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)

February 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 twenty-seventh 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 February 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 slope cutting, drainage works, tunnel lining and construction of portal buildings and Administration Buidling.

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	1	0	Notification of exceedance was issued.

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).

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:

- Slope cutting;
- Haul road construction;
- Soil nail installations;
- Retaining wall construction;
- Installation of water proofing membrane in tunnels;
- Portal building construction.

The anticipated environmental impacts will be mainly on surface runoff during rainy days, dust from slope work, haul roads and stockpiles.

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-IDC Hong Kong Ltd. was appointed as the IEC under Condition 2.1 of the EP. This is the twenty-seventh monthly EM&A report summarizing the EM&A works for the Project in February 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-IDC 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, retaining wall and water-main works at Butterfly Valley;
- Cut slope and haul road construction at Butterfly Valley;
- Drainage works at Butterfly Valley and Toll Plaza;
- Water proofing membrane and tunnel lining construction at ENT Tunnel;
- OHVD slab and road slab construction at ENT Tunnel;
- Tunnel drainage, cross passage, ventilation adit concrete lining, E&M installation, Kiler construction and painting for OHVD soffit at ENT Tunnel;
- Concreting at South Portal, North Portal, Toll Plaza and Ventilation Adit;
- Footbridge and subway construction at Toll Plaza;
- Chlorine barrier wall construction at Portion X;
- E&M MSFD installation at ENT Tunnel; and
- E&M installation work within SHT works area.

Summary of EM&A Requirements

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

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

Table 1.1 Key Project Contacts

Party	Role	Name	Position	Phone No.	Fax No.
HyD	Permit Holder	Mr. Kroc Leung	SE2/R8K	2762 3662	2714 5198
		Mr. George Law	E4/R8K	2762 3675	
MHJV	Engineer	Mr. Conrad Ng	Project Manager	2605 6262	2691 2649
	Engineer's Representative	Mr. Peter Poon	CRE	3552 2500	2743 9200
		Mr. Eric Wong	RE (S & EP)	3552 2551	
		Ms. Sammie Chan	TO (EN)	3552 2605	
Cinotech	Environmental Team	Dr. Priscilla Choy	The ET Leader	2151 2089	3107 1388
		Mr. KK Chan	Audit Team Leader	2151 2077	
		Mr. Henry Leung	Monitoring Team Leader	2151 2087	
CH2M-IDC	Independent Environmental Checker	Mr. David Yeung	Independent Environmental Checker	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. Kevin Harman	QA/E Manager	3352 2128	
Enquiries Hotline				3552 2226	-
Complaint Hotline				3552 2380	-

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 February 2006.

2. AIR QUALITY

Monitoring Requirements

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

Monitoring Locations

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

Table 2.1 Locations for Air Quality Monitoring

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

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

Monitoring Equipment

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

Table 2.2 Air Quality Monitoring Equipment

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

Monitoring Parameters, Frequency and Duration

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

Table 2.3 Impact Dust Monitoring Parameters, Frequency and Duration

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

Monitoring Methodology and QA/QC Procedure

Instrumentation

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

Operating/Analytical Procedures

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

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

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

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

2.9 The filter holding frame was then removed by loosening the four nuts and a weighted and conditioned filter was carefully centered with the stamped number upwards, on a supporting screen.

2.10 The filter was aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter. Then the filter holding frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.

2.11 The shelter lid was closed and secured with the aluminum strip. The timer was then programmed. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number). After sampling, the filter was removed and sent to the laboratory for weighing. The elapsed time was also recorded.

2.12 Before weighing, all filters were equilibrated in a conditioning environment for 24 hours. The conditioning environment temperature should be between 25°C and 30°C and not vary by more than ±3°C; the relative humidity (RH) should be < 50% and not vary by more than ±5%. A convenient working RH is 40%.

Maintenance/Calibration

2.13 The following maintenance/calibration was required for the HVS:

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

Results and Observations

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

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

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

2.17 The monitoring data and graphical presentations of 1-hour and 24-hour TSP monitoring results are shown in **Appendices E** and **F**, respectively.

3. NOISE

Monitoring Requirements

3.1 Monitoring and audit of construction noise levels is required to be conducted, in accordance with the EM&A Manual, to ensure that any unacceptable noise impacts could be readily detected and timely and appropriate action be undertaken to rectify the situation.

3.2 The construction noise levels shall be measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{eq} (30min) shall be used as the monitoring parameter for the time period between 0700-1900 hours on normal weekdays. For all other time periods, L_{eq} (5min) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. As supplementary information for data auditing, statistical results such as L_{10} and L_{90} shall also be obtained for reference.

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

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

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

Monitoring Locations

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

Table 3.1 Noise Monitoring Stations

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

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

Monitoring Equipment

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

Table 3.2 Noise Monitoring Equipment

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

Monitoring Parameters, Frequency and Duration

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

Table 3.3 Noise Monitoring Parameters, Frequency and Duration

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

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

Monitoring Methodology and QA/QC Procedures

- The Sound Level Meter was generally set on a tripod at a height of 1.2 m above the ground, depending to the actual monitoring condition.
- For free field measurement (if any), the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
  - frequency weighting : A
  - time weighting : Fast
  - time measurement : 30 minutes / 5 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.

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

Maintenance and Calibration

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

Results and Observations

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

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

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

3.13 No Action Level exceedance was recorded in the reporting month.

3.14 One Limit Level exceedance was recorded on 16th February 2006 at NM7 (Garden Villa). According to the field observation, the major noise source was from the breaking activities by other contractor and the exceedance was considered not related to the Project works. The exceedance report is provided in **Appendix H**.

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 2nd, 6th, 16th and 23rd February 2006 by ET. The audit session on 6th February 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**.

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 arsing from construction activities at the construction site at Ventilation Adit on Tai Po Road (behind Shell Filling Station) opposite Pinehilll Development Highways.	Valid
EP482/261/0326/I	01/04/04	30/04/09	Discharge of industrial trade effluent and effluent arsing 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-RW0643-05	08/10/05	07/04/06	*Location*: Butterfly Valley *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	Valid
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

Permit No.	Valid Period		Details	Status
	From	To		
GW-RN0532-05	04/10/05	03/04/06	*Location*: South Portal *Time period*: general holiday (including Sundays) between 0900 and 2300 hours, and any other day between 1900 and 2300 hours.	Valid
GW-RN0447-05	04/10/05	03/04/06	*Location*: South Portal *Time period*: Any day between 2300 and 0700 hours on next day.	Valid
GW-RN0449-05	04/10/05	03/04/06	*Location*: North Portal *Time period*: general holiday (including Sundays) between 0900 and 2300 hours, and any other day between 1900 and 2300 hours.	Valid
GW-RN0448-05	04/10/05	03/04/06	*Location*: North Portal *Time period*: Any day between 2300 and 0700 hours on next day.	Valid
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.	Valid
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

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 TSP Monitoring

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

24-hr TSP Monitoring

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

Construction noise

4.9 No Action Level exceedance was recorded. One Limit Level exceedance was recorded on 16th February 2006 at NM7 (Garden Villa). According to the field observation, the major noise source was from the breaking activities by other contractor and the exceedance was considered not related to the Project works. No further action was required.

Table 4.2 Observations and Recommendations of Site Audit

Parameters	Date	Observations / Recommendations	Remedial Actions
Air Quality	6-Feb-06	Fugitive dust emission was observed during the excavation works at Portion D4 near Administration Building. Immediate actions (water spray) were taken by the Contractor during the audit session.	Immediate action was taken by the Contractor during the audit session.
	16-Feb-06	Fugitive dust emission was observed from the drilling works at Portion I1 (South Portal). The Contractor was reminded to implement sufficient dust mitigation measures during the dust emissive works.	Rectification / improvement was observed during the site audit on 23-Feb-06.
	23-Feb-06	Open stockpile was observed in site at Toll Plaza (Portion D4). It should be covered by imperious sheeting if idled or spayed with water.	Rectification / improvement was observed during the site audit on 2-Mar-06.
Chemical and Waste Management	6-Feb-06	Oil drums at BVS2 and Portion D4 (near subway) were not placed at bunded area. The Contractor was reminded to provide drip trays for the oil drums.	Rectification / improvement was observed during the site audit on 16-Feb-06.
	16-Feb-06	Oil stain was observed at Portion D4 near the Administration Building.	Rectification / improvement was observed during the site audit on 23-Feb-06.
	23-Feb-06	Oil stain was observed in site at Mui Kong Tsuen near AquaSed.	Rectification / improvement was observed during the site audit on 2-Mar-06.
Permit / Licenses	16-Feb-06	Copy of the Environmental Permit was not posted at the site exit of Ventilation Adit.	Rectification / improvement was observed during the site audit on 23-Feb -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 generated at Toll Plaza and Butterfly Valley in rainy days.
- 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 excavation works, rock breaking works at Butterfly Valley;
- Accumulation of standing water after rains;
- Storage of chemicals/fuel and chemical oil at Portion D3 and Toll Plaza area.

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
- Water-proofing membrane, tunnel lining, OHVD slab, road slab, tunnel drainage, cross passage, Ventilation Adit lining, Kicker construction, OHVD soffit and E&M works.

Butterfly Valley
- Cut slope and haul road, soil nailing, box culvert, retaining wall, water mains construction, noise barrier footing, drainage works, roc dowel and earth filling works.

South Portal Building
- Concreting of columns, walls and slab at 3/F levels.

North Portal Building
- Concreting of columns, walls and slabs at 3/F and 4/F levels.

Toll Plaza's Structures and Administration Building
- Footbridge and subway, drainage, concreting of columns, walls and slabs for workshop.

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

Other Works Areas
- Chlorine barrier wall construction at Portion X.
- E&M installation works within SHT works area.
- Plastering and painting of wall at SHT Portal Buildings.

6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

6.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.

6.2 No exceedance was recorded for the 1-hr and 24-hr TSP monitoring in the reporting month. A noise Limit Level exceedance was recorded, but considered not related to Project works.

6.3 No environmental complaint was received in the reporting month.

Recommendations

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

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 desilting 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 adequate water spray or other dust suppression measures are applied for the WTW access road and the haul roads and stockpile areas in Butterfly Valley.
- To ensure vehicles' wheels are free of dust before exiting the site.
- To cover idle soil slope surface and stockpile of dusty materials to prevent wind erosion.

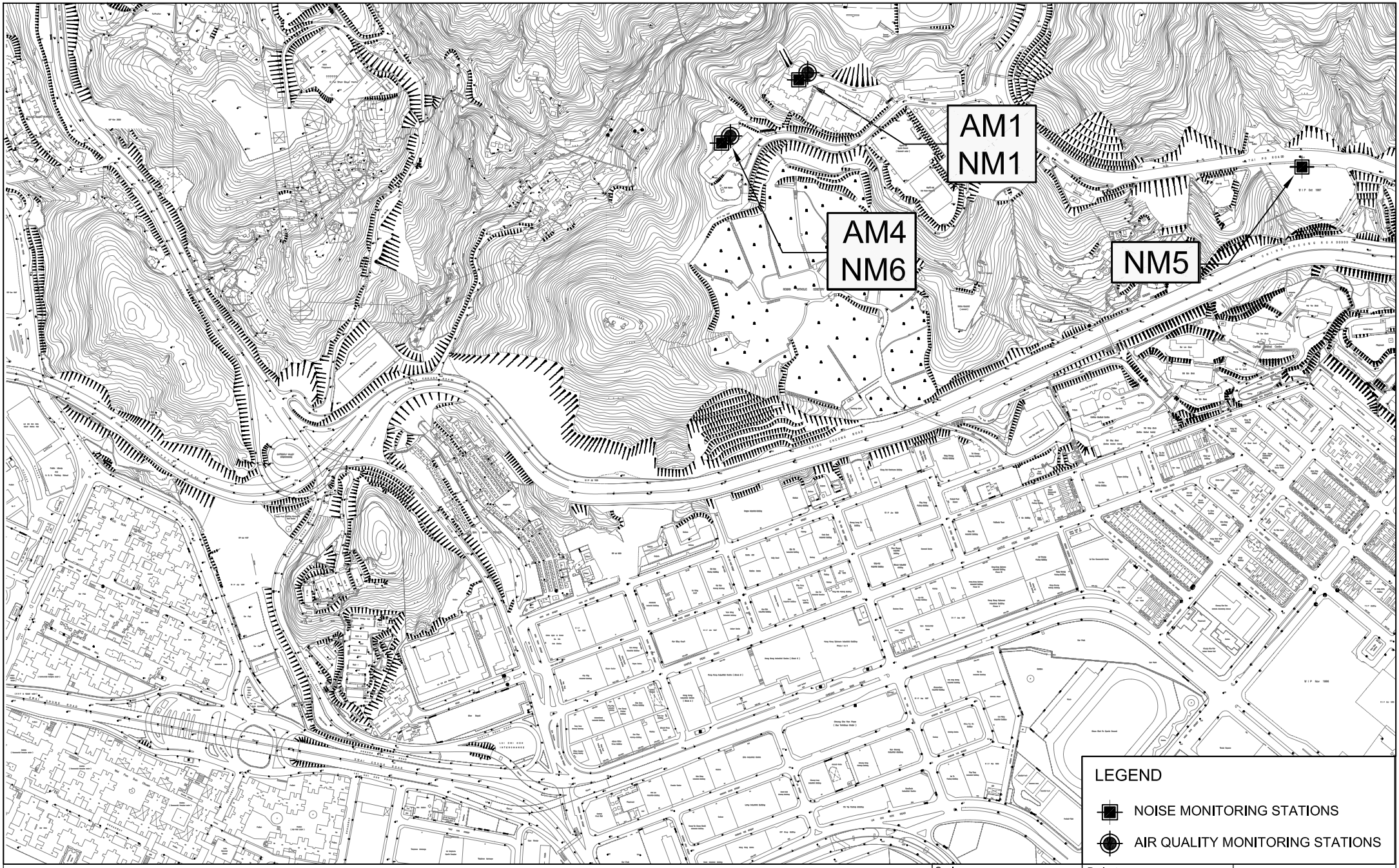
Noise Impact

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

Waste/Chemical Management

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

FIGURES



Title

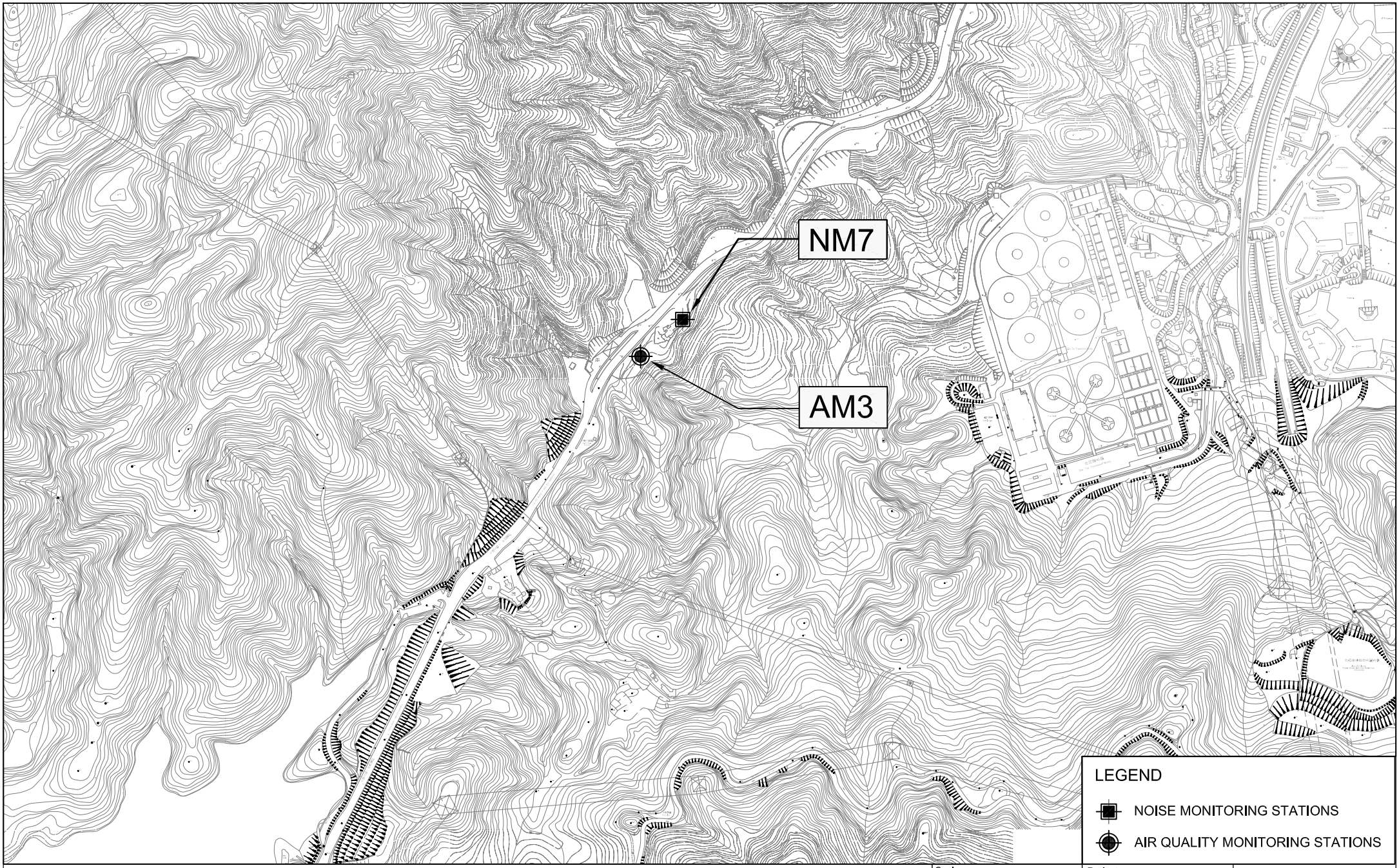
ROUTE 8 (PREVIOUSLY KNOWN AS ROUTE 9) BETWEEN CHEUNG SHA WAN AND SHA TIN
CONTRACT NO. HY/2003/02 - EAGLE'S NEST TUNNEL AND ASSOCIATED WORKS

LOCATIONS OF MONITORING STATIONS

Scale	Project No.
1 : 6500 (A4)	MA3024
Date	Figure No.
2005	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.
2005	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. MA3024/18/0015

Station: Po Leung Kuk Choi Kai Yau School
Operator: WK
Date: 27-Jan-06
Next Due Date: 26-Mar-06
Equipment No.: A-01-18
Serial No. 0723

Ambient Condition			
Temperature, Ta (K)	290	Pressure, Pa (mmHg)	765.2

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

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	12.3	3.57	61.91	7.8	2.84
2	9.8	3.18	55.21	5.9	2.47
3	7.2	2.73	47.26	4.3	2.11
4	5.4	2.36	40.87	3.2	1.82
5	3.1	1.79	30.85	2.0	1.44

By Linear Regression of Y on X

Slope , mw = 0.0450 **Intercept, bw =** 0.0110

Correlation coefficient* = 0.9976

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

mw x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **3.66**

Remarks:

Conducted by: W.K. Tang Signature: Date: 27 Jan 06

Checked by: Signature: Date: 27 Jan 06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA2027/A14/0016

Station: Garden Vilia
Operator: WK
Date: 9-Feb-06
Next Due Date: 8-Apr-06
Equipment No.: A-01-14
Serial No. 1354

Ambient Condition			
Temperature, Ta (K)	283.2	Pressure, Pa (mmHg)	770.7

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	12.3	3.62	62.88	7.1	2.75
2	10.1	3.28	56.94	5.4	2.40
3	7.4	2.81	48.67	4.2	2.12
4	5.1	2.33	40.33	3.2	1.85
5	3.0	1.79	30.82	1.9	1.42

By Linear Regression of Y on X

Slope , mw = 0.0396 **Intercept, bw =** 0.2108

Correlation coefficient* = 0.9956

*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; $W = (mw \times Qstd + bw)^2 \times (760 / Pa) \times (Ta / 298) =$ **3.43**

Remarks:

Conducted by: WK Signature: Kwai Date: 9 Feb 06
Checked by: HL Signature: Date: 9-Feb-06

High-Volume TSP Sampler
5-POINT CALIBRATION DATA SHEET

CINOTECH

File No. MA3024/17/0017

Station: Government Quarter
Operator: WK
Date: 27-Jan-06
Next Due Date: 26-Mar-06
Equipment No.: A-01-17
Serial No. 3460

Ambient Condition			
Temperature, Ta (K)	290	Pressure, Pa (mmHg)	765.2

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

Calibration of TSP Sampler

Calibration Point	Orfice			HVS	
	ΔH (orifice), in. of water	[ΔH x (Pa/760) x (298/Ta)]$^{1/2}$	Qstd (CFM) **X - axis**	ΔW (HVS), in. of oil	[ΔW x (Pa/760) x (298/Ta)]$^{1/2}$ **Y-axis**
1	12.5	3.60	62.41	7.7	2.82
2	10.3	3.26	56.61	6.3	2.55
3	7.5	2.79	48.24	5.0	2.27
4	5.6	2.41	41.62	3.2	1.82
5	3.0	1.76	30.34	1.7	1.33

By Linear Regression of Y on X

Slope , mw = 0.0471 **Intercept, bw =** -0.0929

Correlation coefficient* = 0.9956

*If Correlation Coefficient < 0.990, check and recalibrate.

Set Point Calculation

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

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

mw x Qstd + bw = [ΔW x (Pa/760) x (298/Ta)]$^{1/2}$

Therefore, Set Point; W = (mw x Qstd + bw)^2 x (760 / Pa) x (Ta / 298) = **3.60**

Remarks:

Conducted by: W.K. Tang Signature: Date: 27 Jan 06

Checked by: Signature: Date: 27 Jan 06

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

Test Report No.:	C/05/50503
Date of Issue:	2005-05-03
Date Received:	2005-05-03
Date Tested:	2005-05-03
Date Completed:	2005-05-03
Page:	1 of 1

Certificate of Calibration

Item for calibration:

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

Test conditions:

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

Methodology:

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

Results:

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

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

Patrick.

PATRICK TSE
Operation Manager

D.04.03

Andersen Instruments, Inc.

Orifice Transfer Standard Certification Worksheet

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

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

Data Tabulation

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

Calculations

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

For subsequent flow rate calculations:

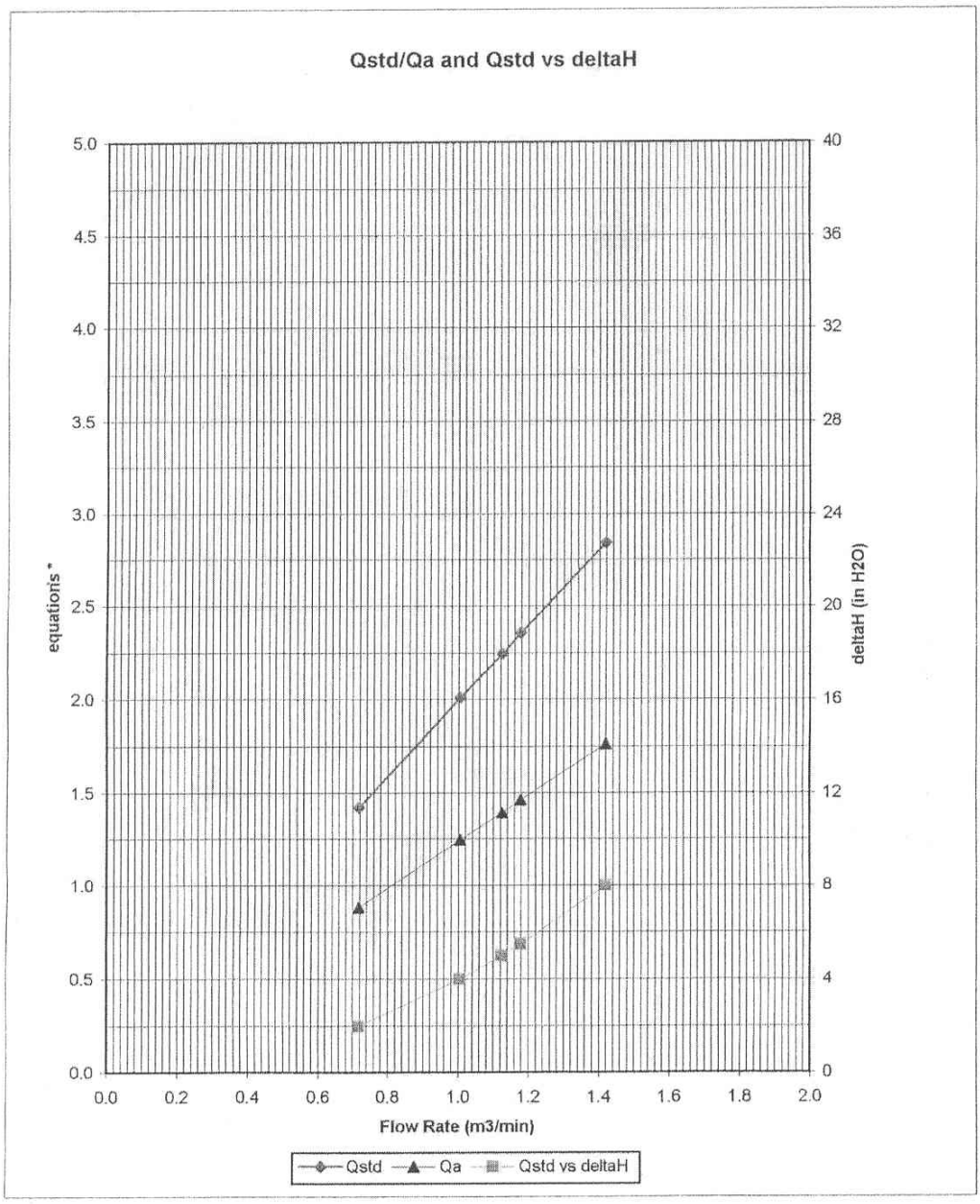
$$Qstd = 1 / m\left(\left(\sqrt{\Delta H\left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}\right) - b\right)$$
$$Qa = 1 / m\left(\left(\sqrt{\Delta H(Ta / Pa)}\right) - b\right)$$

Standard Conditions:
Tstd: 298.18 ° K
Pstd: 760 mm Hg

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

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

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



* y-axis equations:

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

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

WELLAB LTD.

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TEST REPORT

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

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 20 degree Celsius
Relative Humidity	: 63%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

Patrick

PATRICK TSE
Operation Manager

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Unit C, 1/F, Goldlion Holdings Center
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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/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

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TEST REPORT

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

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 22 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

Patrick.

PATRICK TSE
Laborary Manager

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TEST REPORT

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

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

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

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

Patrick.

PATRICK TSE
Operation Manager

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TEST REPORT

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

ATTN: **Mr. Henry Leung**

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

Certificate of Calibration

Item for calibration:

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

Test conditions:

Room Temperatre	: 22 degree Celsius
Relative Humidity	: 65%

Test Specifications:

Performance checking at 94 and 114 dB

Methodology:

In-house method, according to manufacturer instruction manual

Results:

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

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

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.

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

ATTN: **Mr. Henry Leung**

Item for calibration:

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

Test conditions:

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

Methodology:

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

Results:

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

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

Patrick.

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TEST REPORT

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

Test Report No.:	C/05/50305
Date of Issue:	2005-03-05
Date Received:	2005-03-04
Date Tested:	2005-03-05
Date Completed:	2005-03-05
Next Due Date:	2006-03-04

ATTN: **Mr. Henry Leung**

Page: 1 of 1

Item for calibration:

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

Test conditions:

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

Methodology:

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

Results:

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

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

Patrick.

PATRICK TSE
Operation Manager

WELLAB LTD.

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Shatin, Hong Kong.
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Fax: (852) 2898 7076

TEST REPORT

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

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

ATTN: **Mr. Henry Leung**

Page: 1 of 1

Item for calibration:

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

Test conditions:

Room 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
Air Quality and Noise Monitoring Schedule for February 2006

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

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

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

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

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

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

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

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

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

APPENDIX D
WIND DATA

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
1-Feb-2006	0:00	0	---
1-Feb-2006	1:00	0	---
1-Feb-2006	2:00	0	NE
1-Feb-2006	3:00	0	---
1-Feb-2006	4:00	0	SSW
1-Feb-2006	5:00	0	SSW
1-Feb-2006	6:00	1.8	W
1-Feb-2006	7:00	2.7	W
1-Feb-2006	8:00	1.8	W
1-Feb-2006	9:00	1.8	WSW
1-Feb-2006	10:00	2.7	W
1-Feb-2006	11:00	3.1	W
1-Feb-2006	12:00	2.7	WNW
1-Feb-2006	13:00	2.2	WNW
1-Feb-2006	14:00	2.7	W
1-Feb-2006	15:00	2.2	W
1-Feb-2006	16:00	0.9	NE
1-Feb-2006	17:00	1.3	NE
1-Feb-2006	18:00	1.8	ENE
1-Feb-2006	19:00	0.4	ENE
1-Feb-2006	20:00	0	NE
1-Feb-2006	21:00	0.4	WSW
1-Feb-2006	22:00	3.6	WSW
1-Feb-2006	23:00	3.1	W
2-Feb-2006	0:00	4	WSW
2-Feb-2006	1:00	4	WNW
2-Feb-2006	2:00	4.9	W
2-Feb-2006	3:00	4	W
2-Feb-2006	4:00	5.4	WSW
2-Feb-2006	5:00	5.8	SW
2-Feb-2006	6:00	5.8	SW
2-Feb-2006	7:00	5.4	WSW
2-Feb-2006	8:00	5.8	WSW
2-Feb-2006	9:00	4.5	W
2-Feb-2006	10:00	4.9	WNW
2-Feb-2006	11:00	4.9	WNW
2-Feb-2006	12:00	5.8	WNW
2-Feb-2006	13:00	5.8	WNW
2-Feb-2006	14:00	5.8	W
2-Feb-2006	15:00	7.2	WNW
2-Feb-2006	16:00	6.3	W
2-Feb-2006	17:00	4.9	W
2-Feb-2006	18:00	4	W
2-Feb-2006	19:00	5.4	WSW
2-Feb-2006	20:00	3.6	SW
2-Feb-2006	21:00	2.7	SW
2-Feb-2006	22:00	0.9	WSW
2-Feb-2006	23:00	0.9	SW
3-Feb-2006	0:00	0.9	S
3-Feb-2006	1:00	0	WSW
3-Feb-2006	2:00	0	W
3-Feb-2006	3:00	1.3	W
3-Feb-2006	4:00	2.2	WSW
3-Feb-2006	5:00	1.8	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
3-Feb-2006	6:00	1.8	W
3-Feb-2006	7:00	0	W
3-Feb-2006	8:00	0.4	WNW
3-Feb-2006	9:00	0	NNE
3-Feb-2006	10:00	3.1	WNW
3-Feb-2006	11:00	2.2	W
3-Feb-2006	12:00	2.2	WNW
3-Feb-2006	13:00	2.7	WNW
3-Feb-2006	14:00	3.6	W
3-Feb-2006	15:00	3.1	WNW
3-Feb-2006	16:00	3.1	W
3-Feb-2006	17:00	2.2	WSW
3-Feb-2006	18:00	2.2	WSW
3-Feb-2006	19:00	3.1	WSW
3-Feb-2006	20:00	4	WNW
3-Feb-2006	21:00	4	WSW
3-Feb-2006	22:00	3.6	WSW
3-Feb-2006	23:00	4	WSW
4-Feb-2006	0:00	4.5	WSW
4-Feb-2006	1:00	5.4	W
4-Feb-2006	2:00	4.9	W
4-Feb-2006	3:00	2.2	WNW
4-Feb-2006	4:00	2.2	WNW
4-Feb-2006	5:00	2.2	W
4-Feb-2006	6:00	2.2	WSW
4-Feb-2006	7:00	2.7	WSW
4-Feb-2006	8:00	1.8	WSW
4-Feb-2006	9:00	2.2	WSW
4-Feb-2006	10:00	2.2	WSW
4-Feb-2006	11:00	2.2	W
4-Feb-2006	12:00	2.2	WSW
4-Feb-2006	13:00	1.8	W
4-Feb-2006	14:00	1.8	WSW
4-Feb-2006	15:00	1.3	WNW
4-Feb-2006	16:00	1.3	NW
4-Feb-2006	17:00	1.8	WNW
4-Feb-2006	18:00	2.7	WNW
4-Feb-2006	19:00	2.2	W
4-Feb-2006	20:00	3.1	W
4-Feb-2006	21:00	3.1	WNW
4-Feb-2006	22:00	4	WNW
4-Feb-2006	23:00	4.5	WNW
5-Feb-2006	0:00	4	WNW
5-Feb-2006	1:00	4	WNW
5-Feb-2006	2:00	4.9	W
5-Feb-2006	3:00	5.4	W
5-Feb-2006	4:00	4.5	W
5-Feb-2006	5:00	3.6	WSW
5-Feb-2006	6:00	3.6	SW
5-Feb-2006	7:00	3.1	SW
5-Feb-2006	8:00	3.1	WSW
5-Feb-2006	9:00	3.1	W
5-Feb-2006	10:00	2.2	SW
5-Feb-2006	11:00	2.2	SW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
5-Feb-2006	12:00	2.2	WNW
5-Feb-2006	13:00	1.8	WNW
5-Feb-2006	14:00	1.3	WNW
5-Feb-2006	15:00	2.2	WNW
5-Feb-2006	16:00	3.1	WNW
5-Feb-2006	17:00	2.2	WNW
5-Feb-2006	18:00	1.3	W
5-Feb-2006	19:00	0	SW
5-Feb-2006	20:00	0	W
5-Feb-2006	21:00	0	---
5-Feb-2006	22:00	0	W
5-Feb-2006	23:00	1.3	W
6-Feb-2006	0:00	1.3	WNW
6-Feb-2006	1:00	0.4	W
6-Feb-2006	2:00	1.3	W
6-Feb-2006	3:00	0.4	S
6-Feb-2006	4:00	0	SSW
6-Feb-2006	5:00	0	---
6-Feb-2006	6:00	0	---
6-Feb-2006	7:00	0	---
6-Feb-2006	8:00	0	---
6-Feb-2006	9:00	0	NNW
6-Feb-2006	10:00	0.4	WNW
6-Feb-2006	11:00	0.9	WNW
6-Feb-2006	12:00	0.9	WNW
6-Feb-2006	13:00	1.8	N
6-Feb-2006	14:00	2.7	NNE
6-Feb-2006	15:00	2.7	NNE
6-Feb-2006	16:00	2.2	NNE
6-Feb-2006	17:00	2.7	NE
6-Feb-2006	18:00	1.3	NE
6-Feb-2006	19:00	0.9	NE
6-Feb-2006	20:00	0	N
6-Feb-2006	21:00	0	---
6-Feb-2006	22:00	0	---
6-Feb-2006	23:00	0	---
7-Feb-2006	0:00	0	---
7-Feb-2006	1:00	0	---
7-Feb-2006	2:00	0	---
7-Feb-2006	3:00	0	---
7-Feb-2006	4:00	0	---
7-Feb-2006	5:00	0	---
7-Feb-2006	6:00	0	---
7-Feb-2006	7:00	0	N
7-Feb-2006	8:00	0	NW
7-Feb-2006	9:00	1.3	WNW
7-Feb-2006	10:00	2.2	W
7-Feb-2006	11:00	3.1	WNW
7-Feb-2006	12:00	2.2	WNW
7-Feb-2006	13:00	1.8	WNW
7-Feb-2006	14:00	1.3	WNW
7-Feb-2006	15:00	3.1	W
7-Feb-2006	16:00	1.8	WNW
7-Feb-2006	17:00	1.3	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
7-Feb-2006	18:00	0.9	SSW
7-Feb-2006	19:00	2.2	W
7-Feb-2006	20:00	2.7	W
7-Feb-2006	21:00	3.1	W
7-Feb-2006	22:00	4	W
7-Feb-2006	23:00	4.9	W
8-Feb-2006	0:00	3.6	WNW
8-Feb-2006	1:00	3.1	SSW
8-Feb-2006	2:00	3.1	SSW
8-Feb-2006	3:00	3.6	W
8-Feb-2006	4:00	4	WNW
8-Feb-2006	5:00	2.2	WSW
8-Feb-2006	6:00	2.2	WSW
8-Feb-2006	7:00	1.3	W
8-Feb-2006	8:00	0.9	S
8-Feb-2006	9:00	0.9	WNW
8-Feb-2006	10:00	2.7	WNW
8-Feb-2006	11:00	4	W
8-Feb-2006	12:00	2.7	W
8-Feb-2006	13:00	2.7	W
8-Feb-2006	14:00	2.7	WNW
8-Feb-2006	15:00	2.2	WNW
8-Feb-2006	16:00	3.1	W
8-Feb-2006	17:00	4.5	WNW
8-Feb-2006	18:00	4.5	WNW
8-Feb-2006	19:00	2.7	WNW
8-Feb-2006	20:00	4.9	WSW
8-Feb-2006	21:00	5.8	WNW
8-Feb-2006	22:00	8	WNW
8-Feb-2006	23:00	4.9	WNW
9-Feb-2006	0:00	5.8	WNW
9-Feb-2006	1:00	5.4	WSW
9-Feb-2006	2:00	5.8	WNW
9-Feb-2006	3:00	3.1	WNW
9-Feb-2006	4:00	4.9	WNW
9-Feb-2006	5:00	2.7	WNW
9-Feb-2006	6:00	3.1	W
9-Feb-2006	7:00	2.7	W
9-Feb-2006	8:00	2.2	W
9-Feb-2006	9:00	2.7	W
9-Feb-2006	10:00	2.7	WNW
9-Feb-2006	11:00	2.7	WNW
9-Feb-2006	12:00	4.5	WNW
9-Feb-2006	13:00	4.5	NW
9-Feb-2006	14:00	3.6	WNW
9-Feb-2006	15:00	3.6	WNW
9-Feb-2006	16:00	3.6	WNW
9-Feb-2006	17:00	4	WNW
9-Feb-2006	18:00	4	W
9-Feb-2006	19:00	3.6	W
9-Feb-2006	20:00	3.1	W
9-Feb-2006	21:00	1.8	WSW
9-Feb-2006	22:00	1.3	W
9-Feb-2006	23:00	0.4	SSW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
10-Feb-2006	0:00	0	SSW
10-Feb-2006	1:00	0	---
10-Feb-2006	2:00	0	---
10-Feb-2006	3:00	0	S
10-Feb-2006	4:00	0	---
10-Feb-2006	5:00	0	---
10-Feb-2006	6:00	0	---
10-Feb-2006	7:00	0	---
10-Feb-2006	8:00	0	NNW
10-Feb-2006	9:00	1.3	WNW
10-Feb-2006	10:00	2.7	WNW
10-Feb-2006	11:00	1.3	W
10-Feb-2006	12:00	1.8	WNW
10-Feb-2006	13:00	1.8	WNW
10-Feb-2006	14:00	1.8	NE
10-Feb-2006	15:00	3.1	NE
10-Feb-2006	16:00	2.7	NE
10-Feb-2006	17:00	2.2	NE
10-Feb-2006	18:00	1.3	NE
10-Feb-2006	19:00	0	NE
10-Feb-2006	20:00	0	---
10-Feb-2006	21:00	0	---
10-Feb-2006	22:00	0	---
10-Feb-2006	23:00	0	---
11-Feb-2006	0:00	0	---
11-Feb-2006	1:00	0	---
11-Feb-2006	2:00	0	ESE
11-Feb-2006	3:00	0	---
11-Feb-2006	4:00	0	---
11-Feb-2006	5:00	0	---
11-Feb-2006	6:00	0	---
11-Feb-2006	7:00	0	---
11-Feb-2006	8:00	0	---
11-Feb-2006	9:00	0	---
11-Feb-2006	10:00	0	WNW
11-Feb-2006	11:00	0	WNW
11-Feb-2006	12:00	0.9	WNW
11-Feb-2006	13:00	1.8	WNW
11-Feb-2006	14:00	2.2	N
11-Feb-2006	15:00	3.1	NNE
11-Feb-2006	16:00	1.8	NE
11-Feb-2006	17:00	2.2	NE
11-Feb-2006	18:00	1.3	NE
11-Feb-2006	19:00	0	NE
11-Feb-2006	20:00	0.9	E
11-Feb-2006	21:00	0.4	ENE
11-Feb-2006	22:00	0	E
11-Feb-2006	23:00	0	---
12-Feb-2006	0:00	0	---
12-Feb-2006	1:00	0	E
12-Feb-2006	2:00	0	---
12-Feb-2006	3:00	0	---
12-Feb-2006	4:00	0	---
12-Feb-2006	5:00	0	---

