TP/FB - Approve footbridge details	24	28JUL05A	03JUN06	50	50	12	437	-13
	Design & Engineering - Temporary Works								
	50.030.020								
1244	Design/ICE Check Tool Booth Canopy	24	20MAY06	17JUN06	0	0	24	-26	-13
1341	Eng Approve Dsg Tool Booth Canopy	12	19JUN06	03JUL06	0	0	12	-26	-13
1358	Issue Constr Dwgs Tool Booth Canopy	0	12JUL06	11JUL06	0	0	0	-26	-13



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Procurement - Major Material									
1518	Admin Bldg - Procure & maunfacture lift	270	01JUN05A	30MAY06	90	89	9	52	0
2185	Order/Fabricate/Deliver Tool Booth Canopy	90	01DEC05A	23AUG06	11	11	80	-63	-13
Toll Plaza									
1512	TP/FB - Procure & maunfacture lifts (x2)	270	15JUL05A	30MAY06	90	89	9	440	0
7548	TP-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	31JUL06	60	50	60	341	-13
MAJOR EQUIPMENT DELIVERY									
TOLL PLAZA									
7549	TP-Del. Package AC Units	48	01AUG06	25SEP06	0	0	48	341	-13
Construction Works									
Toll Plaza - TCSS Access									
K1162	Toll Plaza - TCSS Access (East Side)	0		04AUG06	0	0	0	-29	-13
TOLL PLAZA EAST SIDE									
K1282	Provision of micro-satelite-office at East Loop	186	13MAR06A	20SEP06	35	17	104	17	13
K1202	Remove/relocate - Workshop & Offices	24	13APR06A	26APR06A	100	100	0		0
K1232	Carriageway Drainage Prior to TCSS	36	27APR06A	27JUN06	10	10	32	-29	-13
S1170	FW Watermains Centre to Admin Bldg & FH12, FH13	36	01MAY06A	17JUL06	65	0	10	23	-1
K1212	Main Carid'way Drain (D3 & D4) - after stockpile	57	20MAY06A	17JUL06	15	0	48	9	-4
K1182	East Loop Road - Drainage	28	20MAY06	22JUN06	0	0	28	93	-13
K1262	HML Bases (2no. Loop rd, Admin bldg)	12	20MAY06	03JUN06	0	0	12	59	-13
K1252	E&M / Lighting works	24	05JUN06	03JUL06	0	0	24	121	-13
K1222	Main carriageway Ducting & Drawpits	54	12JUN06	18AUG06	0	0	54	9	-4
S1160	Installation of Ducting and Drawpits for TCSS	32	28JUN06	04AUG06	0	0	32	-29	-13
K1242	Main carriageway - East Subbase and kerbs	53	03AUG06	04OCT06	0	0	53	9	-2
S1420	Road Pavement Surfacing (Flex & Rigid)	56	17AUG06	23OCT06	0	0	56	9	-2
S1190	HGC Ducting & Drawpits	24	08MAY06A	18AUG06	20	0	18	9	-4



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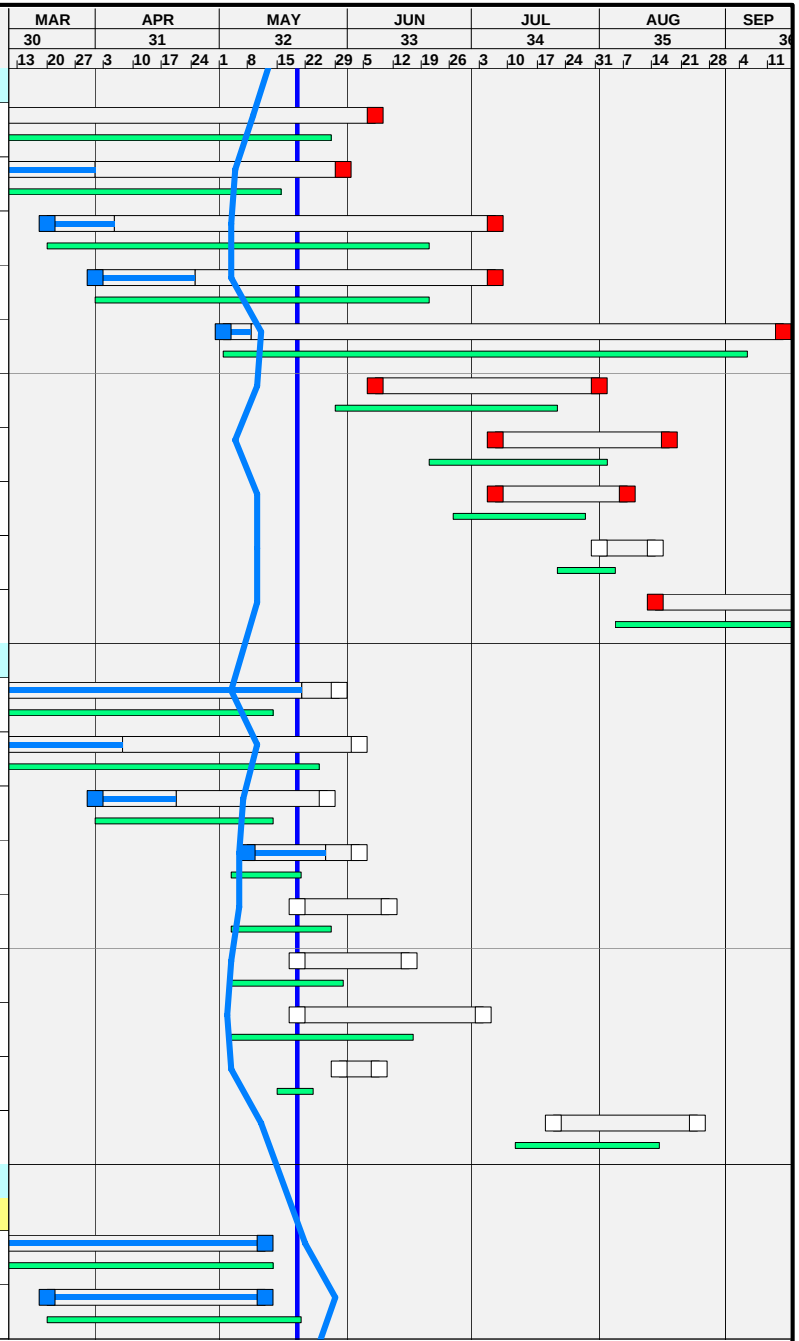
TOLL PLAZA WEST SIDE									
K1161	CSJV, Remove TAR1, drainage, formation (RE Wall)	56	24SEP05A	07JUN06	60	60	15	-64	-8
K1231	CSJV Complete Drainage & Vacate part	24	31DEC05A	30MAY06	60	60	9	-43	-13
K1181	Main Carriageway - West side drainage - NP-FB	42	20MAR06A	06JUL06	15	15	33	-43	-13
K1201	West Loop Drainage Works	38	01APR06A	06JUL06	25	25	25	7	-13
K1191	Drawpits & Ducting (incl TCSS)	42	02MAY06A	14SEP06	5	5	39	-64	-8
K1241	Main Carriageway - West side drainage - FB-SHT	45	08JUN06	31JUL06	0	0	45	-64	-8
K1171	West Loop road - Roadworks	36	07JUL06	17AUG06	0	0	36	7	-13
S1510	FW Waterminam Centre to Admin Bldg & FH12, FH13	24	07JUL06	07AUG06	0	0	24	-31	-8
S1270	HML bases (2no. - loop rd, lay by,)	12	01AUG06	14AUG06	0	0	12	61	-8
K1211	E&M / Lighting works	24	15AUG06	20NOV06	0	0	24	4	-8
TOLL PLAZA - works adjacent to building									
S1415	SHT SPB - Drainage & Ducting	18	28FEB06A	29MAY06	90	90	8	135	-13
S1427	Admin Blg & Wshop - Drainage & ducting	36	07MAR06A	03JUN06	35	25	12	115	-8
S1380	ENT NPB - Drainage & Ducting	18	01APR06A	26MAY06	35	25	6	139	-11
S1390	ENT NPB - HML Base	8	08MAY06A	03JUN06	70	0	4	139	-11
S1400	ENT NPB - Kerbs & Rwks & misc Finishes	12	20MAY06	10JUN06	0	0	12	139	-11
S1417	SHT SPB - Kerbs & Rwks & misc finishes	12	20MAY06	15JUN06	0	0	12	135	-13
S1440	Install Earth Mat for Admin Bldg & SHT NP Bldg	36	20MAY06	03JUL06	0	0	36	33	-13
S1416	SHT SPB - HML Base	8	30MAY06	08JUN06	0	0	8	135	-13
S1437	Admin Blg & Wshop - kerbs, Rwks & misc finishes	30	21JUL06	24AUG06	0	0	30	76	-8
TOLL PLAZA COLLECTOR'S SUBWAY									
STRUCTURE									
101720	TP/CS - Waterproof & backfill - Ptn C	18	20DEC05A	11MAY06A	100	80	0		2
101721	TP/CS - Waterproof & backfill - Ptn D	18	20MAR06A	11MAY06A	100	70	0		8



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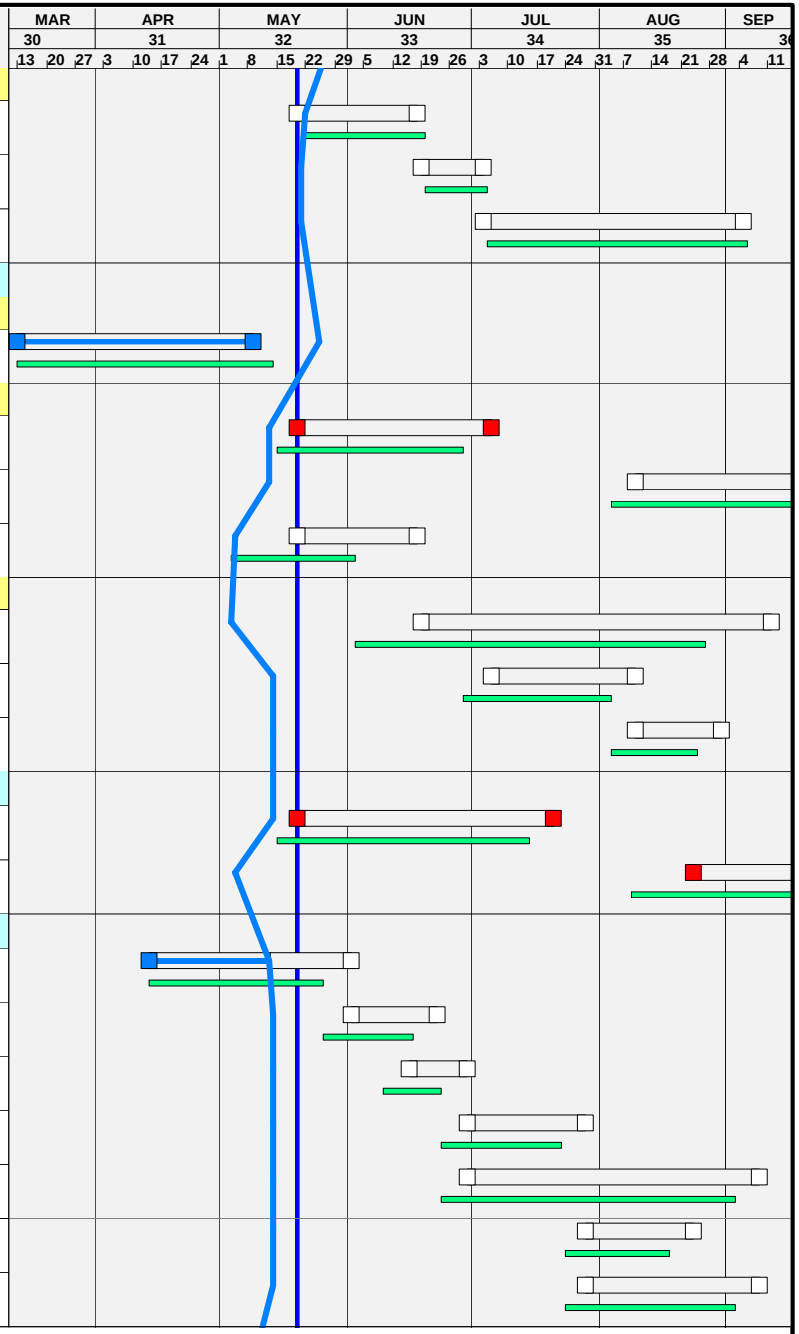
ABWF									
101471	TP/CS - Internal Finishes Ptn A, B & C	24	20MAY06	17JUN06	0	0	24	67	1
101472	TP/CS - Internal Finishes Ptn D	12	19JUN06	03JUL06	0	0	12	67	1
S1290	Toll Subway - E&M	54	04JUL06	04SEP06	0	0	54	67	1
TOLL PLAZA FOOTBRIDGE									
STRUCTURAL STEELWORKS									
S1330	Toll Ftbridge - Erection(Inc weld prior to lift)	60	13MAR06A	08MAY06A	100	35	0		5
ABWF									
S1264	Installation of Aluminium Cladding	38	20MAY06	05JUL06	0	0	38	-3	-5
S1250	Toll Ftbrdge - Finishes	54	10AUG06	13OCT06	0	0	54	35	-5
S1340	Toll Plaza - Erection of Lift Steel Work	24	20MAY06	17JUN06	0	0	24	37	-13
E & M WORKS									
S1200	Toll Plaza Footbridge - Lift Installation	72	19JUN06	11SEP06	0	0	72	37	-13
S1470	E&M Installation at Footbridge	30	06JUL06	09AUG06	0	0	30	35	-5
S1500	E&M Footbridge T&C	18	10AUG06	30AUG06	0	0	18	71	-5
TOLL PLAZA BOOTHS									
S1210	Construct Toll Islands 17 No.	51	20MAY06	20JUL06	0	0	51	-8	-5
S1220	Construct Toll Booths - 22No.	88	24AUG06	07DEC06	0	0	88	-63	-13
ADMIN.BLDG. - WORKSHOP									
S1130	Workshop - Walls	24	14APR06A	01JUN06	60	50	10	63	-5
S1240	Workshop - Roof Slab +70.0mPD	18	02JUN06	22JUN06	0	0	18	63	-5
S1430	Workshop Roof Slab +73.0mPD	12	16JUN06	29JUN06	0	0	12	63	-5
S1260	Workshop - initial Finishes incl block walls	24	30JUN06	28JUL06	0	0	24	63	-5
S1350	Workshop - External Finishes	60	30JUN06	08SEP06	0	0	60	63	-5
S1280	Workshop - Install Roller Shutters	12	29JUL06	23AUG06	0	0	12	77	-5
S1320	Workshop - Remaining internal Finishes	36	29JUL06	08SEP06	0	0	36	63	-5



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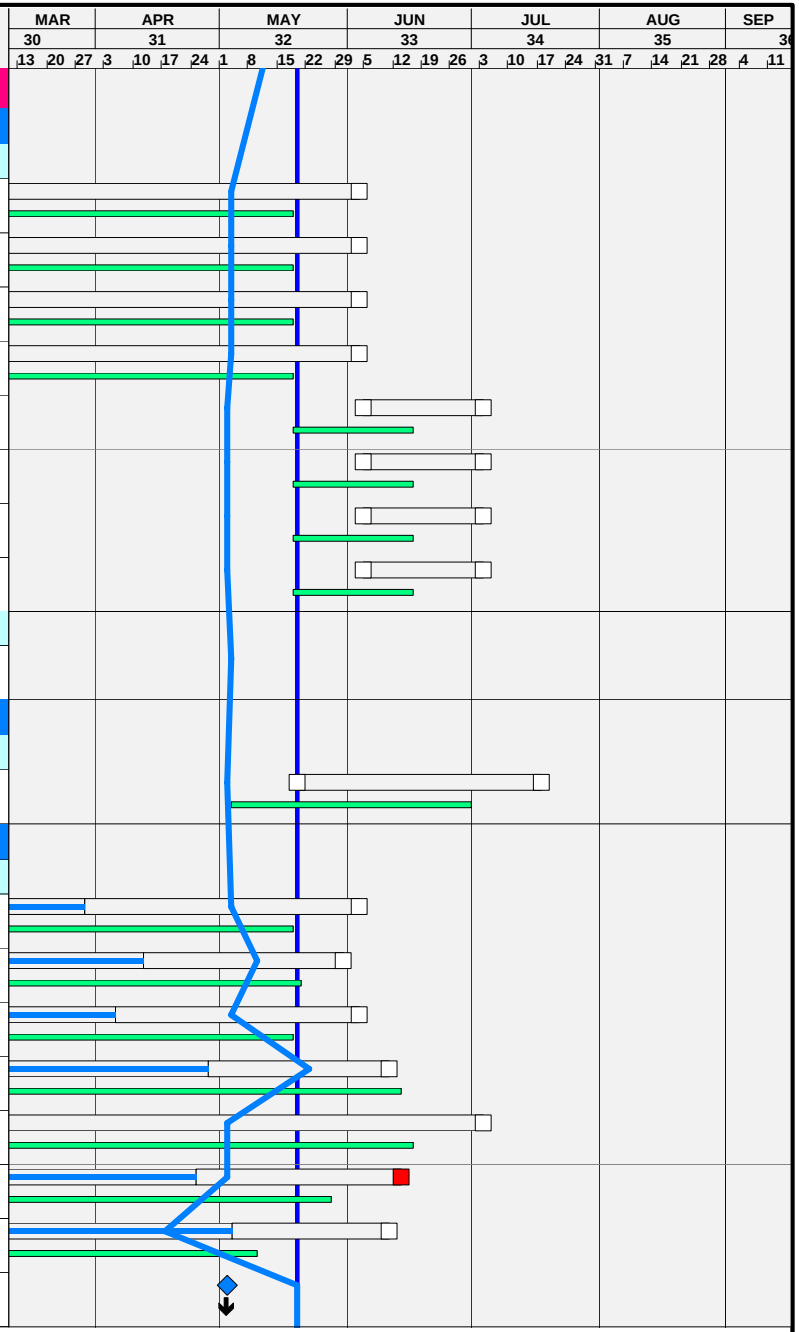
ADMINISTRATION BUILDING									
SUBMITTALS & APPROVALS									
ABWF. MTRL SUBMITTALS									
1883	Admin.Bldg. - Prep & sub sheet decking details	24	13NOV04A	03JUN06	12	12	12	407	-13
1885	Admin.Bldg. - Prep & submit wood ceiling details	24	20NOV04A	03JUN06	50	50	12	389	-13
1881	Admin.Bldg. - Prep & sub GRP water tank details	24	12JAN05A	03JUN06	50	50	12	383	-13
1887	Admin.Bldg. - Prep & sub suspend ceiling details	24	12AUG05A	03JUN06	50	50	12	353	-13
1882	Admin.Bldg. - Approve GRP water tank details	24	05JUN06	03JUL06	0	0	24	383	-13
1884	Admin.Bldg. - Approve sheet decking details	24	05JUN06	03JUL06	0	0	24	407	-13
1886	Admin.Bldg. - Approve wood ceiling details	24	05JUN06	03JUL06	0	0	24	389	-13
1888	Admin.Bldg. - Approve suspended ceiling details	24	05JUN06	03JUL06	0	0	24	353	-13
E&M EQPT. / MTRL. SUBMITTALS									
8248	AdmBldg-Engineer to provide Cater'g equip detail	0	07APR05A		100	100	0		-13
DESIGN & ENGINEERING									
TEMPORARY WORKS									
1373	Design/ICE Temp False/Formwork Admin Bldg	48	20MAY06	17JUL06	0	0	48	401	-13
PROCUREMENT - MATERIAL									
ABWF WORKS									
1904	Admin.Bldg. - Procure wood ceiling	90	19JAN05A	03JUN06	87	87	12	387	-13
6397	AdmBldg-Proc & Manuf. of CMCS, ELV & TCS sys	180	31JAN05A	30MAY06	90	90	9	368	-8
1902	Admin.Bldg. - Procure GRP water tank	90	16MAR05A	03JUN06	87	87	12	407	-13
6444	AdmBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	10JUN06	90	85	18	383	2
1905	Admin.Bldg. - Procure suspended ceiling	120	09MAY05A	03JUL06	70	70	36	353	-13
1910	Admin.Bldg. - Procure expanded metal cladding	90	05JUN05A	13JUN06	87	87	20	6	-13
6393	AdmBldg-Proc & Manuf. PD fresh & flush water sys	90	30SEP05A	10JUN06	85	95	18	418	-27
2064	Admin.Bldg.- Initial del ceramic/ tiles cladding	0	03MAY06A		100	100	0		0