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
12-Feb-2006	6:00	0	---
12-Feb-2006	7:00	0	---
12-Feb-2006	8:00	0	---
12-Feb-2006	9:00	1.8	SSW
12-Feb-2006	10:00	4	WNW
12-Feb-2006	11:00	4.9	W
12-Feb-2006	12:00	4.9	WNW
12-Feb-2006	13:00	6.3	WNW
12-Feb-2006	14:00	5.4	WNW
12-Feb-2006	15:00	5.8	WNW
12-Feb-2006	16:00	6.3	W
12-Feb-2006	17:00	5.8	WNW
12-Feb-2006	18:00	4.5	WNW
12-Feb-2006	19:00	3.6	WSW
12-Feb-2006	20:00	2.7	SSW
12-Feb-2006	21:00	2.7	WNW
12-Feb-2006	22:00	3.6	WNW
12-Feb-2006	23:00	7.6	WNW
13-Feb-2006	0:00	5.8	WNW
13-Feb-2006	1:00	6.3	WNW
13-Feb-2006	2:00	6.3	WNW
13-Feb-2006	3:00	5.8	W
13-Feb-2006	4:00	4	WNW
13-Feb-2006	5:00	4.5	WNW
13-Feb-2006	6:00	4.5	WSW
13-Feb-2006	7:00	3.6	WNW
13-Feb-2006	8:00	3.1	WNW
13-Feb-2006	9:00	2.7	WNW
13-Feb-2006	10:00	3.6	WNW
13-Feb-2006	11:00	3.6	WNW
13-Feb-2006	12:00	4	WNW
13-Feb-2006	13:00	3.1	WNW
13-Feb-2006	14:00	1.8	WNW
13-Feb-2006	15:00	1.3	WNW
13-Feb-2006	16:00	0.4	WNW
13-Feb-2006	17:00	0.4	W
13-Feb-2006	18:00	0.4	WNW
13-Feb-2006	19:00	0	WNW
13-Feb-2006	20:00	0	---
13-Feb-2006	21:00	0	WNW
13-Feb-2006	22:00	0.4	WNW
13-Feb-2006	23:00	0	WNW
14-Feb-2006	0:00	1.3	S
14-Feb-2006	1:00	1.3	SW
14-Feb-2006	2:00	0.4	WSW
14-Feb-2006	3:00	0.4	W
14-Feb-2006	4:00	0	W
14-Feb-2006	5:00	0	SW
14-Feb-2006	6:00	0	---
14-Feb-2006	7:00	0	S
14-Feb-2006	8:00	0	W
14-Feb-2006	9:00	0	SSE
14-Feb-2006	10:00	0	SW
14-Feb-2006	11:00	0.4	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
14-Feb-2006	12:00	1.3	W
14-Feb-2006	13:00	1.3	WSW
14-Feb-2006	14:00	0.9	WSW
14-Feb-2006	15:00	1.8	SSW
14-Feb-2006	16:00	3.1	W
14-Feb-2006	17:00	2.2	W
14-Feb-2006	18:00	2.7	W
14-Feb-2006	19:00	1.8	SW
14-Feb-2006	20:00	1.8	SSW
14-Feb-2006	21:00	1.8	SSW
14-Feb-2006	22:00	2.7	WSW
14-Feb-2006	23:00	0.9	W
15-Feb-2006	0:00	0.9	SSW
15-Feb-2006	1:00	0.4	WSW
15-Feb-2006	2:00	0.9	WNW
15-Feb-2006	3:00	0	W
15-Feb-2006	4:00	0	---
15-Feb-2006	5:00	0.4	WSW
15-Feb-2006	6:00	0	WSW
15-Feb-2006	7:00	0	---
15-Feb-2006	8:00	0	---
15-Feb-2006	9:00	0	SE
15-Feb-2006	10:00	0	NNW
15-Feb-2006	11:00	0.4	W
15-Feb-2006	12:00	0.4	N
15-Feb-2006	13:00	1.8	NE
15-Feb-2006	14:00	3.1	NE
15-Feb-2006	15:00	2.2	NNE
15-Feb-2006	16:00	2.7	NE
15-Feb-2006	17:00	2.2	NNE
15-Feb-2006	18:00	2.2	E
15-Feb-2006	19:00	1.3	E
15-Feb-2006	20:00	0.4	E
15-Feb-2006	21:00	0	ENE
15-Feb-2006	22:00	0	---
15-Feb-2006	23:00	0	---
16-Feb-2006	0:00	0	ENE
16-Feb-2006	1:00	0	---
16-Feb-2006	2:00	0	---
16-Feb-2006	3:00	0	ENE
16-Feb-2006	4:00	0	---
16-Feb-2006	5:00	0	---
16-Feb-2006	6:00	0	---
16-Feb-2006	7:00	0	---
16-Feb-2006	8:00	0	---
16-Feb-2006	9:00	0	---
16-Feb-2006	10:00	0	NE
16-Feb-2006	11:00	0.9	NE
16-Feb-2006	12:00	1.3	NE
16-Feb-2006	13:00	0.9	NE
16-Feb-2006	14:00	0.4	ENE
16-Feb-2006	15:00	2.2	NE
16-Feb-2006	16:00	3.1	NE
16-Feb-2006	17:00	2.2	NE

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
16-Feb-2006	18:00	0.4	ENE
16-Feb-2006	19:00	0	ENE
16-Feb-2006	20:00	0	---
16-Feb-2006	21:00	0	---
16-Feb-2006	22:00	0	ENE
16-Feb-2006	23:00	0.4	WNW
17-Feb-2006	0:00	2.7	W
17-Feb-2006	1:00	2.7	W
17-Feb-2006	2:00	2.7	WNW
17-Feb-2006	3:00	2.7	WSW
17-Feb-2006	4:00	3.1	WSW
17-Feb-2006	5:00	3.1	WSW
17-Feb-2006	6:00	3.1	WSW
17-Feb-2006	7:00	3.1	WSW
17-Feb-2006	8:00	1.8	WSW
17-Feb-2006	9:00	2.7	WSW
17-Feb-2006	10:00	2.7	WSW
17-Feb-2006	11:00	3.1	WSW
17-Feb-2006	12:00	2.7	SW
17-Feb-2006	13:00	2.2	WSW
17-Feb-2006	14:00	2.7	WSW
17-Feb-2006	15:00	2.2	WSW
17-Feb-2006	16:00	2.2	WNW
17-Feb-2006	17:00	2.2	WNW
17-Feb-2006	18:00	3.6	WNW
17-Feb-2006	19:00	3.1	WNW
17-Feb-2006	20:00	3.6	WNW
17-Feb-2006	21:00	4.5	WNW
17-Feb-2006	22:00	3.6	WNW
17-Feb-2006	23:00	3.6	W
18-Feb-2006	0:00	3.6	W
18-Feb-2006	1:00	4.5	W
18-Feb-2006	2:00	4	WSW
18-Feb-2006	3:00	3.1	WNW
18-Feb-2006	4:00	2.2	WSW
18-Feb-2006	5:00	1.3	WSW
18-Feb-2006	6:00	2.2	WNW
18-Feb-2006	7:00	3.6	WNW
18-Feb-2006	8:00	1.8	SW
18-Feb-2006	9:00	2.7	WNW
18-Feb-2006	10:00	3.1	WNW
18-Feb-2006	11:00	4	WNW
18-Feb-2006	12:00	4	WNW
18-Feb-2006	13:00	4	WNW
18-Feb-2006	14:00	3.1	WNW
18-Feb-2006	15:00	4.5	WNW
18-Feb-2006	16:00	5.4	WNW
18-Feb-2006	17:00	5.4	WNW
18-Feb-2006	18:00	4	W
18-Feb-2006	19:00	3.1	WNW
18-Feb-2006	20:00	3.1	W
18-Feb-2006	21:00	3.6	W
18-Feb-2006	22:00	2.2	WNW
18-Feb-2006	23:00	2.7	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
19-Feb-2006	0:00	3.1	WNW
19-Feb-2006	1:00	2.2	WSW
19-Feb-2006	2:00	2.2	WNW
19-Feb-2006	3:00	2.2	W
19-Feb-2006	4:00	0.4	WNW
19-Feb-2006	5:00	0.9	WNW
19-Feb-2006	6:00	0.9	SSW
19-Feb-2006	7:00	1.3	W
19-Feb-2006	8:00	1.3	W
19-Feb-2006	9:00	1.3	W
19-Feb-2006	10:00	2.2	WNW
19-Feb-2006	11:00	2.2	WNW
19-Feb-2006	12:00	2.7	WNW
19-Feb-2006	13:00	2.7	W
19-Feb-2006	14:00	2.7	W
19-Feb-2006	15:00	3.1	WNW
19-Feb-2006	16:00	1.8	WNW
19-Feb-2006	17:00	2.2	W
19-Feb-2006	18:00	0.9	W
19-Feb-2006	19:00	1.3	W
19-Feb-2006	20:00	2.7	W
19-Feb-2006	21:00	1.3	WNW
19-Feb-2006	22:00	2.7	WNW
19-Feb-2006	23:00	1.8	WNW
20-Feb-2006	0:00	2.2	W
20-Feb-2006	1:00	0.4	W
20-Feb-2006	2:00	0.9	WNW
20-Feb-2006	3:00	0	W
20-Feb-2006	4:00	0.9	W
20-Feb-2006	5:00	1.8	WNW
20-Feb-2006	6:00	0.9	WNW
20-Feb-2006	7:00	0.4	W
20-Feb-2006	8:00	2.2	W
20-Feb-2006	9:00	1.3	W
20-Feb-2006	10:00	0.9	W
20-Feb-2006	11:00	0.4	NW
20-Feb-2006	12:00	2.7	NE
20-Feb-2006	13:00	2.2	N
20-Feb-2006	14:00	3.1	NE
20-Feb-2006	15:00	1.3	ENE
20-Feb-2006	16:00	1.8	NNE
20-Feb-2006	17:00	0.4	NNE
20-Feb-2006	18:00	0.4	WNW
20-Feb-2006	19:00	0.4	NNE
20-Feb-2006	20:00	0	SSW
20-Feb-2006	21:00	0.4	SSW
20-Feb-2006	22:00	0.4	SSW
20-Feb-2006	23:00	0.4	W
21-Feb-2006	0:00	0.9	SW
21-Feb-2006	1:00	0.4	W
21-Feb-2006	2:00	0.4	SSW
21-Feb-2006	3:00	0	SW
21-Feb-2006	4:00	0.4	WNW
21-Feb-2006	5:00	1.8	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
21-Feb-2006	6:00	2.2	W
21-Feb-2006	7:00	0.4	W
21-Feb-2006	8:00	0.9	W
21-Feb-2006	9:00	2.2	WNW
21-Feb-2006	10:00	1.8	W
21-Feb-2006	11:00	1.3	WNW
21-Feb-2006	12:00	1.8	WNW
21-Feb-2006	13:00	2.7	N
21-Feb-2006	14:00	3.1	N
21-Feb-2006	15:00	3.1	N
21-Feb-2006	16:00	1.8	W
21-Feb-2006	17:00	2.2	W
21-Feb-2006	18:00	2.2	W
21-Feb-2006	19:00	2.7	W
21-Feb-2006	20:00	2.7	W
21-Feb-2006	21:00	2.7	W
21-Feb-2006	22:00	1.8	W
21-Feb-2006	23:00	2.2	W
22-Feb-2006	0:00	1.8	SSW
22-Feb-2006	1:00	0.9	W
22-Feb-2006	2:00	0.9	W
22-Feb-2006	3:00	0.9	W
22-Feb-2006	4:00	1.3	SSW
22-Feb-2006	5:00	0.4	W
22-Feb-2006	6:00	0.9	W
22-Feb-2006	7:00	0.9	W
22-Feb-2006	8:00	0	---
22-Feb-2006	9:00	0	WSW
22-Feb-2006	10:00	0.9	WNW
22-Feb-2006	11:00	0.4	WNW
22-Feb-2006	12:00	1.8	W
22-Feb-2006	13:00	2.2	WNW
22-Feb-2006	14:00	2.2	W
22-Feb-2006	15:00	1.8	W
22-Feb-2006	16:00	2.7	NE
22-Feb-2006	17:00	1.3	NE
22-Feb-2006	18:00	1.3	E
22-Feb-2006	19:00	0.9	E
22-Feb-2006	20:00	0	NE
22-Feb-2006	21:00	0	---
22-Feb-2006	22:00	0	---
22-Feb-2006	23:00	1.3	WSW
23-Feb-2006	0:00	2.7	WSW
23-Feb-2006	1:00	1.8	WSW
23-Feb-2006	2:00	2.2	W
23-Feb-2006	3:00	2.7	WSW
23-Feb-2006	4:00	1.3	WNW
23-Feb-2006	5:00	1.3	SW
23-Feb-2006	6:00	2.2	SW
23-Feb-2006	7:00	1.8	SW
23-Feb-2006	8:00	1.8	SW
23-Feb-2006	9:00	1.8	W
23-Feb-2006	10:00	1.3	WSW
23-Feb-2006	11:00	1.8	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
23-Feb-2006	12:00	1.3	WSW
23-Feb-2006	13:00	1.3	W
23-Feb-2006	14:00	1.8	W
23-Feb-2006	15:00	1.8	W
23-Feb-2006	16:00	1.8	W
23-Feb-2006	17:00	2.2	W
23-Feb-2006	18:00	1.8	WNW
23-Feb-2006	19:00	1.8	W
23-Feb-2006	20:00	0.9	W
23-Feb-2006	21:00	1.3	SSW
23-Feb-2006	22:00	0.9	SSW
23-Feb-2006	23:00	0.4	WNW
24-Feb-2006	0:00	0.9	W
24-Feb-2006	1:00	0.9	SSW
24-Feb-2006	2:00	0.4	SSW
24-Feb-2006	3:00	3.1	WNW
24-Feb-2006	4:00	3.1	WNW
24-Feb-2006	5:00	1.8	SW
24-Feb-2006	6:00	2.2	WSW
24-Feb-2006	7:00	2.2	SW
24-Feb-2006	8:00	2.2	SW
24-Feb-2006	9:00	2.2	WSW
24-Feb-2006	10:00	0.9	W
24-Feb-2006	11:00	0.9	WNW
24-Feb-2006	12:00	2.7	WNW
24-Feb-2006	13:00	3.6	WNW
24-Feb-2006	14:00	2.2	NW
24-Feb-2006	15:00	2.2	WNW
24-Feb-2006	16:00	1.3	WNW
24-Feb-2006	17:00	2.7	W
24-Feb-2006	18:00	3.1	W
24-Feb-2006	19:00	3.1	W
24-Feb-2006	20:00	2.7	W
24-Feb-2006	21:00	2.2	W
24-Feb-2006	22:00	1.8	W
24-Feb-2006	23:00	3.6	WNW
25-Feb-2006	0:00	1.8	SW
25-Feb-2006	1:00	2.2	SW
25-Feb-2006	2:00	2.2	W
25-Feb-2006	3:00	1.8	W
25-Feb-2006	4:00	2.2	WNW
25-Feb-2006	5:00	4.9	WSW
25-Feb-2006	6:00	3.1	W
25-Feb-2006	7:00	2.7	WSW
25-Feb-2006	8:00	2.2	W
25-Feb-2006	9:00	1.8	W
25-Feb-2006	10:00	1.3	W
25-Feb-2006	11:00	1.3	W
25-Feb-2006	12:00	0.9	W
25-Feb-2006	13:00	1.8	WNW
25-Feb-2006	14:00	1.3	W
25-Feb-2006	15:00	0.9	W
25-Feb-2006	16:00	0	---
25-Feb-2006	17:00	0.4	W

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
25-Feb-2006	18:00	0.4	ENE
25-Feb-2006	19:00	0	---
25-Feb-2006	20:00	0	---
25-Feb-2006	21:00	0	---
25-Feb-2006	22:00	0.9	WNW
25-Feb-2006	23:00	0.4	WNW
26-Feb-2006	0:00	1.3	WNW
26-Feb-2006	1:00	1.3	WNW
26-Feb-2006	2:00	0	SSW
26-Feb-2006	3:00	0.4	WNW
26-Feb-2006	4:00	0.9	W
26-Feb-2006	5:00	1.3	W
26-Feb-2006	6:00	2.2	WNW
26-Feb-2006	7:00	3.1	WNW
26-Feb-2006	8:00	2.7	W
26-Feb-2006	9:00	0.9	W
26-Feb-2006	10:00	2.2	W
26-Feb-2006	11:00	2.2	W
26-Feb-2006	12:00	3.1	WNW
26-Feb-2006	13:00	3.6	W
26-Feb-2006	14:00	2.7	W
26-Feb-2006	15:00	2.7	WNW
26-Feb-2006	16:00	2.7	SW
26-Feb-2006	17:00	3.1	W
26-Feb-2006	18:00	3.6	WSW
26-Feb-2006	19:00	2.7	W
26-Feb-2006	20:00	2.7	W
26-Feb-2006	21:00	3.1	WSW
26-Feb-2006	22:00	4.5	WSW
26-Feb-2006	23:00	4	SW
27-Feb-2006	0:00	5.4	SSW
27-Feb-2006	1:00	5.4	SSW
27-Feb-2006	2:00	4.5	SW
27-Feb-2006	3:00	4	WSW
27-Feb-2006	4:00	4.5	SW
27-Feb-2006	5:00	4.9	WSW
27-Feb-2006	6:00	4.5	SSW
27-Feb-2006	7:00	4.5	WSW
27-Feb-2006	8:00	4.9	WSW
27-Feb-2006	9:00	4.5	W
27-Feb-2006	10:00	5.4	W
27-Feb-2006	11:00	4.9	WNW
27-Feb-2006	12:00	4.9	WSW
27-Feb-2006	13:00	5.4	W
27-Feb-2006	14:00	4.9	W
27-Feb-2006	15:00	4.9	WNW
27-Feb-2006	16:00	4.9	W
27-Feb-2006	17:00	4.5	WNW
27-Feb-2006	18:00	4.5	WSW
27-Feb-2006	19:00	4.9	WSW
27-Feb-2006	20:00	4.5	WSW
27-Feb-2006	21:00	4.9	SW
27-Feb-2006	22:00	4.5	WSW
27-Feb-2006	23:00	3.1	WNW

Appendix D - Wind Data

Date	Time	Wind Speed m/s	Direction
28-Feb-2006	0:00	3.6	WNW
28-Feb-2006	1:00	4.5	WNW
28-Feb-2006	2:00	2.7	WNW
28-Feb-2006	3:00	1.8	W
28-Feb-2006	4:00	2.7	WSW
28-Feb-2006	5:00	1.3	WSW
28-Feb-2006	6:00	1.8	WSW
28-Feb-2006	7:00	2.2	WNW
28-Feb-2006	8:00	1.8	WSW
28-Feb-2006	9:00	2.2	WNW
28-Feb-2006	10:00	2.2	WSW
28-Feb-2006	11:00	1.3	WSW
28-Feb-2006	12:00	1.3	W
28-Feb-2006	13:00	2.2	WNW
28-Feb-2006	14:00	3.6	WNW
28-Feb-2006	15:00	4	WNW
28-Feb-2006	16:00	2.7	WNW
28-Feb-2006	17:00	2.2	WNW
28-Feb-2006	18:00	1.3	SW
28-Feb-2006	19:00	2.2	WSW
28-Feb-2006	20:00	3.1	WSW
28-Feb-2006	21:00	2.2	SW
28-Feb-2006	22:00	1.8	W
28-Feb-2006	23:00	4	W

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							
1-Feb-06	Sunny	2.8797	2.8904	1.22	1.22	3771.0	3772.0	293.1	767.7	0.0107	1.22	73.1	1.0	146.3
2-Feb-06	Sunny	2.8585	2.8632	1.23	1.23	3772.0	3773.0	290.7	769.0	0.0047	1.23	73.5	1.0	63.9
3-Feb-06	Sunny	2.8576	2.8665	1.22	1.22	3797.0	3798.0	295.3	768.8	0.0089	1.22	72.9	1.0	122.1
6-Feb-06	Sunny	2.8313	2.8437	1.23	1.23	3798.0	3799.0	290.3	765.9	0.0124	1.23	72.7	1.0	170.6
7-Feb-06	Sunny	2.8751	2.8811	1.22	1.22	3799.0	3800.0	291.0	768.5	0.0060	1.22	73.4	1.0	81.7
9-Feb-06	Sunny	2.8888	2.8992	1.22	1.22	3823.9	3824.9	293.3	770.8	0.0104	1.22	73.3	1.0	142.0
14-Feb-06	Rainy	2.8768	2.8977	1.22	1.22	3824.9	3825.9	293.0	764.4	0.0209	1.22	73.0	1.0	286.3
15-Feb-06	Sunny	2.8674	2.8737	1.22	1.22	3849.9	3850.9	293.1	763.0	0.0063	1.22	72.9	1.0	86.4
16-Feb-06	Cloudy	2.8942	2.9067	1.21	1.21	3850.9	3851.9	296.3	762.8	0.0125	1.21	72.5	1.0	172.4
21-Feb-06	Sunny	2.8921	2.9014	1.22	1.22	3875.9	3876.9	292.1	765.2	0.0093	1.22	73.1	1.0	127.1
22-Feb-06	Cloudy	2.9013	2.9104	1.22	1.22	3876.9	3877.9	293.6	765.3	0.0091	1.22	73.0	1.0	124.7
23-Feb-06	Cloudy	2.8599	2.8660	1.23	1.23	3877.9	3878.9	291.7	766.3	0.0061	1.23	74.1	1.0	82.3
27-Feb-06	Cloudy	2.8982	2.8998	1.22	1.22	3902.9	3903.9	290.3	764.2	0.0016	1.22	73.3	1.0	21.8
28-Feb-06	Rainy	2.8865	2.8923	1.23	1.23	3903.9	3904.9	288.8	764.6	0.0058	1.23	73.5	1.0	78.9
													Min	21.8
													Max	286.3
													Average	121.9

Location AM 3 - Garden Villa

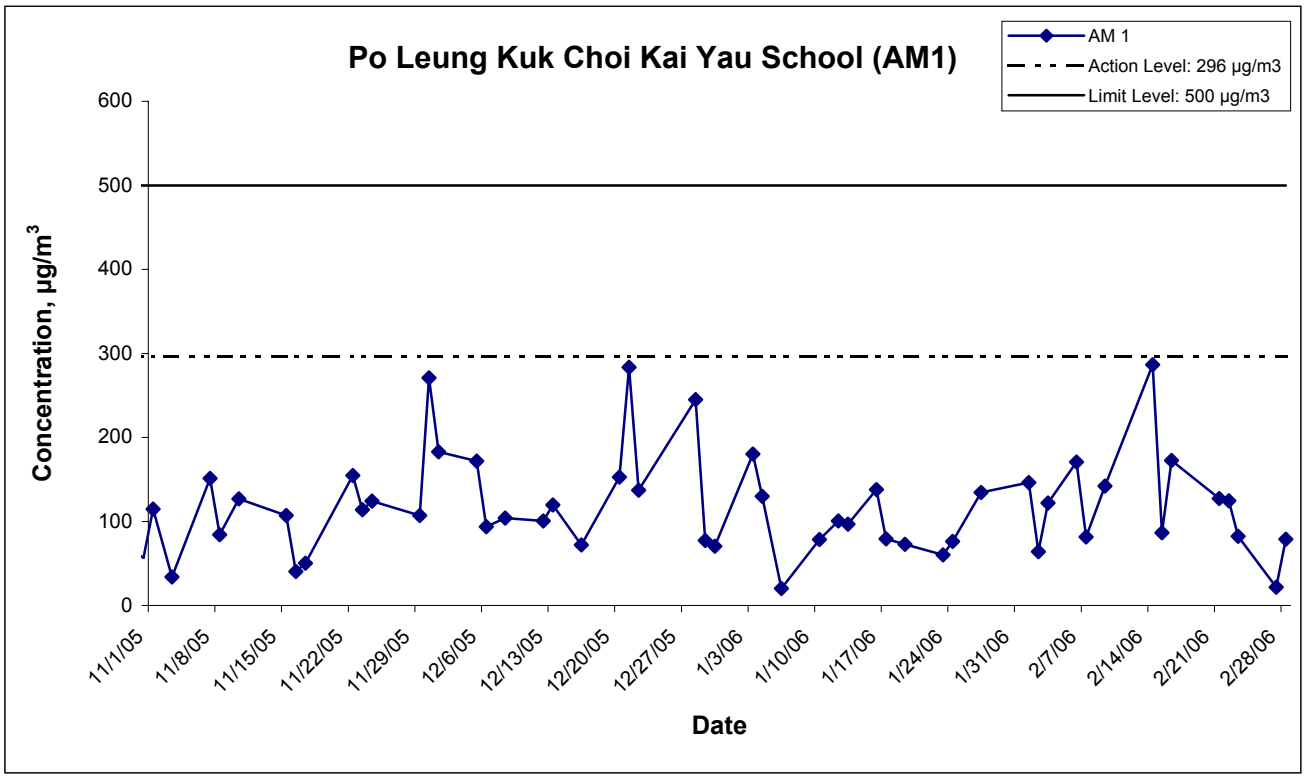
Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. (μg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
1-Feb-06	Cloudy	2.8913	2.8985	1.21	1.21	4117.1	4118.1	291.6	767.2	0.0072	1.21	72.5	1.0	99.4
2-Feb-06	Sunny	2.8839	2.8937	1.21	1.21	4118.1	4119.1	290.7	769.0	0.0098	1.21	72.7	1.0	134.9
3-Feb-06	Sunny	2.8581	2.8701	1.20	1.20	4143.1	4144.1	295.1	769.0	0.0120	1.20	72.1	1.0	166.4
6-Feb-06	Sunny	2.8645	2.8799	1.21	1.21	4144.1	4145.1	290.3	765.9	0.0154	1.21	72.6	1.0	212.2
7-Feb-06	Sunny	2.8753	2.8822	1.21	1.21	4145.1	4146.1	291.0	768.5	0.0069	1.21	72.6	1.0	95.0
9-Feb-06	Sunny	2.8922	2.9019	1.22	1.22	4170.1	4171.1	289.8	773.2	0.0097	1.22	73.0	1.0	132.9
14-Feb-06	Rainy	2.8747	2.8934	1.18	1.18	4171.1	4172.1	293.0	764.4	0.0187	1.18	70.9	1.0	263.6
15-Feb-06	Cloudy	2.8824	2.8876	1.18	1.18	4196.1	4197.1	292.5	761.8	0.0052	1.18	70.8	1.0	73.4
16-Feb-06	Cloudy	2.8528	2.8644	1.17	1.17	4197.1	4198.1	296.3	762.8	0.0116	1.17	70.4	1.0	164.8
21-Feb-06	Sunny	2.8535	2.8619	1.19	1.19	4222.1	4223.1	291.9	765.4	0.0084	1.19	71.1	1.0	118.1
22-Feb-06	Sunny	2.8662	2.8744	1.18	1.18	4223.1	4224.1	293.6	765.3	0.0082	1.18	70.9	1.0	115.7
23-Feb-06	Cloudy	2.8733	2.8849	1.19	1.19	4224.1	4225.1	291.7	766.3	0.0116	1.19	71.2	1.0	162.9
27-Feb-06	Cloudy	2.8818	2.8891	1.19	1.19	4249.1	4250.1	290.8	763.9	0.0073	1.19	71.2	1.0	102.5
28-Feb-06	Rainy	2.8797	2.8868	1.19	1.19	4250.1	4251.1	288.8	764.6	0.0071	1.19	71.5	1.0	99.3
													Min	73.4
													Max	263.6
													Average	138.7

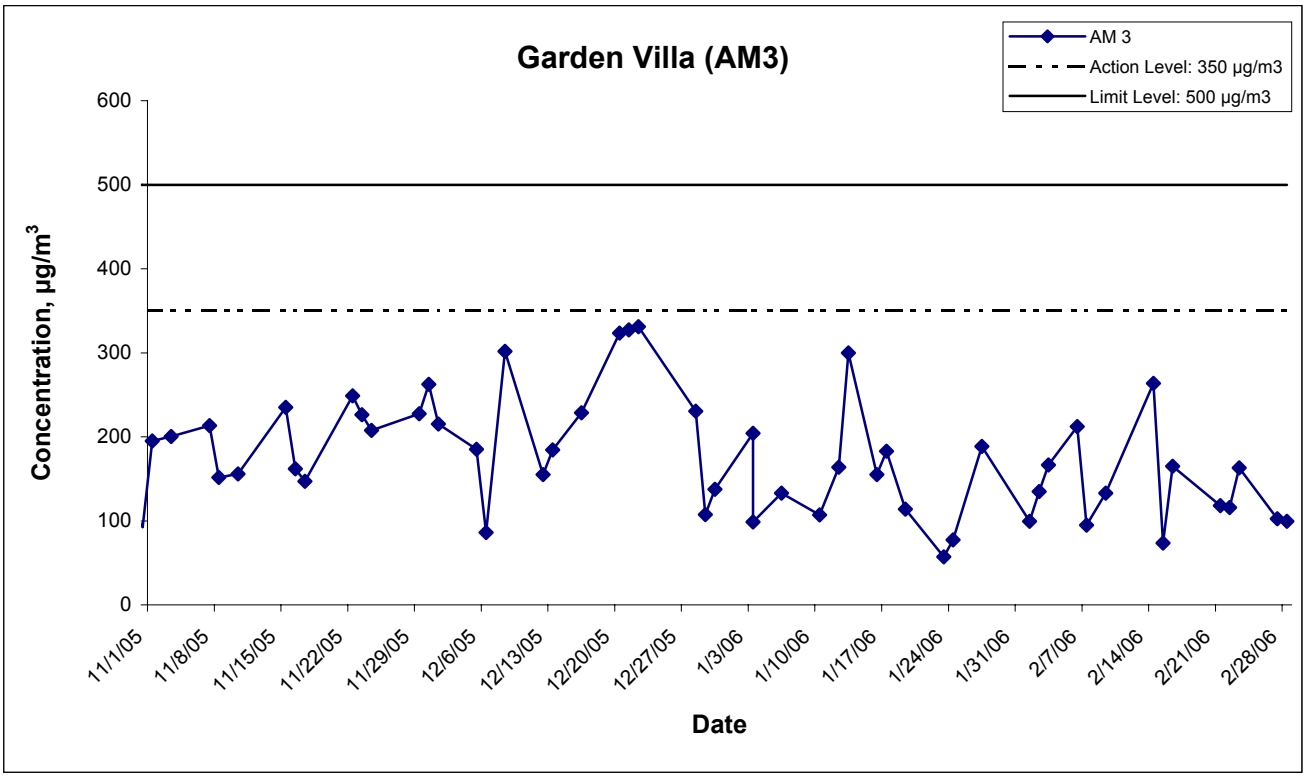
Appendix E - 1-hour TSP Monitoring Results

Location AM 4 - Government Quarters

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. (μg/m^3)
		Initial	Final	Initial	Final	Initial	Final							
1-Feb-06	Sunny	2.8623	2.8683	1.21	1.21	3729.8	3730.8	293.3	767.7	0.0060	1.21	72.7	1.0	82.6
2-Feb-06	Sunny	2.8889	2.8946	1.22	1.22	3730.8	3731.8	290.7	769.0	0.0057	1.22	73.0	1.0	78.1
3-Feb-06	Sunny	2.8791	2.8875	1.21	1.21	3755.8	3756.8	295.5	768.6	0.0084	1.21	72.4	1.0	116.0
6-Feb-06	Sunny	2.8769	2.8889	1.22	1.22	3756.8	3757.8	290.3	765.9	0.0120	1.22	72.2	1.0	166.2
7-Feb-06	Sunny	2.8749	2.8814	1.22	1.22	3757.8	3758.8	291.0	768.5	0.0065	1.22	73.0	1.0	89.1
9-Feb-06	Sunny	2.8543	2.8639	1.21	1.21	3782.8	3783.8	293.3	770.8	0.0096	1.21	72.8	1.0	131.9
14-Feb-06	Rainy	2.8943	2.9119	1.21	1.21	3783.8	3784.8	293.0	764.4	0.0176	1.21	72.5	1.0	242.6
15-Feb-06	Sunny	2.8884	2.8936	1.21	1.21	3808.8	3809.8	293.1	763.0	0.0052	1.21	72.5	1.0	71.8
16-Feb-06	Cloudy	2.8864	2.8974	1.20	1.20	3809.8	3810.8	296.3	762.8	0.0110	1.20	72.1	1.0	152.6
21-Feb-06	Sunny	2.8851	2.8943	1.21	1.21	3834.8	3835.8	292.1	765.2	0.0092	1.21	72.7	1.0	126.6
22-Feb-06	Cloudy	2.8869	2.8929	1.21	1.21	3835.8	3836.8	293.6	765.3	0.0060	1.21	72.5	1.0	82.8
23-Feb-06	Cloudy	2.8809	2.8892	1.21	1.21	3836.8	3837.8	291.7	766.3	0.0083	1.21	72.8	1.0	114.1
27-Feb-06	Cloudy	2.8792	2.8826	1.21	1.21	3861.8	3862.8	290.3	764.2	0.0034	1.21	72.8	1.0	46.7
28-Feb-06	Rainy	2.8808	2.8847	1.22	1.22	3862.8	3863.8	288.8	764.6	0.0039	1.22	73.0	1.0	53.4
													Min	46.7
													Max	242.6
													Average	111.0

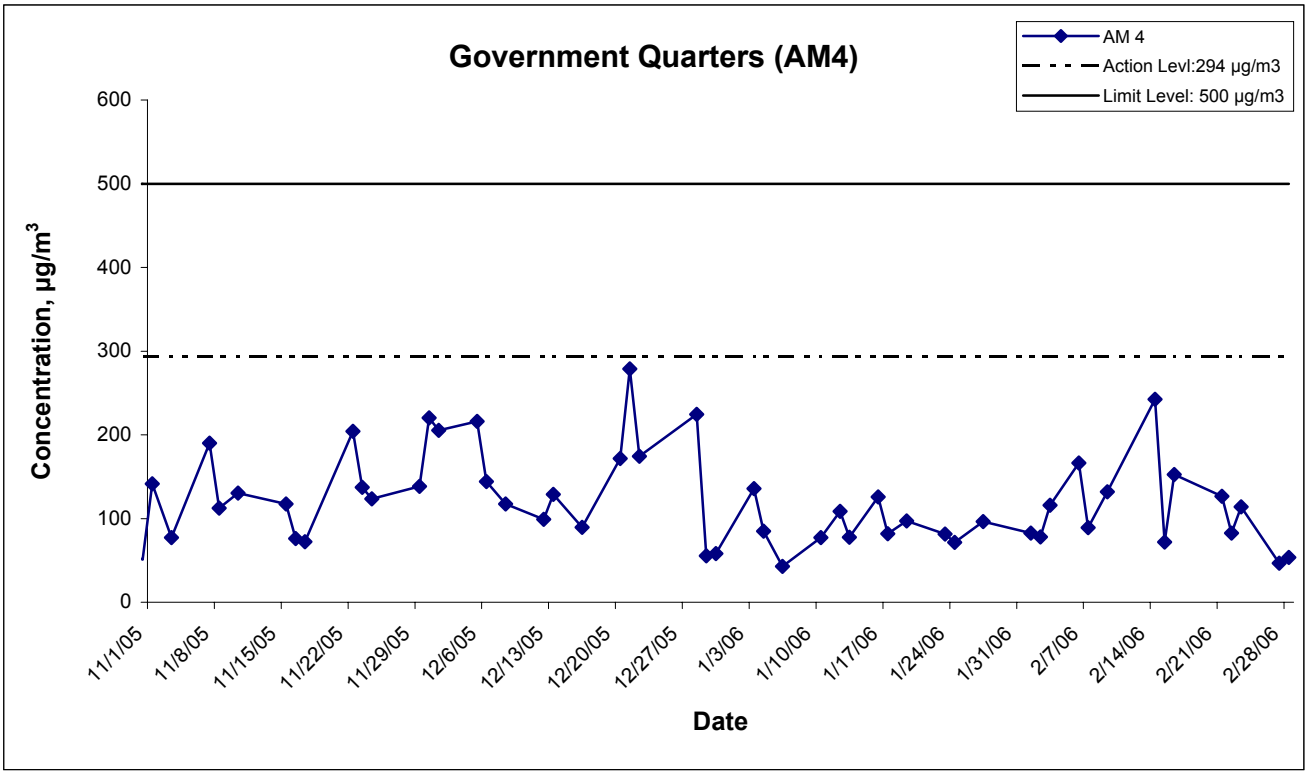
1-hr TSP Levels





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: Feb 06	Project No.: MA3024 Appendix: E	CINOTECH

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: Feb 06	Project No.: MA3024 Appendix: E	CINOTECH

APPENDIX F
24-HOUR TSP MONITORING RESULTS AND GRAPHICAL PRESENTATION

Appendix F - 24-hour TSP Monitoring Results

Location AM1 - Po Leung Kuk Choi Kai Yau School

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
2-Feb-06	Sunny	2.8573	2.9718	1.21	1.21	3773.0	3797.0	295.2	767.5	0.1145	1.21	1749.0	24.0	65.5
8-Feb-06	Sunny	2.8889	3.0785	1.23	1.23	3800.0	3823.9	290.9	771.0	0.1896	1.23	1757.8	23.9	107.9
14-Feb-06	Cloudy	2.8929	3.0844	1.22	1.22	3825.9	3849.9	293.3	764.3	0.1915	1.22	1751.7	24.0	109.3
20-Feb-06	Sunny	2.8696	2.9269	1.23	1.23	3851.9	3875.9	288.1	767.4	0.0573	1.23	1770.4	24.0	32.4
25-Feb-06	Cloudy	2.8915	3.1081	1.22	1.22	3878.9	3902.9	290.3	763.2	0.2166	1.22	1758.6	24.0	123.2
													Min	32.4
													Max	123.2
													Average	87.6

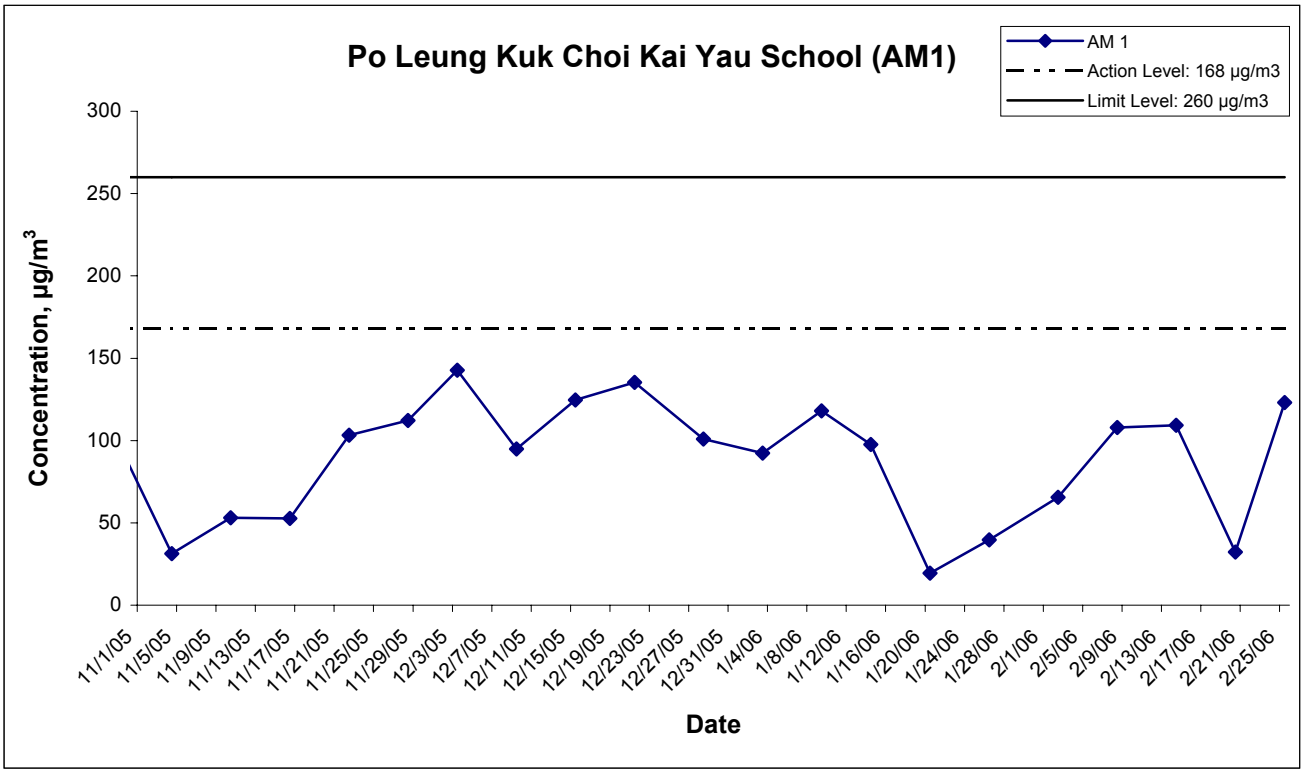
Location AM 3 - Garden Villa

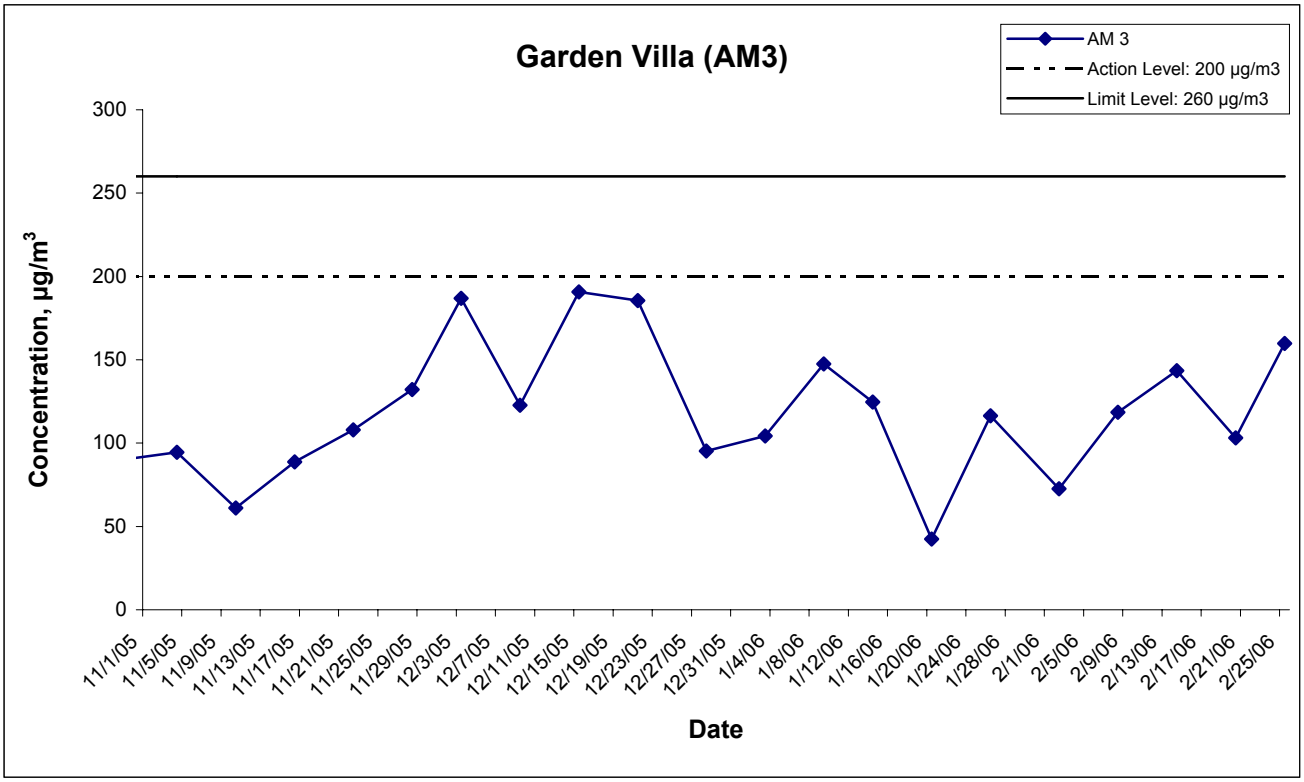
Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
2-Feb-06	Sunny	2.8786	3.0042	1.20	1.20	4119.1	4143.1	295.2	767.5	0.1256	1.20	1729.0	24.0	72.6
8-Feb-06	Sunny	2.8897	3.0967	1.21	1.21	4146.1	4170.1	290.9	771.0	0.2070	1.21	1745.7	24.0	118.6
14-Feb-06	Cloudy	2.8844	3.1287	1.18	1.18	4172.1	4196.1	293.0	764.4	0.2443	1.18	1702.4	24.0	143.5
20-Feb-06	Sunny	2.8980	3.0758	1.20	1.20	4198.1	4222.1	288.1	767.4	0.1778	1.20	1722.5	24.0	103.2
25-Feb-06	Cloudy	2.8493	3.1225	1.19	1.19	4225.1	4249.1	290.3	763.2	0.2732	1.19	1709.6	24.0	159.8
													Min	72.6
													Max	159.8
													Average	119.5

Location AM 4 - Government Quarters

Date	Weather Condition	Filter Weight (g)		Flow Rate (m^3/min.)		Elapse Time		Air Temp. (K)	Atmospheric Pressure(Pa)	Particulate weight(g)	Av. flow (m^3/min)	Total vol. (m^3)	Sampling Time(hrs.)	Conc. ($\mu g/m^3$)
		Initial	Final	Initial	Final	Initial	Final							
2-Feb-06	Sunny	2.8325	2.9088	1.22	1.22	3731.8	3755.8	291.4	768.4	0.0763	1.22	1749.8	24.0	43.6
8-Feb-06	Sunny	2.9110	3.1037	1.22	1.22	3758.8	3782.8	290.9	771.0	0.1927	1.22	1753.9	24.0	109.9
14-Feb-06	Cloudy	2.8613	3.0683	1.21	1.21	3784.8	3808.8	293.3	764.3	0.2070	1.21	1739.8	24.0	119.0
20-Feb-06	Sunny	2.8751	3.0641	1.22	1.22	3810.8	3834.8	288.1	767.4	0.1890	1.22	1758.3	24.0	107.5
25-Feb-06	Cloudy	2.9007	3.0221	1.21	1.21	3837.8	3861.8	290.3	763.2	0.1214	1.21	1747.1	24.0	69.5
													Min	43.6
													Max	119.0
													Average	89.9

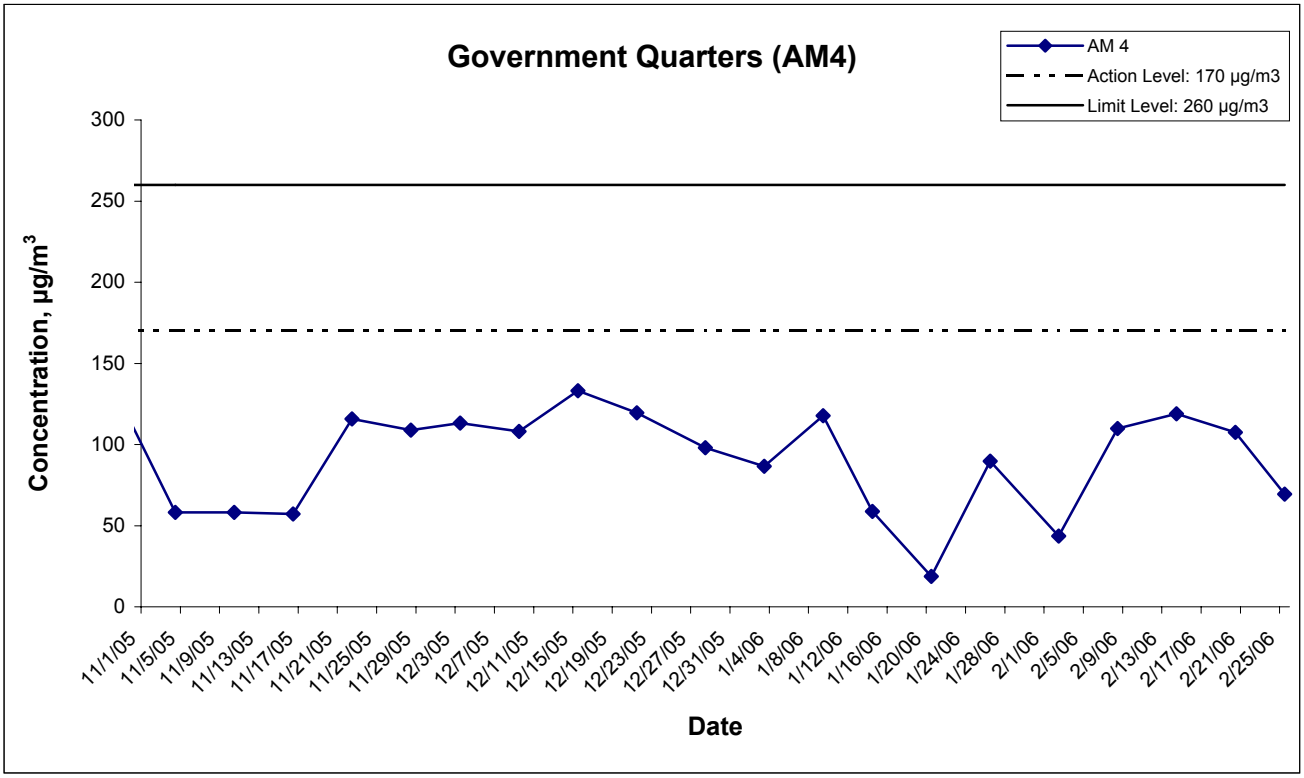
24-hr TSP Levels





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 Feb 06	Appendix F	

24-hr TSP Levels



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

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}	
3-Feb-06	14:40	Sunny	62.8	64.0	60.5	-
9-Feb-06	14:00	Sunny	67.8	69.5	64.5	
16-Feb-06	10:50	Cloudy	65.8	68.5	63.0	
23-Feb-06	13:40	Cloudy	68.5	72.5	63.0	

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}	
3-Feb-06	16:30	Sunny	77.2	80.5	68.5	77.1	60.8	The major noise source was identified as traffic noise from Tai Po Road.
9-Feb-06	13:00	Sunny	78.9	82.0	76.0		74.2	
16-Feb-06	13:00	Cloudy	78.9	81.0	77.5		74.2, Measured ≤ Baseline	
23-Feb-06	11:20	Cloudy	78.7	78.2	67.0		73.6	

Location NM6 - Government Quarters						
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Remarks
			L_{eq}	L_{10}	L_{90}	
3-Feb-06	15:45	Sunny	58.2	60.0	54.5	-
9-Feb-06	14:30	Sunny	65.8	66.5	63.0	
16-Feb-06	11:30	Cloudy	64.3	66.0	61.5	
23-Feb-06	14:25	Cloudy	70.0	71.5	67.5	

Location NM7 - Garden Vilia								
Date	Time	Weather	Unit: dB (A) (30-min) Measured Noise Level			Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	L_{eq}	L_{eq}	
3-Feb-06	14:15	Sunny	68.3	70.5	63.5	59.0	67.8	The exceedance on 16-Feb-06 was due to the works by other contractors.
9-Feb-06	16:40	Sunny	67.3	69.5	64.0		66.6	
16-Feb-06	9:45	Cloudy	80.6	84.0	66.0		**80.6**	
23-Feb-06	9:05	Cloudy	67.2	70.0	61.5		66.5	

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

*Bolded value indicated limit level exceedance

Appendix G - Noise Monitoring Results

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

Location 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}	
3-Feb-06	19:00	Fine	74.1	78.0	70.0	74.3	75.8	74.3, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	19:05		74.3	78.0	70.0				
	19:10		74.4	78.0	70.0				
9-Feb-06	19:15	Fine	73.1	78.0	70.0	73.3		73.3, Measured ≤ Baseline	
	19:20		73.5	78.5	70.0				
	19:25		73.2	78.0	70.0				
16-Feb-06	19:05	Cloudy	73.7	76.5	70.0	73.3		73.3, Measured ≤ Baseline	
	19:10		73.2	76.0	70.0				
	19:15		73.1	76.0	70.5				
23-Feb-06	19:00	Cloudy	73.7	78.5	68.5	74		74.0, Measured ≤ Baseline	
	19:05		73.8	78.5	68.5				
	19:10		74.3	79.0	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}	
3-Feb-06	19:45	Fine	54.7	58.0	50.0	54.4	56.1	54.4, Measured ≤ Baseline	-
	19:50		54.3	58.0	50.0				
	19:55		54.3	58.0	50.0				
9-Feb-06	19:50	Fine	53.0	58.0	50.0	53.5		53.5, Measured ≤ Baseline	
	19:55		53.8	58.5	50.5				
	20:00		53.7	58.5	51.0				
19-Feb-06	19:45	Cloudy	55.2	59.0	51.0	55.4		55.4, Measured ≤ Baseline	
	19:50		55.3	59.0	51.0				
	19:55		55.7	59.5	51.5				
23-Feb-06	19:45	Cloudy	55.7	58.0	51.0	55.3		55.3, Measured ≤ Baseline	
	19:50		55.8	58.0	51.0				
	19:55		54.1	57.5	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}	
3-Feb-06	19:10	Fine	58.1	60.5	52.5	57.9	58.3	57.9, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	19:15		57.9	60.0	52.0				
	19:20		57.8	60.0	52.0				
9-Feb-06	19:00	Fine	58.3	60.5	51.5	58.5		45.0	
	19:05		58.2	60.5	51.5				
	19:10		59.0	60.5	52.5				
16-Feb-06	19:00	Cloudy	58.8	61.0	51.5	58.6		46.8	
	19:05		58.3	61.0	50.5				
	19:10		58.8	60.5	52.0				
23-Feb-06	19:00	Cloudy	58.7	60.5	54.0	58.5		45.0	
	19:05		58.2	60.0	53.5				
	19:10		58.5	60.5	54.0				

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

*Bolded value indicated limit level exceedance

Appendix G - Noise Monitoring Results

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

Location NM5 - Villa Carlton									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
3-Feb-06	23:00	Fine	72.1	78.5	69.0	72.2	74.3	72.2, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	23:05		72.1	78.5	69.0				
	23:10		72.5	79.0	69.5				
9-Feb-06	23:00	Fine	73.0	78.0	69.5	73.3		73.3, Measured ≤ Baseline	
	23:05		73.2	78.0	69.5				
	23:10		73.7	78.5	70.0				
19-Feb-06	23:05	Cloudy	73.7	77.0	70.0	73.8		73.8, Measured ≤ Baseline	
	23:10		73.8	77.0	70.0				
	23:15		73.8	77.0	70.0				
23-Feb-06	23:00	Cloudy	72.8	78.0	70.0	73.2		73.2, Measured ≤ Baseline	
	23:05		73.5	78.0	70.0				
	23:10		73.4	78.0	70.5				

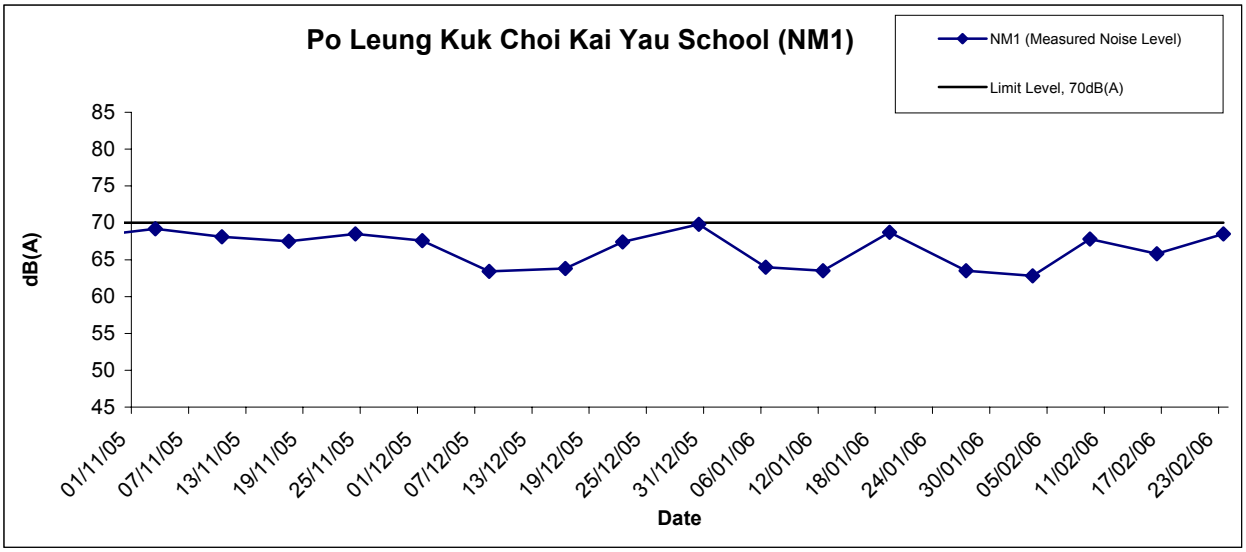
Location NM6 - Government Quarters									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
3-Feb-06	23:25	Fine	51.7	56.0	49.0	52.0	52.8	52.0, Measured ≤ Baseline	-
	23:30		52.1	56.5	49.0				
	23:35		52.2	56.5	49.0				
9-Feb-06	23:25	Fine	50.2	54.5	48.0	50.4		50.4, Measured ≤ Baseline	
	23:30		50.5	55.0	48.0				
	23:35		50.5	55.0	48.5				
16-Feb-06	23:35	Cloudy	50.7	55.0	48.5	51.3		51.3, Measured ≤ Baseline	
	23:40		51.4	55.5	48.5				
	23:45		51.7	56.0	49.0				
23-Feb-06	23:25	Cloudy	51.2	55.0	47.5	51.6		51.6, Measured ≤ Baseline	
	23:30		51.4	55.0	47.5				
	23:35		52.1	56.0	48.0				

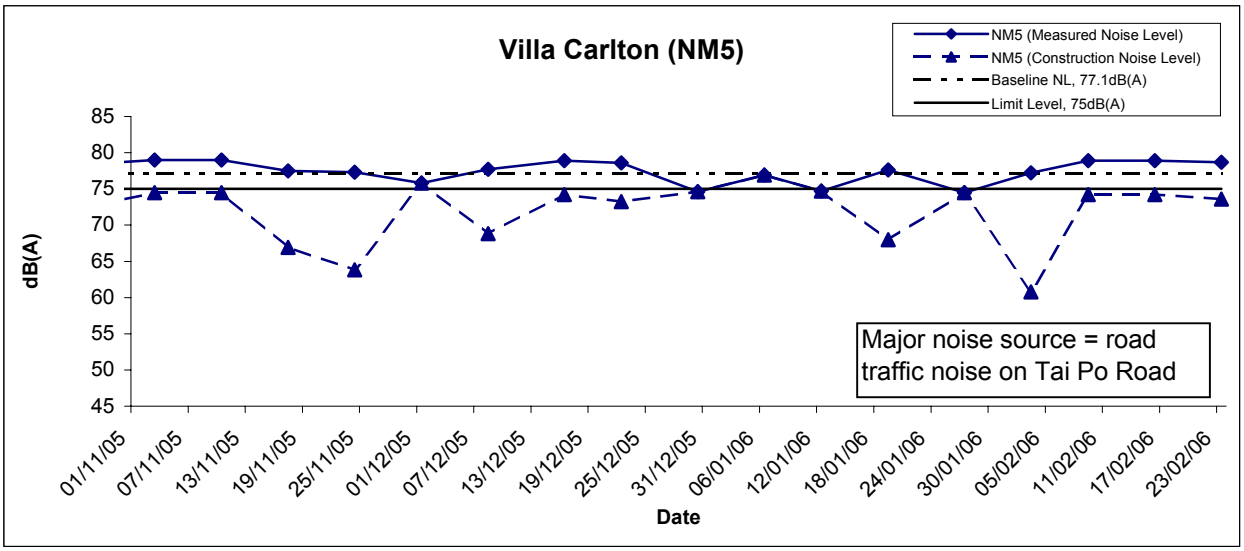
Location NM7 - Garden Villa									
Date	Time	Weather	dB (A) (5-min)				Baseline Level	Construction Noise Level	Remarks
			L_{eq}	L_{10}	L_{90}	Average L_{eq}	L_{eq}	L_{eq}	
3-Feb-06	23:50	Fine	55.7	59.0	51.0	55.4	56.5	55.4, Measured ≤ Baseline	The major noise source was identified as traffic noise from Tai Po Road.
	23:55		55.3	59.5	51.0				
	0:00		55.3	59.0	51.0				
9-Feb-06	23:50	Fine	55.5	59.0	51.0	55.6		55.6, Measured ≤ Baseline	
	23:55		55.5	59.0	51.0				
	0:00		55.8	59.5	51.0				
16-Feb-06	23:55	Cloudy	55.8	59.0	51.0	56.0		56.0, Measured ≤ Baseline	
	0:00		56.1	59.5	52.0				
	0:05		56.1	59.5	51.5				
23-Feb-06	23:50	Cloudy	55.3	59.0	49.5	55.4		55.4, Measured ≤ Baseline	
	23:55		55.5	59.0	50.0				
	0:00		55.5	59.0	50.0				

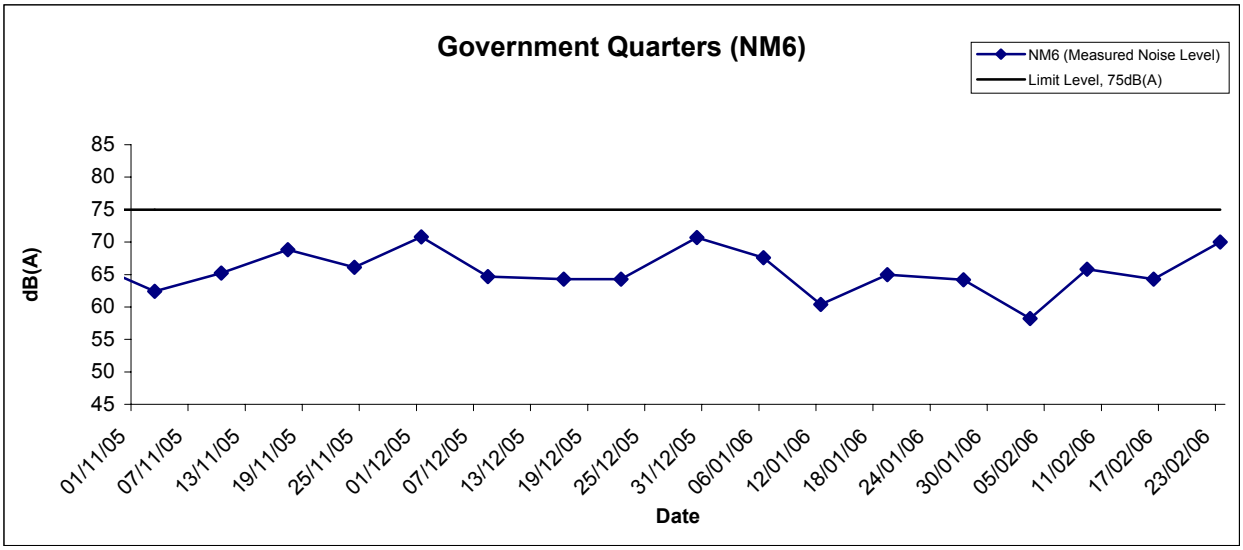
Construction Noise Level (Leq) = Measured Noise Level (Leq) - Baseline Noise Level (Leq)

*Bolded value indicated limit level exceedance

Noise Levels



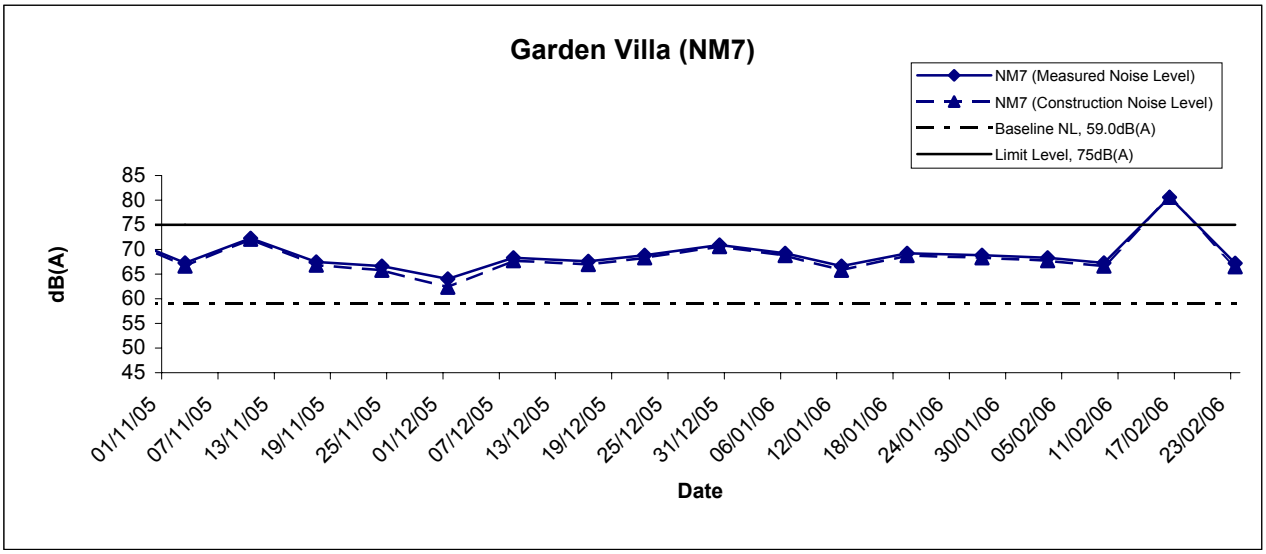




* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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

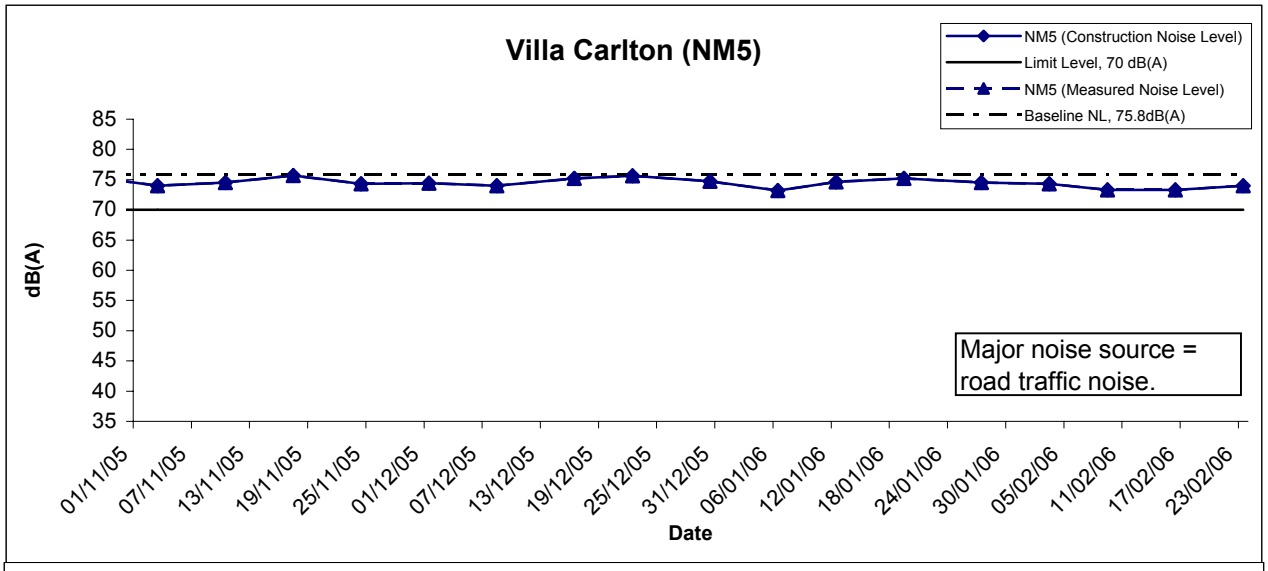
Noise Levels

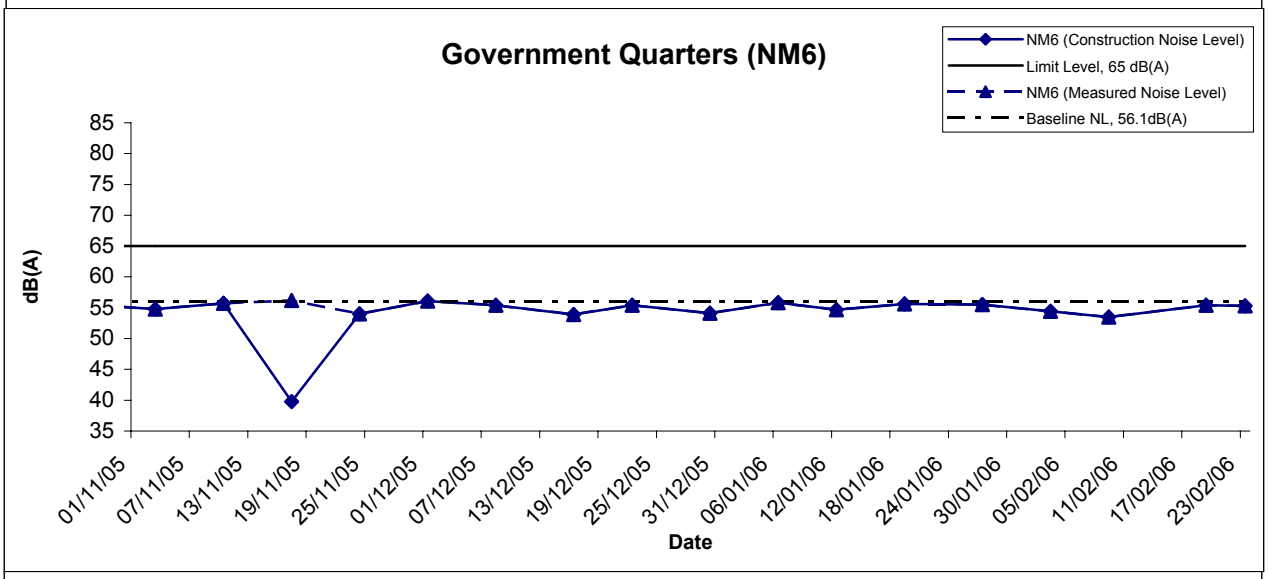


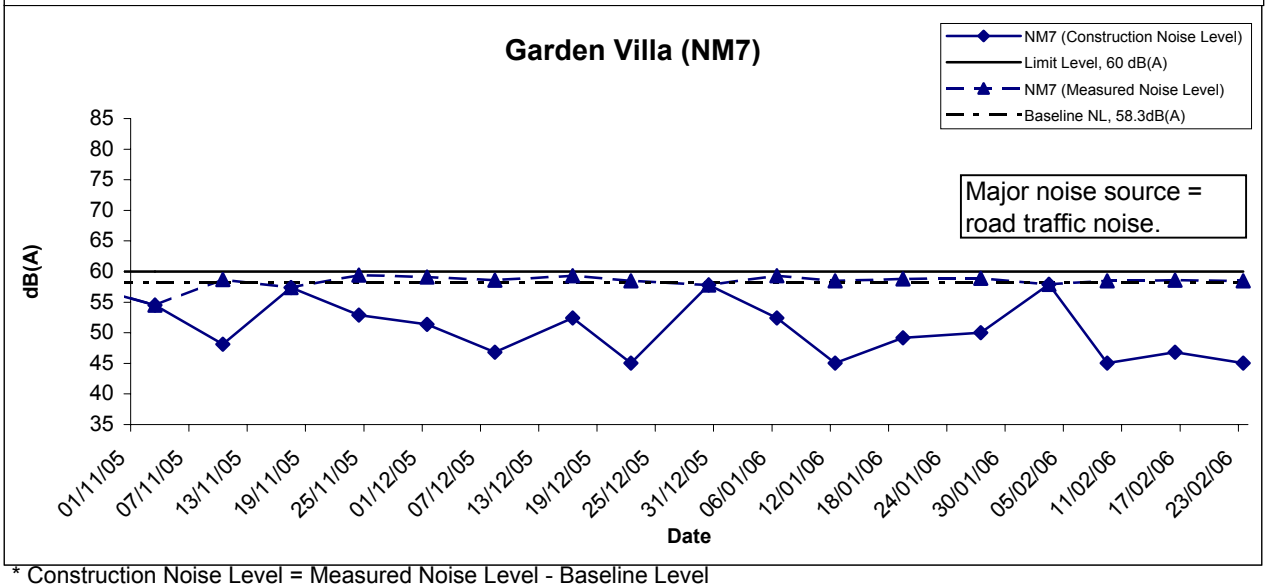
* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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