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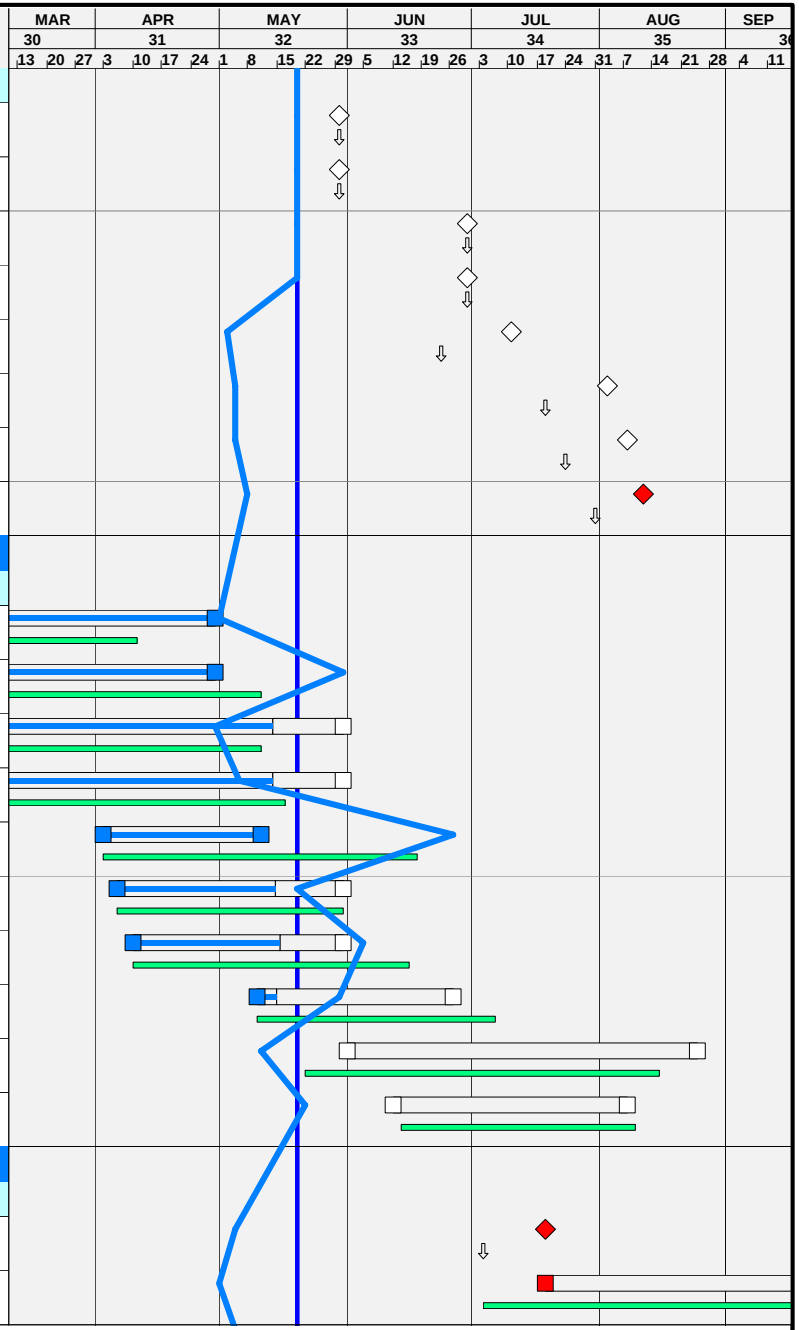
ABWF WORKS									
1938	Admin.Bldg. - Initial delivery glass canopy	0	30MAY06*		0	0	0	59	0
2055	Admin.Bldg. - Initial delivery curtain wall	0	30MAY06*		0	0	0	59	0
2059	Admin.Bldg.- Initial deliv fall arrest roof syst	0	30JUN06*		0	0	0	75	0
2060	Admin.Bldg. - Initial deliver balust & metal wks	0	30JUN06*		0	0	0	75	0
2056	Admin.Bldg. - Initial delivery sheet decking	0	11JUL06		0	0	0	407	-13
2058	Admin.Bldg. - Initial delivery wood ceiling	0	03AUG06		0	0	0	387	-13
2063	Admin.Bldg. - Initial delivery GRP water tank	0	08AUG06		0	0	0	383	-13
2061	Admin.Bldg.- Initial del expanded metal cladding	0	12AUG06*		0	0	0	6	-11
MAJOR EQUIPMENT DELIVERY									
ADMINISTRATION BUILDING									
6400	AdmBldg-Del. HV power dist. equip't to 2/F	48	27JAN06A	29APR06A	100	100	0		-14
8505	AdmBldg-Del. building related luminaires	48	01MAR06A	29APR06A	100	50	0		7
6401	AdmBldg-Del. LV power dist. equip't to 2/F	48	06MAR06A	30MAY06	80	20	9	440	-17
6417	AdmBldg-Del. FS pumps & tank to G/F	48	06MAR06A	30MAY06	80	50	9	440	-12
6480	AdmBldg-Del. Chiller & Pumps	48	03APR06A	10MAY06A	100	20	0		32
6428	AdmBldg-Del. building vent. fans	48	06APR06A	30MAY06	70	20	9	440	0
6497	AdmBldg-Del. FCUs & PAUs	48	10APR06A	30MAY06	70	60	9	440	13
6416	AdmBldg-Del. PD pump & tank to G/F	48	10MAY06A	26JUN06	10	0	31	418	8
6476	AdmBldg-Del. CMCS, ELV & TCS equip't	72	01JUN06	24AUG06	0	0	72	368	-8
6534	AdmBldg-Del. AFA & FM200 sys	48	12JUN06	07AUG06	0	0	48	383	2
CONSTRUCTION									
TCSS Access at Admin Bldg									
T2910	TCSS Access at Administration Bldg (24JUN06)	0		18JUL06	0	0	0	-44	-13
T3350	TCSS Works Within Admin Bldg / Tunnel & Ext	140	19JUL06	04JAN07	0	0	140	-44	-13



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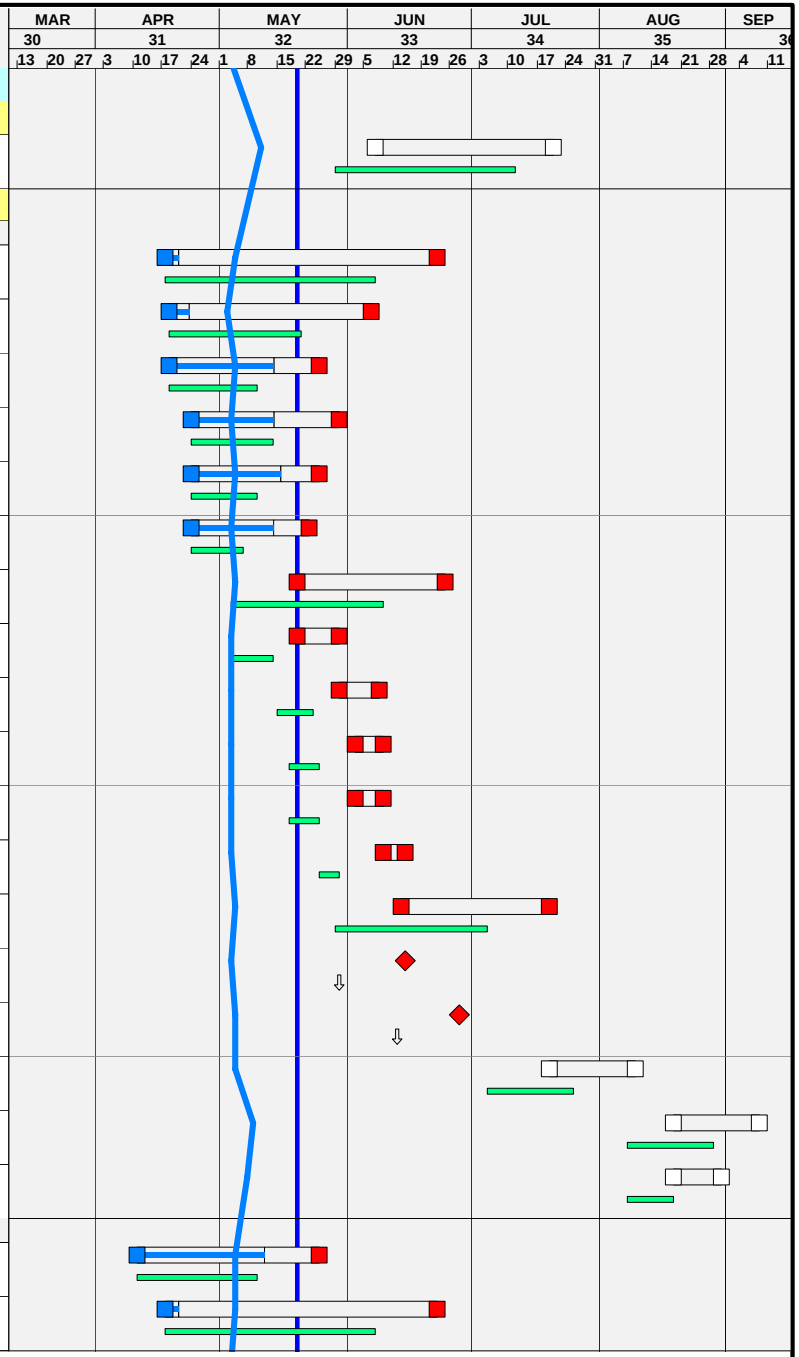
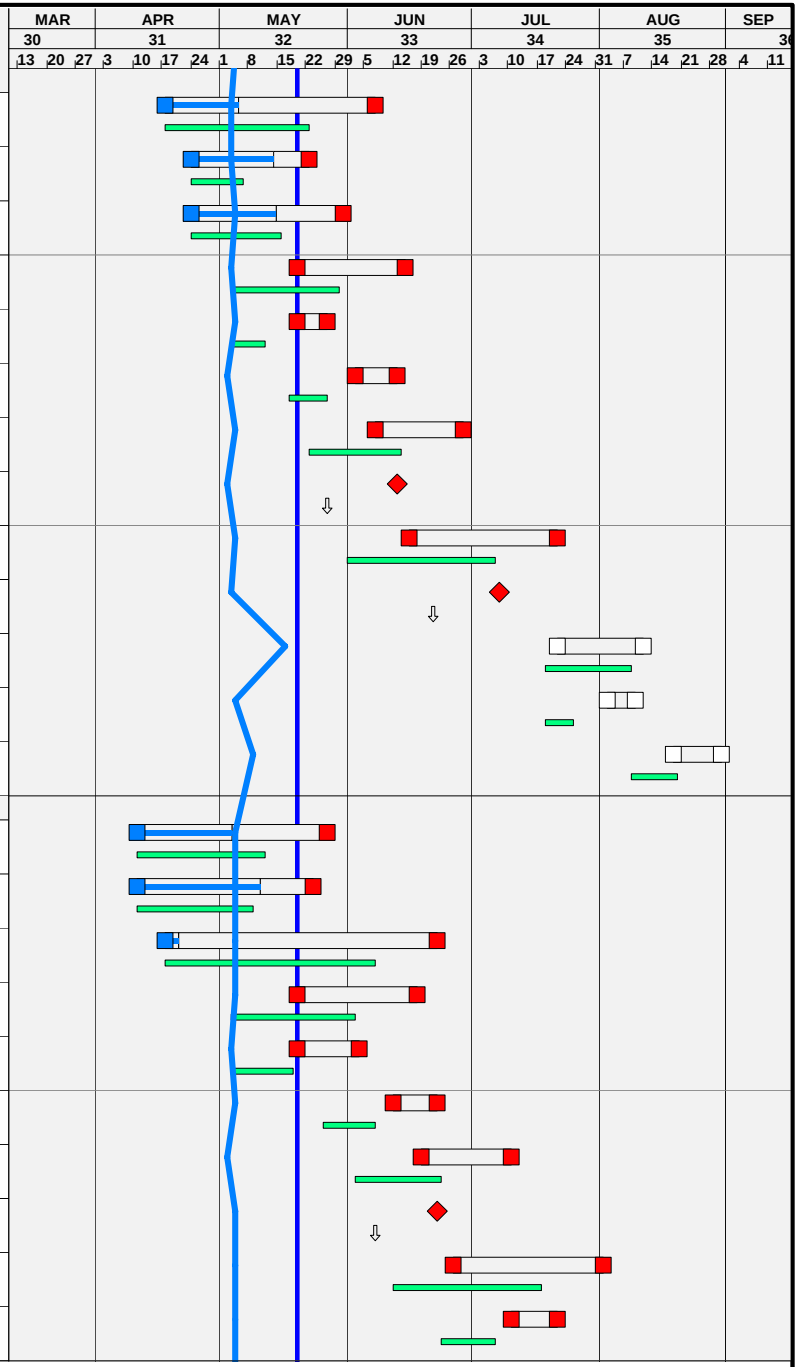
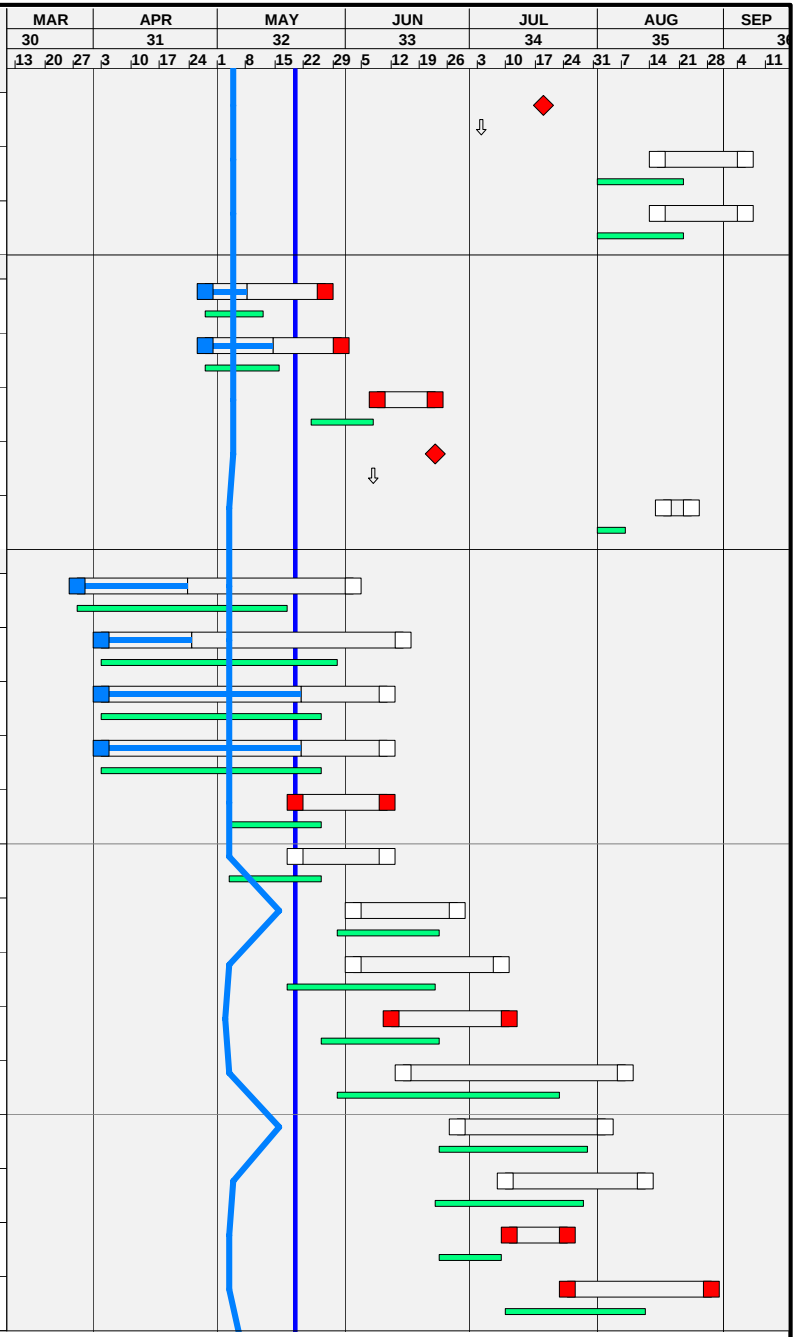
CIVIL & ABWF WORKS									
Substructure									
106398	Admin.Bldg. - Earth Mat & Rods - All in ptn D4	36	08JUN06	20JUL06	0	0	36	76	-8
ABWF									
Admin Bldg (G/F) - Internal Work @ Grid 1 to 21									
T1682	AB (G/F to 1/F) - Staircase Finishing Works	30	18APR06A	22JUN06	5	5	28	-91	-13
T1685	AB G/F (Grid 1-21) - Wall Plaster & Flr Screed	20	19APR06A	06JUN06	10	10	14	-95	-13
T3250	Genset & Fuel Rm (G45/G46) - W Plasters & Screed	12	19APR06A	24MAY06	70	70	4	-84	-13
T1680	AB G/F (Grid 1-21) - Windows & door frames	18	24APR06A	29MAY06	56	56	8	-91	-13
T3220	LV & HV Sw Rm (G39/G40) - Wall Plasters & Screed	12	24APR06A	24MAY06	70	70	4	-84	-13
T3245	Rm (G39/G40/G45/G46) - Wdws & door frames	8	24APR06A	22MAY06	70	70	2	-69	-13
T2990	AB G/F (Grid 1-21) - Tileworks & Sanitary Fixt	30	20MAY06	24JUN06	0	0	30	-93	-13
T3210	AB G/F (Grid 9B) - Construct Cable Riser	8	20MAY06	29MAY06	0	0	8	-56	-13
T3020	AB G/F (Grid 1-21) - Install Roller Shutters	8	30MAY06	08JUN06	0	0	8	-91	-13
T3225	LV & HV Sw Rm (G39/G40) - Ceil & Wall Base Paint	6	03JUN06	09JUN06	0	0	6	-80	-13
T3258	Genset&Fuel Rm (G45/G46)- Ceil & Wall Base Paint	6	03JUN06	09JUN06	0	0	6	-84	-13
T3255	Genset&Fuel Rm (G45/G46) - Floor Tiles	4	10JUN06	14JUN06	0	0	4	-84	-13
T2995	AB G/F (Grid 1-21) - Wall & Ceiling Base Paint	30	14JUN06	19JUL06	0	0	30	-95	-13
T3275	AB G/F (Critical Rooms) - Access to E&M Works	0		14JUN06	0	0	0	-84	-13
T2998	AB G/F (Non-Critical Room) - Access to E&M Works	0		27JUN06	0	0	0	-95	-13
T1970	AB G/F (Grid 1-21) - Install Ceiling Grids	18	20JUL06	09AUG06	0	0	18	65	-13
T1975	AB G/F (Grid 1-21) - Base Skirting	18	19AUG06	08SEP06	0	0	18	57	-10
T2160	AB G/F (Grid 1-21) - Install Ceiling Panels	10	19AUG06	30AUG06	0	0	10	59	-10
Admin Bldg (1/F) - Internal Work @ Grid 1 to 18									
T3260	UPS & UPS Bat Rm (112/115) - W Plasters & Screed	12	11APR06A	24MAY06	70	70	4	-61	-13
T1982	AB (1/F to 2/F) - Staircase Finishing Works	30	18APR06A	22JUN06	5	5	28	-16	-13