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



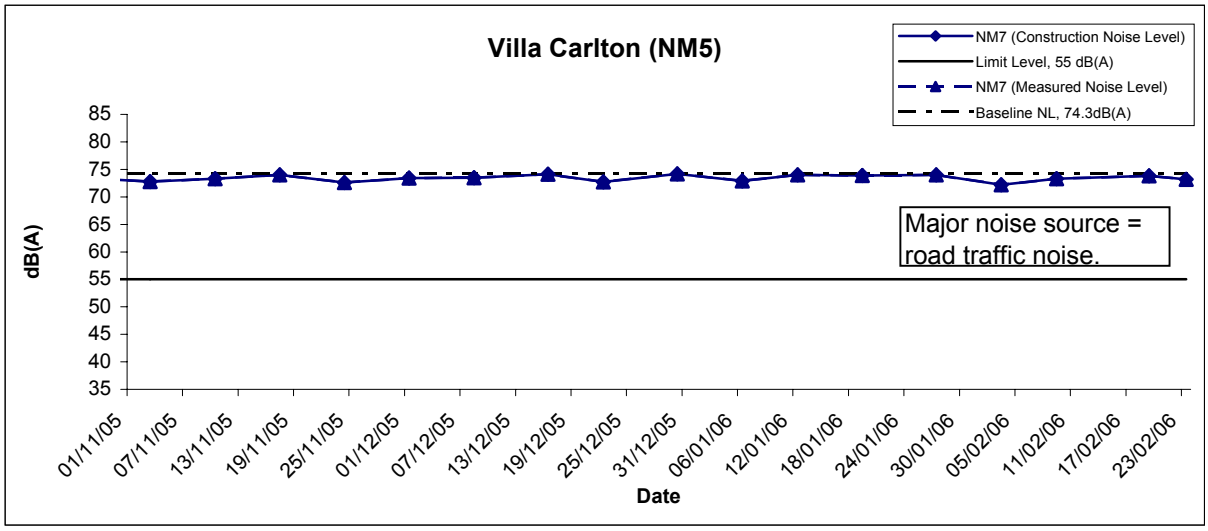


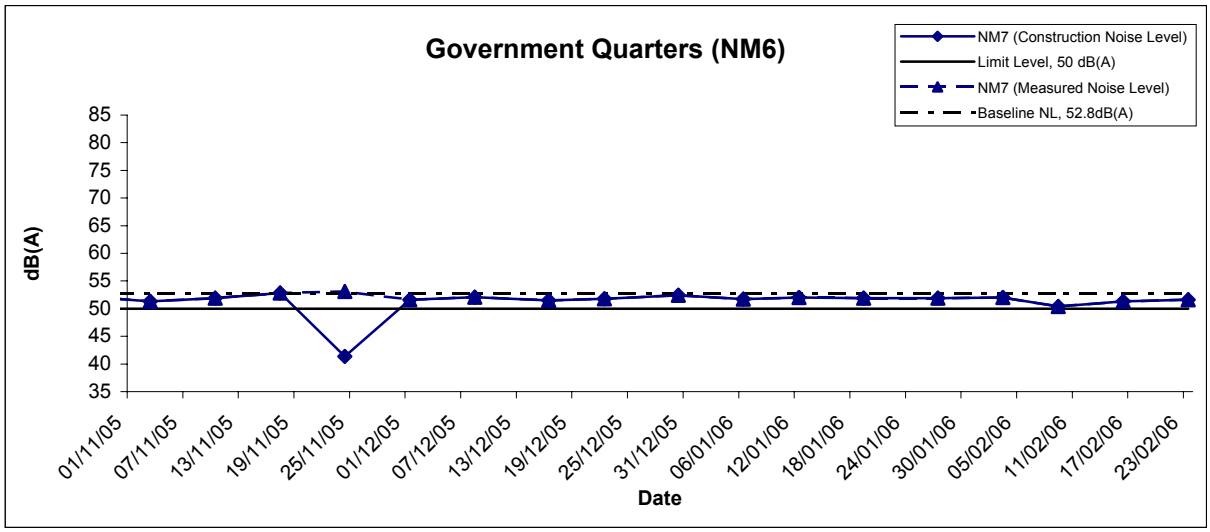


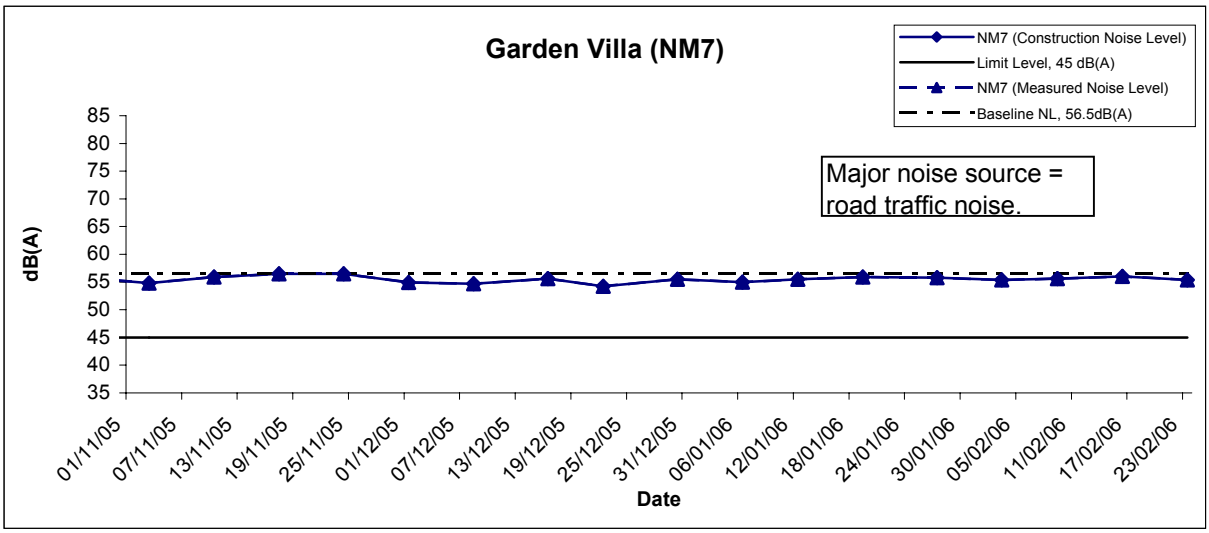
* Construction Noise Level = Measured Noise Level - Baseline Level
(If the measured noise level is lower than the baseline level, the construction noise level will be taken as the meaured one)

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

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: Feb 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

- One Limit Level exceedance was recorded on 16 February 2006.
- No Action Level exceedance was recorded in the reporting month.

Station No.	Parameter	Measured Level (Leq dB(A))	Baseline Level (Leq dB(A))	Construction Noise Level (Leq dB(A))	Action Level	Limit Level (Leq dB(A))	Level exceeded
NM7 (Garden Villa)	Construction Noise	80.6*	59.0	80.6	When one documented complaint is received	75.0	Limit

(a) Statement of exceedance(s)

Construction noise at NM7 (Garden Villa) exceeded the Limit level.

(b) Cause of exceedance(s)

During the noise measurement, the following observations were made:

1. Noise from concrete breaking works by the Contractor of another Project (R8-SHT) was identified as the major noise source.
2. Construction noise from R8-ENT Contractor and road traffic noise from Tai Po Road were also noted. However, they were insignificantly as compared to the noise from the breaking activities of R8-SHT.

(c) Action required under the action plan

N/A

(d) Action taken under the action plan

N/A

(e) ET's conclusions and recommendations for mitigation

The exceedance was not due to the R8-ENT Project and no further action is required.

APPENDIX I
SITE AUDIT SUMMARY

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60202-ENT
Date	2 February 2006 (Thru)
Time	0930 – 1130

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

Ref. No.	Remarks/Observations	Related Item No.
	A. Water Quality • No environmental deficiency was identified during the site inspection. ***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. 60125-ENT) on 25 January 2006 were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	CM Cheung	MAN	03 February 2006
Checked by	Winniss Kong	WK	03 February 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60206-ENT
Date	6 February 2006 (Mon)
Time	1330 – 1530

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.	
60206E-01	***B. Air Quality*** • Fugitive dust emission was observed during the excavation works at Portion D4 near Administration Building. Immediate actions (water spray) were taken by the Contractor during the audit session.	C2
	C. Noise • No environmental deficiency was identified during the site inspection.	
60206E-02	***D. Waste / Chemical Management*** • Oil drums at BVS2 and Portion D4 (near subway) were not placed at bunded area. The Contractor was reminded to provide drip trays for the oil drums.	E3i
	E. Permit / Licenses • No environmental deficiency was identified during the site inspection.	
	F. Others • The deficiencies identified during last audit (ref. 60202-ENT) on 2 February 2006 were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	KK Chan		8 February 2006
Checked by	Winniss Kong		8 February 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60216-ENT
Date	16 February 2006 (Thu)
Time	1330 – 1615

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.	
60216E-01	*B. Air Quality* • Fugitive dust emission was observed from the drilling works at Portion I1 (South Portal). The Contractor was reminded to implement sufficient dust mitigation measures during the dust emissive works.	C2
	C. Noise • No environmental deficiency was identified during the site inspection.	
60216E-02	*D. Waste / Chemical Management* • Oil stain was observed at Portion D4 near the Administration Building.	E12
60216E-03	*E. Permit / Licenses* • Copy of the Environmental Permit was not posted at the site exit of Ventilation Adit.	F1
	F. Others • The deficiencies identified during last audit (ref. 60206-ENT) on 6 February 2006 were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	KK Chan		17 February 2006
Checked by	Alex Ngai		17 February 2006

Weekly Site Inspection Record Summary

Inspection Information

Checklist Reference Number	60223-ENT
Date	23 February 2006 (Thu)
Time	1330 – 1550

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.	
60216E-02	*B. Air Quality* • Open stockpile was observed in site at Toll Plaza (Portion D4). It should be covered by imperious sheeting if idled or spayed with water.	C2
	C. Noise • No environmental deficiency was identified during the site inspection.	
60223E-01	*D. Waste / Chemical Management* • Oil stain was observed in site at Mui Kong Tsuen near AquaSed.	E12
	E. Permit / Licenses • No environmental deficiency was identified during the site inspection.	
	F. Others • The deficiencies identified during last audit (ref. 60223-ENT) on 23 February 2006 were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Tommy Ho		23 February 2006
Checked by	KK Chan		23 February 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

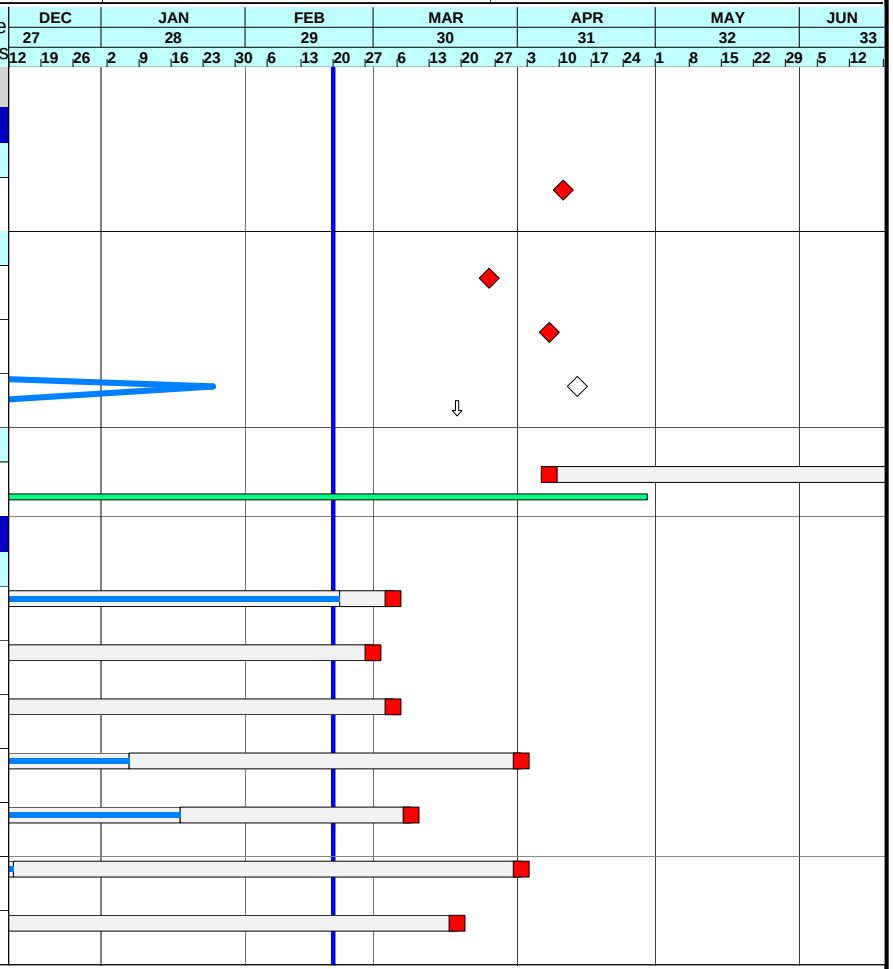
APPENDIX L
CONSTRUCTION PROGRAMME

Data Date 20FEB06
Run Date 25FEB06 14:20

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.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
GENERAL & PRELIMINARIES									
CONTRACT DEFINED DATES, STAGES & SECTIONS									
STAGES OF THE WORKS									
KD04	KD-4 Achievement of Stage 4 (17.Dec.05) 03jan06	0		10APR06	0	100	0	-97	-227
SECTIONS OF THE WORKS									
KD13	KD-13 Compl.Section 5 (10.Jul.05) 15sep05	0		25MAR06	0	100	0	-191	-294
KD22	KD-22 Compl.Section 14 (01June05) 5Jul05	0		07APR06	0	100	0	-276	-357
KD14	KD-14 Compl.Section 6 of the works (24.Nov.06)	0		13APR06	0	0	0	225	-26
PROGRAMME RESTRAINTS									
EXC05	LCK Contr.to erect Noise Enclosure C3,C4 & I2	350	08APR06	23MAR07	0	0	350	-255	-329
SUBMITTALS & APPROVALS									
DRAWING SUBMITTAL & APPROVAL									
8034	Prep.& Sub. Independ't Serv. Dwgs for SHT&T3&LCK	48	04AUG04A	04MAR06	98	100	12	-2	-366
8024	Engineer Comment / Approve ENT ISD Submissions	18	06AUG04A	28FEB06	85	100	8	-122	-482
8030	Res-sub. & Approv of ENT ISD	24	06SEP04A	04MAR06	70	100	12	-122	-462
8035	Engineer Comment / Approve SHT&T3LCK ISD Sub.	24	13SEP04A	01APR06	85	100	12	-26	-366
8032	Engineer Comment / Approve SHT&T3&LCK CSD Sub.	18	25OCT04A	08MAR06	90	100	15	-26	-441
8036	Re-sub. & Approv of SHT & T3 & LCK ISD	36	31MAR05A	01APR06	70	100	36	-26	-330
8033	Re-sub. & Approv. of SHT & T3 & LCK CSD	24	28JUN05A	18MAR06	60	100	24	-26	-426



Leighton-Kumagai Joint Venture

LEIGHTON - KUMAGAI JV
R8- EAGLE'S NEST TUNNEL

DETAILED WORKS PROGRAMME REVISION C

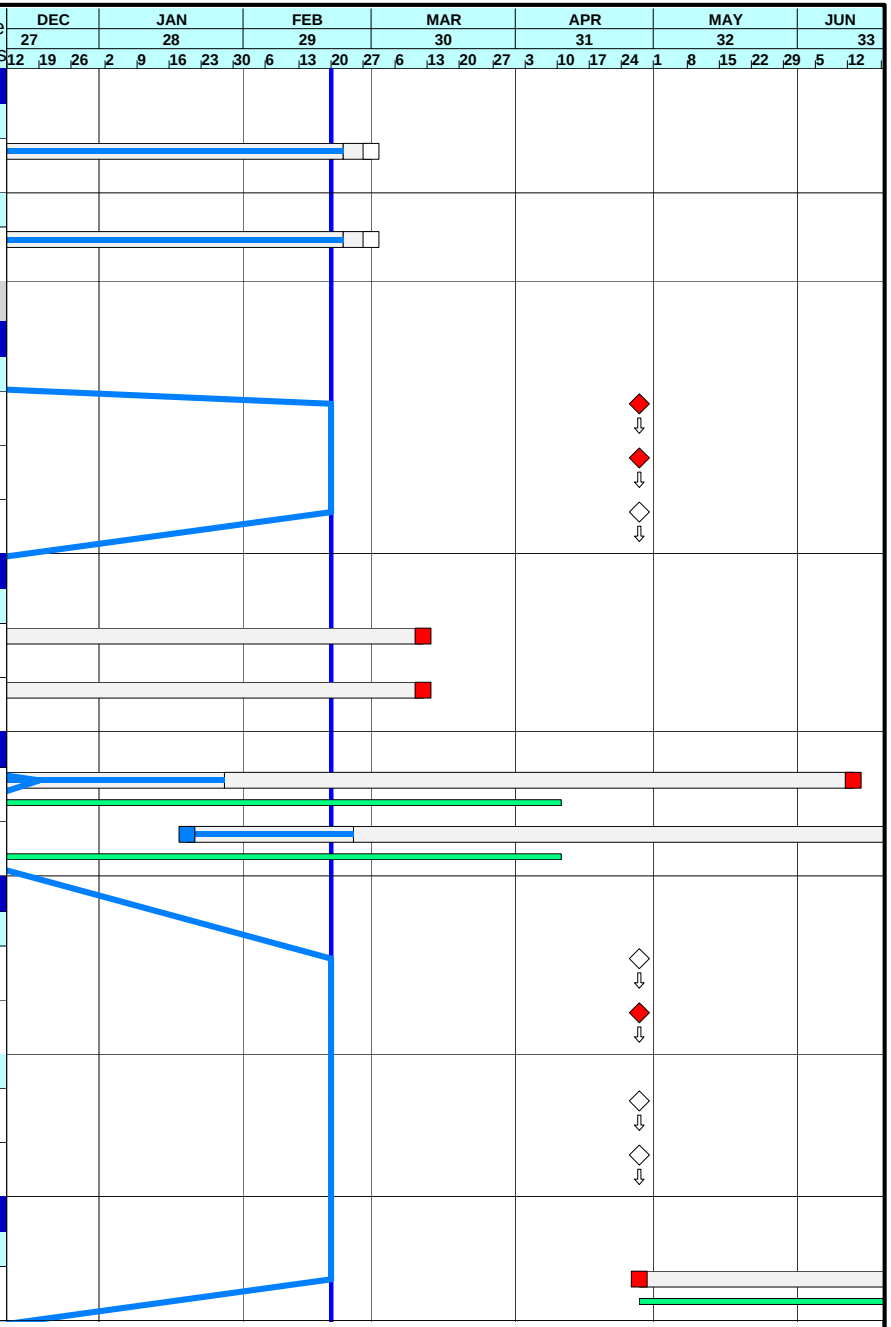
Proj. Name: W16C
Layout: 3 MONTHS ROLLING PROGRAMME
Filter: 3 MONTH ROLLING PROGRAMME
Current Proj: W16C
Target 1 Proj: BLRC
Taget 2 Proj: EOT7

Sheet 1 of 60

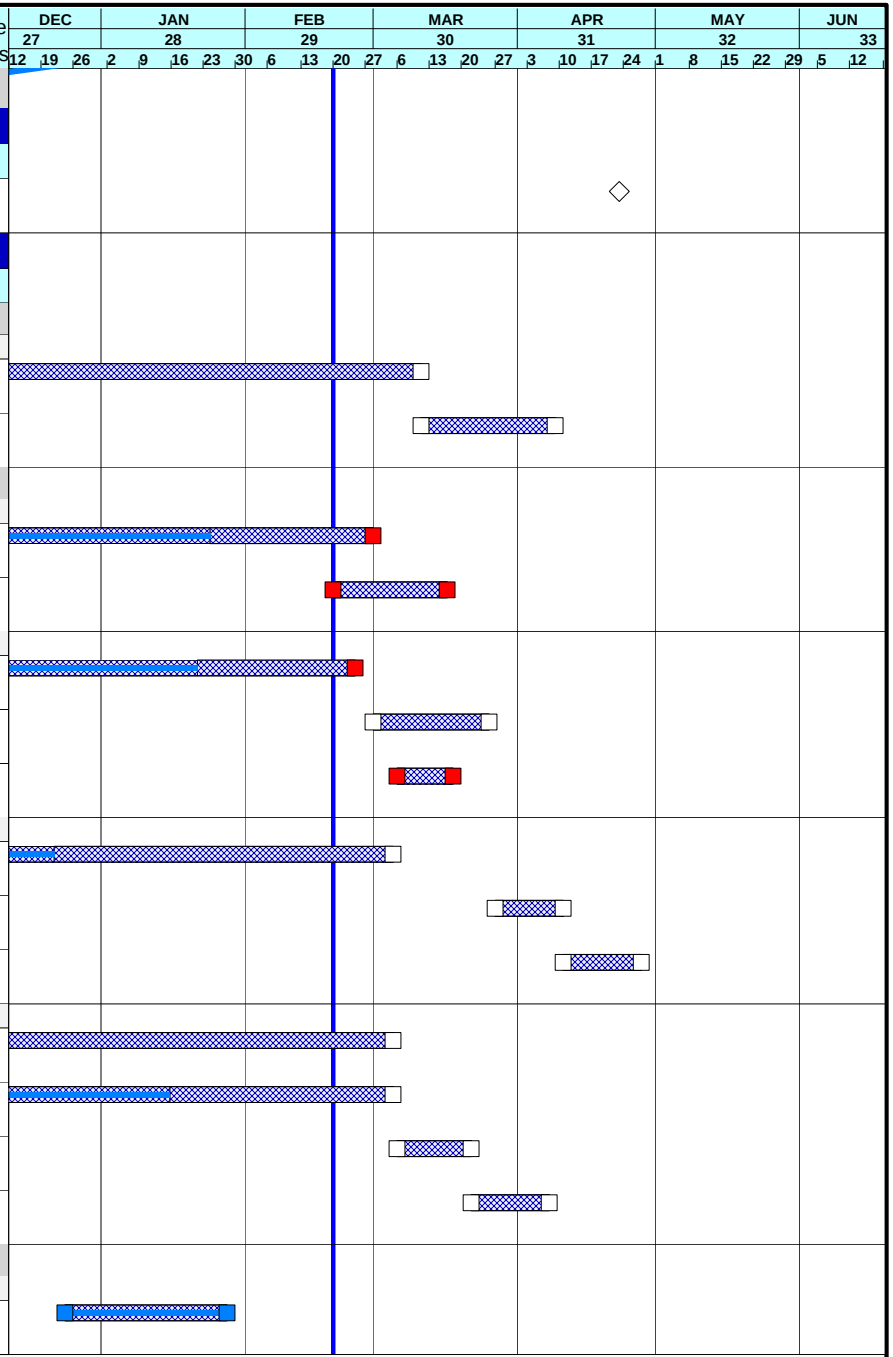
LKJV/ENT/DWP/B

Date	Revision	Checked	Approved
25FEB06	Programme update Feb (	GW/CC	RB

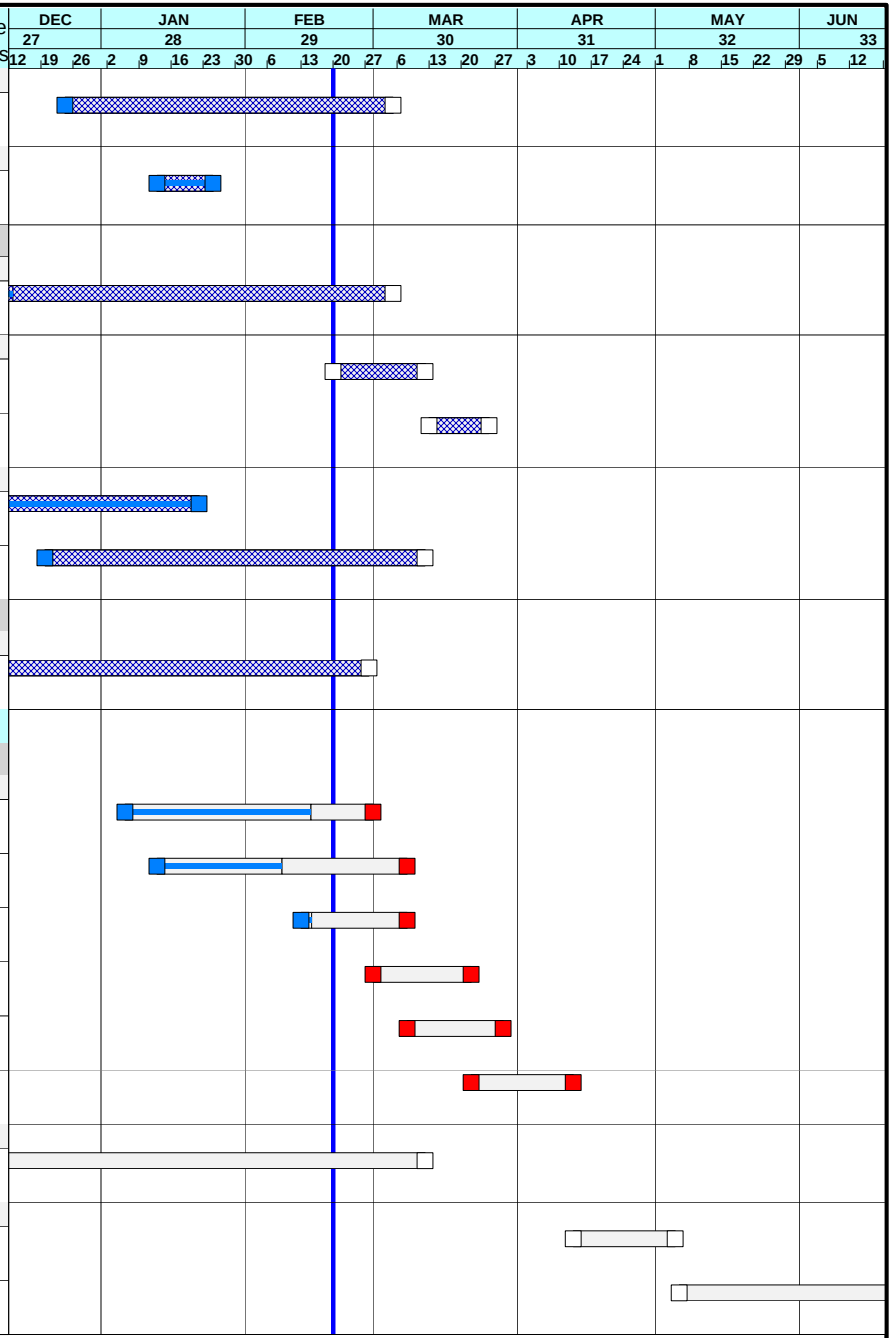
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
SEM INTERFACE WITH SHT & T3									
SHT RC FULL ENCLOSURE									
2473	Apprv.for Det.Engineering of Encl.Vent.Fans	12	07JUL04A	28FEB06	99	100	8	44	-648
T3 UNDERPASS									
2481	Apprv.for Det.Engineering of T3 Underpass	12	07JUL04A	28FEB06	99	100	8	44	-648
LAI CHI KOK VIADUCT									
CONTRACT DEFINED DATES, STAGES & SECTIONS									
PORTION ACCESS & VACATION									
ACS_M1	Access to Portions - M1	0	28APR06		0	0	0	10	0
ACS_M2	Access to Portions - M2	0	28APR06		0	0	0	10	0
ACS_M3	Access to Portions - M3	0	28APR06		0	0	0	212	0
SUBMITTALS & APPROVALS									
E&M EQPT./MTRL.APPROVALS BY ENGINEER									
8314	LCKVd-App.Enclosure Lgt sys (incl Excision NEs)	18	05AUG04A	11MAR06	80	100	18	4	-156
8318	LCKVd-App. Elect Power sys (incl Excision NEs)	18	07DEC04A	11MAR06	80	100	18	-24	-156
PROCUREMENT - MATERIAL									
8320	LCKVd-Proc & Manuf. Elect Power sys (incl Excisi	180	20MAY05A	12JUN06	65	70	90	-24	-48
8315	LCKVd-Proc & Manuf. Encl. Lgt sys (incl Excision	180	20JAN06A	18JUL06	20		80	-18	-78
INTERFACE MILESTONES									
LCK VIADUCT NOISE ENCLOSURES 2&3 [CONTRACT]									
6734	LckVd-E&M Access for cabling to Noise Encl. 2&3	0	28APR06		0	0	0	120	0
6735	LckVd-E&M Access to Noise Encl. 2 & 3 Struct	0	28APR06		0	0	0	6	0
LCK VIADUCT NOISE ENCLOSURE 1 (Sec 15, Excision)									
8338	LckVd NE1 (Exc)-E&M Access for cabling frm E SPB	0	28APR06		0	0	0	126	0
8339	LckVd NE1 (Exc) -E&M Access to N. Encl Struct	0	28APR06		0	0	0	60	0
CONSTRUCTION WORKS									
LCK VIADUCT NOISE ENCLOSURES 2&3 (Contract)									
6737	LckVd NE2&3 & But'fly Valley-Elect Works 1st Fix	72	28APR06	25JUL06	0	0	72	6	0



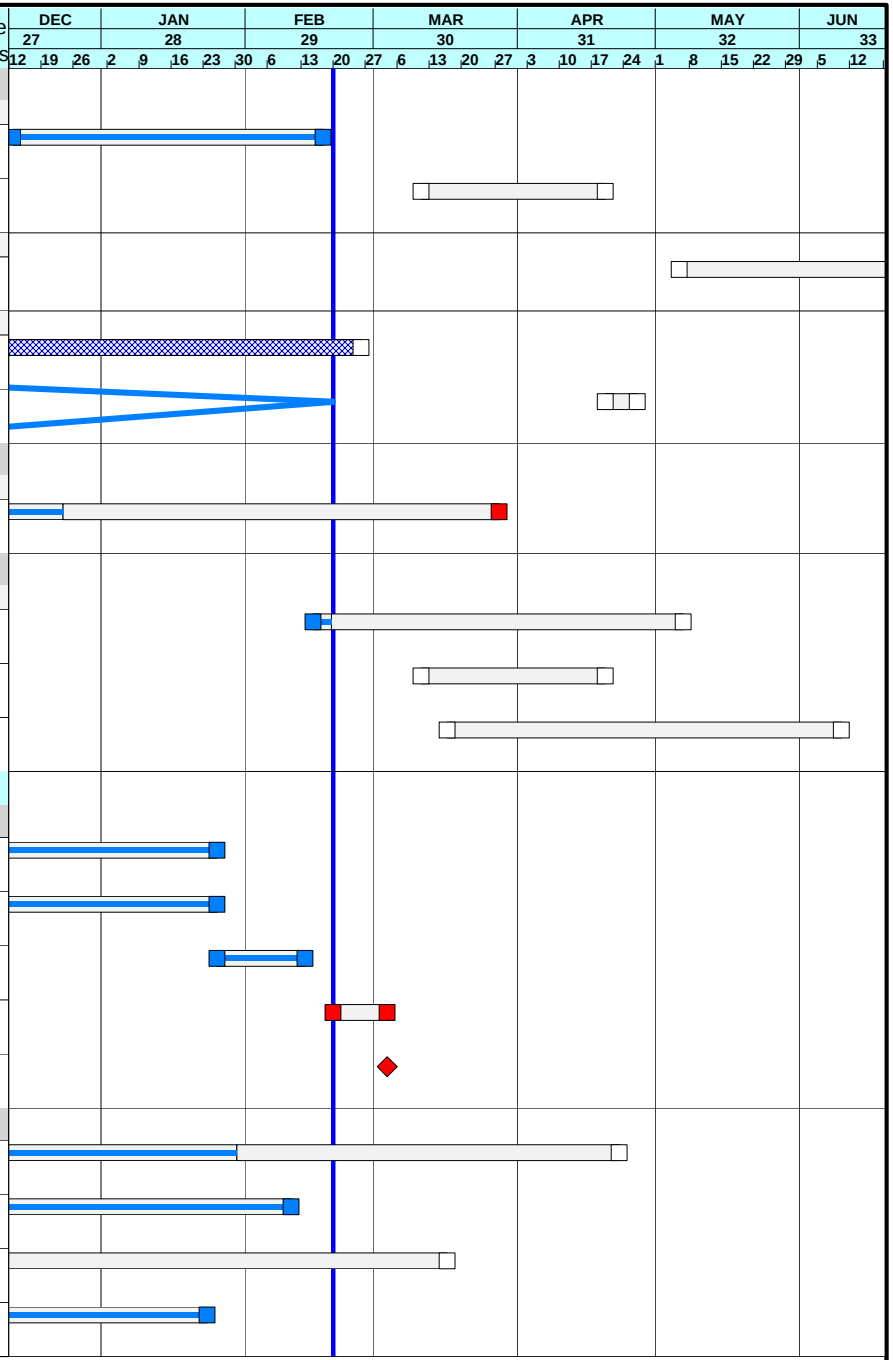
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
BUTTERFLY VALLEY									
CONTRACT KEY DATES & MILESTONES									
AREA ACCESS & VACATION DATES									
VCT_X	Release of Portions - X	0		22APR06	0	100	0	777	-258
CONSTRUCTION WORKS									
EARTHWORKS & SLOPEWORKS									
SLOPE SP-S2 & SP-S3									
SLOPE STABILISATION (SOIL NAILS,ROCK BOLTS ETC)									
1110	SP-S2/S3 Inst.Soil Nails & Test (97nr.w/3rig)	18	08SEP05A	10MAR06	0	100	17	61	-479
3798	SP-S2/S3 hydro-seeding & tensar mat	24	11MAR06	08APR06	0	100	24	188	-479
SLOPE BV-S2									
EXCAVATION (SOFT & ROCK)									
2692	BV-S2/9 (South)Slope excvtn (rock & some soft)	83	05SEP05A	28FEB06	80	100	8	-153	-240
2695	BV-S2/10 (South)Slope excvtn (rock & some soft)	22	20FEB06	16MAR06	0	100	22	-153	-221
SLOPE STABILISATION (SOIL NAILS,ROCK BOLTS ETC)									
2694	BV-S2/9 Inst.Rock bolts&Test (4nr.w/1.rig) D6/8	5	01DEC05A	24FEB06	60	100	5	-153	-239
2691	BV-S2/8 Inst.Rock bolts & Test (60nr.w/3.rig)	22	01MAR06	25MAR06	0	100	22	175	-341
2696	BV-S2/10 Row B3 Soil Nails & Test 39nr.w/2.rig	11	06MAR06	17MAR06	0	100	11	-153	-221
HYDRO-SEEDING & TENSAR MAT									
3805	BV-S2 Berm 8 hydro-seeding & tensar mat	12	20NOV05A	04MAR06	30	100	12	217	-225
3811	BV-S2 Berm 9 hydro-seeding & tensar mat	12	27MAR06	10APR06	0	100	12	175	-241
3812	BV-S2 Berm 10 hydro-seeding & tensar mat	12	11APR06	27APR06	0	100	12	175	-226
SURFACE DRAINAGE									
3694	BV-S2 Berm 7 Surface drainage	14	25APR05A	04MAR06	20	100	12	661	-334
3695	BV-S2 Berm 8 Surface drainage	14	28NOV05A	04MAR06	50	100	12	177	-237
3696	BV-S2 Berm 9 Surface drainage	14	06MAR06	21MAR06	0	100	14	177	-237
3697	BV-S2 Berm 10 Surface drainage	14	22MAR06	07APR06	0	100	14	177	-224
SLOPE BV-S3									
HYDRO-SEEDING & TENSAR MAT									
3806	BV-S3 hydro-seeding & tensarmat to +41.0mPD	60	24DEC05A	27JAN06A	100	100	0		-281