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Admin Bldg (1/F) - Internal Work @ Grid 1 to 18									
T1985	AB 1/F (Grid 1-18) - Wall Plaster & Flr Screed	24	18APR06A	07JUN06	35	35	15	-35	-13
T1695	UPS & UPS Bat Rm (112/115) - Wdws & door frames	4	24APR06A	22MAY06	70	70	2	-52	-13
T1980	AB 1/F (Grid 1-18) - Wdws & Door Frames	18	24APR06A	30MAY06	56	56	7	-22	-13
T2010	AB 1/F (Grid 1-18) - Tileworks & Sanitary Fixt	21	20MAY06	14JUN06	0	0	21	-25	-13
T3270	AB 1/F Grid (9B) - Construct Cable Risers	6	20MAY06	26MAY06	0	0	6	-54	-13
T3265	UPS&UPS Bat Rm (112/115)- Ceil & Wall Base Paint	8	03JUN06	12JUN06	0	0	8	-61	-13
T2012	AB 1/F (Grid 10-18) - Proprietary Toilet Cubicle	18	08JUN06	28JUN06	0	0	18	-28	-13
T3266	AB 1/F (Critical Rooms)- Access to E&M Works	0		12JUN06	0	0	0	-61	-13
T2015	AB 1/F (Grid 1-18) - Wall & Ceiling Base Paint	30	16JUN06	21JUL06	0	0	30	-35	-13
T2018	AB 1/F (Non-Critical Room) - Access to E&M Works	0		07JUL06	0	0	0	-35	-13
T3000	AB 1/F (Grid 1-18) - Install Ceiling Grids	18	22JUL06	11AUG06	0	0	18	51	-3
T3268	UPS&UPS Bat Rm (112/115) - Door Lf & Final Paint	6	03AUG06	09AUG06	0	0	6	89	-13
T2185	AB 1/F (Grid 1-18) - Install Ceiling Panels	10	19AUG06	30AUG06	0	0	10	45	-9
Admin Bldg (2/F) - Internal Work @ Grid 1 to 18									
T2060	AB 2/F (Grid 1-18) - Wdws & Door Frames	12	11APR06A	26MAY06	50	50	6	-44	-13
T3012	AB 2/F (Tel, Comp, Cont Rm) - Wdws & door frames	8	11APR06A	23MAY06	70	70	3	-76	-13
T2062	AB (2/F to Rf/Lvl) - Staircase Finishing Works	30	18APR06A	22JUN06	5	5	28	-16	-13
T2065	AB 2/F (Grid 1-18) - Wall Plaster & Flr Screed	24	20MAY06	17JUN06	0	0	24	-44	-13
T3025	AB 2/F (Tel, Comp, Cont Rm) - Plaster & Screed	12	20MAY06	03JUN06	0	0	12	-76	-13
T3035	AB 2/F (Tel, Comp, Cont Rm)- Ceilng & Wall Paint	10	12JUN06	22JUN06	0	0	10	-76	-13
T2020	AB 2/F (Grid 1-18) - Tileworks & Sanitary Fixt	18	19JUN06	10JUL06	0	0	18	0	-13
T3038	AB 2/F (Critical Rooms) - Access to E&M Works	0		22JUN06	0	0	0	-76	-13
T2025	AB 2/F (Grid 1-18) - Ceiling & Wall Base Paint	30	27JUN06	01AUG06	0	0	30	-44	-13
T2028	AB 2/F (Grid 1-18) - Proprietary Toilet Cubicle	10	11JUL06	21JUL06	0	0	10	0	-13



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Admin Bldg (2/F) - Internal Work @ Grid 1 to 18									
T2035	AB 2/F (Non-Critical Room) - Access to E&M Works	0		18JUL06	0	0	0	-44	-13
T2045	AB 2/F (Grid 1-18) - Install Ceiling Grids	18	16AUG06	05SEP06	0	0	18	15	-13
T3045	AB 2/F (Tel, Comp, Cont Rm) - Ceiling Grids	18	16AUG06	05SEP06	0	0	18	15	-13
Admin Bldg (Roof/Flr) - Inter Works Grid 3 to 16									
T2985	AB R/F (Grid 3-16) - Window & door frames	6	28APR06A	26MAY06	35	35	6	-48	-13
T3280	AB R/F (Grid 3-16) - Wall Plaster & Flr Screed	18	28APR06A	30MAY06	50	50	9	-58	-13
T2250	AB R/F (Grid 3-16) - Ceiling & Wall Base Paint	12	09JUN06	22JUN06	0	0	12	-58	-13
T2255	AB R/F (Critical Rooms) - Access to E&M Works	0		22JUN06	0	0	0	-58	-13
T2235	AB R/F (Grid 3-16) - Door Leaf & Final Paints	6	17AUG06	23AUG06	0	0	6	77	-14
Admin Bldg - Upper Roof & External Facade									
T2890	AB Ext (GL 11-21) - Wall Waterproofing	18	28MAR06A	02JUN06	40	40	11	29	-13
T2340	AB Ext (GL 11-21) - Slate Cladding	30	03APR06A	14JUN06	30	30	21	52	-13
T2850	AB Ext (GL 1-11) - Install Louvres & Wdw Glazing	60	03APR06A	10JUN06	70	70	18	52	-13
T2860	AB Ext (GL 11-21)- Install Louvres & Wdw Glazing	60	03APR06A	10JUN06	70	70	18	60	-13
T2870	AB Ext UR/LR - Roof Screeding	18	20MAY06	10JUN06	0	0	18	-78	-13
T2880	AB Ext (GL 1-11) - Wall Waterproofing	18	20MAY06	10JUN06	0	0	18	52	-13
T2232	AB Ext (GL 11-18) - Curtain Wall Installation	21	03JUN06	27JUN06	0	0	21	56	-3
T2830	AB Ext (GL 11-21) - Ceramic Wall Tiles	30	03JUN06	08JUL06	0	0	30	29	-13
T2840	AB Ext UR/LR - Roof Waterproofing & Test	24	12JUN06	10JUL06	0	0	24	-78	-13
T2330	AB Ext (GL 1-11) - Slate Cladding	45	15JUN06	07AUG06	0	0	45	52	-13
T2230	AB Ext (GL 6-11) - Curtain Wall & Glass Canopy	30	28JUN06	02AUG06	0	0	30	56	-3
T2350	AB Ext (GL 1-11) - Ceramic Wall Tiles	30	10JUL06	12AUG06	0	0	30	29	-13
T2841	AB Ext UR/LR - Render&wall paint to Open Area Rf	12	11JUL06	24JUL06	0	0	12	-54	-13
T2900	AB Ext UR/LR - Insulation & Conc Roof Tile	30	25JUL06	28AUG06	0	0	30	-78	-13



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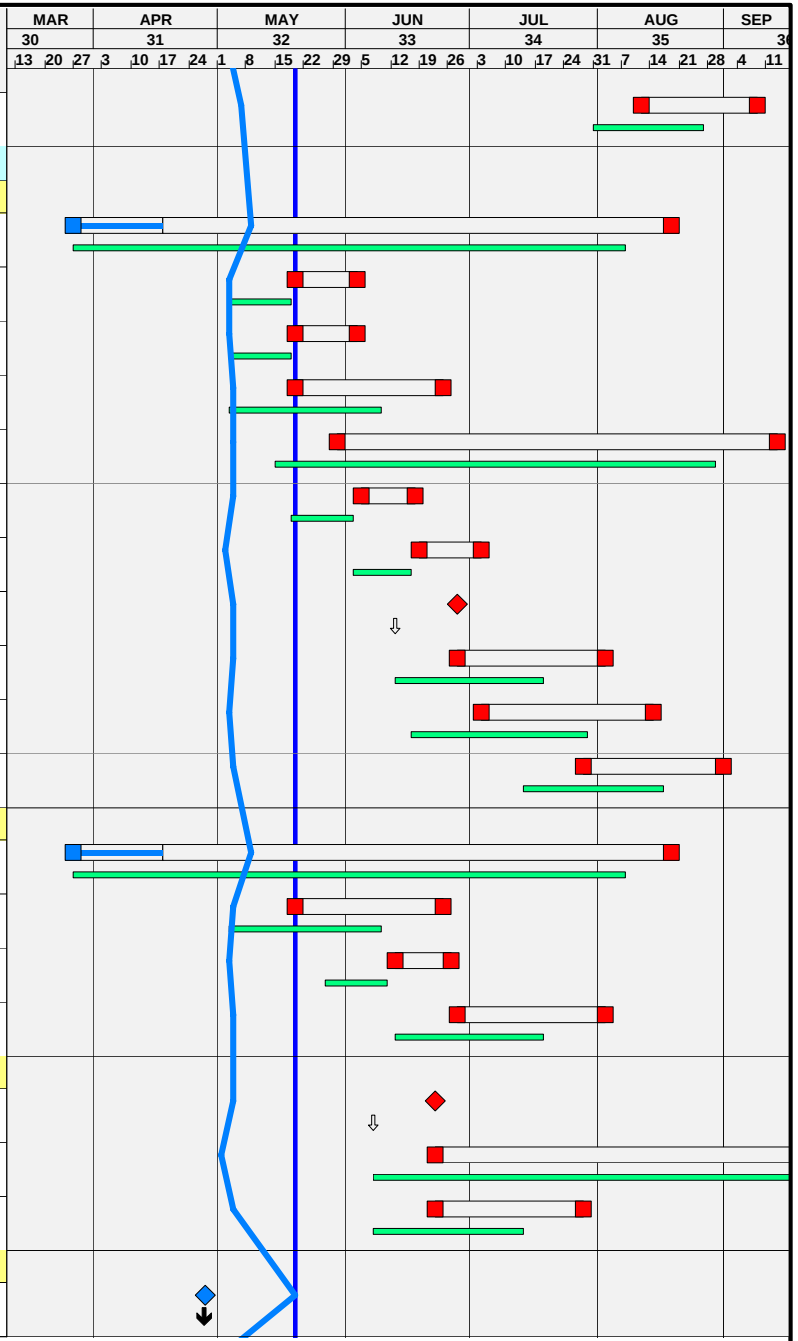
Admin Bldg - Upper Roof & External Facade									
T2280	AB Ext (GL 11-16) - Expanded metal mesh cladding	24	12AUG06	08SEP06	0	0	24	6	-11
BUILDING SERVICES									
Admin Bldg (G/F) - E & M Works									
EM3540	BS Works in G/F	90	27MAR06A	18AUG06	15	12	76	-34	-10
EM3220	BS Works for HV Sw + Tx	12	20MAY06	03JUN06	0	0	12	-50	-13
EM3340	BS Works for 110V Charger Rm	12	20MAY06	03JUN06	0	0	12	-54	-13
EM3660	PAU in G/F	30	20MAY06	24JUN06	0	0	30	-24	-13
EM3620	E&M Works in Risers	90	30MAY06	13SEP06	0	0	90	-56	-13
EM3280	BS Works for LV Sw	12	05JUN06	17JUN06	0	0	12	-42	-13
EM3420	BS Works for Genset	12	19JUN06	03JUL06	0	0	12	-42	-13
T1830	Bldg available for BB deliveries excl cont room	0		27JUN06*	0	0	0	-95	-13
EM3300	LV Sw Installation	30	28JUN06	02AUG06	0	0	30	-50	-13
EM3440	Genset Installation	36	04JUL06	14AUG06	0	0	36	-42	-13
EM3240	HV Sw + Tx Installation	29	29JUL06	31AUG06	0	0	29	-96	-13
Admin Bldg (1/F) - E & M Works									
EM3560	BS Works in 1/F	90	27MAR06A	18AUG06	15	12	76	-34	-10
EM3680	PAU in 1/F	30	20MAY06	24JUN06	0	0	30	-24	-13
EM3380	BS Works for UPS Rm (2x)	12	13JUN06	26JUN06	0	0	12	-61	-13
EM3400	UPS (2x) Installation	30	28JUN06	02AUG06	0	0	30	-62	-13
Admin Bldg (2/F) - E & M Works									
EM3160	E&M access to 2/F (rev C Access date 12Aug05)	0	23JUN06*		0	0	0	-76	-13
EM3580	BS Works in 2/F	90	23JUN06	09OCT06	0	0	90	-76	-13
EM3700	PAU in 2/F	30	23JUN06	28JUL06	0	0	30	-52	-13
Admin Bldg (Int. & Ext. Roof Lvl) - E & M Works									
EM3140	E&M access to R/F (rev C Access date 29Nov05)	0	28APR06A		100	100	0		0