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
HYDRO-SEEDING & TENSAR MAT									
3913	BV-S3 hydro-seeding & tensarmat to +56.0mPD	24	24DEC05A	04MAR06	0	100	12	217	-244
SURFACE DRAINAGE									
1984	BV-S3 Slope Surface Drainage +56.0mPD	35	13JAN06A	24JAN06A	100	100	0		-241
SLOPE BV-S4									
SLOPE STABILISATION (SOIL NAILS,ROCK BOLTS ETC)									
2352	BV-S4/4b Row A2/A3 Soil Nail & Test 28nr.w/2rig	13	11AUG05A	04MAR06	60	100	12	64	-524
SLOPE FINISHES									
1139	11NW&434 BV-S4/1-2-3bcd-4b Hydro-seed/Tensarmat	18	20FEB06	11MAR06	0	100	18	58	-437
2380	BV-S4/3a-4a & 5 hydro-seeding & tensarmat	12	13MAR06	25MAR06	0	100	12	58	-409
SURFACE DRAINAGE									
3705	BV-S4/3 Surface Drainage	8	17MAR05A	21JAN06A	100	100	0		-506
3706	BV-S4/4 Surface Drainage	12	20DEC05A	11MAR06	0	100	18	64	-429
SLOPE SP-S1									
SURFACE DRAINAGE									
3711	Sp-S1/4 Surface Drainage	7	06JUL04A	27FEB06	40	100	7	222	-462
RC STRUCTURES									
RETAINING WALL BV-R1									
CONCRETE WORKS									
1145	BV-R1(A) RC Base Slab ch.2+060	18	06JAN06A	28FEB06	75	100	8	-22	-222
1147	BV-R1(B) RC Base Slab ch.2+070 to B1(BP wall)	18	13JAN06A	07MAR06	50	100	14	-28	-216
1146	BV-R1(A) RC Ret.Wall ch.2+060	18	13FEB06A	07MAR06	10	100	14	-10	-222
1143	BV-R1(C) Pile Capping Beam	18	01MAR06	21MAR06	0	100	18	-22	-171
1148	BV-R1(B) RC Ret.Wall ch.2+070 to B1(BP wall)	18	08MAR06	28MAR06	0	100	18	-28	-219
1160	BV-R1(C) Extend BP Wall	18	22MAR06	12APR06	0	100	18	-22	-171
EXCAVATION (SOFT & ROCK)									
2700	BV-R1 Excavation (BV-S2/8 rock)	61	23JUL05A	11MAR06	0	100	18	655	-269
FINISHES									
1144	BV-R1(C) Wall Finishes to BP Wall	15	13APR06	04MAY06	0	100	15	74	-171
1150	BV-R1 Wall finishes	60	06MAY06	17JUL06	0		60	74	-171



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
RETAINING WALL BV-R2									
CONCRETE WORKS									
1116	BV-R2 (7) Capping Beam and wall	30	13DEC05A	17FEB06A	100	100	0		-310
1117	BV-R2 (8) Capping Beam and wall	30	11MAR06	19APR06	0	100	30	61	-328
FINISHES									
1123	BV-R2 Wall finishes	60	06MAY06	17JUL06	0	100	60	61	-298
BACKFILLING									
1122	BV-R2(A&B) Granular Drain & Compacted Backfill	36	07APR05A	25FEB06	5	100	6	74	-215
1126	BV-R2(C) Granular Drain & Compacted Backfill	6	20APR06	26APR06	0	100	6	111	0
STEPPED CHANNEL & BOX CULVERT									
CONCRETE WORKS									
1911	Box culvert bays (32to43) ch.2+010 to 2+110	55	20SEP05A	27MAR06	50	100	31	-203	-251
INLET HEADWALLS									
INLET HEAD WALL									
3797	Inlet headwall ch.1+830	66	16FEB06A	06MAY06	5	100	60	169	-347
3715	Inlet headwall @SP-S2/3	30	11MAR06	19APR06	0	100	30	182	-491
3796	Inlet headwall ch.1+810	66	17MAR06	09JUN06	0	100	66	141	-375
WSD WORKS									
WSD 900 MAIN DIVERSION									
1929	Inst.900.dia pipe (incl.thrust blocks) westside	90	19JUL05A	25JAN06A	100	100	0		-339
1174	Inst.DN900 pipe (incl.thrust blocks) to BV-S4	66	01AUG05A	25JAN06A	100	100	0		-357
3163	DN900 main clean/pressure test & WSD approve	54	26JAN06A	13FEB06A	100	100	0		-375
1175	DN900 connection by WSD	12	20FEB06	03MAR06	0	100	12	-72	-447
1176	DN900 WSD Diversion Implemented	0		03MAR06	0	100	0	-72	-393
WSD 2x600 MAIN DIVERSION									
1169	Inst.2xDN600 WSD Pipe down BV-S2/6-7	90	21JUL05A	22APR06	70	100	50	56	-346
1165	Construct DN600 pipe tunnel	66	26SEP05A	10FEB06A	100	100	0		-280
1167	Inst.DN600 WSD Pipe along BV-S2/8 (CH140>200)	40	31OCT05A	16MAR06	0	100	22	18	-113
1164	Inst.DN600 WSD Pipe in Pipe Tunnel	18	29NOV05A	23JAN06A	100	100	0		-235



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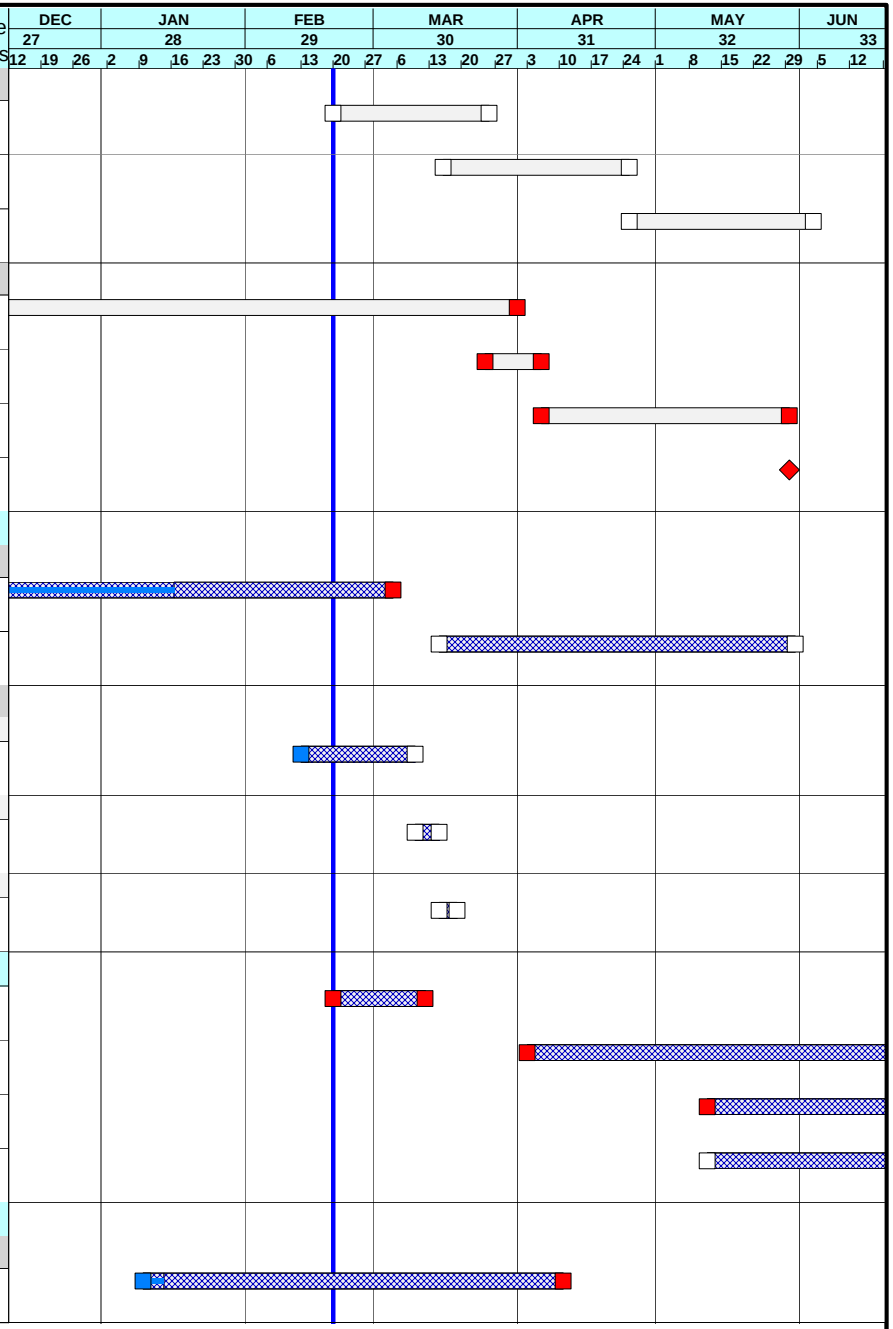
WSD 2x600 MAIN DIVERSION									
1163	Inst.DN600 WSD Pipe along BV-S2/8 (CH140>45)	30	20FEB06	25MAR06	0	100	30	29	-209
1166	Construct DN600 Pipe Bridge 'D' (CH225>280)	30	16MAR06	24APR06	0	100	30	29	-371
3791	DN600 main clean/pressure test & WSD approve	40	25APR06	03JUN06	0	100	40	36	-215
WSD 200 MAIN									
2338	Inst.DN200 pipe (incl.thrust blocks) to BV-S4	60	03OCT05A	31MAR06	20	100	35	-98	-412
2340	DN200 connection by WSD	12	25MAR06	05APR06	0	100	12	-126	-515
3164	DN200 main clean/pressure test & WSD approve	54	06APR06	29MAY06	0	100	54	-126	-515
2341	DN200 WSD Diversion Implemented	0		29MAY06	0		0	-126	-515
TERRAIN MITIGATION									
NTMM - BV-S2									
2392	NTMM - Constr.Peforated Drain Channel	24	11JUL05A	04MAR06	80	100	12	-153	-323
2350	NTMM - Afforestation of Area	60	15MAR06	30MAY06	0	100	60	149	-331
NTMM - CULVERT 'A'									
CONCRETE WORKS									
2388	Culvert 'A' - Constr.Culvert 'A' Ch.2+140	18	13FEB06A	09MAR06	0	100	16	149	-210
SOIL STABILISATION (SOIL NAILS,ROCK BOLTS ETC)									
2386	Culvert 'A' - excavate gabion benches Ch.2+140	4	10MAR06	14MAR06	0	100	4	149	-236
FINISHES									
2387	Culvert 'A' - place gabions Ch.2+140	4	15MAR06	18MAR06	0	100	4	649	-236
RECREATED STREAM									
3808	Recreated stream DN525 pipe (east) ch.1+740	18	20FEB06	11MAR06	0	100	18	-26	-510
1927	Recreated stream (east) ch.1+720 to 2+010	64	03APR06	23JUN06	0	100	64	-44	-182
3809	Recreated stream pond [east) ch.1+880	36	12MAY06*	23JUN06	0	100	36	-44	-182
3810	Recreated stream pond [east) ch.1+920	36	12MAY06	23JUN06	0	100	36	129	-182
EXCISION WORKS - NOISE BARRIERS & ENCLOSURES									
NOISE BARRIER (SB)									
2741	SB Barrier.Fnds.-RC Base (C2) 7m	58	10JAN06A	10APR06	5	100	42	-76	-180



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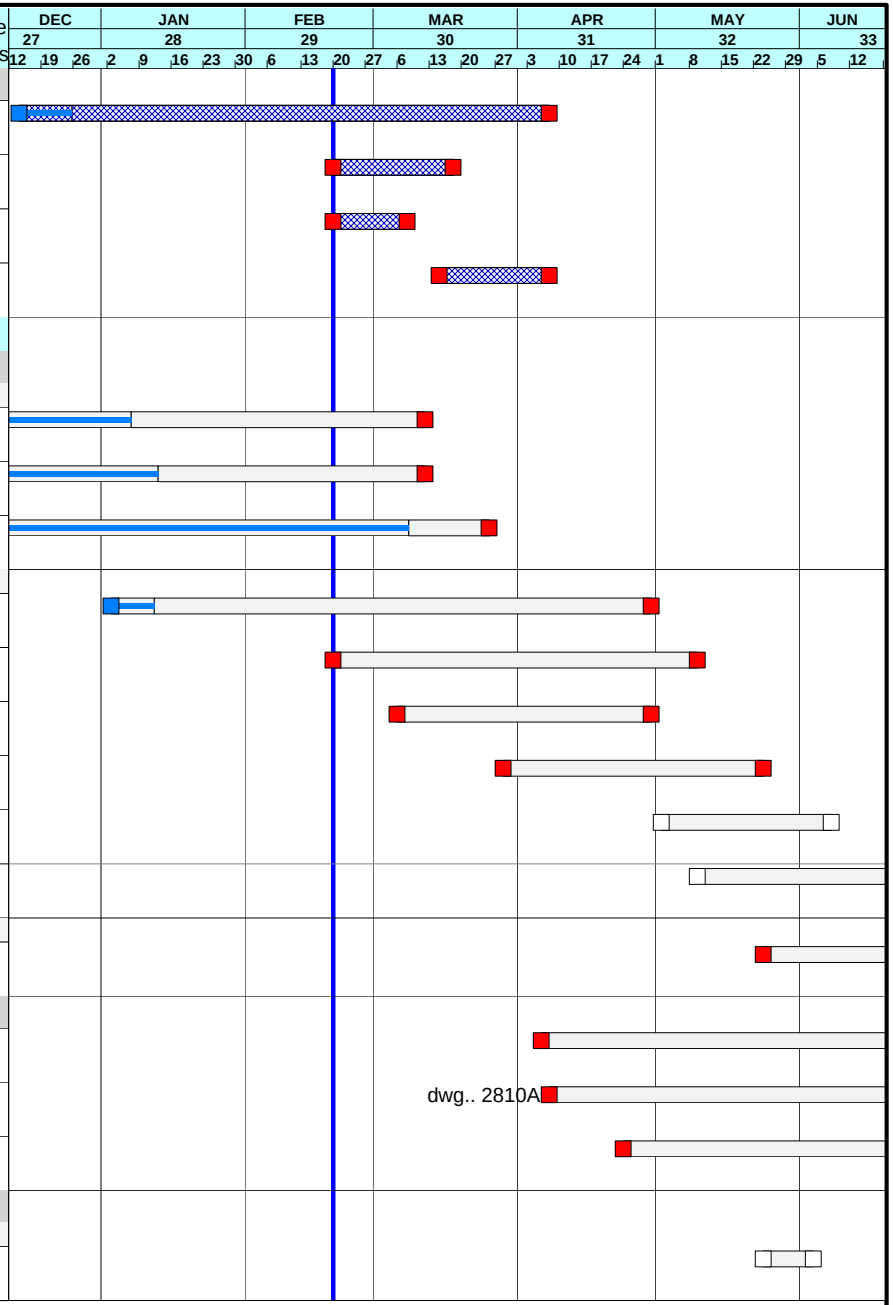
NOISE SEMI-ENCLOSURE [SB]									
2739	SB Semi-Encl.Fnds.- RC Base (C3,C4,I2) Type B	51	14DEC05A	07APR06	10	100	40	-223	-288
2735	SB Semi-Encl.Fnds.- RC Base (C4) Type D	23	20FEB06	17MAR06	0	100	23	-206	-285
2737	SB Semi-Encl.Fnds.- RC Base (I2) Type E	14	20FEB06	07MAR06	0	100	14	-197	-262
2733	SB Semi-Encl.Fnds. - RC Base (C3) Type C	20	15MAR06	07APR06	0	100	20	-223	-326
SB/NB ROADWORKS & FINISHES									
ROADS - FORMATION									
FILLING									
1103	BV Compact.Fill to Form.ch.1+920 to 2+020	84	14JUN04A	11MAR06	90	100	18	-201	-305
1102	BV Compact.Fill to Form.ch.2+020 - 2+200	48	11AUG04A	11MAR06	90	100	18	-201	-341
2732	BV Compact.Fill to Form.ch.1+860 to 1+920	78	03OCT05A	25MAR06	90	100	30	-154	-275
DRAINAGE									
2381	SB/NB Sth.Appr.Rd.Drainage ch.2+030 - 2+200	114	03JAN06A	29APR06	8	100	56	-204	-265
2727	BV.Appr.Rd.Drainage ch.1+780 to 1+920	62	20FEB06	09MAY06	0	100	62	-162	-245
1178	BV.Appr.Rd.Drainage ch.1+920 to 1+960	44	06MAR06	29APR06	0	100	44	-174	-299
2726	SB/NB Sth.Appr.Rd.Drain Testing ch.2+030 - 2+200	42	29MAR06	23MAY06	0	100	42	-204	-265
2721	BV.Appr.Rd.Drain Testing ch.1+920 to 1+960	30	02MAY06	07JUN06	0	100	30	28	-299
2728	BV.Appr.Rd.Drain Testing ch.1+860 to 1+920	36	10MAY06	21JUN06	0		36	66	-245
SURFACING									
2383	SB/NB Sth.Appr.Rd.Surf.(Type I) ch.2+020 - 2+200	89	24MAY06	06SEP06	0		89	-204	-232
ROADS - FINISHES									
2742	TCSS Ducts NB & SB Carriageway ch.1+800 to 1+900	90	06APR06	27JUL06	0	100	90	-162	-221
2717	BV CLP Inst.HV cable duct to SP	60	08APR06	23JUN06	0	100	60	-156	-258
1253	TCSS Ducts NB & SB Carriageway ch.1+920 to 2+200	90	24APR06	10AUG06	0		90	-174	-259
KIOSKS									
KIOSK 3									
2260	Kiosk K3 - Substructure	9	24MAY06	03JUN06	0		9	56	-265



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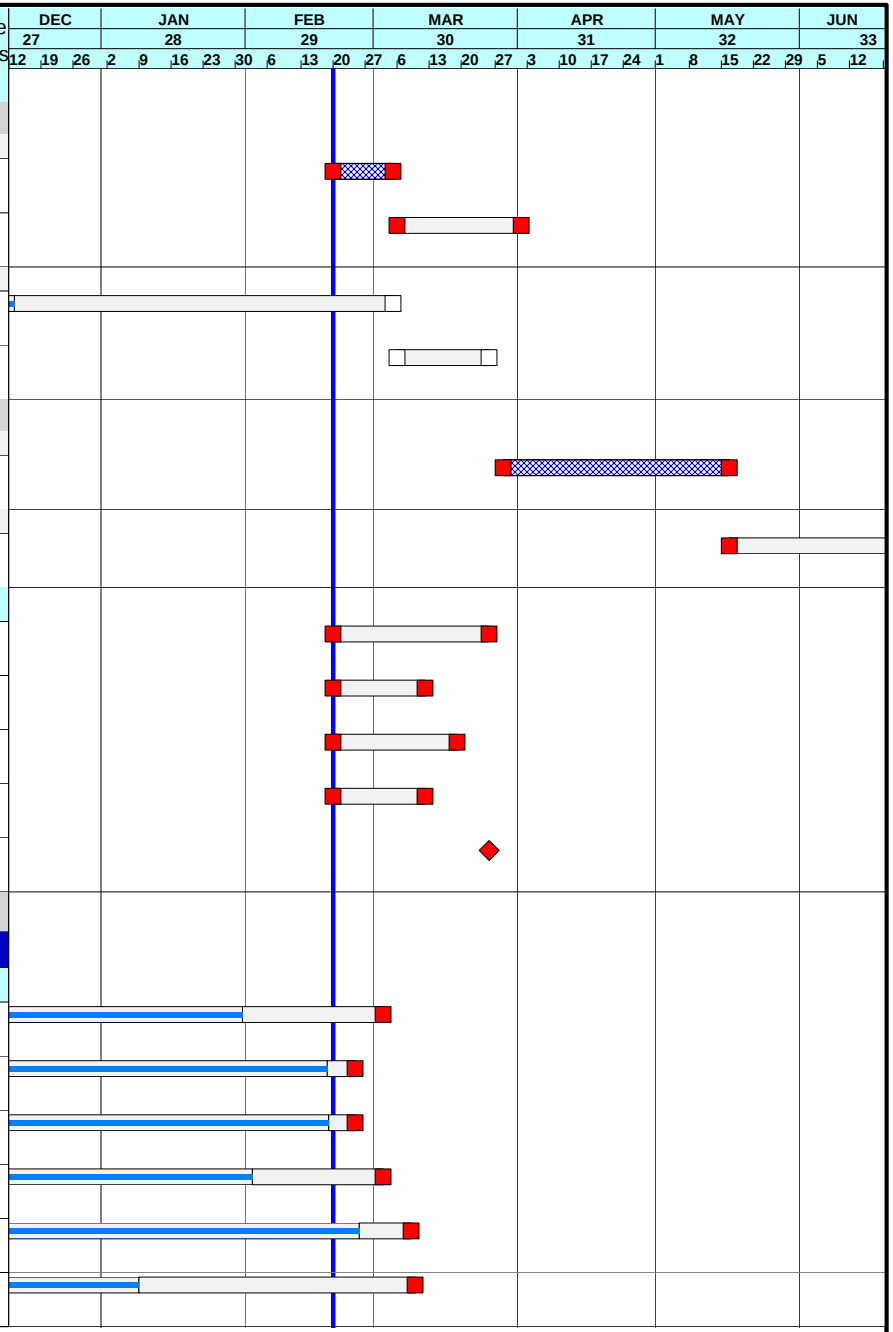
EVA ROADWORKS & FINISHES									
SB (EAST SIDE) EVA ROADWORKS									
FILLING									
1980	BV Fill Temp.covered culvert ch.2+000	12	20FEB06	04MAR06	0	100	12	-52	-182
2378	BV Fill to Formation (east) ch.1+840 - 1+980	24	06MAR06	01APR06	0	100	24	-52	-182
DRAINAGE									
1979	SB EVA rd.drainage (east) ch.2+000 to 2+200	31	11APR05A	04MAR06	75	100	12	74	-190
1978	SB EVA rd.drain testing (east) ch.2+000 to 2+200	18	06MAR06	25MAR06	0	100	18	74	-190
NB (WESTSIDE) EVA ROADWORKS									
FILLING									
1149	Granular Drain & Comp.B/Fill to BV-R1 Wall	36	29MAR06	16MAY06	0	100	36	-28	-177
DRAINAGE									
2730	NB EVA Rd.Drainage (west) ch.2+020 to 2+190	31	17MAY06	22JUN06	0		31	-28	-159
EXCISION WORK-SHEK LEI PUI WATER TREATMENT PLANT									
2751	Soilid Barrier Type II - Cladding	30	20FEB06*	25MAR06	0	100	30	-152	-297
2752	Soilid Barrier Type I - Cladding	18	20FEB06	11MAR06	0	100	18	-146	-267
2753	Soilid Barrier Type III - Cladding	24	20FEB06	18MAR06	0	100	24	-146	-249
2754	Soilid Barrier Type IV - Cladding	18	20FEB06	11MAR06	0	100	18	-140	-225
TARG1	Target Date WTW - complete	0		25MAR06	0	100	0	-191	-294
ENT SOUTH PORTAL VENTILATION BUILDING									
SUBMITTALS & APPROVALS									
E&M EQPT.& MATERIAL.SUBMITTALS									
8201	EntSpBldg-Sub.MVAC MCC, power & control sys	54	02JUL04A	02MAR06	95	100	10	-132	-289
8212	EntSpBldg-Sub.FS AFA & FM200 sys	54	05JUL04A	24FEB06	99	100	5	-17	-150
8207	EntSpBldg-Sub.FS wet sys	54	05AUG04A	24FEB06	99	100	5	-44	-273
8208	EntSpBldg-Sub.MVAC / TVF pneumatic sys	54	14AUG04A	02MAR06	95	50	10	-58	-100
8200	EntSpBldg-Sub.CMCS & ELV sys	78	26AUG04A	08MAR06	98	100	15	-108	-249
8205	EntSpBldg-Sub.PD irrig. sys	54	04FEB05A	09MAR06	85	100	16	-80	-290



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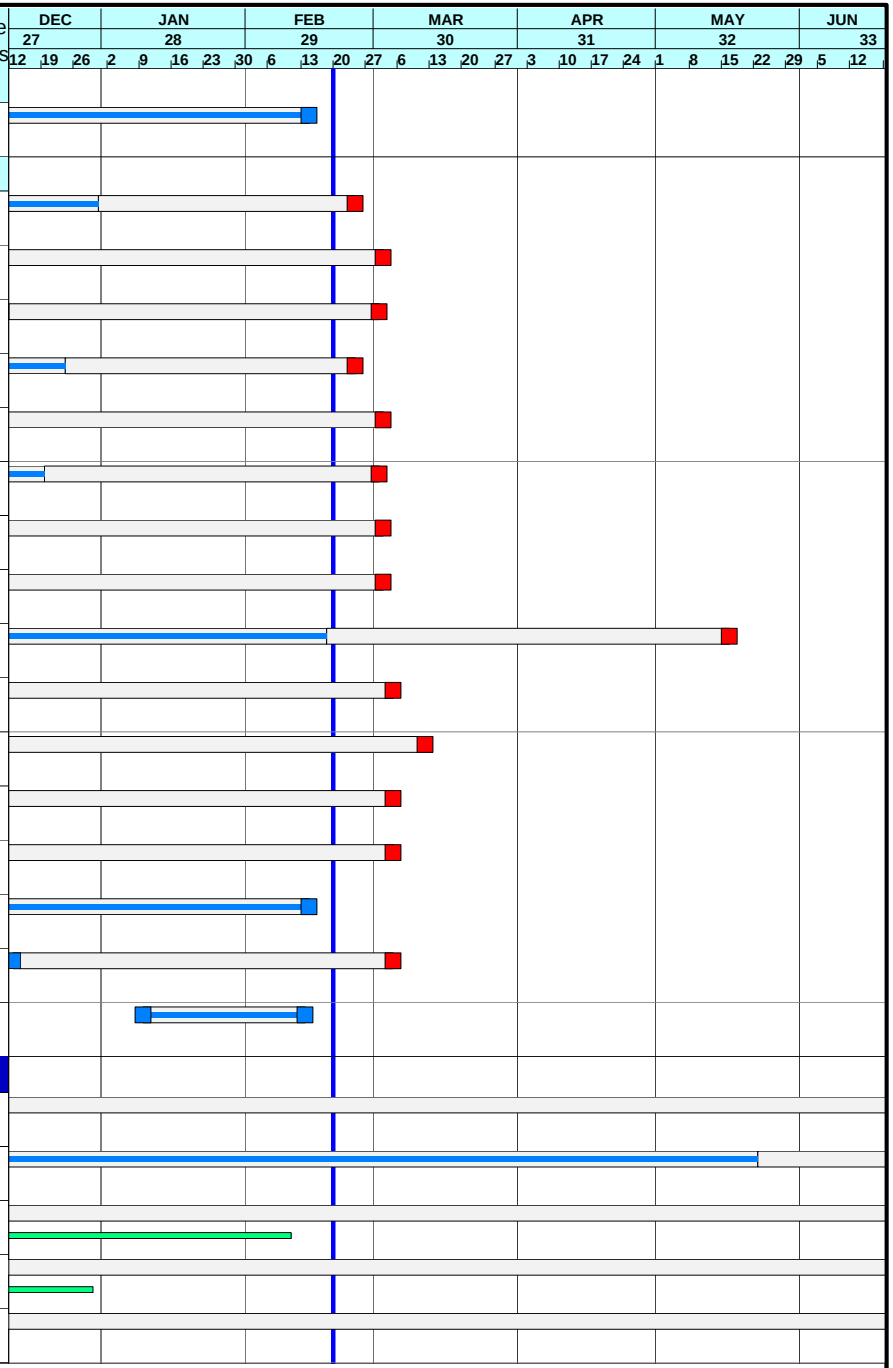
E&M EQPT.& MATERIAL.SUBMITTALS									
1918	SP.Bldg. - Prep & submit door & window detail	24	17FEB05A	14FEB06A	100	100	0		-206
E&M EQPT.& MATERIAL APPROVALS									
8491	EntSpBldg-App. building related luminaires	18	18AUG04A	24FEB06	90	100	5	-13	-222
6006	EntSpBldg-App. FS wet sys	18	04SEP04A	02MAR06	80	100	10	-44	-260
6036	EntSpBldg-App. FS AFA & FM200 sys	18	14SEP04A	01MAR06	85	100	9	-17	-136
6192	EntSpBldg-App. of CMCS & ELV sys	18	20SEP04A	24FEB06	88	100	5	-108	-221
6005	EntSpBldg-App. MVAC mech.vent. sys	18	23SEP04A	02MAR06	80	100	10	-102	-223
6003	EntSpBldg-App. PD cleans. & flush water sys	18	04NOV04A	01MAR06	85	100	9	-41	-265
6742	EntSpBldg-App. MVAC MCC, power & control sys	18	12NOV04A	02MAR06	80	100	10	-132	-271
7615	EntSpBldg-App. HV/LV main & submain cable sys	18	07DEC04A	02MAR06	80	100	10	-16	-238
6750	EntSpBldg-App. MVAC / TVF pneumatic sys	18	07MAR05A	16MAY06	80		10	-106	-140
1939	SP.Bldg. - Approve louvre details	24	07APR05A	04MAR06	50	100	12	-86	-258
6004	EntSpBldg-App. PD irrig. sys	18	05MAY05A	11MAR06	30	100	18	-80	-274
1919	SP.Bldg. - Approve door & window details	24	07MAY05A	04MAR06	50	100	12	-56	-198
1947	SP.Bldg. - Approve slate cladding design	24	15JUN05A	04MAR06	50	100	12	-86	-258
1945	SP.Bldg. - Approve fall arrest system	24	14OCT05A	14FEB06A	100	100	0		-128
1943	SP.Bldg. - Approve aluminium cladding	24	13DEC05A	04MAR06	0	100	12	-86	-258
1941	SP.Bldg. - Approve balustrade & metal works	24	10JAN06A	13FEB06A	100	100	0		-239
PROCUREMENT - MATERIAL									
6008	EntSpBldg-Proc & Manuf. LV power dist. equip't	180	20MAR05A	08JUL06	40	100	50	-156	-184
6007	EntSpBldg-Proc. & Manuf. of HV dist. equip't	180	25MAR05A	08JUL06	90	100	30	-168	-208
6079	EntSpBldg-Proc & Manuf. FS AFA & FM200 sys	120	25MAR05A	28JUL06	40	90	90	-47	-136
6193	EntSpBldg-Proc. & Manuf. of CMCS & ELV sys	180	25MAR05A	29JUL06	20	100	130	-108	-166
6743	EntSpBldg-Proc & Manuf. MCC, power & control sys	180	25MAR05A	29JUL06	20	100	130	-132	-211



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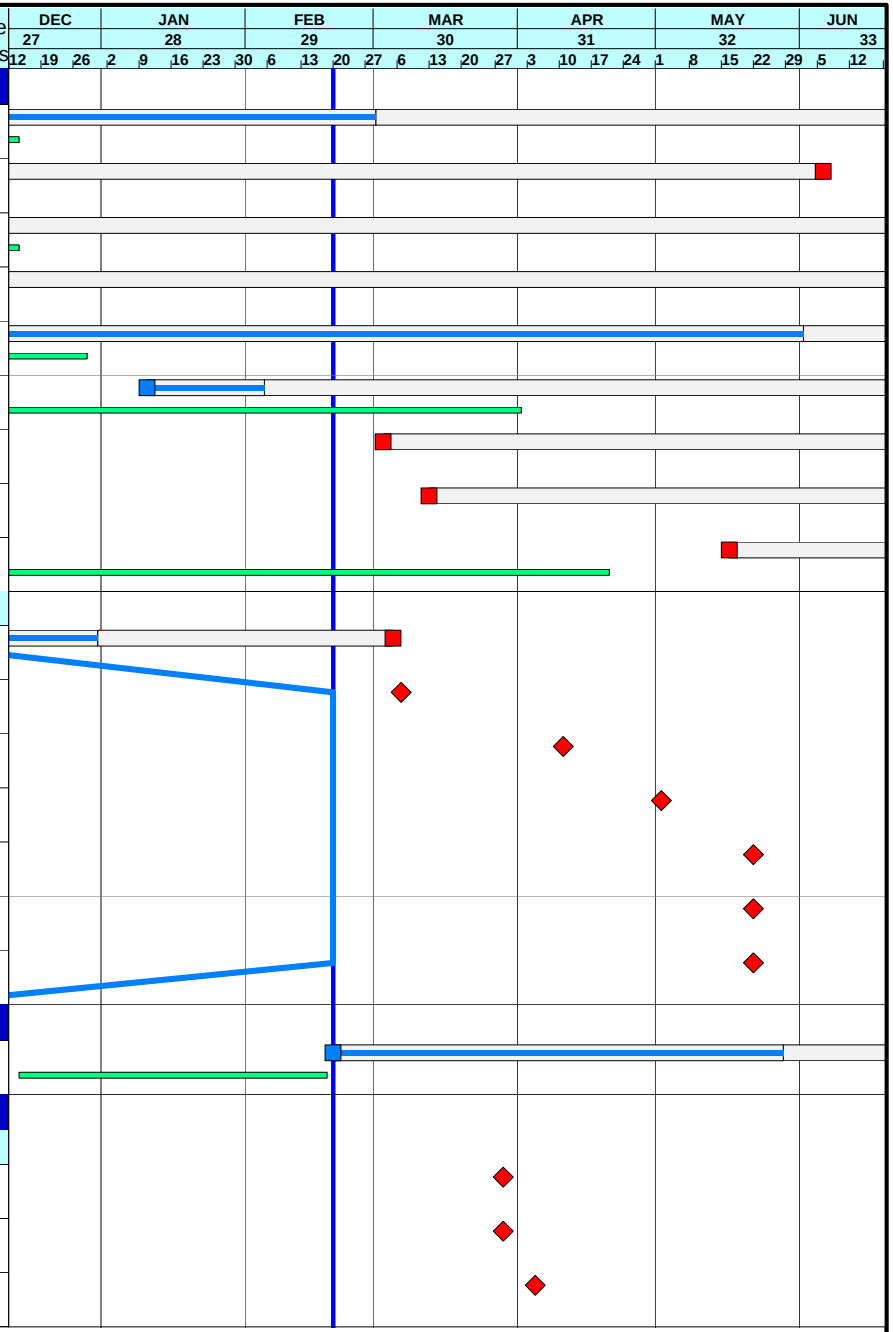
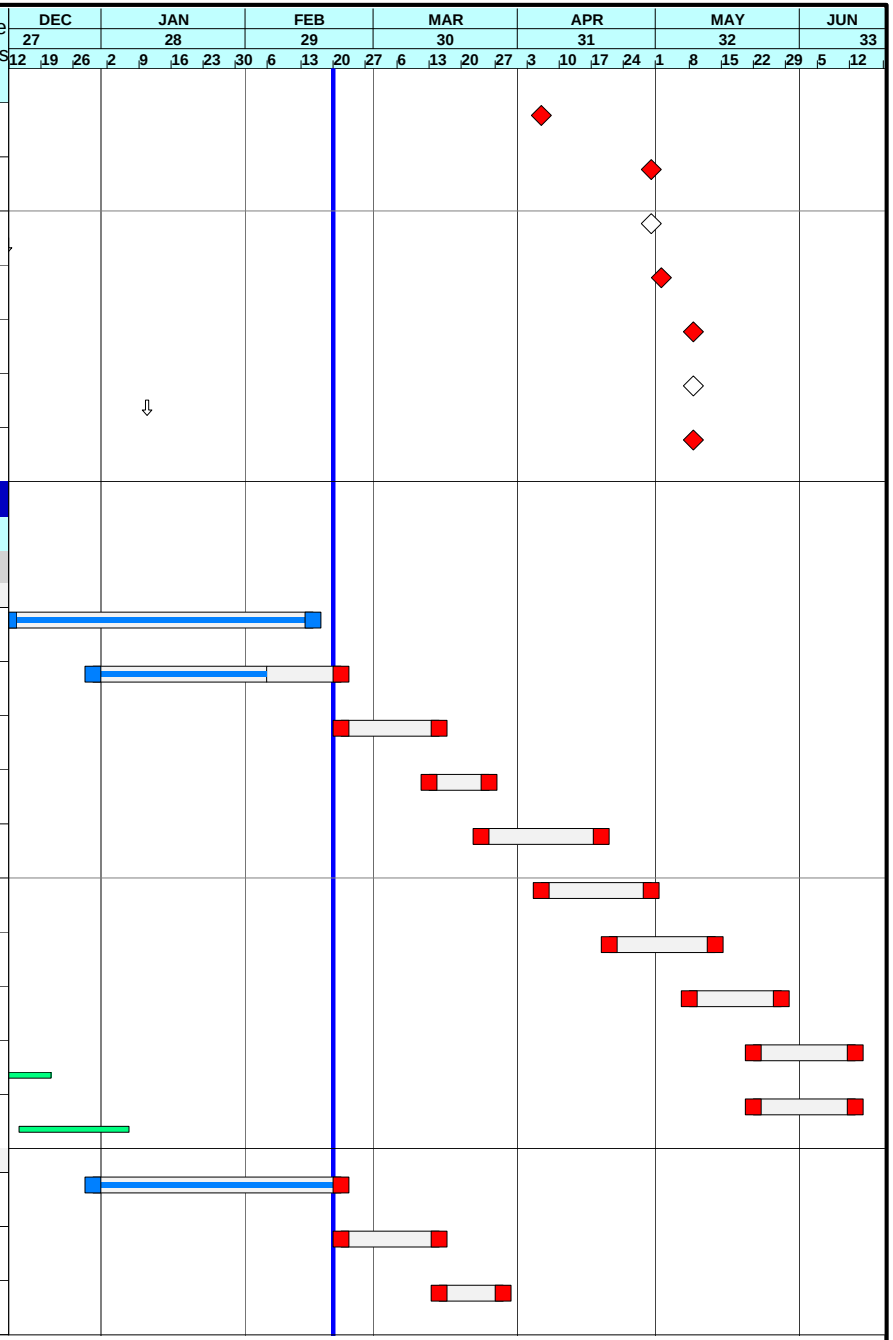
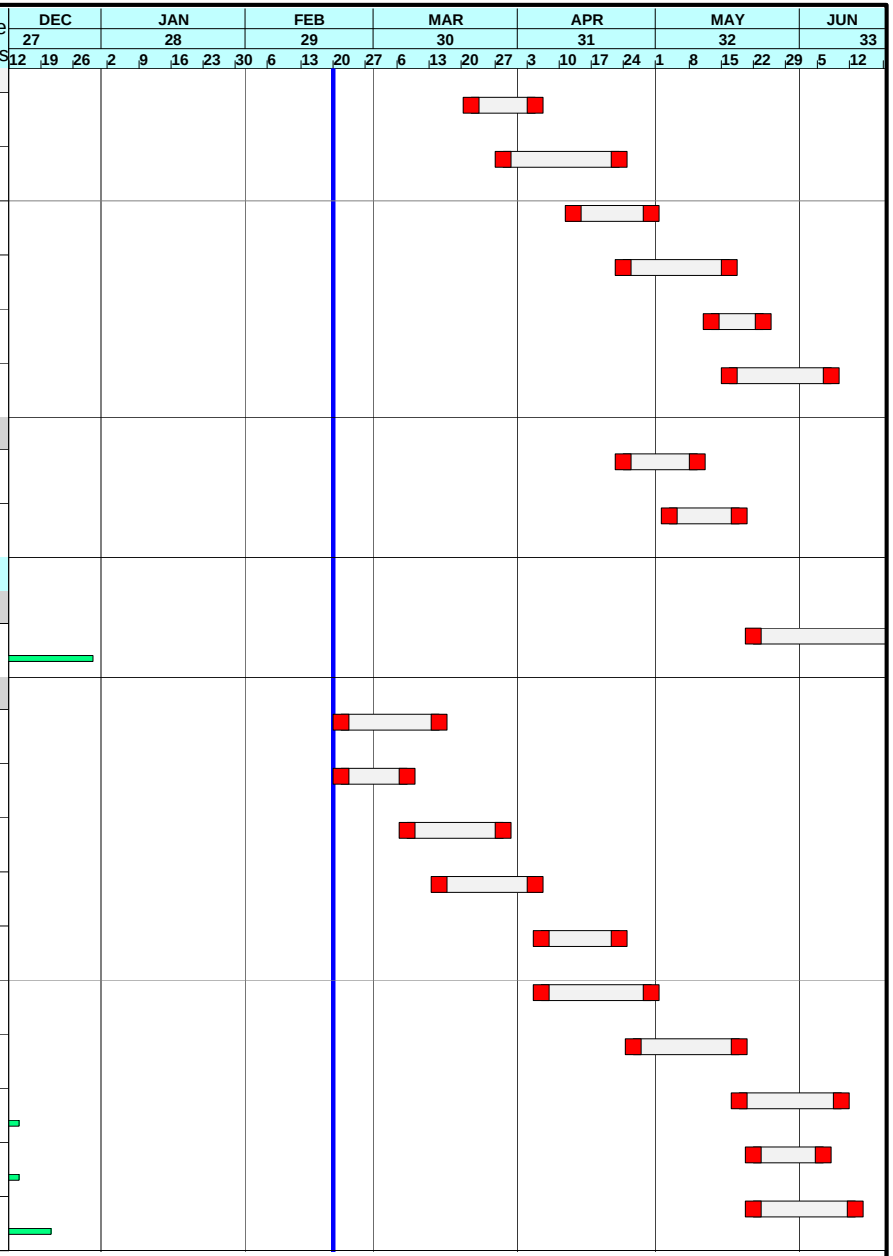
PROCUREMENT - MATERIAL									
7616	EntSpBldg-Proc & Manuf. HV/LV cable	180	20MAY05A	01AUG06	65	100	63	-138	-180
6012	EntSpBldg-Proc & Manuf. FS wet sys	120	06JUN05A	05JUN06	30	100	84	-44	-214
6761	EntSpBldg-Proc & Manuf. TVF,Ductwks & Cont'l sys	180	09JUN05A	04JUL06	40	100	108	-74	-156
6010	EntSpBldg-Proc & Manuf. Cleans & flush water sys	120	30SEP05A	22JUN06	10	100	90	-41	-235
8492	EntSpBldg-Proc & Manf bldg related luminaires	180	23NOV05A	22JUN06	90	100	30	-77	-136
6035	EntSpBldg-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	21SEP06	10		90	-82	-140
6009	EntSpBldg-Proc & Manuf. MVAC mech.vent. sys	120	03MAR06	29JUL06	0	100	120	-102	-223
6011	EntSpBldg-Proc & Manuf. PD irrig. sys	120	13MAR06	08AUG06	0	100	120	-80	-274
6751	EntSpBldg-Proc & Manuf. MVAC / TVF pneumatic sys	120	17MAY06	06OCT06	0		120	-106	-140
ABWF WORKS									
1951	SP.Bldg. - Procure aluminium cladding	180	19APR05A	04MAR06	80	100	12	-86	-78
2030	SP.Bldg. - Initial deliver balust & metal works	0	07MAR06		0	100	0	-27	0
1977	SP.Bldg. - Initial deliver doors & windows	0	11APR06		0		0	-56	0
2018	SP.Bldg. - Initial deliver fall arrest system	0	02MAY06		0		0	-16	0
2017	SP.Bldg. - Initial delivery louvres	0	22MAY06		0		0	-86	0
2019	SP.Bldg. - Initial deliver slate cladding	0	22MAY06		0		0	-86	0
2029	SP.Bldg. - Initial deliver aluminium cladding	0	22MAY06		0		0	-86	0
MAJOR EQUIPMENT DELIVERY									
7617	EntSpBldg-Del. HV/LV main & submain cable	48	20FEB06A	02SEP06	50		22	-138	-160
E&M ACCESS DATES									
SOUTH PORTAL BUILDING									
1817	Int M/S - ENT SPB - E&M access - G/F	0		28MAR06	0		0	-46	-138
6023	EntSpBldg-E&M access to G/F	0	29MAR06*		0		0	-46	-138
1838	Int M/S - ENT SPB - E&M access - 1/F	0		04APR06	0		0	-58	-138



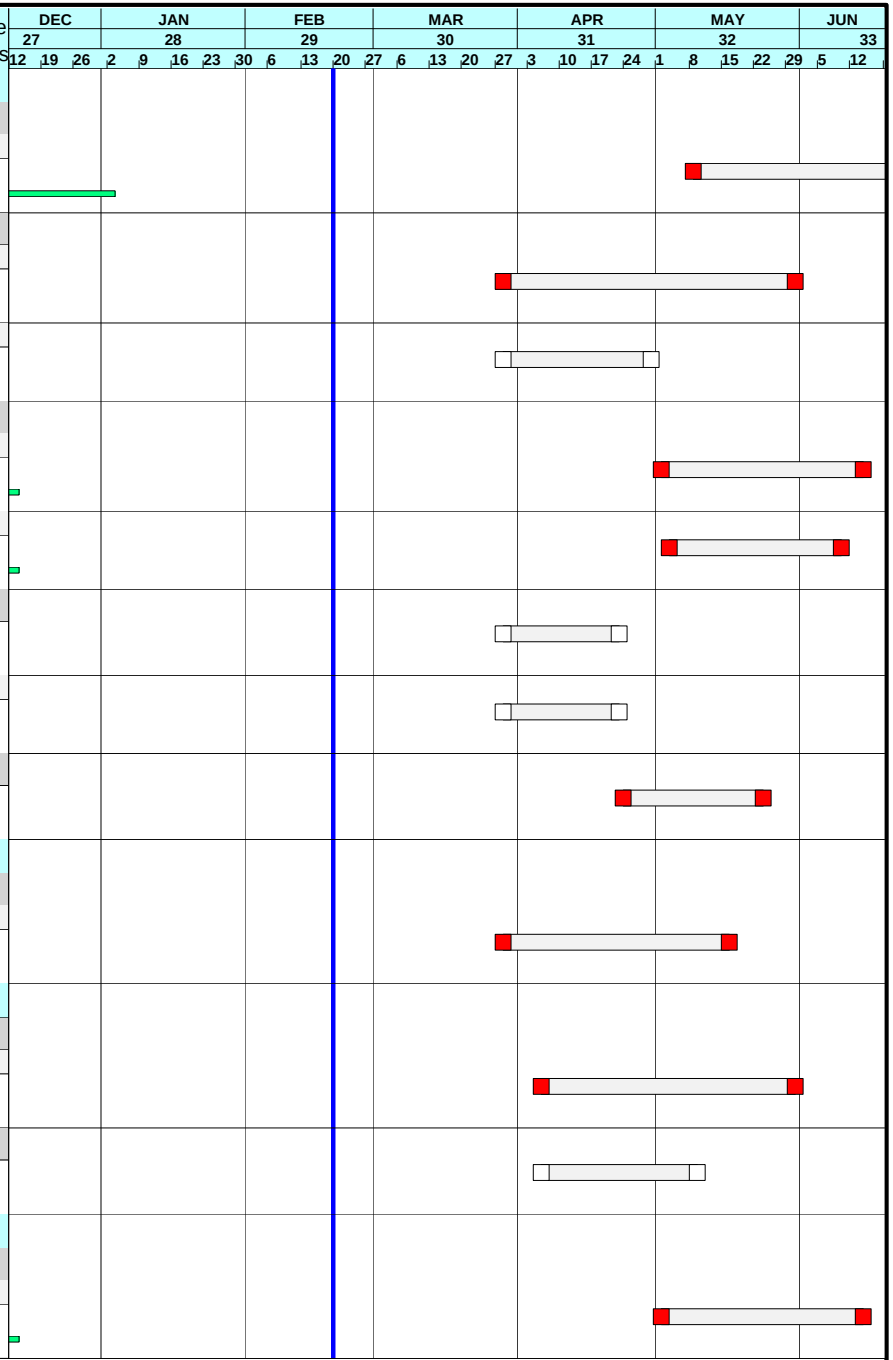
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
SOUTH PORTAL BUILDING									
6025	EntSpBldg-E&M access to 1/F	0	06APR06*		0		0	-58	-138
1839	Int M/S - ENT SPB - E&M access - 2/F (partial)	0		29APR06	0		0	-118	-140
4001	Int M/S - ENT SPB - E&M access - 2/F (full)	0		29APR06*	0		0	617	-106
6021	EntSpBldg-E&M access to 2/F (partial access)	0	02MAY06*		0		0	-118	-140
1840	Int M/S - ENT SPB - E&M access - 3/F (partial)	0		08MAY06	0		0	-117	-136
4002	Int M/S - ENT SPB - E&M access - 3/F (full)	0		08MAY06*	0		0	612	-88
6015	EntSpBldg-E&M access to 3/F (partial access)	0	09MAY06		0		0	-117	-136
CONSTRUCTION									
SUPERSTRUCTURE									
RC WORKS									
NB CARRIAGEWAY & CENTRAL RESERVE									
1196	SP.Bldg - RC Trans Slab 2FL.+80.45mPD GL.H-S/2-7	20	12DEC05A	15FEB06A	100	100	0		-133
1192	SP.Bldg. - RC Cols.& Walls to 2FL.GL.H-S/10-12	18	30DEC05A	21FEB06	70	100	2	-117	-164
1197	SP.Bldg. - RC Cols.& Walls to 3.FL.GL.H-T/7-3	18	22FEB06	14MAR06	0	100	18	-117	-140
1198	SP.Bldg. - RC S/Slab U2 FL.+81.15mPD GL.H-T/7-3	12	13MAR06	25MAR06	0	100	12	-117	-138
1199	SP.Bldg. - RC S/Slab 3FL.+87.40mPD GL.H-T/7-3	18	24MAR06	18APR06	0	100	18	-117	-136
1200	SP.Bldg. - RC Cols. & Walls to 4FL.GL.H-T/7-3	18	06APR06	29APR06	0	100	18	-80	-134
1201	SP.Bldg. - RC S/Slab 4FL.+95.30mPD GL.H-T/7-3	18	21APR06	13MAY06	0		18	-80	-132
1202	SP.Bldg. - RC Cols. & Walls to 5FL.GL.H-T/7-3	18	08MAY06	27MAY06	0		18	-74	-132
1203	SP.Bldg. - RC S/Slab 5FL +102.35mPD GL.H-D/7-1	18	22MAY06	12JUN06	0		18	-74	-132
1204	SP.Bldg. - RC Stairs GL.H-T/7-3	18	22MAY06	12JUN06	0		18	-56	-120
SB CARRIAGEWAY									
1208	SP.Bldg - RC Trans Slab 2FL.+80.45mPD GL.H-S/1-2	15	30DEC05A	21FEB06	98	100	2	-118	-143
1209	SP.Bldg. - RC Cols.& Walls to 3FL.GL.H-T/1-3	18	22FEB06	14MAR06	0	100	18	-118	-146
1210	SP.Bldg. - RC S/Slab U2FL.+81.15mPD GL.H-T/1-3	12	15MAR06	28MAR06	0	100	12	-118	-146



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
SB CARRIAGEWAY									
1211	SP.Bldg. - RC S/Slab 3FL.+87.40mPD GL.H-T/1-3	12	22MAR06	04APR06	0	100	12	-109	-146
1212	SP.Bldg. - RC Cols.& Walls to 4FL.GL.H-T/1-3	18	29MAR06	22APR06	0	100	18	-70	-146
1213	SP.Bldg. - RC S/Slab 4FL.+95.30mPD GL.H-T/1-3	12	13APR06	29APR06	0		12	-70	-146
1214	SP.Bldg. - RC Cols.& Walls to 5FL.GL.H-T/1-3	18	24APR06	16MAY06	0		18	-70	-146
1215	SP.Bldg. - RC S/Slab 5FL +102.35mPD GL.H-T/1-3	9	13MAY06	23MAY06	0		9	-67	-146
1216	SP.Bldg. - RC Stairs GL.H-T/1-3	18	17MAY06	07JUN06	0		18	-70	-143
STRUCTURAL STEELWORKS									
1218	SP.Bldg. - Crane beams to underside of U2F	12	24APR06	09MAY06	0		12	2	-140
1223	SP.Bldg. - Crane beams to underside of 3FL	12	04MAY06	18MAY06	0		12	-6	-136
ARCHITECTURAL & BUILDER'S WORKS									
ROOFING & EXTERNAL FACADE									
1260	SP.Bldg.Ext Louvre & cladding 2FL to 3FL	30	22MAY06	26JUN06	0		30	-86	-138
BUILDER'S WORK									
1219	SP.Bldg.W/Proof Tank/Pits & Test GF GL.H-S/10-12	18	22FEB06	14MAR06	0	100	18	-100	-138
1220	SP.Bldg.Plinths GL.	12	22FEB06	07MAR06	0	100	12	-100	-138
1526	SP.Bldg. Wet Trades GL	18	08MAR06	28MAR06	0	100	18	-84	-138
1264	SP.Bldg. Wet Trades 1FL	18	15MAR06	04APR06	0	100	18	-90	-138
1221	SP.Bldg.Plinths 2FL.	12	06APR06	22APR06	0	100	12	-112	-140
1265	SP.Bldg. Wet Trades 2FL	18	06APR06	29APR06	0	100	18	-118	-140
1266	SP.Bldg. Wet Trades 3FL	18	26APR06	18MAY06	0		18	-117	-136
1552	SP.Bldg. - Ext. Doors & Windows (frame)	18	19MAY06	09JUN06	0		18	-84	-136
1222	SP.Bldg.Plinths 4FL.	12	22MAY06	05JUN06	0		12	-38	-132
1267	SP.Bldg. Wet Trades 4FL (Up Plen)	18	22MAY06	12JUN06	0		18	-44	-132



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
E&M - GENERAL									
MVAC WORKS									
MCC, POWER & CONTROL									
6745	EntSpBldg-MCC, power & control 1st fix	42	09MAY06	27JUN06	0		42	-57	-136
FS WORKS									
FS MAJOR EQUIPMENT									
6028	EntSpBldg-Hydrant Pump & Tank set 1st fix	48	29MAR06	30MAY06	0		48	8	-138
TUNNEL HYDRANT + HOSE REEL									
6777	EntSpBldg-ENT Tunnel (Hyd/HR) pumps set 1st fix	24	29MAR06	29APR06	0		24	62	-138
ELECTRICAL WORKS									
HV POWER DISTRIBUTION MAJOR EQPT.									
6027	EntSpBldg-HV power dist. sys 1st fix	36	02MAY06	14JUN06	0		36	-112	-140
EARTHING & LIGHTNING PROTECTION									
6014	EntSpBldg-Earth'g & lightn'g - Earth Mat & Rods	30	04MAY06	09JUN06	0		30	-84	-136
PLUMBING & DRAINAGE WORKS									
6029	EntSpBldg-Cleansing Water Pumps & Tanks 1st fix	18	29MAR06	22APR06	0		18	56	-138
IRRIGATION SYSTEM									
6030	EntSpBldg-irrig. Water Pumps & Tanks 1st fix	18	29MAR06	22APR06	0		18	56	-138
TCSS CONTAINMENT									
8480	EntSpBldg - TCSS Contain't for KD5	24	24APR06	23MAY06	0		24	-108	-140
E&M G/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
6024	EntSpBldg G/F-AC(1st Fix) mech.vent.	36	29MAR06	16MAY06	0		36	-46	-138
E&M 1/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
6026	EntSpBldg 1F-AC(1st Fix) mech.vent.	42	06APR06	30MAY06	0		42	-58	-138
TUNNEL VENTILATION SYSTEM									
6753	EntSpBldg 1F-TVF pneumatic 1st fix	24	06APR06	09MAY06	0		24	68	-138
E&M 2/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
6022	EntSpBldg 2F-AC(1st Fix) mech.vent.	36	02MAY06	14JUN06	0		36	-118	-140



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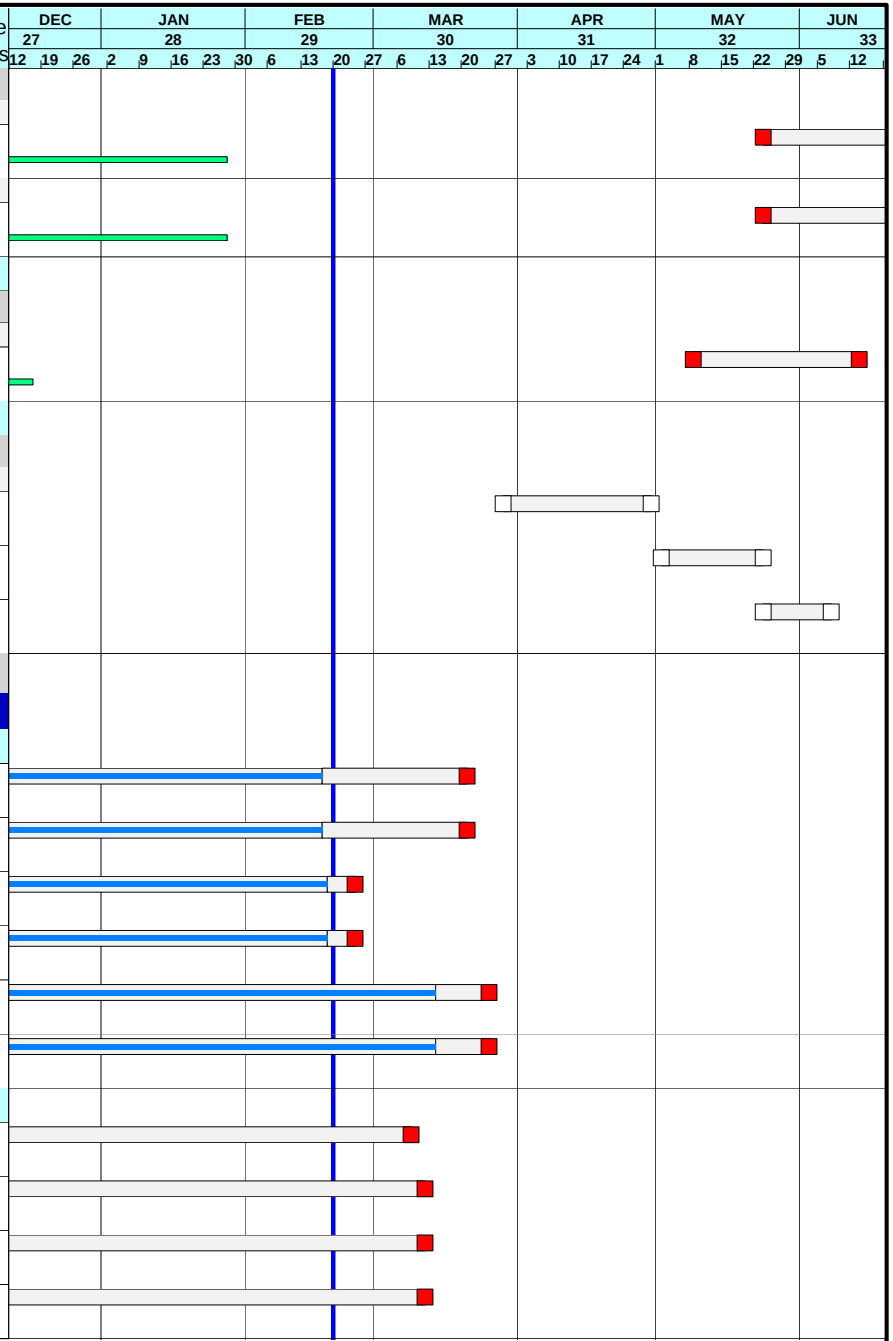
	ELECTRICAL WORKS								
	MAIN & SUB-MAIN DISTRIBUTUION								
6060	EntSpBldg 2F-ES(1st Fix) Main & Sub-main dist.	54	24MAY06	27JUL06	0		54	-118	-140
	FINAL CIRCUIT								
6061	EntSpBldg 2F-ES(1st Fix) Final Circuit dist.	54	24MAY06	27JUL06	0		54	-118	-140
	E&M ROOF								
	MVAC WORKS								
	MECH.VENT./AIR CONDITIONING								
6016	EntSpBldg 3F-AC(1st Fix) mech.vent.	30	09MAY06	13JUN06	0		30	-117	-136
	EXTERNAL AREAS								
	PLUMBING & DRAINAGE								
	IRRIGATION SYSTEM								
7587	EntSpBldg Ext-PD(1st Fix) irrig. sys	24	29MAR06	29APR06	0		24	74	-138
7588	EntSpBldg Ext-PD(2nd Fix) irrig. sys	18	02MAY06	23MAY06	0		18	74	-138
7589	EntSpBldg Ext-PD(Final Fix) irrig. sys	12	24MAY06	07JUN06	0		12	74	-138
	EAGLES NEST TUNNEL								
	SUBMITTALS & APPROVALS								
	E&M EQPT./ MTRL.DETAIL SUBMITTAL								
8217	EntRtNb-Sub.TVS control sys	54	02JUL04A	20MAR06	95	100	25	-158	-265
8220	EntRtSb&VA-Sub.TVS control sys	54	02JUL04A	20MAR06	95	100	25	-158	-277
8215	EntRtNb-Sub.FS AFA & Linear sys	54	05JUL04A	24FEB06	99	100	5	-200	-461
8219	EntRtSb&VA-Sub.FS AFA & Linear sys	54	05JUL04A	24FEB06	99	100	5	-200	-470
8213	EntRtNb-Sub.CMCS & ELV sys	78	26AUG04A	25MAR06	98	100	30	-98	-342
8221	EntRtSb&VA-Sub.CMCS & ELV sys	78	26AUG04A	25MAR06	98	100	30	-108	-348
	E&M EQPT./MTRL.APPROVAL BY ENGINEER								
6808	EntRtSb&VA-App. Tunnel Lgt sys	18	05AUG04A	08MAR06	80	100	15	-203	-366
6878	EntRtNb-App. Tunnel Lgt sys	18	05AUG04A	11MAR06	80	100	18	-200	-366
6802	EntRtSb&VA-App. LV main & submain dist. sys	18	13AUG04A	11MAR06	80	100	18	-212	-384
6882	EntRtNb-App. LV main & submain dist. sys	18	13AUG04A	11MAR06	80	100	18	-160	-374



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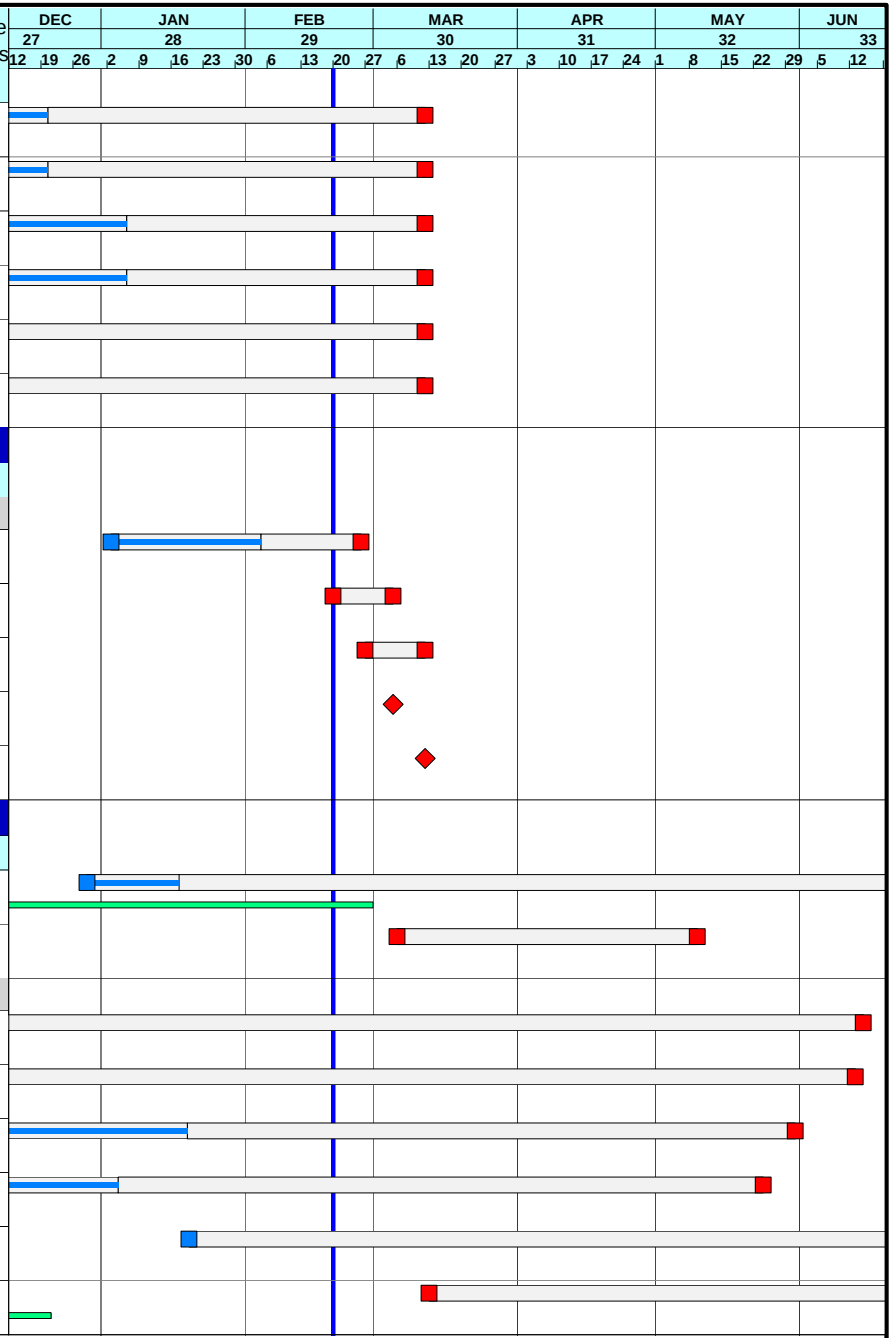
E&M EQPT./MTRL.APPROVAL BY ENGINEER									
6785	EntRtSb&VA-App. FS AFA & Linear sys	18	14SEP04A	11MAR06	85	100	18	-200	-465
6880	EntRtNb-App. FS AFA & Linear sys	18	14SEP04A	11MAR06	85	100	18	-200	-456
6798	EntRtSb&VA-App. CMCS & ELV sys	18	20SEP04A	11MAR06	88	100	18	-108	-318
6877	EntRtNb-App. CMCS & ELV sys	18	20SEP04A	11MAR06	88	100	18	-98	-312
6795	EntRtSb&VA-App. TVS control sys	18	12NOV04A	11MAR06	70	100	18	-158	-252
6884	EntRtNb-App. TVS control sys	18	12NOV04A	11MAR06	70	100	18	-158	-240
DESIGN & ENGINEERING									
PERMANENT WORKS									
TUNNEL									
1657	Design/ICE Check Tunnel Clading	24	03JAN06A	25FEB06	60	100	6	-130	-217
1668	Eng Approve Dsg X-passage/Adit Fire Doors	12	20FEB06	04MAR06	0	100	12	-208	-411
1659	Eng Approve Dsg Tunnel Clading	12	27FEB06	11MAR06	0	100	12	-130	-217
1669	Issue Constr Dwgs X-passage/Adit Fire Doors	0		04MAR06	0	100	0	-208	-404
1658	Issue Constr Dwgs Tunnel Clading	0		11MAR06	0	100	0	-130	-210
PROCUREMENT - MATERIAL									
TUNNEL									
1660	Order/Manufact/Del Tunnel Cladding	200	29DEC05A	15JUL06	10	90	40	-130	-110
1685	Order/Manufact/Del Fire Doors	50	06MAR06	09MAY06	0	100	50	-208	-304
NORTHBOUND TUNNEL									
6879	EntRtNb-Proc & Manuf. CMCS & ELV sys	180	25MAR05A	14JUN06	20	100	90	-100	-206
6883	EntRtNb-Proc & Manuf. FS AFA & Linear sys	180	25MAR05A	12JUN06	40	100	90	-200	-348
6885	EntRtNb-Proc & Manuf. ES Cabling	180	20MAY05A	30MAY06	65	100	80	-160	-256
7622	EntRtNb-Proc & Manuf. TVS in Tunnel	180	09JUN05A	23MAY06	60	100	30	-106	-260
6881	EntRtNb-Proc & Manuf. Tunnel Lgt sys	120	20JAN06A	04JUL06	0	100	90	-200	-276
6887	EntRtNb-Proc & Manuf. TVS control sys	180	13MAR06	19OCT06	0	100	180	-158	-240



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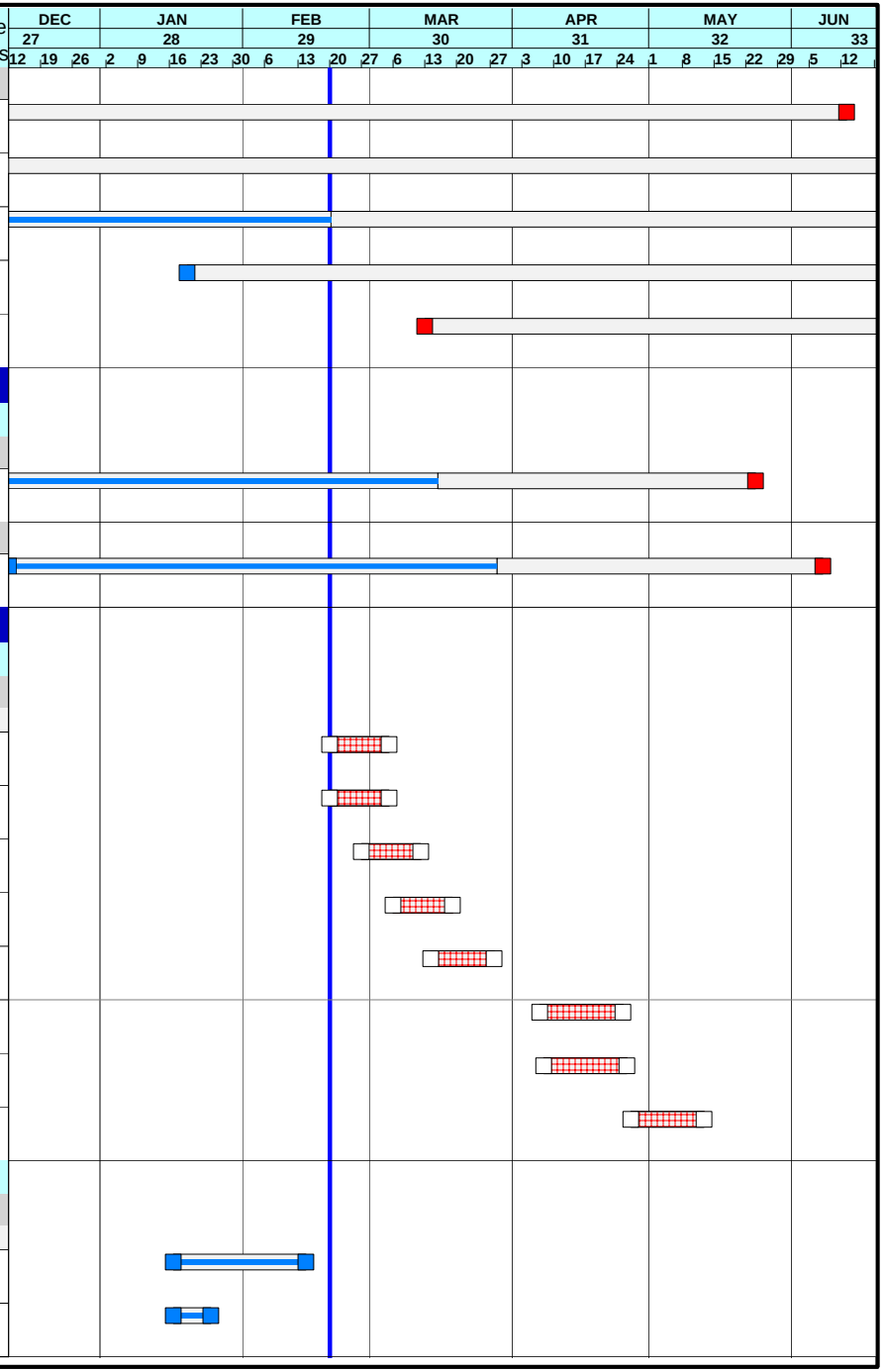
	SOUTHBOUND TUNNEL & V.A TUNNEL								
6786	EntRtSb&VA-Proc & Manuf. FS AFA & Linear sys	180	25MAR05A	12JUN06	40	100	90	-200	-357
6799	EntRtSb&VA-Proc & Manuf. CMCS & ELV sys	180	25MAR05A	08AUG06	20	100	100	-146	-258
6803	EntRtSb&VA-Proc & Manuf. ES Cabling	180	20MAY05A	18JUL06	65	100	120	-212	-306
6809	EntRtSb&VA-Proc & Manuf. Tunnel Lgt sys	120	20JAN06A	29JUN06	0	100	90	-203	-276
6796	EntRtSb&VA-Proc & Manuf. TVS control sys	180	13MAR06	19OCT06	0	100	180	-158	-252
	MAJOR EQUIPMENT DELIVERY								
	TUNNEL								
	NORTHBOUND TUNNEL								
7623	EntRtNb-Del. TVS in Tunnel	72	01DEC05A	23MAY06	60	100	43	-106	-188
	SOUTHBOUND TUNNEL & V.A TUNNEL								
7620	EntRtSb&VA-Del. TVS in Tunnel	72	12DEC05A	07JUN06	60	100	29	-118	-212
	CONSTRUCTION WORKS								
	TUNNEL PREPARATION WORKS								
	TUNNEL LINING								
	SOUTH PORTAL								
3320	Demobilise lining form NB (from NP) at VA/CP7	12	20FEB06	04MAR06	0	100	12	649	-128
3321	Demobilise lining form NB (from SP) at VA/CP7	12	20FEB06	04MAR06	0	100	12	649	-135
3736	Demobilise lining form SB (from NP) at VA/CP7	12	27FEB06	11MAR06	0	100	12	643	-143
3323	Demobilise OHVD form NB (from SP) at VA/CP7	12	06MAR06	18MAR06	0	100	12	649	-135
3739	Demobilise OHVD form SB (from NP) at VA/CP7	12	14MAR06	27MAR06	0	100	12	642	-140
3735	Demobilise lining form SB (from SP) at VA/CP7	12	07APR06	24APR06	0	100	12	610	-179
3322	Demobilise OHVD form NB (from NP) at VA/CP7	12	08APR06	25APR06	0	100	12	621	-152
3738	Demobilise OHVD form SB (from SP) at VA/CP7	12	27APR06	12MAY06	0	100	12	608	-181
	NORTHBOUND TUNNEL DRIVE								
	TUNNEL INVERT								
	NORTH PORTAL								
3188	NB exc.grnd/foul water drain trough 118m(fr.NP)	39	17JAN06A	14FEB06A	100	100	0		-190
3345	NB Foulwater Gulley ENF-20 to ENF-21 [49m]	11	17JAN06A	24JAN06A	100	100	0		-100