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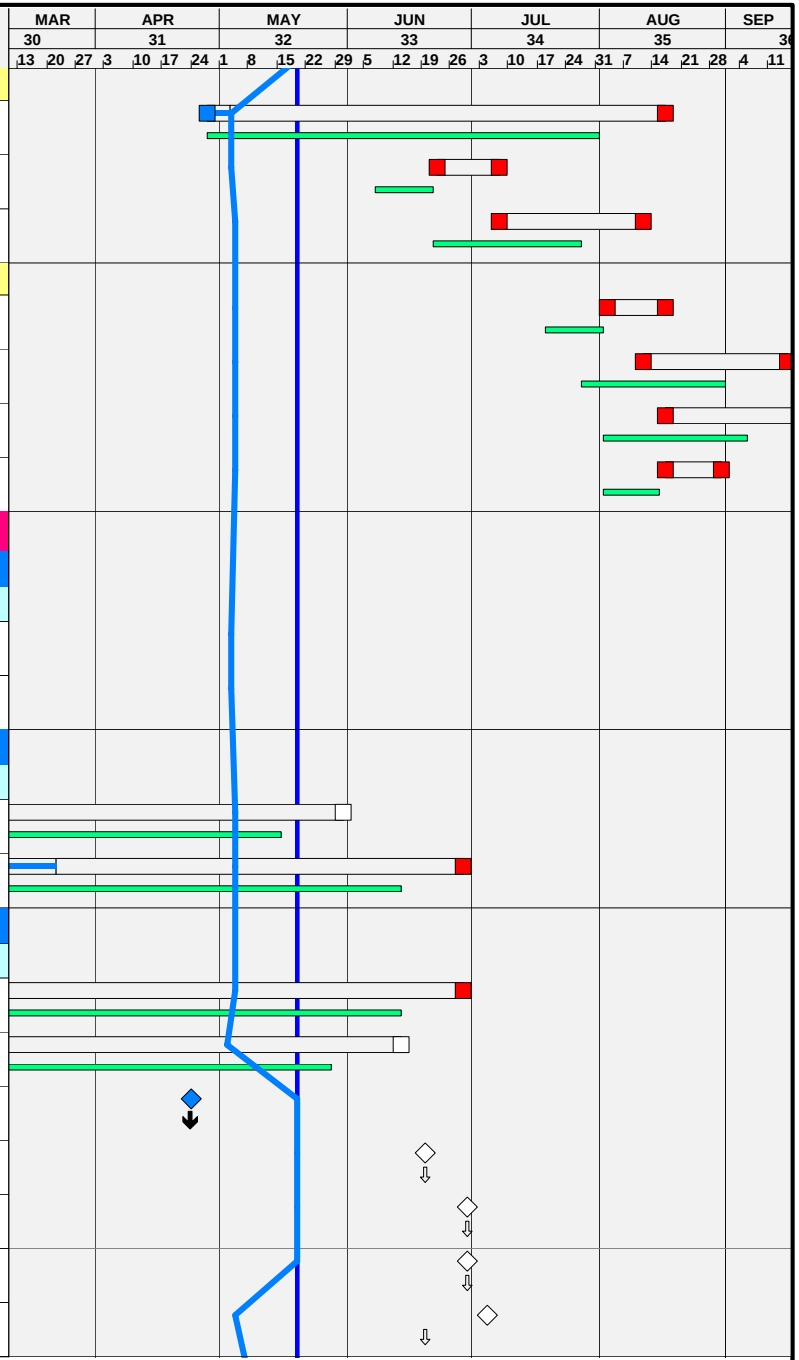
Admin Bldg (Int. & Ext. Roof Lvl) - E & M Works									
EM3600	BS Works in R/F	78	28APR06A	16AUG06	5	1	74	-32	-14
EM3480	BS Works for MCC	12	23JUN06	07JUL06	0	0	12	-58	-13
EM3500	MCC Installation	30	08JUL06	11AUG06	0	0	30	-58	-13
Admin Bldg - Testing and Commissioning									
EM3360	110V Charger Rm Installation + T&C	12	03AUG06	16AUG06	0	0	12	-62	-13
EM3520	MCC Termination + T&C	30	12AUG06	15SEP06	0	0	30	-58	-13
EM3320	LV Sw Termination + T&C	30	17AUG06	20SEP06	0	0	30	-62	-13
EM3460	Genset Termination + T&C	12	17AUG06	30AUG06	0	0	12	-44	-13
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		-16
ACS_D8	Access to Portion - D8	0	03JAN06A		100	100	0		-16
SUBMITTALS & APPROVALS									
ABWF & BW APPROVALS									
2000	SHT SPB - Approve doors details	24	07MAY05A	30MAY06	70	70	9	38	-13
2074	SHT SPB - Approve aluminum composite cladding	24	13DEC05A	28JUN06	50	50	33	-14	-13
PROCUREMENT - MATERIAL									
ABWF WORKS									
2079	SHT SPB - Procure aluminum composite cladding	180	19APR05A	28JUN06	50	50	22	-14	-13
2077	SHT SPB - Procure expanded metal mesh cladding	180	05JUN05A	13JUN06	50	50	20	27	-13
2080	SHT SPB - Initial delivery of louvres	0	24APR06A		100	100	0		0
2082	SHT SPB - Initial delivery of slate cladding	0	20JUN06*		0	0	0	66	0
2083	SHT SPB - Initial deliv fall arrest roof syst.	0	30JUN06*		0	0	0	75	0
2084	SHT SPB - Initial delivery balustrd & metal work	0	30JUN06*		0	0	0	75	0
2081	SHT SPB - Initial delivery of doors	0	05JUL06*		0	0	0	38	-12



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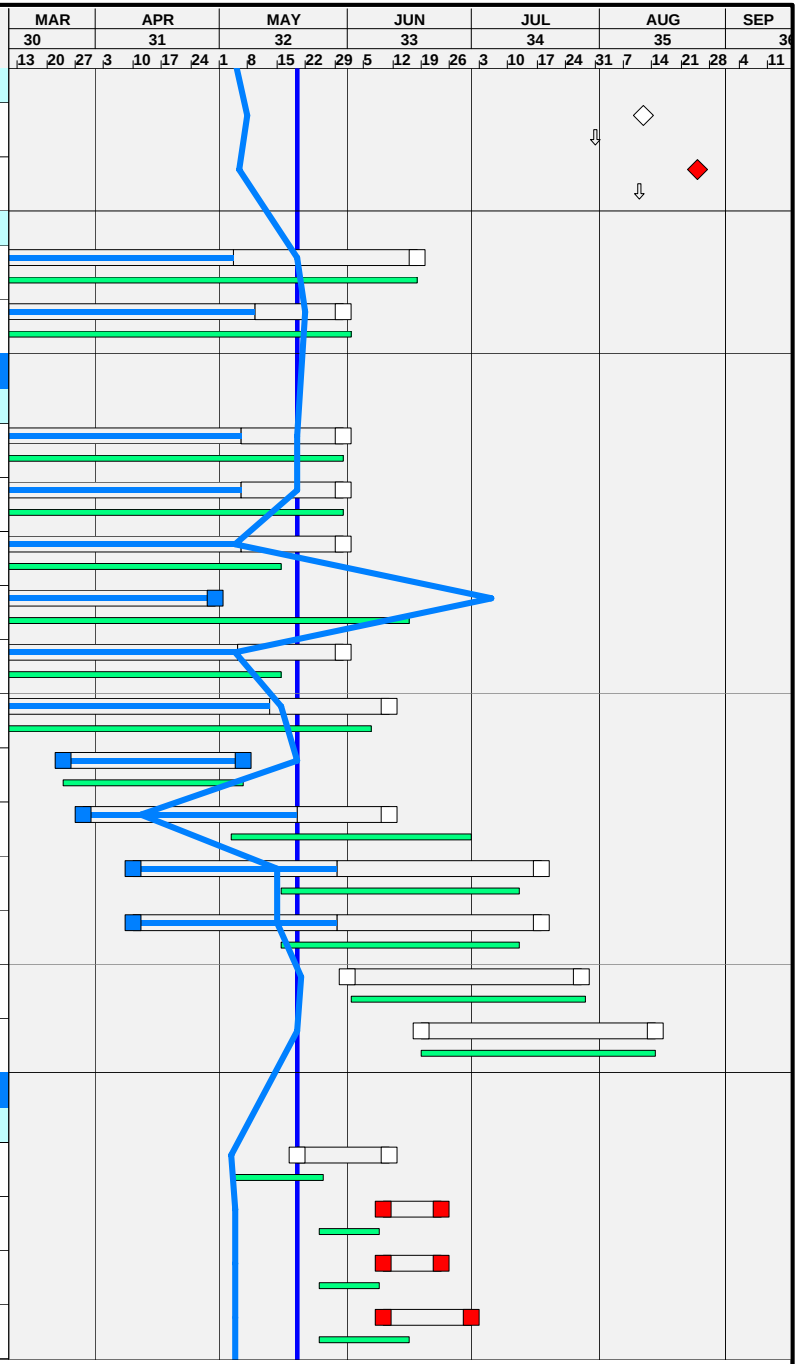
ABWF WORKS									
2085	SHT SPB - Initial deliv expanded metal cladding	0	12AUG06*		0	0	0	27	-11
2086	SHT SPB - Initial deliv alum composite claddings	0	25AUG06*		0	0	0	-14	-12
E & M WORKS									
7086	ShtSpBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	17JUN06	90	85	24	377	0
7206	ShtSpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	30MAY06	95	90	9	392	1
MAJOR EQUIPMENT DELIVERY									
E&M WORKS									
7103	ShtSpBldg-Del. Package AC Units	48	27JAN06A	30MAY06	80	60	9	440	0
7118	ShtSpBldg-Del. building vent. fans	48	27JAN06A	30MAY06	80	60	9	440	0
7149	ShtSpBldg-Del. MVAC MCC, & control sys to 3/F	48	27JAN06A	30MAY06	80	80	9	440	-13
8509	ShtSpBldg-Del. building related luminaires	48	27JAN06A	29APR06A	100	70	0		37
7157	ShtSpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	30MAY06	70	50	9	440	-13
7162	ShtSpBldg-Del. ENT Tunnel (Hyd/HR) pumps to G/F	48	06MAR06A	10JUN06	70	40	18	431	-4
7135	ShtSpBldg-Del. TVS to Plenum & 3/F	48	24MAR06A	06MAY06A	100	40	0		0
7142	ShtSpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	29MAR06A	10JUN06	70	0	18	431	-31
7211	ShtSpBldg-Del. PD pump & tank to G/F	48	10APR06A	17JUL06	50	0	48	401	-4
7231	ShtSpBldg-Del. PD irrig. pump & tank to G/F	48	10APR06A	17JUL06	50	0	48	401	-4
7207	ShtSpBldg-Del. AFA & FM200 sys	48	01JUN06	27JUL06	0	0	48	392	1
7087	ShtSpBldg-Del. CMCS & ELV equip't	48	19JUN06	14AUG06	0	0	48	377	0
CONSTRUCTION									
TCSS Access to SHT Sout Portal Bldg									
EM6704	TCSS Containment in Lower Plenum	18	20MAY06	10JUN06	0	0	18	431	-13
EM6700	TCSS Containment in G/F	12	10JUN06	23JUN06	0	0	12	-89	-13
EM6702	TCSS Containment in 1/F	12	10JUN06	23JUN06	0	0	12	-89	-13
EM6706	TCSS Containment in 2/F	18	10JUN06	30JUN06	0	0	18	-95	-13



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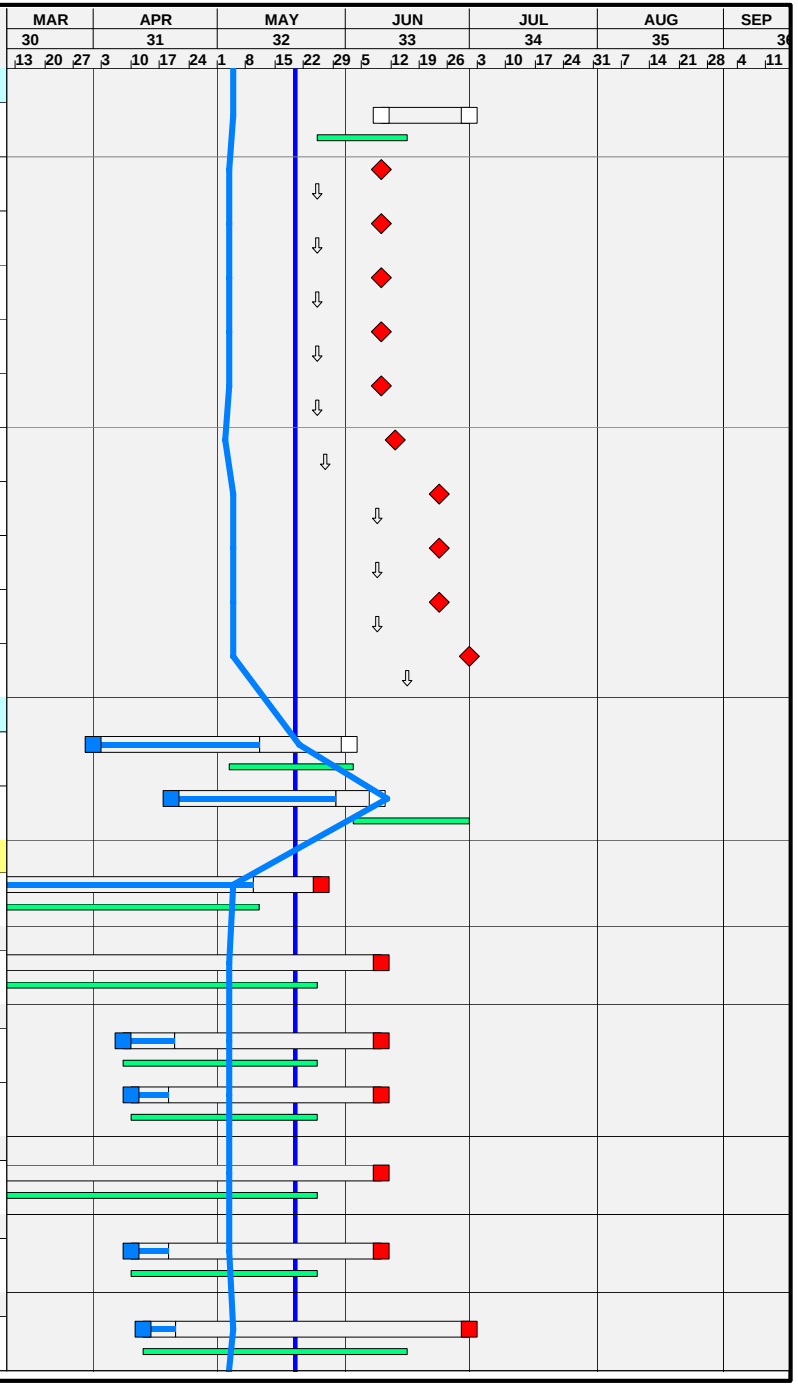
TCSS Access to SHT Sout Portal Bldg									
EM6708	TCSS Containment in 3/F and above	18	10JUN06	30JUN06	0	0	18	414	-13
AB6021	TCSS ACCESS 3F(Room 307)	0		09JUN06	0	0	0	-144	-13
EM6050	TCSS ACCESS 2F(Room 201-203,205,207,209,212)	0		09JUN06	0	0	0	-126	-16
EM6110	TCSS ACCESS 2F(Room 204)	0		09JUN06	0	0	0	-144	-13
EM6710	TCSS ACCESS GF (Room G01-G05, G08-G10)	0		09JUN06	0	0	0	-51	-13
EM6712	TCSS ACCESS 1F(Room 101,103,104,108-109)	0		09JUN06	0	0	0	-100	-13
AB6024	TCSS ACCESS 4F (Room 402,403)	0		12JUN06*	0	0	0	-55	-17
EM6720	TCSS ACCESS GF(Room G07,G11,G12)	0		23JUN06	0	0	0	-89	-13
EM6722	TCSS ACCESS 1F(Room 107)	0		23JUN06	0	0	0	-89	-13
EM6732	TCSS ACCESS 1F(Room 105)	0		23JUN06	0	0	0	-63	-13
EM6090	TCSS ACCESS 2F(Room 206,210)	0		30JUN06	0	0	0	-95	-13
CIVIL & ABWF WORKS									
AB5983	U/G Drainages and Utilities under bldg	24	01APR06A	01JUN06	65	0	10	81	1
AB5986	Backfill, G/F Slabs and Walls	24	20APR06A	08JUN06	80	0	6	81	19
ABWF									
AB6022	Remedy SHT Contractor Defects	25	12DEC05A	25MAY06	90	90	5	-144	-13
ABWF at GF									
AB5989	Initial Finishes to G/F	18	11FEB06A	09JUN06	5	5	17	-89	-13
ABWF at 1F & LP									
AB5992	Initial Finishes to 1/F	18	08APR06A	09JUN06	20	20	14	-100	-13
AB5995	Initial Finishes to Lower Plenum	12	10APR06A	09JUN06	15	15	10	-53	-13
ABWF at 2F									
AB5998	Initial Finishes to 2/F	18	11FEB06A	09JUN06	15	15	15	-144	-13
ABWF at 3F									
AB6001	Initial Finishes to 3/F	18	10APR06A	09JUN06	15	15	15	-144	-13
ABWF at 4F and above									
AB6004	Initial Finishes to 4/F and above	24	13APR06A	30JUN06	10	10	21	-44	-13