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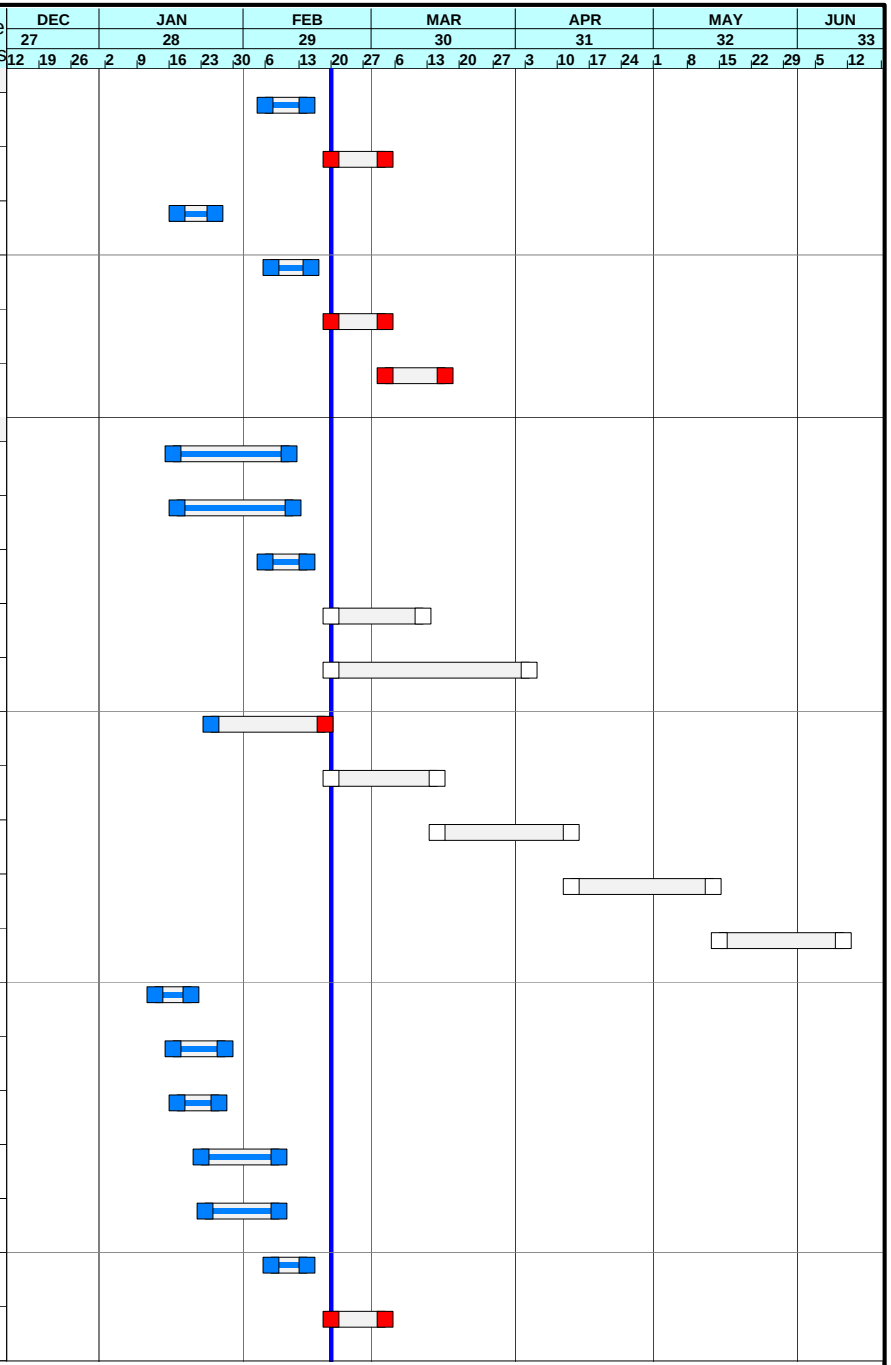
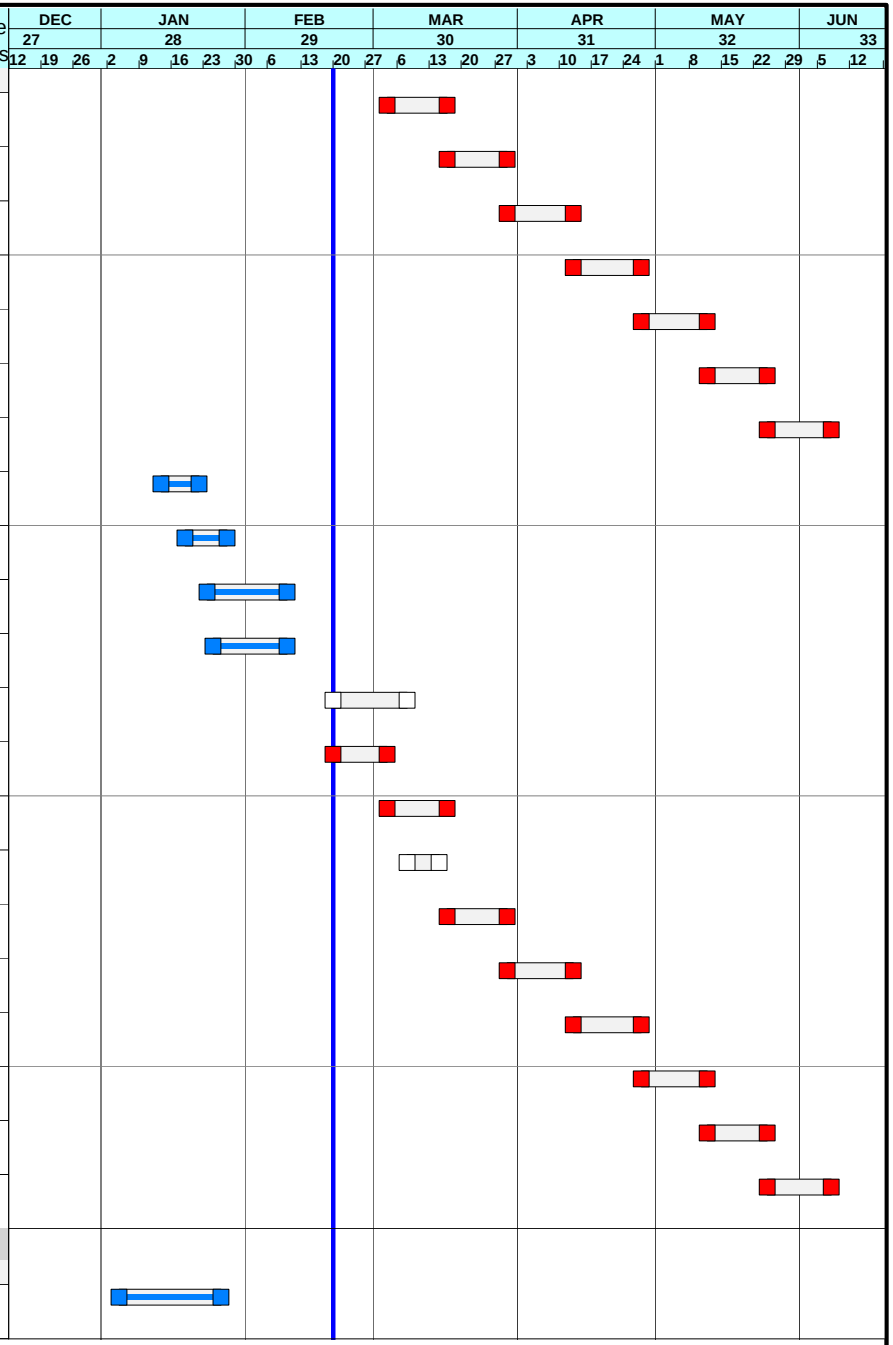
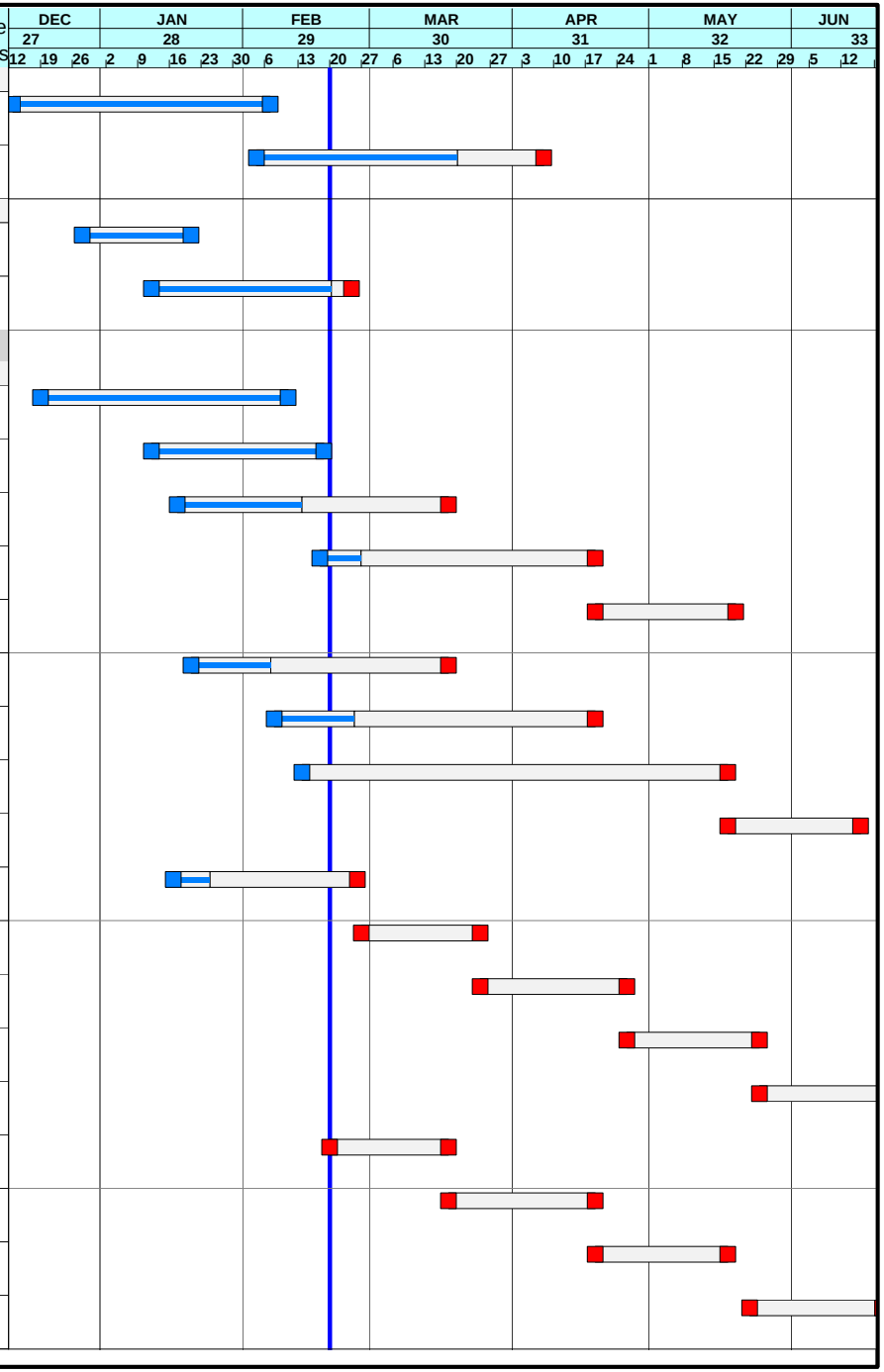
NORTH PORTAL									
3344	NB Foulwater Gulley ENF-19 to ENF-20 [49m]	11	06FEB06A	14FEB06A	100	100	0		-100
3343	NB Foulwater Gulley ENF-18 to ENF-19 [49m]	11	20FEB06	03MAR06	0	100	11	-2	-104
3432	NB Ground water ENG-21 to ENG-22 [50m]	11	18JAN06A	25JAN06A	100	100	0		-115
3431	NB Ground water ENG-20 to ENG-21 [49m]	11	07FEB06A	15FEB06A	100	100	0		-115
3430	NB Ground water ENG-19 to ENG-20 [49m]	11	20FEB06	03MAR06	0	100	11	-13	-118
3429	NB Ground water ENG-18 to ENG-19 [50m]	11	04MAR06	16MAR06	0	100	11	-13	-118
SOUTH PORTAL									
3210	NB exc.grnd/foul water drain trough 253m(fr.SP)	50	17JAN06A	10FEB06A	100	100	0		-287
3212	NB exc.grnd/foul water drain trough 146m(fr.SP)	27	18JAN06A	11FEB06A	100	100	0		-232
3211	NB exc.grnd/foul water drain trough 90m(fr.SP)	21	06FEB06A	14FEB06A	100	100	0		-265
3213	NB exc.grnd/foul water drain trough 100m(fr.SP)	18	20FEB06	11MAR06	0		18	65	-238
3214	NB exc.grnd/foul water drain trough 199m(fr.SP)	37	20FEB06	03APR06	0		37	73	-227
3216	NB Invert Cleaning [fr.SP] 253m	18	25JAN06A	18FEB06	0	100	0	-12	-291
3217	NB Invert Cleaning [fr.SP] 90m	20	20FEB06	14MAR06	0	100	20	24	-286
3218	NB Invert Cleaning [fr.SP] 146m	24	15MAR06	12APR06	0	100	24	24	-279
3219	NB Invert Cleaning [fr.SP] 100m	22	13APR06	13MAY06	0		22	24	-279
3220	NB Invert Cleaning [fr.SP] 199m	23	15MAY06	10JUN06	0		23	24	-276
3328	NB Foulwater Gulley ENF-4 to ENF-5 [51m]	11	13JAN06A	20JAN06A	100	100	0		-176
3324	NB Foulwater Gulley ENF-1A to ENF-1 [44m]	10	17JAN06A	27JAN06A	100	100	0		-227
3329	NB Foulwater Gulley ENF-5 to ENF-6 [51m]	11	18JAN06A	26JAN06A	100	100	0		-170
3325	NB Foulwater Gulley ENF-1 to ENF-2 [50m]	11	23JAN06A	08FEB06A	100	100	0		-219
3330	NB Foulwater Gulley ENF-6 to ENF-7 [44m]	10	24JAN06A	08FEB06A	100		0		-164
3331	NB Foulwater Gulley ENF-7 to ENF-7A [6m]	6	07FEB06A	14FEB06A	100		0		-163
3332	NB Foulwater Gulley ENF-7A to ENF-8 [50m]	11	20FEB06	03MAR06	0		11	-6	-167



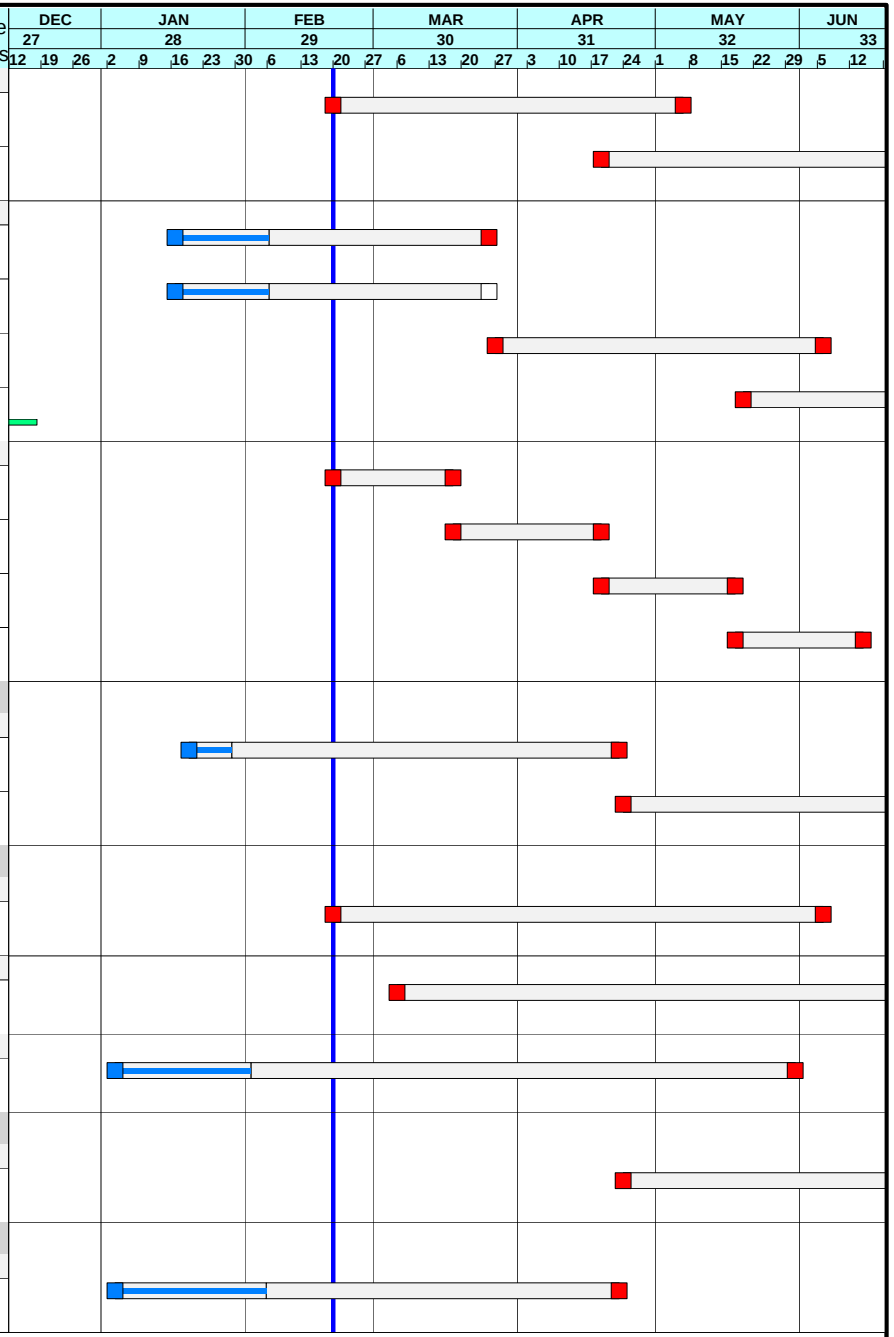
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
SOUTH PORTAL									
3333	NB Foulwater Gulley ENF-8 to ENF-9 [50m]	11	04MAR06	16MAR06	0		11	-6	-167
3334	NB Foulwater Gulley ENF-9 to ENF-10 [49m]	11	17MAR06	29MAR06	0		11	-6	-167
3335	NB Foulwater Gulley ENF-10 to ENF-11 [50m]	11	30MAR06	12APR06	0		11	-6	-167
3336	NB Foulwater Gulley ENF-11 to ENF-12 [47m]	10	13APR06	27APR06	0		10	-6	-167
3337	NB Foulwater Gulley ENF-12 to ENF-13 [47m]	10	28APR06	11MAY06	0		10	-6	-167
3338	NB Foulwater Gulley ENF-13 to ENF-14 [49m]	11	12MAY06	24MAY06	0		11	-6	-167
3339	NB Foulwater Gulley ENF-14 to ENF-15 [49m]	11	25MAY06	07JUN06	0		11	-6	-167
3415	NB Ground water ENG-4 to ENG-5 [51m]	11	14JAN06A	21JAN06A	100	100	0		-187
3416	NB Ground water ENG-5 to ENG-6 [51m]	11	19JAN06A	27JAN06A	100	100	0		-181
3412	NB Ground water ENG-1B to ENG-2 [50m]	11	24JAN06A	09FEB06A	100	100	0		-230
3417	NB Ground water ENG-6 to ENG-7 [50m]	11	25JAN06A	09FEB06A	100	100	0		-174
3410	NB Ground water ENG-1C to ENG-1B [44m]	14	20FEB06	07MAR06	0	100	14	43	-238
3418	NB Ground water ENG-7 to ENG-8 [50m]	11	20FEB06	03MAR06	0		11	-12	-182
3419	NB Ground water ENG-8 to ENG-9 [50m]	11	04MAR06	16MAR06	0		11	-12	-182
3411	NB Ground water ENG-1A to ENG-1B	6	08MAR06	14MAR06	0	100	6	43	-238
3420	NB Ground water ENG-9 to ENG-10 [49m]	11	17MAR06	29MAR06	0		11	-12	-182
3421	NB Ground water ENG-10 to ENG-11 [51m]	11	30MAR06	12APR06	0		11	-12	-182
3422	NB Ground water ENG-11 to ENG-12 [46m]	10	13APR06	27APR06	0		10	-12	-182
3423	NB Ground water ENG-12 to ENG-13 [47m]	10	28APR06	11MAY06	0		10	-12	-182
3424	NB Ground water ENG-13 to ENG-14 [49m]	11	12MAY06	24MAY06	0		11	-12	-182
3425	NB Ground water ENG-14 to ENG-15 [49m]	11	25MAY06	07JUN06	0		11	-12	-182
TUNNEL LINING									
NORTH PORTAL									
3243	NB NP Arch Lining 157m Tch.1+830 to 1+673 VA	36	05JAN06A	26JAN06A	100	100	0		-115



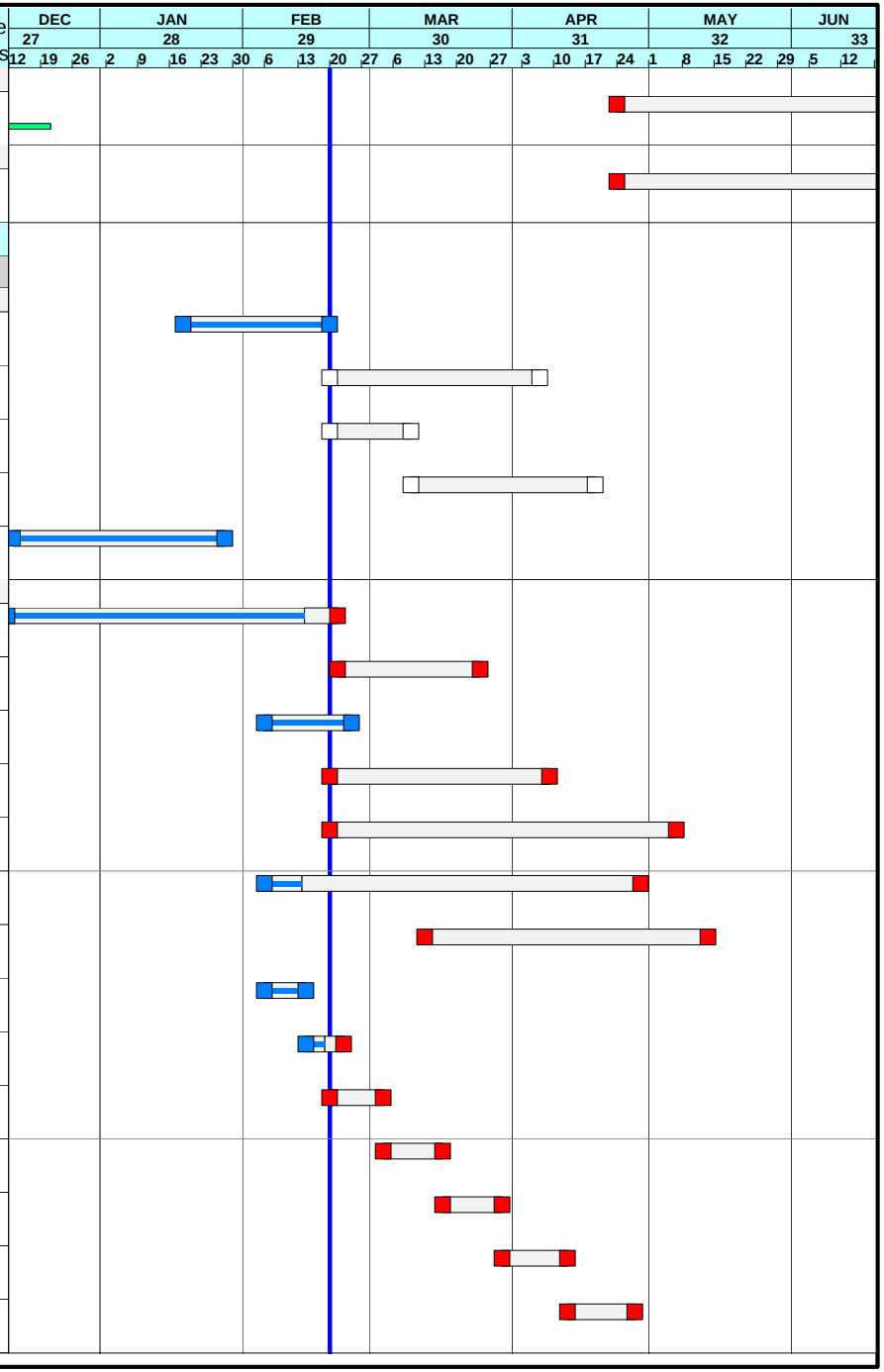
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
NORTH PORTAL									
3252	NB NP OHVD 150m Tch.1+980 to 1+830	30	13DEC05A	06FEB06A	100	100	0		-141
3253	NB NP OHVD 157m Tch.1+830 to 1+673 VA	40	04FEB06A	07APR06	70	100	40	-132	-152
SOUTH PORTAL									
3313	NB SP Arch Lining 130m Tch.1+513 to 1+643	36	28DEC05A	20JAN06A	100	100	0		-117
3317	NB NP OHVD 130m Tch.1+513 to 1+643	38	12JAN06A	24FEB06	90	100	5	-128	-132
TUNNEL FINISHING WORKS									
SERVICE TROUGH & UTILITIES									
3531	NB service trough 150m Tch.2+430 to 2+280 fr.NP	23	19DEC05A	10FEB06A	100	100	0		-226
3532	NB service trough 150m Tch.2+280 to 2+130 fr.NP	23	12JAN06A	18FEB06A	100	100	0		-203
3533	NB service trough 150m Tch.2+130 to 1+980 fr.NP	23	18JAN06A	17MAR06	46	100	23	-167	-196
3534	NB service trough 150m Tch.1+980 to 1+830 fr.NP	23	18FEB06A	18APR06	15	100	23	-167	-189
3535	NB service trough 175m Tch.1+830 to 1+673 fr.NP	25	19APR06	19MAY06	0		25	-167	-182
3537	NB service trough 150m Tch.1+063 to 1+213 fr.SP	23	21JAN06A	17MAR06	31	100	23	-201	-263
3538	NB service trough 150m Tch.1+213 to 1+363 fr.SP	23	08FEB06A	18APR06	25	100	23	-201	-244
3539	NB service trough 150m Tch.1+363 to 1+513 fr.SP	23	14FEB06A	17MAY06	0	100	23	-201	-225
3540	NB service trough 160m Tch.1+513 to 1+673 fr.SP	24	18MAY06	15JUN06	0	100	24	-201	-210
3514	NB NP 200 main 150m Tch.2+580 to 2+430 fr.NP	23	17JAN06A	25FEB06	20	100	6	-215	-273
3515	NB NP 200 main 150m Tch.2+430 to 2+280 fr.NP	23	27FEB06	24MAR06	0	100	23	-215	-266
3516	NB NP 200 main 150m Tch.2+280 to 2+130 fr.NP	23	25MAR06	25APR06	0	100	23	-215	-259
3517	NB NP 200 main 150m Tch.2+130 to 1+980 fr.NP	23	26APR06	24MAY06	0	100	23	-215	-252
3518	NB NP 200 main 150m Tch.1+980 to 1+830 fr.NP	23	25MAY06	21JUN06	0		23	-215	-245
3520	NB SP 200 main 150m Tch.1+063 to 1+213 fr.SP	23	20FEB06	17MAR06	0	100	23	-197	-267
3521	NB SP 200 main 150m Tch.1+213 to 1+363 fr.SP	23	18MAR06	18APR06	0	100	23	-197	-248
3522	NB SP 200 main 150m Tch.1+363 to 1+513 fr.SP	23	19APR06	17MAY06	0	100	23	-197	-229
3523	NB SP 200 main 160m Tch.1+513 to 1+673 fr.SP	24	23MAY06	20JUN06	0	100	24	-201	-218



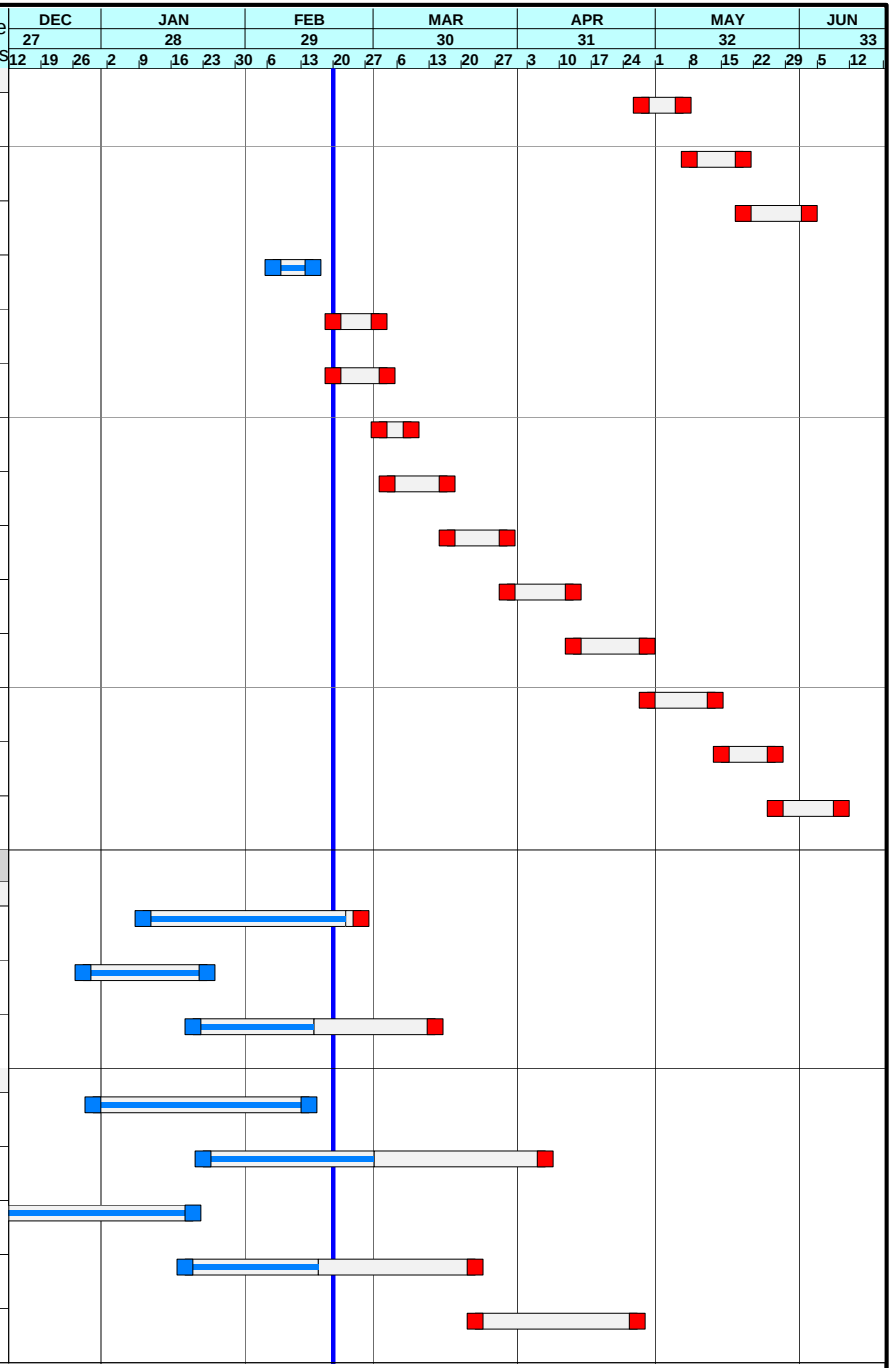
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
SERVICE TROUGH & UTILITIES									
3640	NB NP - 50% TCSS Containment KD6	60	20FEB06	06MAY06	0	100	60	-152	-233
3641	NB NP - Remain 50% TCSS Contain't KD6	63	19APR06	05JUL06	0	100	63	-201	-218
DRAINAGE & RC SLAB									
3584	NB Invert Drainage & RC.Slab - rightside 650m	54	17JAN06A	25MAR06	30	100	30	-21	-146
3588	NB Invert Drainage & RC.Slab - leftside 650m	54	17JAN06A	25MAR06	30	100	30	29	-128
3585	NB Invert Drainage & RC.Slab - rightside 650m	54	27MAR06	05JUN06	0	100	54	-21	-146
3589	NB Invert Drainage & RC.Slab - leftside 650m	54	20MAY06	24JUL06	0		54	-12	-169
WALL PANELS									
3606	NB VE Panel Support System - rightside 650m	23	20FEB06	17MAR06	0	100	23	-148	-194
3607	NB VE Panel Support System - rightside 650m	23	18MAR06	18APR06	0	100	23	-148	-194
3608	NB VE Panel Support System - rightside 650m	23	19APR06	17MAY06	0	100	23	-148	-194
3610	NB VE Panel Support System - leftside 650m	23	18MAY06	14JUN06	0	100	23	-148	-194
F.S WORKS									
TUNNEL HYDRANT & HOSE REEL									
6893	EntRtNb-Wet dist. (HR/Hyd) 1st fix	60	20JAN06A	22APR06	10	100	50	-100	-206
6899	EntRtNb-Wet dist. (HR/Hyd) 2nd fix	60	24APR06	06JUL06	0	100	60	-70	-206
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTION									
6897	EntRtNb-HV, LV main & submain dist. 1st fix	84	20FEB06	05JUN06	0	100	84	-116	-210
FINAL CIRCUIT									
7576	EntRtNb-Final circuit 1st fix	96	06MAR06	04JUL06	0	100	96	-92	-224
TUNNEL / EXTERNAL LIGHTING									
6894	EntRtNb-Tunnel Lgt sys	96	04JAN06A	30MAY06	20	100	80	-124	-200
ELV WORKS									
ELV MISC. WORKS									
6895	EntRtNb-CMCS&other	90	24APR06	10AUG06	0	100	90	-100	-206
TUNNEL VENTILATION SYSTEM									
TUNNEL VENTILATION									
6896	EntRtNb-TVS Tunnel vent. & SE 1st fix	72	04JAN06A	22APR06	30	100	50	-106	-188