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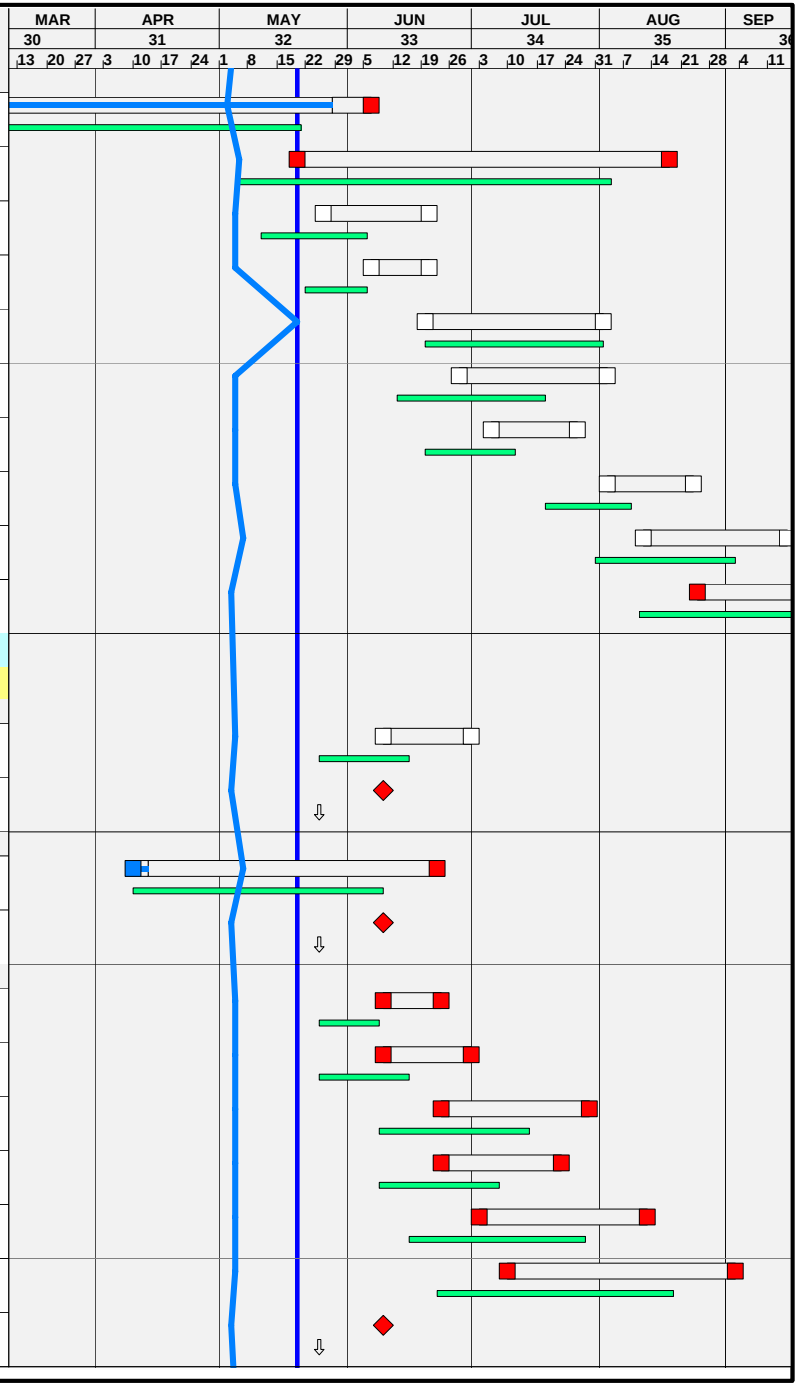
Roof & External Facade									
AB6017	Sht SPB - Ext. Wall Waterproof Membrane	24	04MAR06A	06JUN06	90	90	14	0	-13
AB6067	Sht SPB - Install Aluminum louvres & doors	75	20MAY06*	17AUG06	0	0	75	0	-12
AB6018	Sht SPB - Ext. Wall Waterproof Render	21	26MAY06	20JUN06	0	0	21	47	-13
AB6037	Sht SPB - Roof Waterproofing & Test	12	07JUN06	20JUN06	0	0	12	53	-13
AB6007	Sht SPB - Slate Cladding above NB/SB Carriageway	36	20JUN06	01AUG06	0	0	36	66	0
AB6027	Sht SPB - External Wall Painting	30	28JUN06	02AUG06	0	0	30	47	-13
AB6057	Sht SPB - 25thk Roof Screed & Roofing Tiles	18	06JUL06	26JUL06	0	0	18	53	-13
AB6047	Sht SPB - GMS, S/S Channel, Balustrade & Railing	18	03AUG06	23AUG06	0	0	18	47	-13
AB6034	Sht SPB - Expanded metal cladding to ext walls	30	12AUG06	15SEP06	0	0	30	27	-11
AB6077	Sht SPB - Alum. composite cladding to ext walls	60	25AUG06	06NOV06	0	0	60	-14	-12
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	10JUN06	30JUN06	0	0	18	40	-13
EM6063	E&M Access to G/F	0	10JUN06		0	0	0	-89	-13
SHT South Portal Bldg (1F/Lwr Plen) - E & M Work									
EM6380	BS Works for TVS Plenums	30	10APR06A	22JUN06	5	3	28	-53	-11
EM6060	E&M Access to 1/F	0	10JUN06		0	0	0	-89	-13
SHT South Portal Bldg (2F/Silencer) - E & M Work									
EM6080	BS Works for HV Sw + Tx	12	10JUN06	23JUN06	0	0	12	-91	-13
EM6240	BS Works for Genset	18	10JUN06	30JUN06	0	0	18	-38	-13
EM6100	HV Sw + Tx Installation	30	24JUN06	29JUL06	0	0	30	-91	-13
EM6300	E&M Works in Corridors 2/F	24	24JUN06	22JUL06	0	0	24	-44	-13
EM6260	Genset Installation	36	03JUL06	12AUG06	0	0	36	-38	-13
EM6340	E&M Works in Risers (2F & 3F)	48	10JUL06	02SEP06	0	0	48	-44	-13
EM6040	E&M access to 2/F	0	10JUN06		0	0	0	-95	-13



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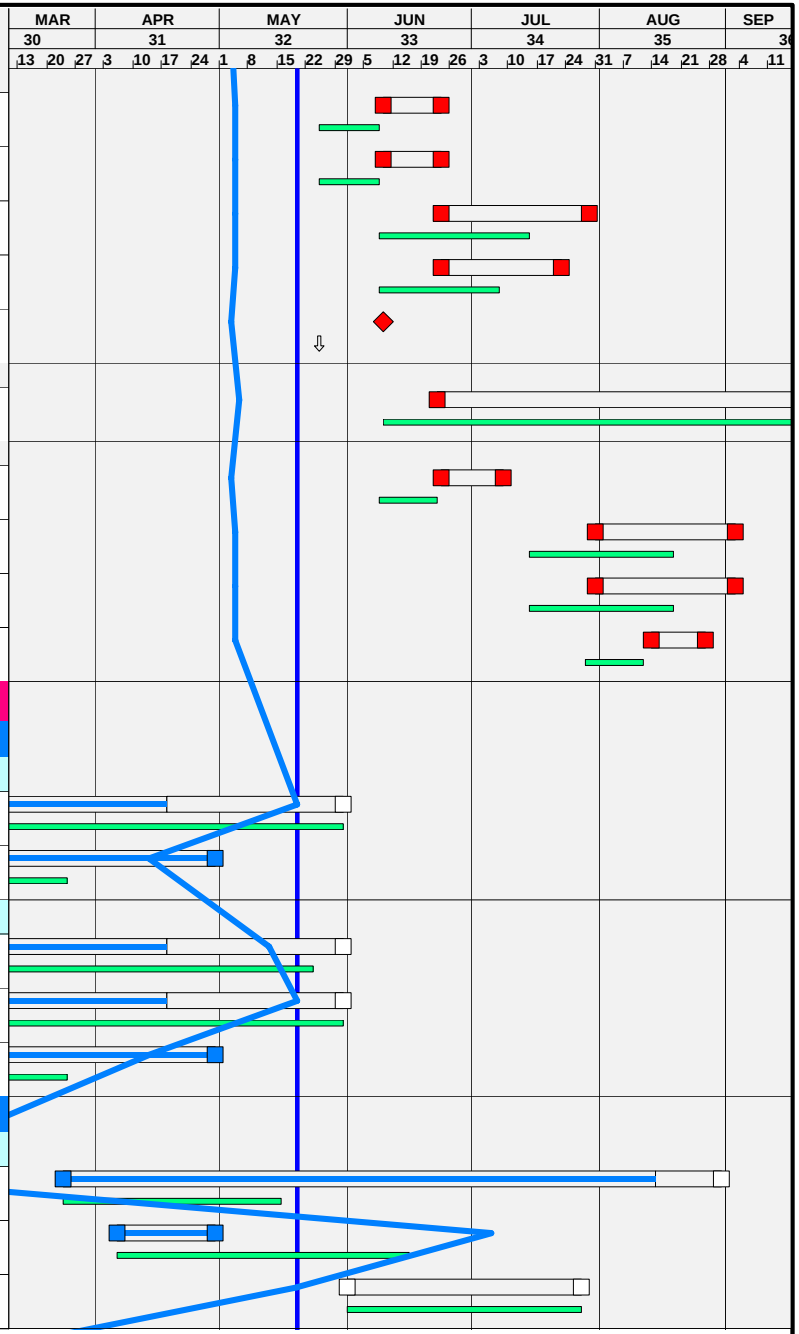
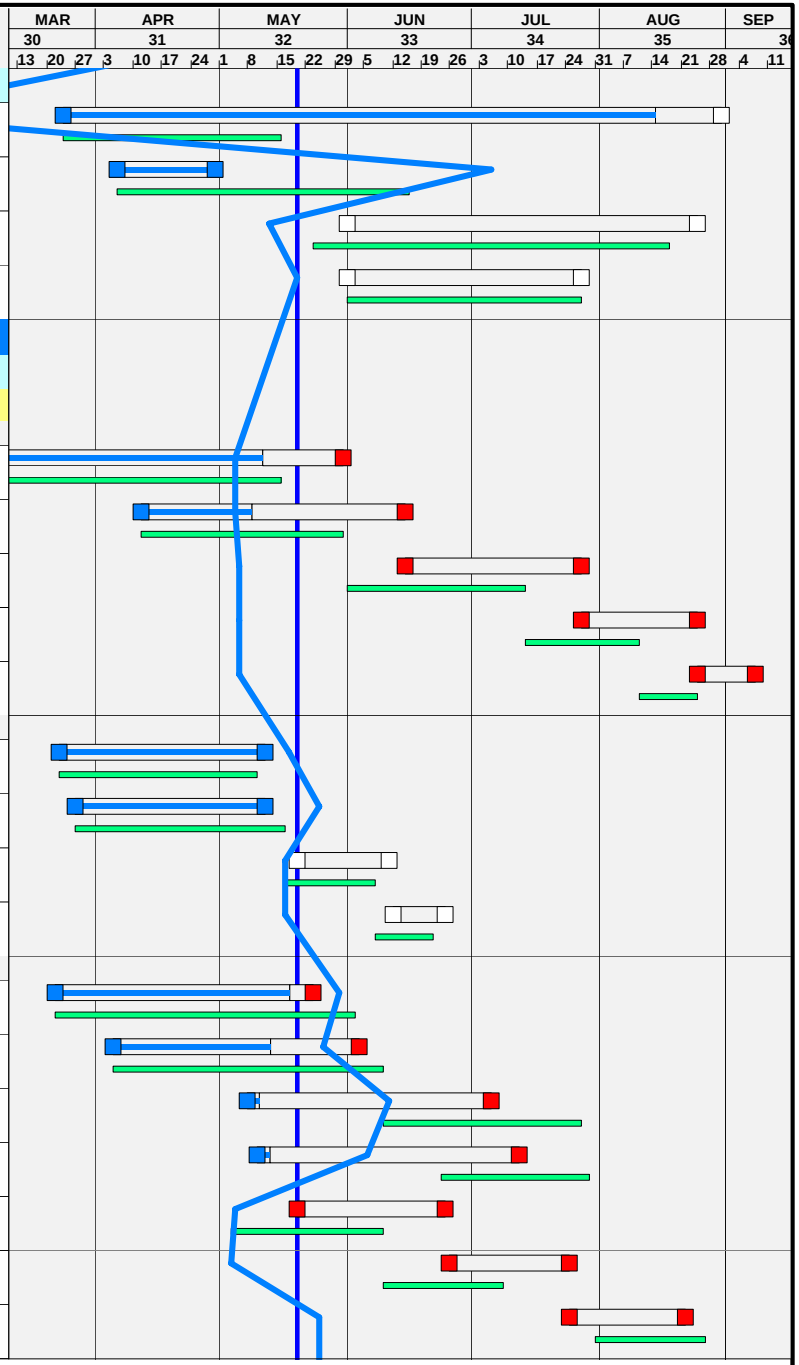
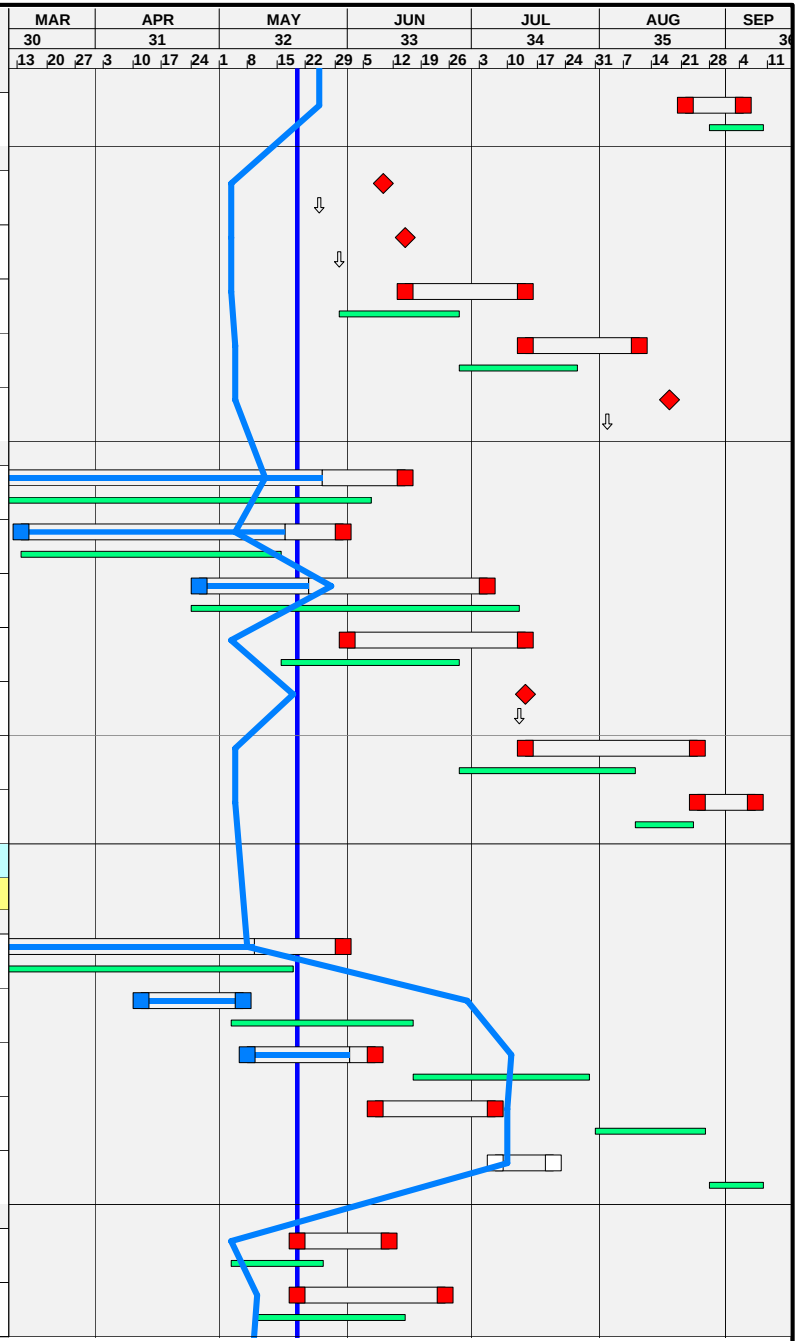
SHT South Portal Bldg (3F/Fan Rm) - E & M Work									
EM6140	BS Works for LV Sw, MCC, UPS, LCC	12	10JUN06	23JUN06	0	0	12	-59	-13
EM6200	BS Works for 110V Charger Rm	12	10JUN06	23JUN06	0	0	12	-26	-13
EM6160	LV Sw, MCC, UPS, LCC Installation	30	24JUN06	29JUL06	0	0	30	-59	-13
EM6320	E&M Works in Corridors 3/F	24	24JUN06	22JUL06	0	0	24	-44	-13
EM6020	E&M access to 3/F	0	10JUN06		0	0	0	-59	-13
SHT South Portal Bldg (4F/Upr Plen) - E & M Work									
EM6400	TVS Installation	100	23JUN06	20OCT06	0	0	100	-53	-11
Testing and Commissioning									
EM6220	110V Charger Rm Installation + T&C	12	24JUN06	08JUL06	0	0	12	-26	-13
EM6120	HV Sw + Tx Termination + T&C	30	31JUL06	02SEP06	0	0	30	-44	-13
EM6180	LV Sw, MCC, UPS, LCC Termination + T&C	30	31JUL06	02SEP06	0	0	30	-32	-13
EM6280	Genset Termination + T&C	12	14AUG06	26AUG06	0	0	12	-38	-13
SHT TUNNEL									
PROCUREMENT - MATERIAL									
SHT TUNNEL NORTHBOUND									
7023	ShtRtNb-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	30MAY06	90	85	9	392	0
7011	ShtRtNb-Proc & Manuf. TVS control sys	180	25MAY05A	29APR06A	100	100	0		-27
SHT TUNNEL SOUTHBOUND									
6946	ShtRtSb-Proc & Manuf. CMCS & ELV sys	180	29MAR05A	30MAY06	90	90	9	368	-6
6970	ShtRtSb-Proc & Manuf. FS AFA & Linear sys	180	29MAR05A	30MAY06	90	85	9	392	0
6958	ShtRtSb-Proc & Manuf. TVS control sys	180	25MAY05A	29APR06A	100	100	0		-27
MAJOR EQUIPMENT DELIVERY									
SHT TUNNEL NORTHBOUND									
7012	ShtRtNb-Del. TVS control sys	48	24MAR06A	30AUG06	90	60	86	363	-90
6993	ShtRtNb-Del. Tunnel Lgt	48	06APR06A	29APR06A	100	95	0		37
7024	ShtRtNb-Del. AFA & Linear sys	48	01JUN06	27JUL06	0	0	48	392	0



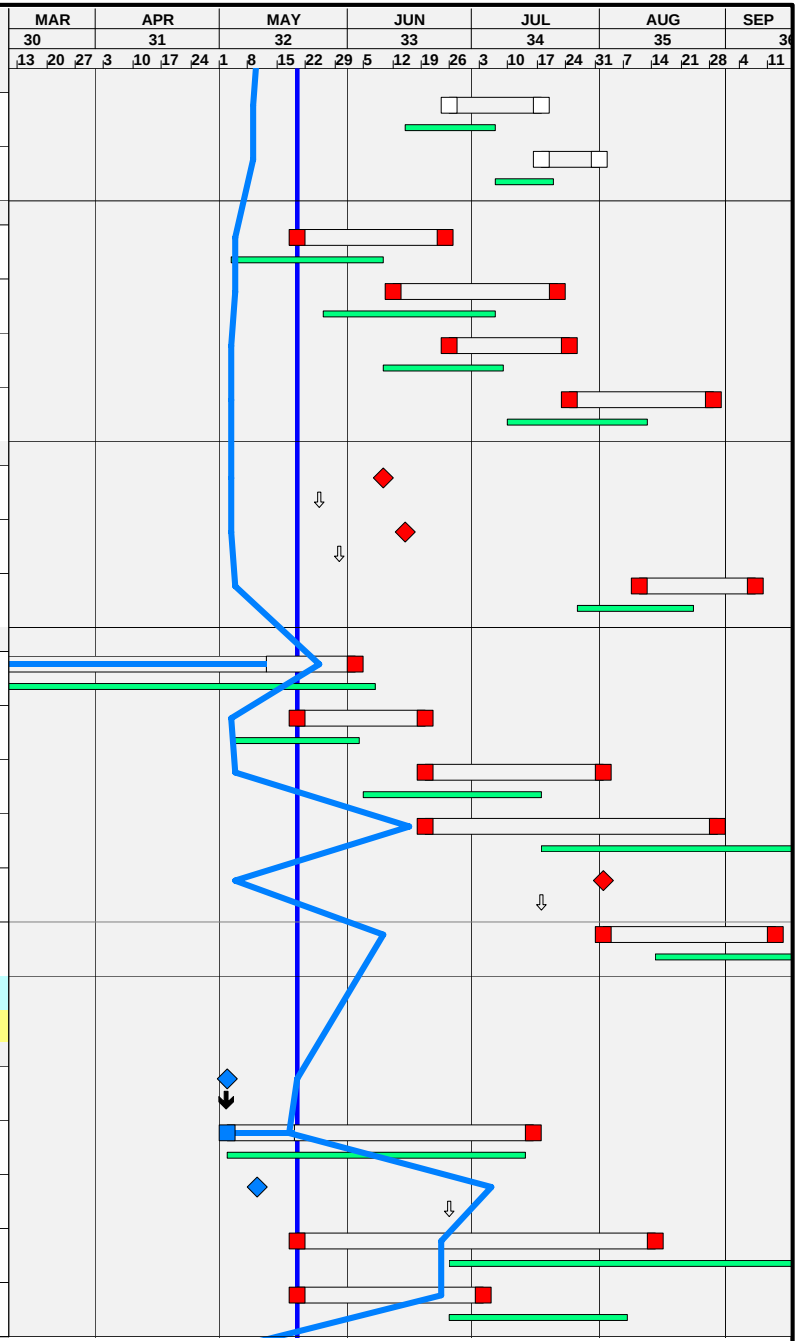
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
SHT TUNNEL SOUTH BOUND									
6959	ShtRtSb-Del. TVS control sys	47	24MAR06A	30AUG06	90	40	86	363	-90
6940	ShtRtSb-Del. Tunnel Lgt	48	06APR06A	29APR06A	100	95	0		37
6947	ShtRtSb-Del. CMCS & ELV sys	72	01JUN06	24AUG06	0	0	72	368	-6
6971	ShtRtSb-Del. AFA & Linear sys	48	01JUN06	27JUL06	0	0	48	392	0
CONSTRUCTION									
SHT NORTHBOUND TUNNEL									
(E & M) BUILDING SERVICES									
MVAC / Tunnel Ventillation System Above OHVD									
207004	Sht NB - Install Motorized Smoke & Fire Damper	48	22FEB06A	30MAY06	80	80	9	-45	-13
207006	Sht NB - Comp Air Pipes/Condts to E/P1 to E/P5	36	12APR06A	14JUN06	42	5	21	-45	-12
207005	Sht NB - Comp Air Pipes/Condts to E/P10 to E/P6	36	15JUN06	27JUL06	0	0	36	-45	-12
207007	Sht NB - Cabling, wiring and termination	24	28JUL06	24AUG06	0	0	24	-45	-12
207008	Sht NB - MVAC Testing and T&C	12	25AUG06	07SEP06	0	0	12	-45	-12
Plumbing and Drainage									
214026	Sht NB - Watermain & Cable brackets @ G/L	18	23MAR06A	11MAY06A	100	90	0		-2
214027	Sht NB - (150d) Water Supply Pipeworks @ G/L	30	27MAR06A	11MAY06A	100	90	0		4
214028	Sht NB - Pipe Connectn, pumps, tanks to SP / NP	18	20MAY06	10JUN06	0	0	18	45	-3
214030	Sht NB - Pipe Testing & T&C	12	12JUN06	24JUN06	0	0	12	45	-3
Fire Protection System									
221054	Sht NB - Install FS Conduits to AFA Panels	30	22MAR06A	23MAY06	91	20	3	-5	8
221055	Sht NB - (150d) FS Main pipeworks @ G/L	34	05APR06A	03JUN06	64	10	12	-5	5
221057	Sht NB - Hose Reel Cabinets & Equipts	40	08MAY06A	05JUL06	5	0	38	-5	19
221058	Sht NB - (100d) FH / HR Pipeworks & Fittings	30	10MAY06A	12JUL06	5	0	28	-5	15
221052	Sht NB - Install brckt / supt for FS dectn @ C/L	30	20MAY06	24JUN06	0	0	30	-15	-13
221053	Sht NB - Install fire alarm detection @ C/L	24	26JUN06	24JUL06	0	0	24	-15	-13
221059	Sht NB - FS wiring & termination	24	25JUL06	21AUG06	0	0	24	-15	5



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
	Fire Protection System								
221061	Sht NB - FS Testing and T&C	12	22AUG06	04SEP06	0	0	12	-15	5
	Electrical Works Above OHVD								
228103	Sht NB - E&M Access to 3/F LV Switch Rm (SPB)	0	10JUN06		0	0	0	-65	-13
228104	Sht NB - E&M Access to 3/F LV Switch Rm (NPB)	0	15JUN06		0	0	0	-93	-13
228108	Sht NB-HV&LV Mn/Submain Cable Pulling (CP10-CP6)	24	15JUN06	13JUL06	0	0	24	-93	-13
228105	Sht NB-HV&LV Mn/Submain Cable Pulling (CP5-CP1)	24	14JUL06	10AUG06	0	0	24	-93	-13
228109	E&M Inspection & Access to Civil Contractor	0		17AUG06	0	0	0	-45	-13
	Electrical Works Below OHVD								
235161	Sht NB - Conduits Works (Above & below OHVD)	48	01MAR06A	14JUN06	81	44	10	-13	-7
235160	Sht NB - Brackets for Lights, CCTV & Eqpt @ C/L	48	14MAR06A	30MAY06	82	80	9	-33	-13
235164	Sht NB - Tunnel Lightings & Signage Fixtures	60	26APR06A	04JUL06	38	5	37	-13	7
235162	Sht NB - Tunnel Earthing & Bonding to CP1-CP10	36	01JUN06	13JUL06	0	0	36	-33	-13
235163	Stn NB Access to Civil Contractr for Rd Pavement	0	14JUL06		0	0	0	-21	-1
235165	Sht NB - Cabling, Wiring and Termination	36	14JUL06	24AUG06	0	0	36	-33	-13
235166	Sht NB - Lighting Test and T&C	12	25AUG06	07SEP06	0	0	12	-30	-13
	SHT SOUTHBOUND TUNNEL								
	(E & M) BUILDING SERVICES								
	MVAC / Tunnel Ventilation System Above OHVD								
242270	Sht SB - Install Motorized Smoke & Fire Damper	48	02MAR06A	30MAY06	76	74	9	9	-10
242271	Sht SB - Comp Air Pipes/Condts to E/P10 to E/P6	36	12APR06A	06MAY06A	100	0	0		34
242272	Sht SB - Comp Air Pipes/Condts to E/P1 to E/P5	36	08MAY06A	07JUN06	80	0	7	9	44
242273	Sht SB - Cabling, wiring and termination	24	08JUN06	06JUL06	0	0	24	9	44
242274	Sht SB - MVAC Testing and T&C	12	07JUL06	20JUL06	0	0	12	24	44
	Plumbing and Drainage								
249390	Sht SB - Watermain & Cable brackets @ G/L	18	20MAY06*	10JUN06	0	0	18	-55	-13
249391	Sht SB - (50d) Water Supply Pipeworks @ G/L	30	20MAY06	24JUN06	0	0	30	-49	-9



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Plumbing and Drainage									
249392	Sht SB - Pipe Connectn, pumps, tanks to SP / NP	18	26JUN06	17JUL06	0	0	18	15	-9
249393	Sht SB - Pipe Testing and T&C	12	18JUL06	31JUL06	0	0	12	15	-9
Fire Protection System									
256514	Sht SB - Install brckt / Supt for FS dectn @ C/L	30	20MAY06	24JUN06	0	0	30	-87	-13
256517	Sht SB - (150d) FS Main pipeworks @ G/L	34	12JUN06	21JUL06	0	0	34	-55	-13
256515	Sht SB - Install fire alarm detection @ C/L	24	26JUN06	24JUL06	0	0	24	-87	-13
256516	Sht SB - Install FS Conduits to AFA Panels	30	25JUL06	28AUG06	0	0	30	-87	-13
Electrical Works Above OHVD									
263653	Sht SB - E&M Access to 3/F UPS Room (SPB)	0	10JUN06*		0	0	0	-17	-13
263654	Sht SB - E&M Access to 3/F UPS Room (NPB)	0	15JUN06*		0	0	0	-45	-13
263658	Sht SB-HV&LV Mn/Submain Cable Pulling (CP10-CP6)	24	11AUG06	07SEP06	0	0	24	-93	-13
Electrical Works Below OHVD									
270799	Sht SB - Conduits Works (Above & below OHVD)	48	01MAR06A	02JUN06	77	42	11	-29	4
270798	Sht SB - Brackets for Lights, CCTV & Eqpt @ C/L	48	20MAY06	19JUN06	0	0	25	-49	-13
270800	Sht SB - Tunnel Earthing & Bonding to CP1-CP10	36	20JUN06	01AUG06	0	0	36	-49	-13
270802	Sht SB - Tunnel Lightings & Signage Fixtures	60	20JUN06	29AUG06	0	0	60	-43	23
270801	Stn SB Access to Civil Contractr for Rd Pavement	0	02AUG06		0	0	0	-37	-13
270803	Sht SB - Cabling, Wiring and Termination	36	02AUG06	12SEP06	0	0	36	-49	17
SHT CROSS PASSAGES (CP1 to CP10)									
(E & M) BUILDING SERVICES									
Electrical Works									
277956	E&M Access to Cross Passage Area (CP1-CP10)	0	03MAY06A		100	100	0		0
277957	(CP1-CP10) - Cable Containment & Equipt Support	60	03MAY06A	15JUL06	22	2	47	-47	-2
277958	(CP1-CP10) - Temp. Doors Installed and Secured	0	10MAY06A		100	0	0		39
277959	(CP1-CP10) - MCCB / MCB Bd,CMCS,Busbar,Switches	72	20MAY06	14AUG06	0	0	72	-42	30
277960	(CP1-CP10) - Conduit, light Fixture, Swt & Test	36	20MAY06	03JUL06	0	0	36	-36	30



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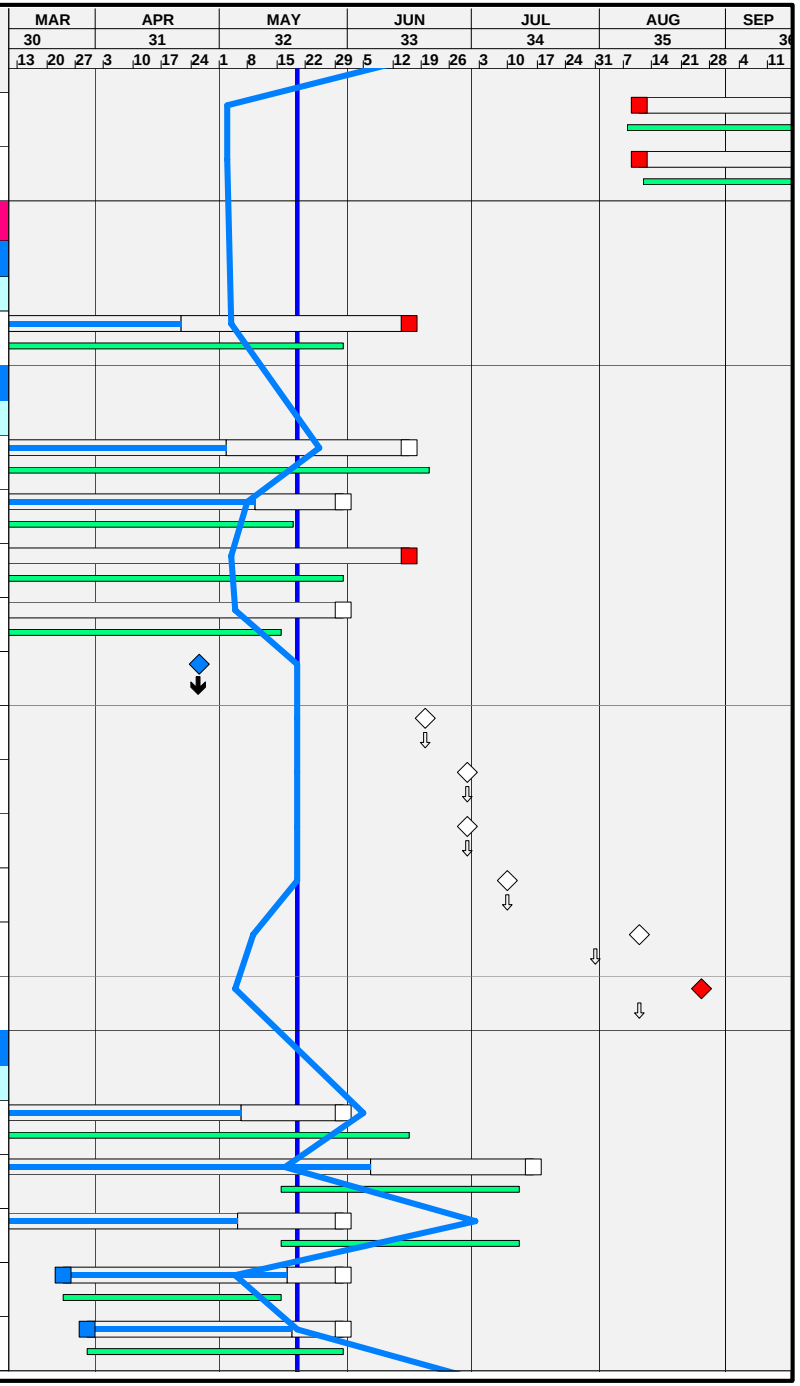
Electrical Works									
277961	(CP1-CP10) - HV & LV Cables Termination & Test	48	11AUG06	06NOV06	0	0	48	-93	-13
277962	(CP1-CP10) - Switchboard, CMCS, Eqpt, Testing	48	11AUG06	06NOV06	0	0	48	-93	-13
SHT NORTH PORTAL BUILDING									
SUBMITTALS & APPROVALS									
ABWF & BUILDERS WORKS									
2094	SHT NPB - Approve alum. composite claddings	24	13DEC05A	15JUN06	70	70	22	-27	-13
PROCUREMENT - MATERIAL									
ABWF WORKS									
7308	ShtNpBldg-Proc. & Manuf. of CMCS & ELV sys	180	29MAR05A	15JUN06	90	85	22	379	4
7428	ShtNpBldg-Proc & Manuf. FS AFA & FM200 sys	120	29MAR05A	30MAY06	95	90	9	392	-10
2099	SHT NPB - Procure alum. composite claddings	180	19APR05A	15JUN06	50	50	22	-27	-13
2098	SHT NPB - Procure expanded metal claddings	180	05JUN05A	30MAY06	50	50	9	16	-13
2100	SHT NPB - Initial delivery of louvres	0	26APR06A		100	100	0		0
2101	SHT NPB - Initial delivery of doors	0	20JUN06*		0	0	0	90	0
2102	SHT NPB - Initial delivery of slate claddings	0	30JUN06*		0	0	0	27	0
2105	SHT NPB - Initial deliv balustrade & metal works	0	30JUN06*		0	0	0	63	0
2104	SHT NPB - Initial deliv fall arrest roofing syst	0	10JUL06*		0	0	0	56	0
2103	SHT NPB - Initial deliv expanded metal claddings	0	11AUG06*		0	0	0	16	-10
2106	SHT NPB - Initial deliv alum. composite cladding	0	26AUG06*		0	0	0	-27	-13
MAJOR EQUIPMENT DELIVERY									
SHT NORTH PORTAL BUILDING									
7340	ShtNpBldg-Del. building vent. fans	48	27JAN06A	30MAY06	80	60	9	440	13
7379	ShtNpBldg-Del. FS pumps & tank to G/F	48	06MAR06A	15JUL06	70	0	47	402	-3
7384	ShtNpBldg-Del. ENT Tunnel (Hyd/HR) pumps to G/F	48	06MAR06A	30MAY06	70	0	9	440	35
7357	ShtNpBldg-Del. TVS to Plenum & 3/F	72	24MAR06A	30MAY06	80	40	9	440	-13
7364	ShtNpBldg-Del. MVAC /TVF pneumatic sys to 1/F	48	30MAR06A	30MAY06	80	30	9	440	0



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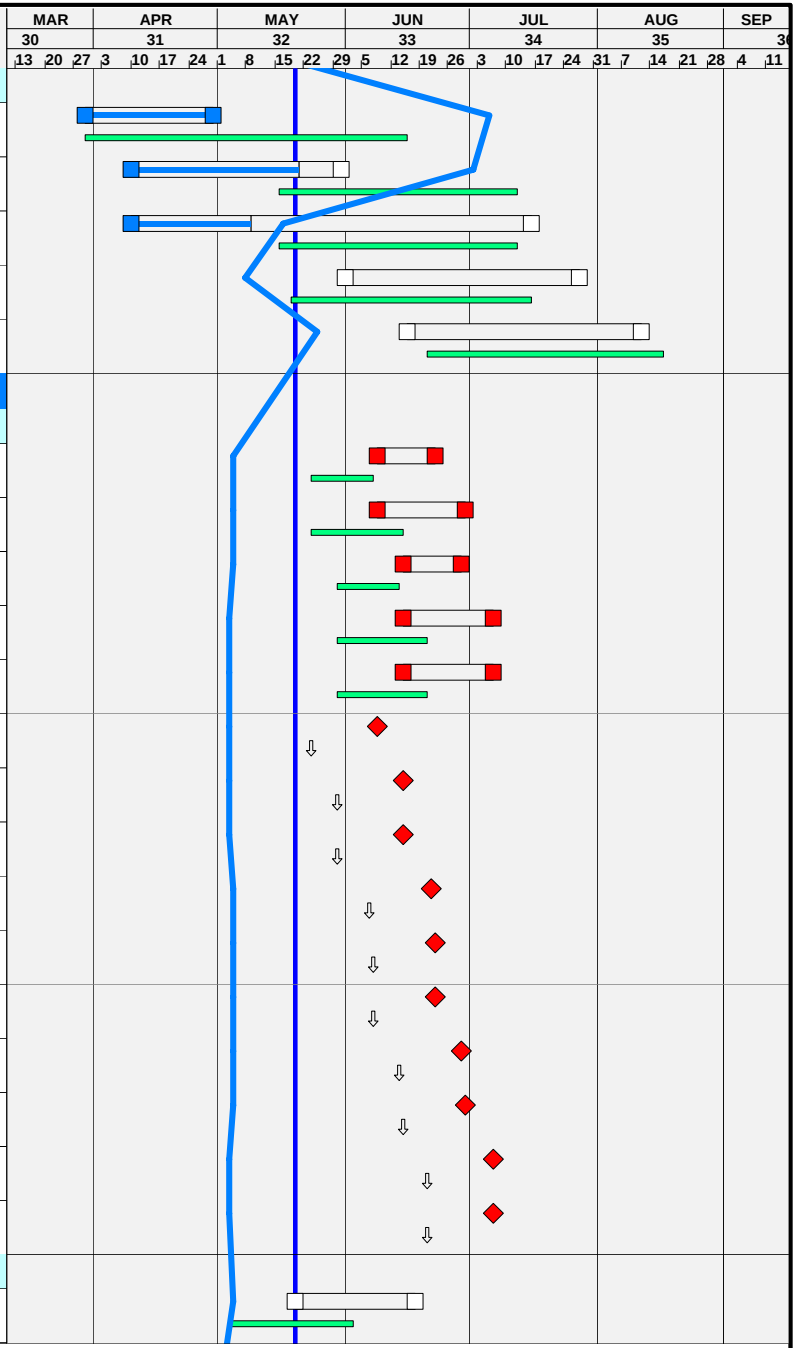
SHT NORTH PORTAL BUILDING									
8513	ShtSpBldg-Del. building related luminaires	48	30MAR06A	29APR06A	100	70	0		37
7325	ShtNpBldg-Del. Package AC Units	48	10APR06A	30MAY06	80	0	9	440	35
7433	ShtNpBldg-Del. PD pump & tank to G/F	48	10APR06A	15JUL06	30	0	47	402	-3
7429	ShtNpBldg-Del. AFA & FM200 sys	48	01JUN06	27JUL06	0	0	48	392	-10
7309	ShtNpBldg-Del. CMCS & ELV equip't	48	16JUN06	11AUG06	0	0	48	379	4
CONSTRUCTION									
TCSS Access to SHT North Portal Bldg									
EM7286	TCSS Containment in 1/F	12	09JUN06	22JUN06	0	0	12	-82	-13
EM7292	TCSS Containment in 2/F	18	09JUN06	29JUN06	0	0	18	-85	-13
EM7283	TCSS Containment in G/F	12	15JUN06	28JUN06	0	0	12	-54	-13
EM7289	TCSS Containment in Lower Plenum	18	15JUN06	06JUL06	0	0	18	-108	-13
EM7295	TCSS Containment in 3/F and above	18	15JUN06	06JUL06	0	0	18	-90	-13
AB7110	TCSS ACCESS 1F (Room 101,103-105-111)	0		08JUN06	0	0	0	-94	-13
EM7290	TCSS ACCESS - GF (Room G02-G03, G04-G08)	0		14JUN06	0	0	0	-50	-13
EM7299	TCSS ACCESS LPL (Room L03)	0		14JUN06	0	0	0	-99	-13
AB7190	TCSS ACCESS 4F (Room 401,402,403,404)	0		21JUN06	0	0	0	-78	-13
EM7296	TCSS ACCESS - 1F (Room 107,109,104)	0		22JUN06	0	0	0	-82	-13
EM7306	TCSS ACCESS - 1F (Room 108)	0		22JUN06	0	0	0	-57	-13
EM7293	TCSS ACCESS - GF (Room G09,G15)	0		28JUN06	0	0	0	-54	-13
AB7150	TCSS ACC 2F(201,204,205,207-212,214,215,ST1,ST2)	0		29JUN06	0	0	0	-85	-13
AB7170	TCSS ACC 3F(301,303-305,307-309,311,313-315,317)	0		06JUL06	0	0	0	-90	-13
EM7309	TCSS ACCESS LPL (Room L04,L05)	0		06JUL06	0	0	0	-108	-13
CIVIL & ABWF WORKS									
AB7040	U/G Drainages and Utilities under bldg	24	20MAY06	17JUN06	0	0	24	401	-13



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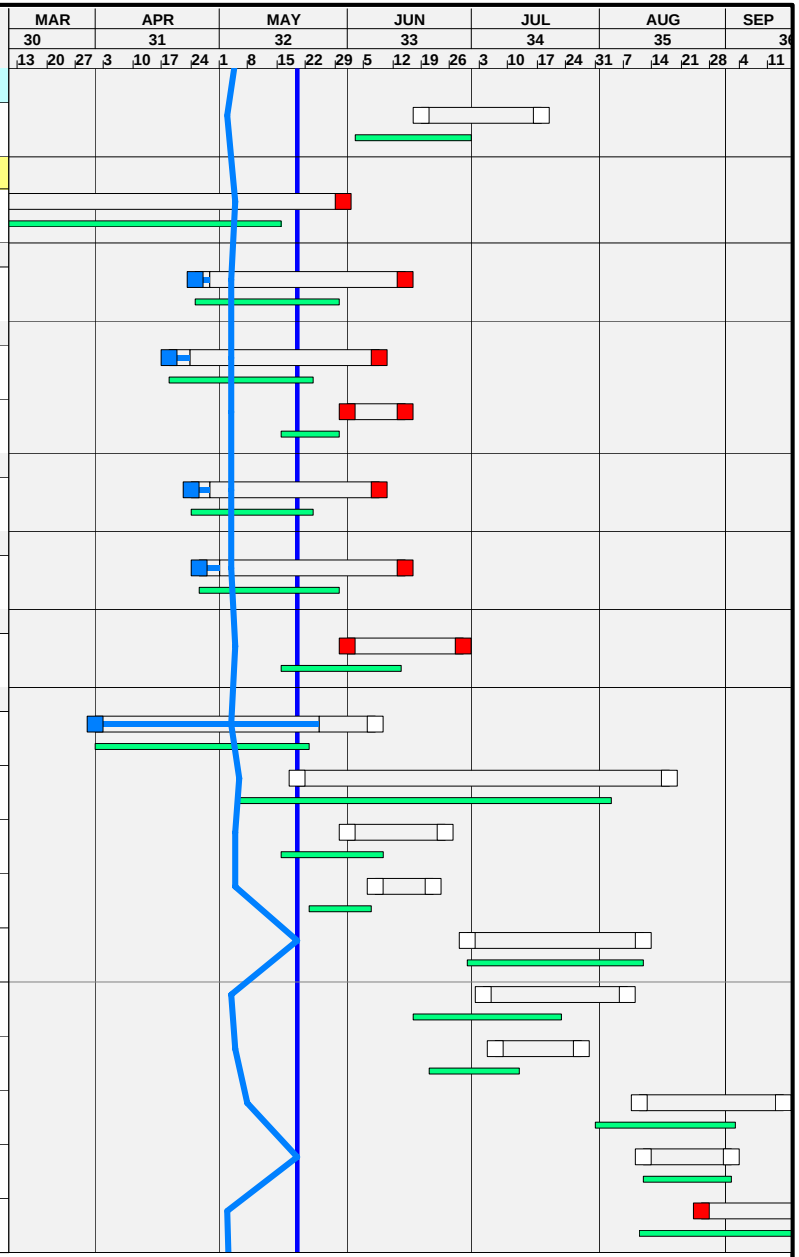
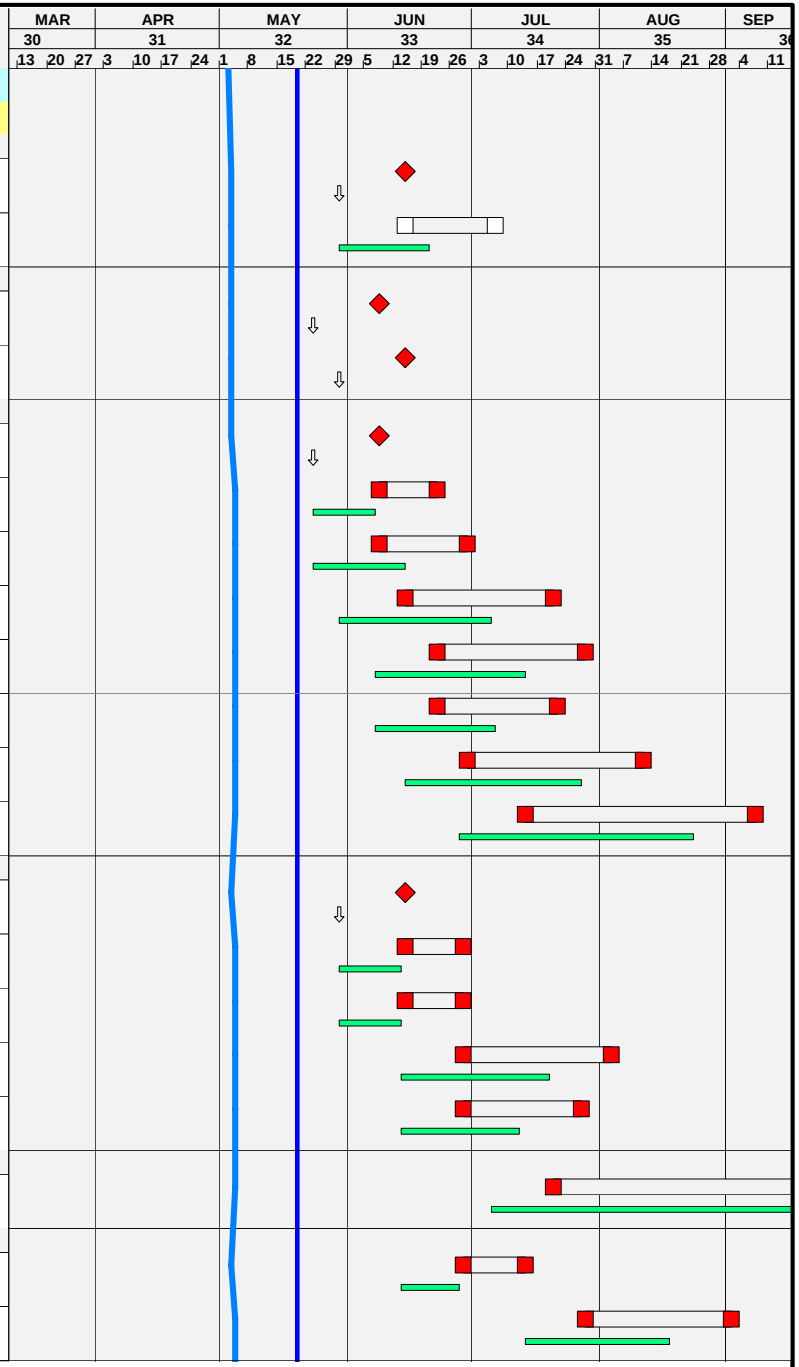
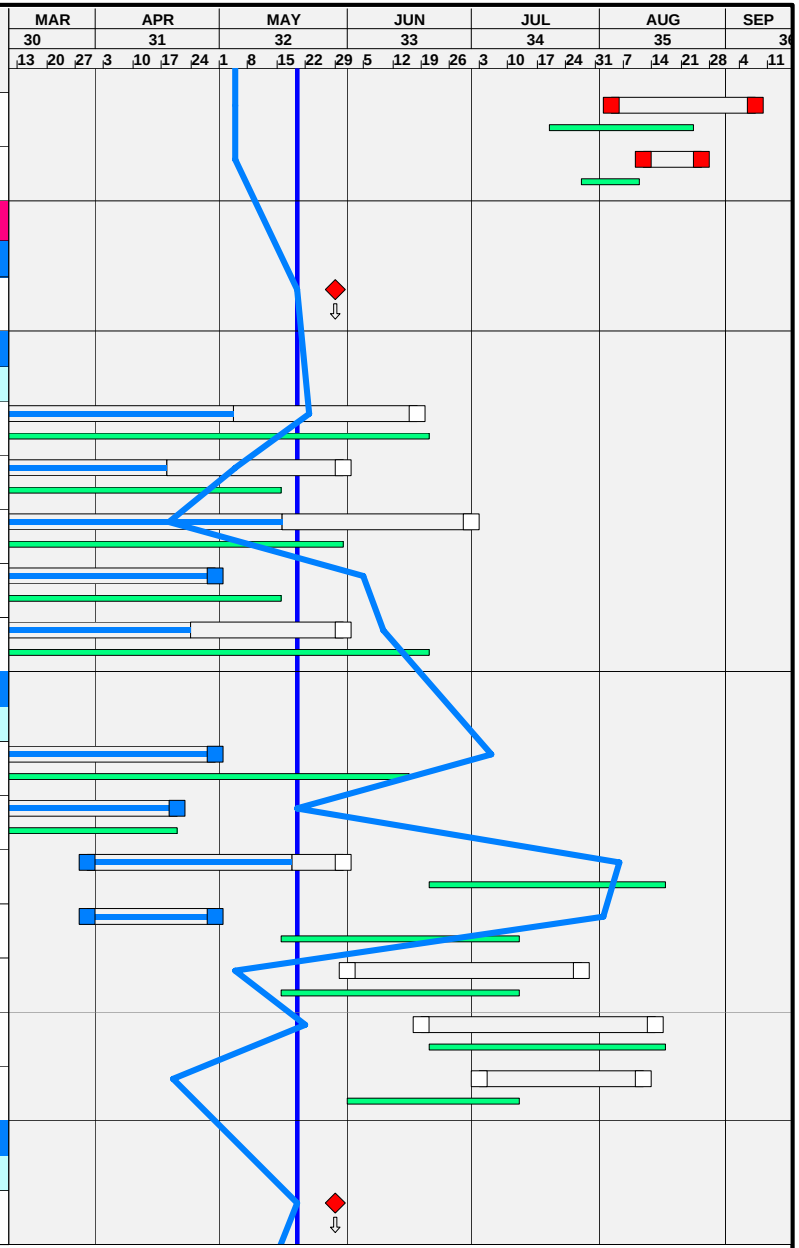
CIVIL & ABWF WORKS									
AB7060	Backfill, G/F Slabs and Walls	24	19JUN06	17JUL06	0	0	24	401	-13
ABWF Works									
AB7130	Remedy defects to SHT Buildings	24	17DEC05A	30MAY06	50	50	9	-108	-13
ABWF at GF									
AB7080	Initial Finishes to G/F	18	25APR06A	14JUN06	7	7	16	-54	-13
ABWF at 1F & LP									
AB7100	Initial Finishes to 1/F	18	19APR06A	08JUN06	10	10	16	-94	-13
AB7120	Initial Finishes to Lower Plenum	12	01JUN06	14JUN06	0	0	12	-108	-13
ABWF at 2F									
AB7140	Initial Finsihes to 2/F	18	24APR06A	08JUN06	10	10	16	-96	-13
ABWF at 3F									
AB7160	Initial Finishes to 3/F	18	26APR06A	14JUN06	10	10	16	-93	-13
ABWF at 4F									
AB7180	Initial Finishes to 4/F and above	24	01JUN06	28JUN06	0	0	24	-78	-13
Roofing & External Facade									
AB7200	Sht NPB - Ext. Wall Waterproof Membrane	24	01APR06A	07JUN06	80	80	14	40	-13
AB7290	Sht NPB - Install Aluminum louvres & doors	75	20MAY06*	17AUG06	0	0	75	40	-12
B70205	Sht NPB - Ext. Wall Waterproof Render	21	01JUN06	24JUN06	0	0	21	49	-13
AB7270	Sht NPB - Roof Waterproofing & Test	12	08JUN06	21JUN06	0	0	12	40	-13
AB7310	Sht NPB - Slate Cladding above NB/SB Carriageway	36	30JUN06	11AUG06	0	0	36	27	0
AB7260	Sht NPB - External Wall Painting	30	04JUL06	07AUG06	0	0	30	49	-13
AB7300	Sht NPB - 25thk Roof Screed & Roofing Tiles	18	07JUL06	27JUL06	0	0	18	40	-13
AB7220	Sht NPB - Expanded metal cladding to Ext Walls	30	11AUG06	14SEP06	0	0	30	16	-10
AB7250	Sht NPB - GMS, S/S Channel, Balustrade & Railing	18	12AUG06	01SEP06	0	0	18	27	0
AB7280	Sht NPB - Alum. composite cladding to ext walls	60	26AUG06	07NOV06	0	0	60	-27	-13



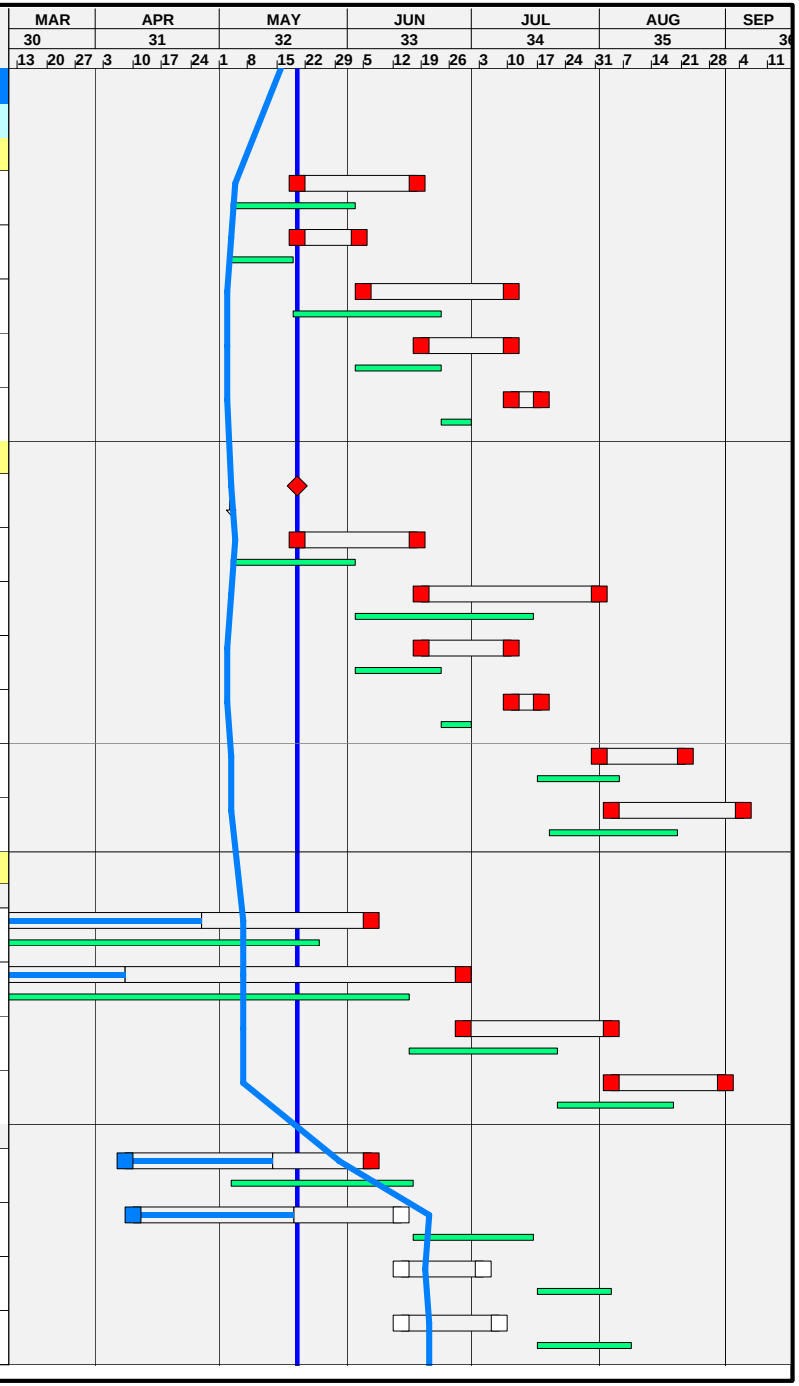
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Sht North Portal Bldg. - BUILDING SERVICES									
E & M WORKS									
SHT North Portal Bldg (G/F) - E & M Works									
EM7280	E&M Access to G/F	0	15JUN06		0	0	0	-54	-13
EM7281	Installation of FS Pumps & Pipework at GF	18	15JUN06	06JUL06	0	0	18	36	-13
SHT North Portal Bldg (1F/Lwr Plen) - E & M Work									
EM7260	E&M Access to 1/F	0	09JUN06		0	0	0	-82	-13
EM7298	E&M Access to Lower Plenum	0	15JUN06		0	0	0	-108	-13
SHT North Portal Bldg (2F/Silencer) - E & M Work									
EM7240	E&M access to 2/F	0	09JUN06		0	0	0	-96	-13
EM7300	BS Works for HV Sw + Tx	12	09JUN06	22JUN06	0	0	12	-96	-13
EM7460	BS Works for Genset	18	09JUN06	29JUN06	0	0	18	-63	-13
EM7600	BS Works for TVS Plenums	30	15JUN06	20JUL06	0	0	30	-76	-13
EM7320	HV Sw + Tx Installation	30	23JUN06	28JUL06	0	0	30	-96	-13
EM7520	E&M Works in Corridors 2/F	24	23JUN06	21JUL06	0	0	24	-58	-13
EM7480	Genset Installation	36	30JUN06	11AUG06	0	0	36	-63	-13
EM7560	E&M Works in Risers	48	14JUL06	07SEP06	0	0	48	-63	-13
SHT North Portal Bldg (3F/Fan Rm) - E & M Work									
EM7220	E&M access to 3/F	0	15JUN06		0	0	0	-90	-13
EM7360	BS Works for LV Sw, MCC, UPS, LCC	12	15JUN06	28JUN06	0	0	12	-74	-13
EM7420	BS Works for 110V Charger Rm	12	15JUN06	28JUN06	0	0	12	-56	-13
EM7380	LV Sw, MCC, UPS, LCC Installation	30	29JUN06	03AUG06	0	0	30	-74	-13
EM7540	E&M Works in Corridors 3/F	24	29JUN06	27JUL06	0	0	24	-63	-13
SHT North Portal Bldg (4F/Upr Plen) - E & M Work									
EM7620	TVS Installation	100	21JUL06	17NOV06	0	0	100	-76	-13
Testing and Commissioning									
EM7440	110V Charger Rm Installation + T&C	12	29JUN06	13JUL06	0	0	12	-56	-13
EM7340	HV Sw + Tx Termination + T&C	30	29JUL06	01SEP06	0	0	30	-69	-13



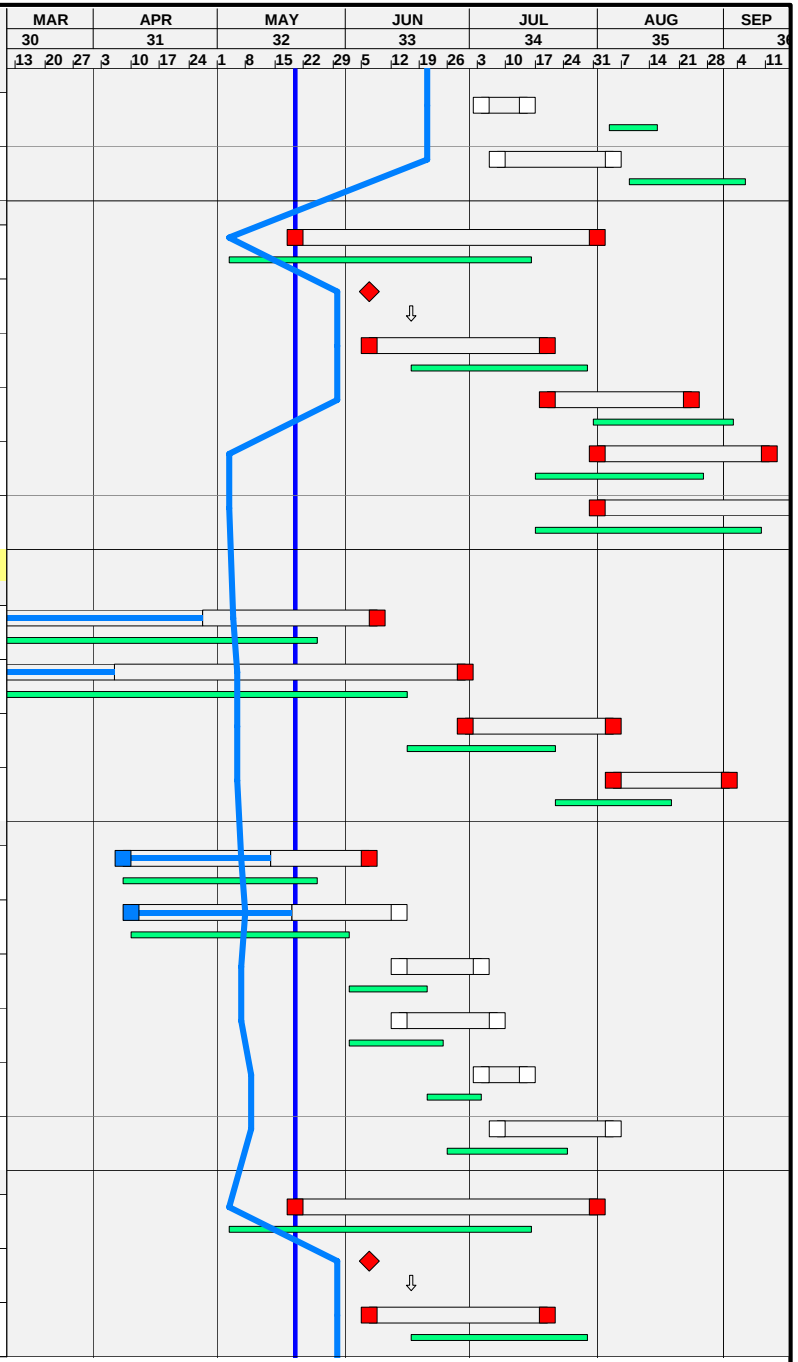
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Testing and Commissioning									
EM7400	LV Sw, MCC, UPS, LCC Termination + T&C	30	04AUG06	07SEP06	0	0	30	-74	-13
EM7500	Genset Termination + T&C	12	12AUG06	25AUG06	0	0	12	-63	-13
SHT RC ENCLOSURE & T3 UNDERPASS									
CONTRACT DEFINED DATES & SECTIONS									
ACS_L	Access to Portions - L	0		28MAY06*	0	0	0	-48	0
PROCUREMENT - MATERIAL									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
7495	Sht-N.R9-Proc & Manuf. CMCS & ELV sys	180	29MAR05A	17JUN06	90	85	24	377	2
7518	Sht-N.R9-Proc & Manuf. FS AFA & Linear sys	120	29MAR05A	30MAY06	90	90	9	392	-13
7605	Sht-N.R9-Proc & Manuf. LCC, power & control sys	180	29MAR05A	30JUN06	90	85	35	379	-26
7613	Sht-N.R9-Proc & Manuf. MCC, power & control sys	180	29MAR05A	29APR06A	100	90	0		11
7506	Sht-N.R9-Proc & Manuf. TVS control sys	180	25MAY05A	30MAY06	90	80	9	440	17
MAJOR EQUIPMENT DELIVERY									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
7489	Sht-N.R9-Del. Tunnel Lgt	72	06FEB06A	29APR06A	100	95	0		37
7531	Sht-N.R9-Del. TVF, Duct & Control to Encl.	72	23FEB06A	20APR06A	100	100	0		0
7507	Sht-N.R9-Del. TVS control sys	48	30MAR06A	30MAY06	80	0	9	440	65
7614	Sht-N.R9-Del. MCC, & control sys to S LV S/R	48	30MAR06A	29APR06A	100	0	0		59
7519	Sht-N.R9-Del. AFA & Linear sys	48	01JUN06	27JUL06	0	0	48	392	-13
7496	Sht-N.R9-Del. CMCS & ELV sys	48	19JUN06	14AUG06	0	0	48	377	2
7606	Sht-N.R9-Del. LCC to S & N Sw/R	48	03JUL06	11AUG06	0	0	35	379	-26
INTERFACE DATES									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
EM4020	LKJV - Posession of T3 Underpass	0	29MAY06*		0	0	0	-36	0



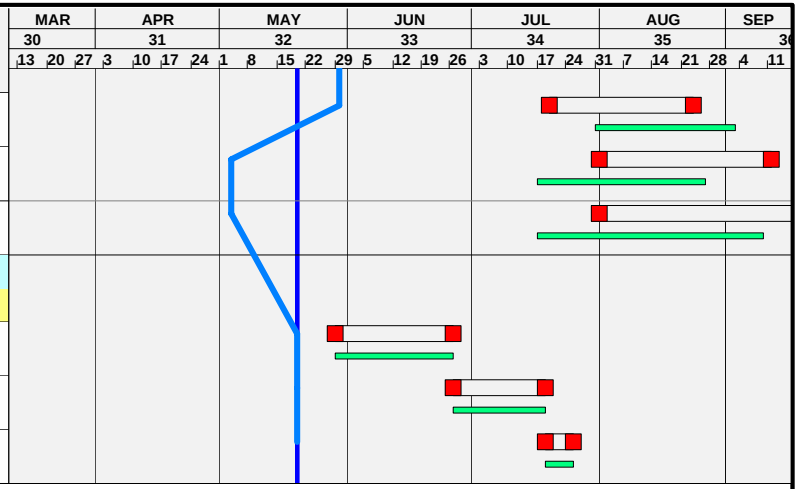
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
CONSTRUCTION WORKS									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
Koisk S1 at Shatin North Control Point									
EM3950	Kiosk S1 - Structure & Fittings	24	20MAY06	17JUN06	0	0	24	-29	-13
EM3960	Wighbridge S1 - Install	12	20MAY06	03JUN06	0	0	12	-23	-13
EM3970	Weighbirgde S1 - Test and T&C	30	05JUN06	10JUL06	0	0	30	-23	-13
EM3952	Kiosk S1 - Install E&M Works	18	19JUN06	10JUL06	0	0	18	-29	-13
EM3954	Kiosk S1 - E&M Testing and T&C	6	11JUL06	17JUL06	0	0	6	-29	-13
RC Full Enclosure - LV Switch Room									
280070	E&M Access to Southern LV Switch Room	0	20MAY06		0	0	0	-71	-13
280072	LV SW Rm - Cable Containment & Equipt Supports	24	20MAY06	17JUN06	0	0	24	-71	-13
280074	LV SW Rm - SWGR, MCCB/ MCB Board, FS Panels	36	19JUN06	31JUL06	0	0	36	-71	-13
280076	LV SW Rm - Elect Lightings & Conduits	18	19JUN06	10JUL06	0	0	18	-29	-13
280078	LV SW Rm - Lightings wiring, term & test	6	11JUL06	17JUL06	0	0	6	-29	-13
280079	LV SW Rm - MCCB,MCB,LV Sw,FS panels Term & Test	18	01AUG06	21AUG06	0	0	18	-71	-13
280080	LV SW Rm - Connect HV / LV Cables from SHT NPB	24	04AUG06	04SEP06	0	0	24	-71	-13
STN RC FULL ENCLOSURE (North Bound) - E&M WORKS									
MVAC / Tunnel Ventillation System									
280000	RCFE NB - Ductworks Supports / Containment @ C/L	36	18FEB06A	06JUN06	62	30	14	-8	-10
280002	RCFE NB - MVAC Ducts, TVF & MSFD Units @ C/L	48	02MAR06A	28JUN06	31	25	33	-8	-11
280004	RCFE NB - MVAC Pipeworks & Conduits @ C/L	30	29JUN06	03AUG06	0	0	30	-8	-11
280006	RCFE NB - Cabling, wiring and termination	24	04AUG06	31AUG06	0	0	24	-8	-11
Fire Protection System									
280018	RCFE NB - Brackets/ Supt for TCSS @ Cable Trough	36	08APR06A	06JUN06	60	0	14	-50	9
280024	RCFE NB - (150d) FS Main pipeworks @ G/L	24	10APR06A	13JUN06	60	0	10	15	27
280026	RCFE NB - FS Conduit, Hose Reel Cabinets & Eqpt.	16	14JUN06	03JUL06	0	0	16	15	27
280028	RCFE NB - (100d) FH / HR Pipeworks & Fittings	18	14JUN06	07JUL06	0	0	18	15	27



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Fire Protection System									
280029	RCFE NB - Install Smoke detector @ N1-N3	10	04JUL06	14JUL06	0	0	10	27	27
280030	RCFE NB - FS Wiring & Termination	24	08JUL06	04AUG06	0	0	24	15	27
Electrical Works									
280044	RCFE NB - Brackets for Lights, CCTV & Eqpt @ C/L	60	20MAY06	31JUL06	0	0	60	-75	-13
280034	RCFE NB - E&M Access to Southern LV Sw Room	0	07JUN06*		0	0	0	-50	9
280038	RCFE NB - HV & LV Cabling Works @ C Trough	36	07JUN06	19JUL06	0	0	36	-50	9
280040	RCFE NB - Install Power Distn Panels & Test	30	20JUL06	23AUG06	0	0	30	-47	9
280046	RCFE NB - Conduits Works @ Ceiling Level	36	01AUG06	11SEP06	0	0	36	-63	-13
280048	RCFE NB - Earthing, Lighting, Equipt. @ C/L	48	01AUG06	25SEP06	0	0	48	-75	-13
STN RC FULL ENCLOSURE (South Bound) - E&M WORKS									
MVAC / Tunnel Ventillation System									
280082	RCFE SB - Ductworks Supports / Containment @ C/L	36	02MAR06A	08JUN06	57	30	16	-9	-12
280084	RCFE SB - MVAC Ducts, TVF & MSFD Units @ C/L	48	02MAR06A	29JUN06	29	25	34	-9	-12
280086	RCFE SB - MVAC Pipeworks & Conduits @ C/L	30	30JUN06	04AUG06	0	0	30	-9	-12
280088	RCFE SB - Cabling, wiring and termination	24	05AUG06	01SEP06	0	0	24	-9	-12
Fire Protection System									
280092	RCFE SB - Brackets/ Supt for TCSS @ Cable Trough	36	08APR06A	06JUN06	60	30	14	-50	-10
280094	RCFE SB - (150d) FS Main pipeworks @ G/L	24	10APR06A	13JUN06	60	30	10	15	-10
280096	RCFE SB - FS Conduit, Hose Reel Cabinets & Eqpt.	16	14JUN06	03JUL06	0	0	16	15	-10
280098	RCFE SB - (100d) FH / HR Pipeworks & Fittings	18	14JUN06	07JUL06	0	0	18	15	-10
280100	RCFE SB - Install Smoke detector @ S1-S4	10	04JUL06	14JUL06	0	0	10	27	-10
280102	RCFE SB - FS Wiring & Termination	24	08JUL06	04AUG06	0	0	24	15	-10
Electrical Works									
280116	RCFE SB - Brackets for Lights, CCTV & Eqpt @ C/L	60	20MAY06	31JUL06	0	0	60	-75	-13
280110	RCFE SB - E&M Access to Southern LV Sw Room	0	07JUN06*		0	0	0	-50	9
280112	RCFE SB - HV & LV Cabling Works @ C Trough	36	07JUN06	19JUL06	0	0	36	-50	9



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	Target 1 % Comp	Rem Dur	Total Float	Variance Early Finish
Electrical Works									
280114	RCFE SB - Install Power Distn Panels & Test	30	20JUL06	23AUG06	0	0	30	-47	9
280118	RCFE SB - Conduits Works @ Ceiling Level	36	01AUG06	11SEP06	0	0	36	-63	-13
280120	RCFE SB - Earthing, Lighting, Equipt. @ C/L	48	01AUG06	25SEP06	0	0	48	-75	-13
T3 UNDERPASS									
Kiosks S2 at T3 Underpass Portal									
EM3980	Kiosk S2 - Structure & Fittings	24	29MAY06	26JUN06	0	0	24	-36	0
EM4000	Kiosk S2 - Install E&M Works	18	27JUN06	18JUL06	0	0	18	-36	0
EM4002	Kiosk S2 - E&M Testing and T&C	6	19JUL06	25JUL06	0	0	6	-36	0



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

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
			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	

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				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

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
				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

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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

Log Ref.	Location of Concern	Received Date	Details of Complaint	Investigation/Mitigation Action	Status
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

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				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