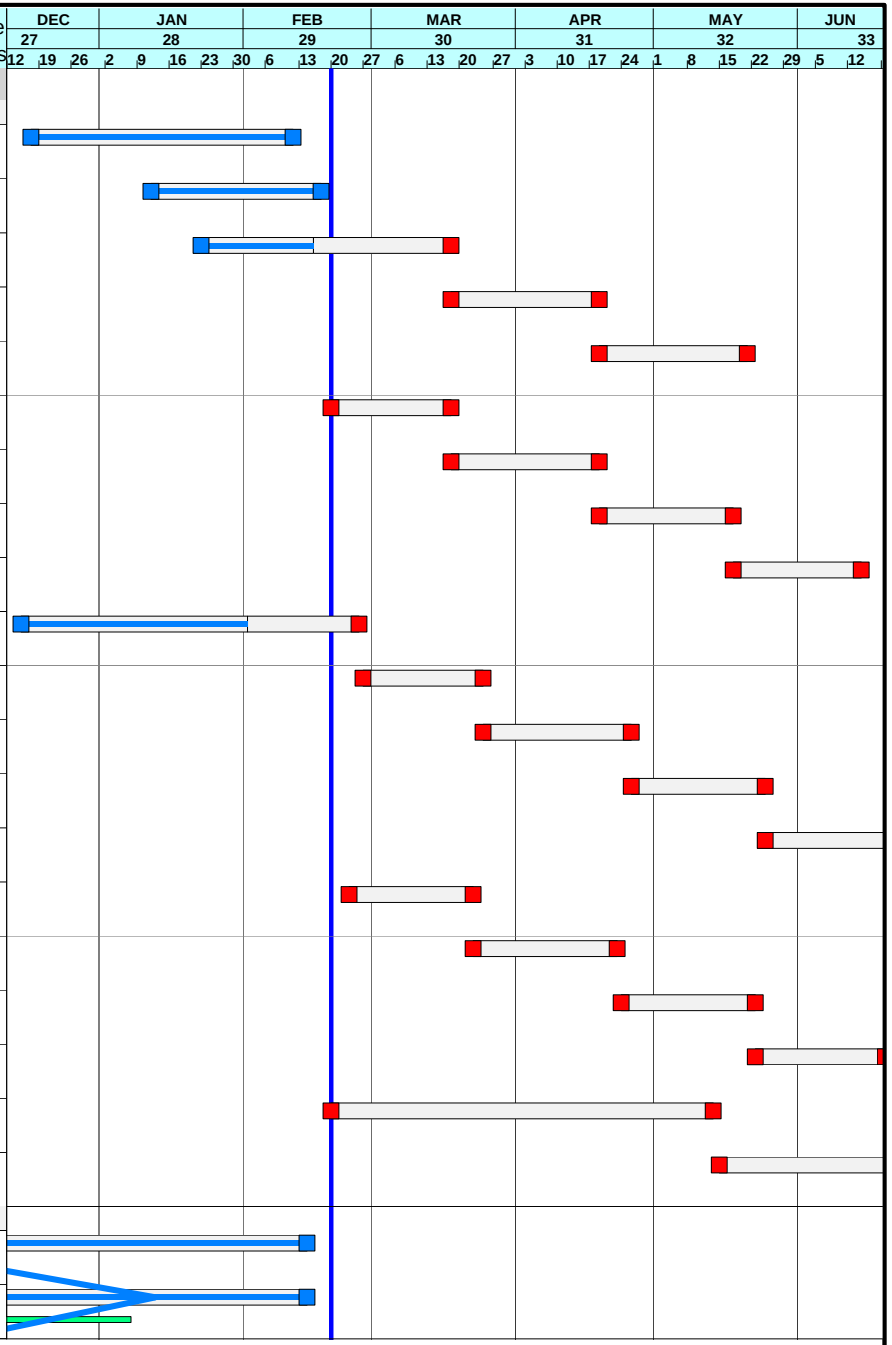
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
TUNNEL VENTILATION									
6904	EntRtNb-TVS Tunnel vent. & SE 2nd fix	96	24APR06	17AUG06	0	100	96	-106	-188
PNEUMATIC SYSTEM									
6905	EntRtNb-TVS pneumatic 1st fix	72	24APR06	20JUL06	0	100	72	-52	-188
TUNNEL DRIVE SOUTHBOUND									
TUNNEL INVERT									
NORTH PORTAL									
1913	SB Kicker/form part Service Trough (fr.NP) 213m	30	19JAN06A	19FEB06A	100	100	0		-162
3150	SB exc.grnd/foul water drain trough 213m(fr.NP)	39	20FEB06	06APR06	0	100	39	25	-210
1600	SB Invert Cleaning (fr.NP) 142m	16	20FEB06	09MAR06	0	100	16	21	-227
1601	SB Invert Cleaning (fr.NP) 213m	30	10MAR06	18APR06	0	100	30	21	-214
3474	SB Ground water ESG-19 to ESG-20 [102m]	22	13DEC05A	27JAN06A	100	100	0		-74
SOUTH PORTAL									
3743	SB Kicker/form part Service Trough (fr.SP) 150m	22	11DEC05A	21FEB06	90	100	2	-154	-224
3744	SB Kicker/form part Service Trough (fr.SP) 192m	27	22FEB06	24MAR06	0	100	27	-152	-224
1583	SB exc.grnd/foul water drain trough 89m(fr.SP)	12	06FEB06A	24FEB06A	100	100	0		-322
1584	SB exc.grnd/foul water drain trough 150m(fr.SP)	41	20FEB06	08APR06	0	100	41	6	-291
1586	SB exc.grnd/foul water drain trough 342m	60	20FEB06	06MAY06	0	100	60	-91	-310
1311	SB Invert Cleaning (fr.SP) 239m	66	06FEB06A	28APR06	10	100	55	-2	-299
3166	SB Invert Cleaning (fr.SP 342m)	48	13MAR06	13MAY06	0	100	48	-91	-310
3368	SB Foulwater Gulley ESF-1 to ESF-2 [48m]	11	06FEB06A	14FEB06A	100	100	0		-211
3367	SB Foulwater Gulley ESF-1A to ESF-1 [41m]	9	15FEB06A	22FEB06	50	100	3	-98	-209
3369	SB Foulwater Gulley ESF-2 to ESF-3 [50m]	11	20FEB06	03MAR06	0	100	11	-117	-215
3370	SB Foulwater Gulley ESF-3 to ESF-4 [48m]	11	04MAR06	16MAR06	0	100	11	-117	-215
3371	SB Foulwater Gulley ESF-4 to ESF-5 [49m]	11	17MAR06	29MAR06	0	100	11	-117	-215
3372	SB Foulwater Gulley ESF-5 to ESF-6 [49m]	11	30MAR06	12APR06	0	100	11	-117	-215
3373	SB Foulwater Gulley ESF-6 to ESF-7 [43m]	10	13APR06	27APR06	0		10	-117	-215



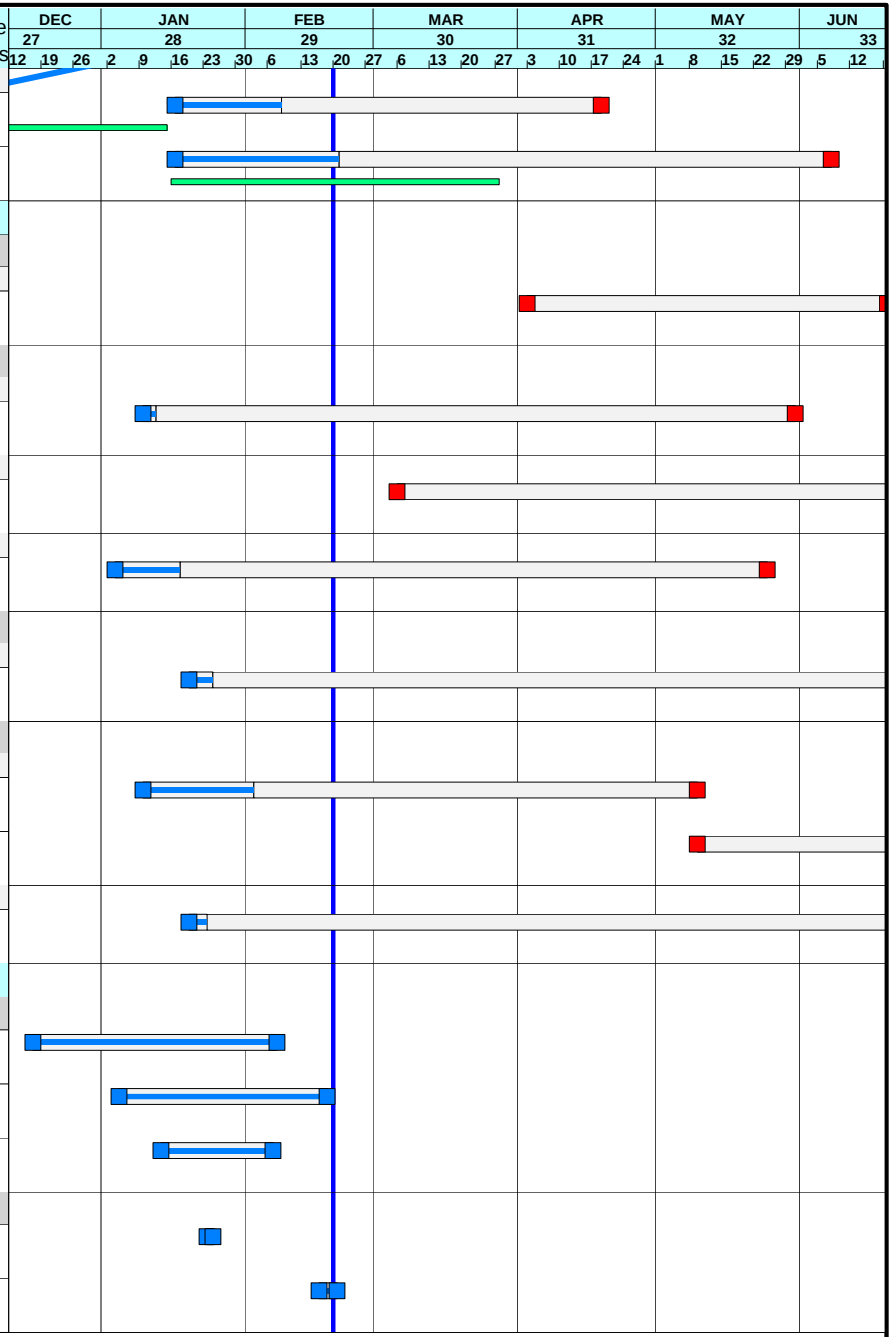
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
SOUTH PORTAL									
3374	SB Foulwater Gulley ESF-7 to ESF-7A [7m]	6	28APR06	06MAY06	0		6	-117	-215
3375	SB Foulwater Gulley ESF-7A to ESF-8 [50m]	11	08MAY06	19MAY06	0		11	-117	-215
3376	SB Foulwater Gulley ESF-8 to ESF-9 [50m]	11	20MAY06	02JUN06	0		11	-117	-215
3456	SB Ground water ESG-1B to ESG-2 [49m]	11	07FEB06A	15FEB06A	100	100	0		-212
3454	SB Ground water ESG-1C to ESG-1B [40m]	9	20FEB06	01MAR06	0	100	9	-103	-215
3457	SB Ground water ESG-2 to ESG-3 [50m]	11	20FEB06	03MAR06	0	100	11	-121	-215
3455	SB Ground water ESG-1A to ESG-1B	6	02MAR06	08MAR06	0	100	6	-103	-215
3458	SB Ground water ESG-3 to ESG-4 [48m]	11	04MAR06	16MAR06	0	100	11	-121	-215
3459	SB Ground water ESG-4 to ESG-5 [49m]	11	17MAR06	29MAR06	0	100	11	-121	-215
3460	SB Ground water ESG-5 to ESG-6 [49m]	11	30MAR06	12APR06	0	100	11	-121	-215
3461	SB Ground water ESG-6 to ESG-7 [50m]	11	13APR06	28APR06	0		11	-121	-215
3462	SB Ground water ESG-7 to ESG-8 [50m]	11	29APR06	13MAY06	0		11	-121	-215
3463	SB Ground water ESG-8 to ESG-9 [50m]	11	15MAY06	26MAY06	0		11	-121	-215
3464	SB Ground water ESG-9 to ESG-10 [51m]	11	27MAY06	09JUN06	0		11	-121	-215
TUNNEL LINING									
NORTH PORTAL									
2194	SB NP Arch Lining 175m Tch.1+835 to 1+660 VA	35	10JAN06A	25FEB06	93	100	2	-121	-143
3160	SB NP OHVD 150m Tch.1+985 to 1+835	30	28DEC05A	23JAN06A	100	100	0		-145
3161	SB NP OHVD 175m Tch.1+835 to 1+660 VA	40	21JAN06A	13MAR06	50	100	15	-121	-140
SOUTH PORTAL									
3151	SB SP Arch Lining 150m Tch.1+363 to 1+513	30	30DEC05A	14FEB06A	100	100	0		-174
3168	SB SP Arch Lining 130m Tch.1+513 to 1+643	38	23JAN06A	06APR06	50	100	15	-152	-179
3173	SB SP OHVD 150m Tch.1+213 to 1+363	30	08DEC05A	20JAN06A	100	100	0		-178
3174	SB SP OHVD 150m Tch.1+363 to 1+513	30	19JAN06A	22MAR06	46	100	15	-154	-193
3175	SB SP OHVD 130m Tch.1+513 to 1+643	26	23MAR06	26APR06	0	100	26	-154	-181



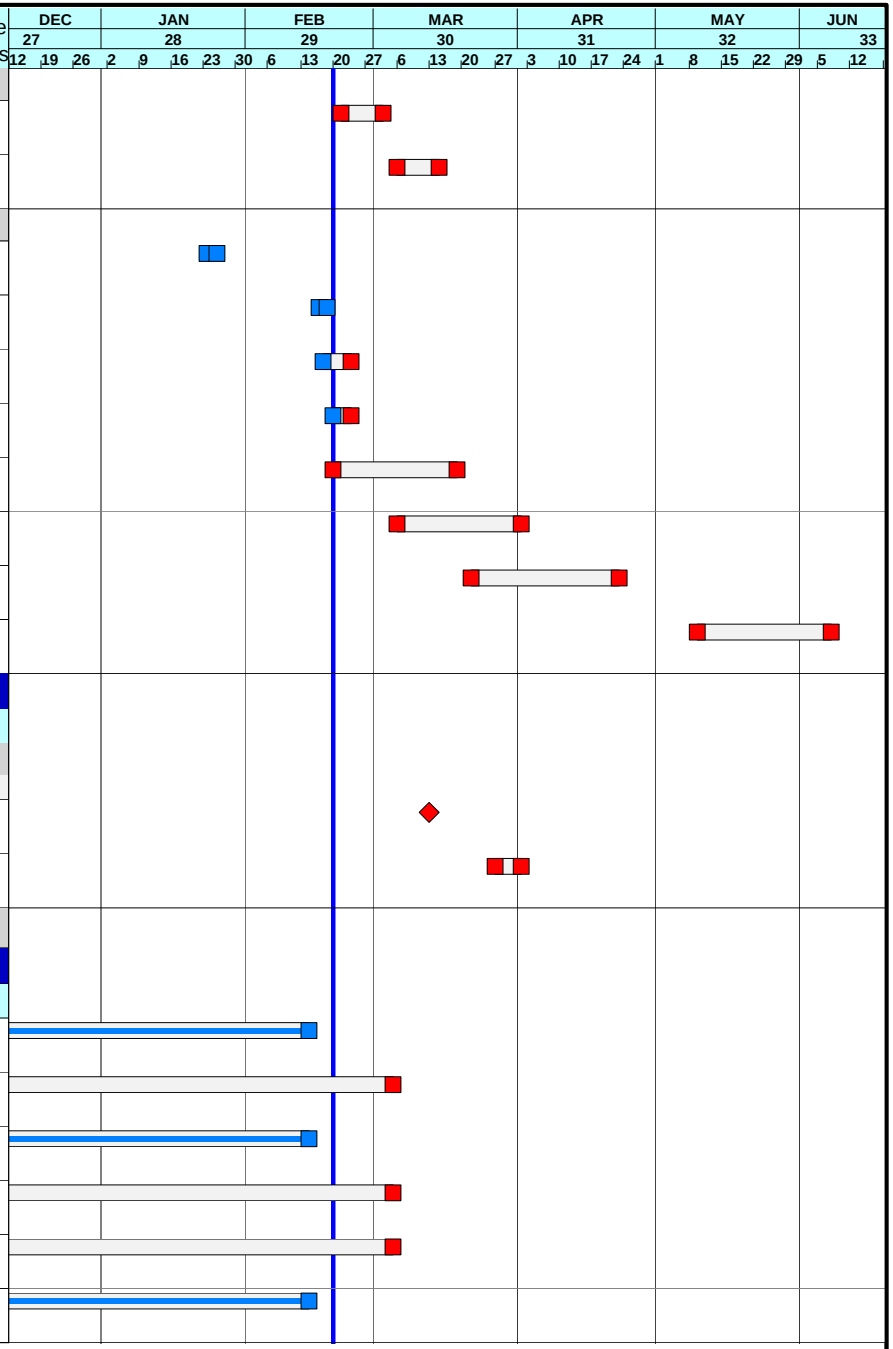
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
TUNNEL FINISHING WORKS									
SERVICE TROUGH & UTILITIES									
3564	SB service trough 150m Tch.2+435 to 2+285 fr.NP	23	17DEC05A	11FEB06A	100	100	0		-236
3565	SB service trough 150m Tch.2+285 to 2+135 fr.NP	23	12JAN06A	17FEB06A	100	100	0		-211
3566	SB service trough 150m Tch.2+135 to 1+985 fr.NP	23	23JAN06A	17MAR06	45	100	23	-167	-205
3567	SB service trough 150m Tch.1+985 to 1+835 fr.NP	23	18MAR06	18APR06	0		23	-167	-198
3568	SB service trough 175m Tch.1+835 to 1+660 @VA	26	19APR06	20MAY06	0		26	-167	-191
3570	SB service trough 150m Tch.1+063 to 1+213 fr.SP	23	20FEB06	17MAR06	0	100	23	-190	-240
3571	SB service trough 150m Tch.1+213 to 1+363 fr.SP	23	18MAR06	18APR06	0	100	23	-190	-233
3572	SB service trough 150m Tch.1+363 to 1+513 fr.SP	23	19APR06	17MAY06	0	100	23	-190	-226
3573	SB service trough 150m Tch.1+513 to 1+663 fr.SP	23	18MAY06	14JUN06	0	100	23	-190	-207
3545	SB NP 200 main 150m Tch.3+035 to 2+885 fr.NP	23	15DEC05A	25FEB06	67	100	6	-284	-372
3546	SB NP 200 main 150m Tch.2+885 to 2+735 fr.NP	23	27FEB06	24MAR06	0	100	23	-284	-365
3547	SB NP 200 main 150m Tch.2+735 to 2+585 fr.NP	23	25MAR06	25APR06	0	100	23	-284	-358
3548	SB NP 200 main 150m Tch.2+585 to 2+435 fr.NP	23	26APR06	24MAY06	0	100	23	-284	-351
3549	SB NP 200 main 150m Tch.2+435 to 2+285 fr.NP	23	25MAY06	21JUN06	0		23	-284	-344
3555	SB SP 200 main 150m Tch.1+063 to 1+213 fr.SP	23	24FEB06	22MAR06	0	100	23	-188	-248
3556	SB SP 200 main 150m Tch.1+213 to 1+363 fr.SP	23	23MAR06	22APR06	0	100	23	-188	-241
3557	SB SP 200 main 150m Tch.1+363 to 1+513 fr.SP	23	24APR06	22MAY06	0	100	23	-188	-234
3558	SB SP 200 main 150m Tch.1+513 to 1+663 fr.SP	23	23MAY06	19JUN06	0	100	23	-188	-215
3642	SB & VA - 50% TCSS Contain't from NP KD6	66	20FEB06	13MAY06	0	100	66	-224	-242
3643	SB & VA - Remain 50% TCSS Contain't NP KD6	66	15MAY06	01AUG06	0	100	66	-224	-241
DRAINAGE & RC SLAB									
3574	SB Invert Drainage & RC.Slab - rightside 650m	54	22NOV05A	14FEB06A	100	100	0		-79
3575	SB Invert Drainage & RC.Slab - rightside 650m	54	22NOV05A	14FEB06A	100	100	0		-25



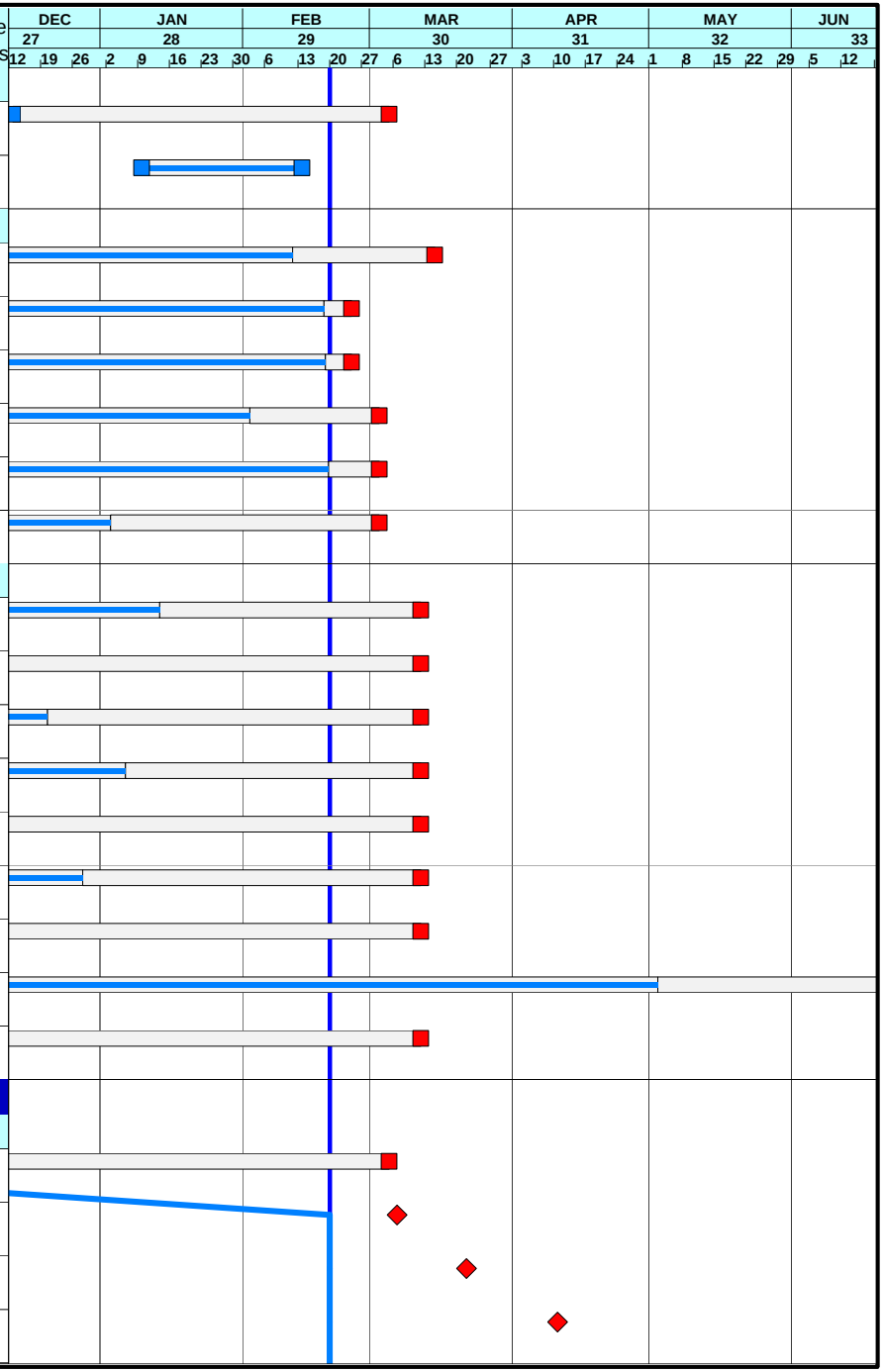
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
DRAINAGE & RC SLAB									
3578	SB Invert Drainage & RC.Slab - leftside 650m	54	17JAN06A	18APR06	25		40	-19	-69
3579	SB Invert Drainage & RC.Slab - leftside 650m	54	17JAN06A	07JUN06	25		40	-19	-55
SOUTHBOUND & VENTILATION ADIT TUNNEL									
FS Works									
TUNNEL HYDRANT & HOSE REEL									
6774	EntRtSb&VA-Wet dist. (HR/Hyd) 1st fix	60	03APR06	19JUN06	0	100	60	-146	-258
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTION									
6805	EntRtSb&VA-HV, LV main & submain dist. 1st fix	96	10JAN06A	30MAY06	2	100	80	-112	-206
FINAL CIRCUIT									
7571	EntRtSb&VA-Final circuit 1st fix	96	06MAR06	04JUL06	0	100	96	-116	-233
TUNNEL / EXTERNAL LIGHTING									
6811	EntRtSb&VA-Tunnel Lgt & VA lgt sys 1st fix	96	04JAN06A	24MAY06	10	100	75	-125	-198
ELV WORKS									
ELV MISC.WORKS									
6789	EntRtSb&VA-CMCS&other ELV 1st fix & Misc	90	20JAN06A	04OCT06	2		90	-146	-258
TUNNEL VENTILATION SYSTEM									
TUNNEL VENTILATION									
6764	EntRtSb&VA-TVS Tunnel vent. & SE 1st fix	72	10JAN06A	09MAY06	20	100	62	-118	-212
6769	EntRtSb&VA-TVS Tunnel vent. & SE 2nd fix	96	10MAY06	31AUG06	0	100	96	-118	-212
PNEUMATIC SYSTEM									
6771	EntRtSb&VA-TVS pneumatic 1st fix	72	20JAN06A	03AUG06	2	100	72	-58	-212
CROSS PASSAGES									
X-PASSAGE LINING									
2606	Invert Clean & Lining to CP.5	10	17DEC05A	07FEB06A	100	100	0		-164
2607	Invert Clean & Lining to CP.6	10	05JAN06A	18FEB06A	100	100	0		-164
2602	Invert Clean & Lining to CP.8	10	14JAN06A	06FEB06A	100	100	0		-183
X-PASSAGE INVERT									
2625	Invert Lining to CP.4	8	24JAN06A	24JAN06A	100	100	0		-149
2622	Invert Lining to CP.8	8	17FEB06A	20FEB06A	100	100	0		-175



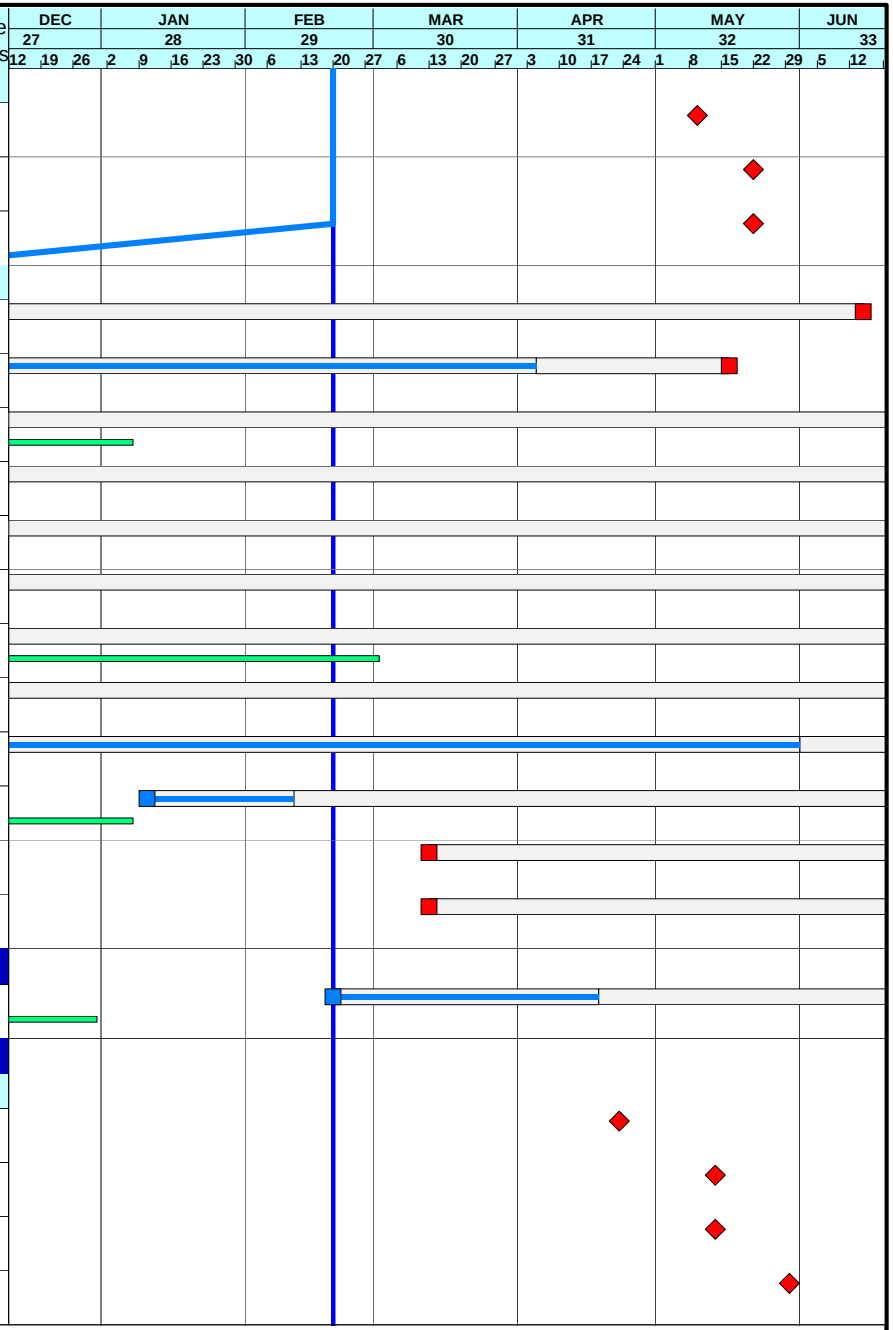
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
X-PASSAGE INVERT									
2626	Invert Lining to CP.5	8	22FEB06	02MAR06	0	100	8	-140	-164
2627	Invert Lining to CP.6	8	06MAR06	14MAR06	0	100	8	-142	-164
X-PASSAGE FINISHING WORKS									
2639	Construct Rooms (incl.ABWF) at CP.11	24	24JAN06A	25JAN06A	100	100	0		-181
2644	Construct Rooms (incl.ABWF) at CP.3	24	17FEB06A	18FEB06A	100	100	0		-159
2645	Construct Rooms (incl.ABWF) at CP.4	24	18FEB06A	23FEB06	0	100	4	-96	-138
2641	Construct Rooms (incl.ABWF) at CP.9	24	20FEB06A	23FEB06	0	100	4	-96	-158
2640	Construct Rooms (incl.ABWF) at CP.10	24	20FEB06	18MAR06	0	100	24	-140	-207
2643	Construct Rooms (incl.ABWF) at CP.2	24	06MAR06	01APR06	0	100	24	-140	-207
2647	Construct Rooms (incl.ABWF) at CP.6	24	22MAR06	22APR06	0	100	24	-142	-164
2642	Construct Rooms (incl.ABWF) at CP.8	24	10MAY06	07JUN06	0	100	24	-208	-230
TESTING & COMMISSIONING									
EAGLE'S NEST TUNNEL									
STATUTORY INSPECTIONS									
FSD INSPECTION									
6917	EntRt-All FS design approved by FSD (MHJV)	0	13MAR06		0	100	0	-146	-258
6918	EntRt-Issue, endorse & submit FSI 314 to FSD	6	27MAR06	01APR06	0	100	6	-146	-258
VENTILATION ADIT & BUILDING									
SUBMITTALS & APPROVALS									
ABWF & BUILDER'S WORKS									
1971	VA Bldg. - Prep & submit door & window detail	90	03FEB05A	14FEB06A	100	100	0		-206
1974	VA Bldg. - Approve louvre details	24	07APR05A	04MAR06	50	100	12	-132	-258
1989	VA Bldg. - Prep & sub fall arrest system	90	19APR05A	14FEB06A	100	100	0		-152
1972	VA Bldg. - Approve door & window details	24	07MAY05A	04MAR06	0	100	12	-126	-198
1991	VA Bldg. - Approve slate cladding	24	15JUN05A	04MAR06	50	100	12	-132	-258
1990	VA Bldg. - Approve fall arrest system	24	14OCT05A	14FEB06A	100	100	0		-128



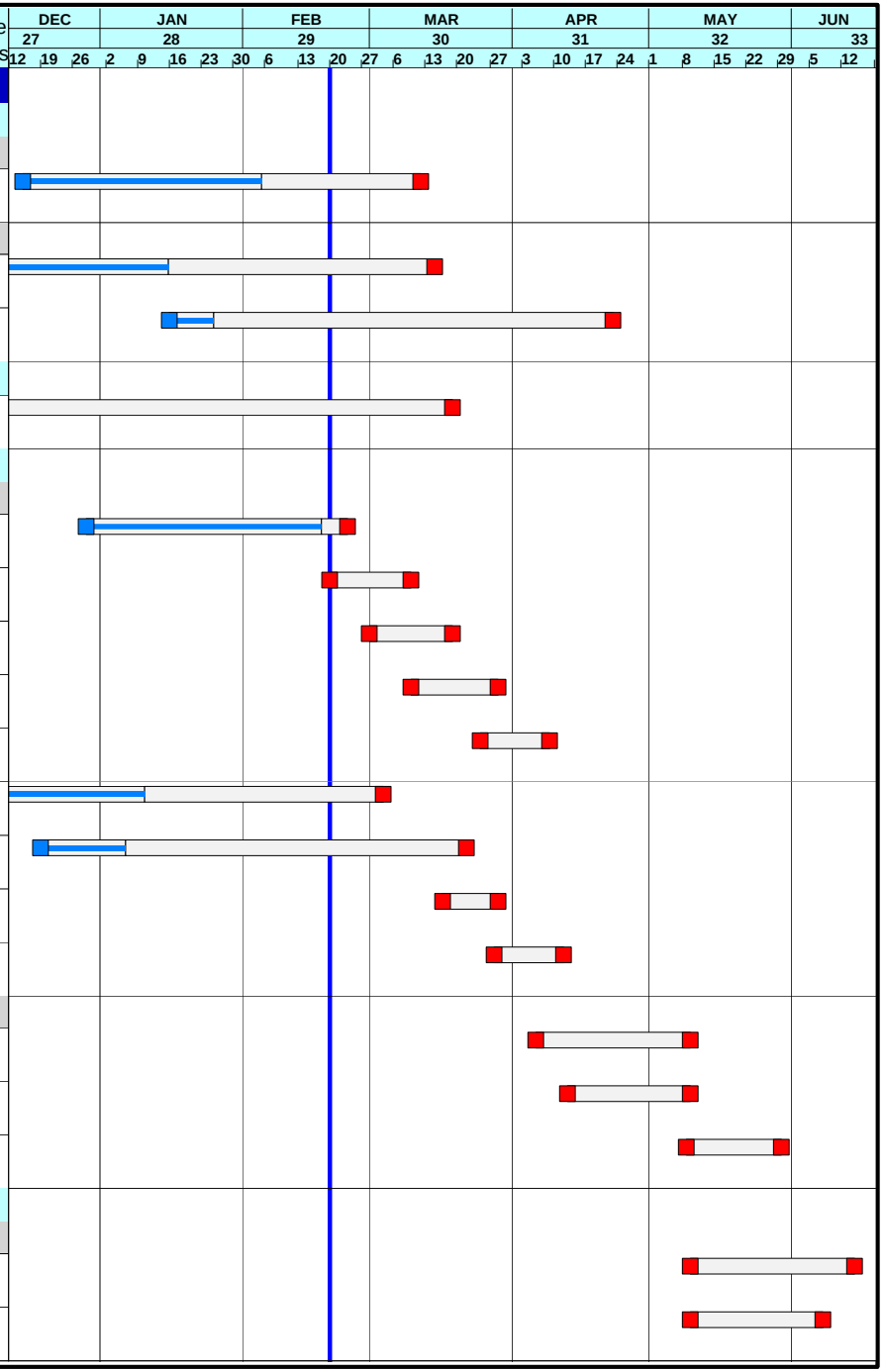
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
ABWF & BUILDER'S WORKS									
1988	VA Bldg. - Approve aluminium cladding	24	13DEC05A	04MAR06	0	100	12	-102	-258
1976	VA Bldg. - Approve balustrade & metal works	24	10JAN06A	13FEB06A	100	100	0		-239
E&M EQPT./MTRL.DETAIL SUBMITTAL									
8234	VaBldg-Sub.MVAC MCC, power & control sys	54	02JUL04A	14MAR06	95	100	20	-129	-289
8231	VaBldg-Sub.FS AFA & FM200 sys	54	05JUL04A	24FEB06	99	100	5	-17	-214
8228	VaBldg-Sub.FS wet sys	54	05AUG04A	24FEB06	99	100	5	-47	-214
8233	VaBldg-Sub.MVAC / TVF pneumatic sys	54	14AUG04A	02MAR06	95	100	10	-63	-141
8230	VaBldg-Sub.CMCS & ELV sys	78	26AUG04A	02MAR06	98	100	10	-125	-237
8235	VaBldg-Sub.PD irrig. sys	54	04FEB05A	02MAR06	85	100	10	-71	-237
E&M EQPT./MTRL.APPROVAL BY ENGINEER									
8495	VaBldg-App. building related luminaires	18	18AUG04A	11MAR06	90	100	18	-31	-251
6581	VaBldg-App. FS wet sys	18	04SEP04A	11MAR06	80	100	18	-47	-209
6590	VaBldg-App. FS AFA & FM200 sys	18	14SEP04A	11MAR06	85	100	18	-17	-209
6587	VaBldg-App. of CMCS & ELV sys	18	20SEP04A	11MAR06	88	100	18	-125	-227
6582	VaBldg-App. MVAC mech.vent. sys	18	23SEP04A	11MAR06	80	100	18	-197	-257
6580	VaBldg-App. PD all fresh & flush water sys	18	04NOV04A	11MAR06	85	100	18	-53	-221
6864	V6aBldg-App. MVAC MCC, power & control sys	18	12NOV04A	11MAR06	80	100	18	-129	-269
6857	VaBldg-App. MVAC / TVF pneumatic sys	18	07MAR05A	15AUG06	80		18	-179	-257
7590	VaBldg-App. PD irrig. sys	18	05MAY05A	11MAR06	30	100	18	-71	-227
PROCUREMENT									
ARCHITECTURAL									
1995	VA Bldg. - Procure aluminium cladding	30	19APR05A	04MAR06	0	100	12	-122	-136
2035	VA Bldg. - Initial delivery balust & metal works	0	07MAR06		0		0	-97	0
2034	VA Bldg. - Initial delivery fall arrest system	0	22MAR06		0	100	0	-110	0
2032	VA Bldg. - Initial delivery doors & windows	0	11APR06		0	100	0	-126	0



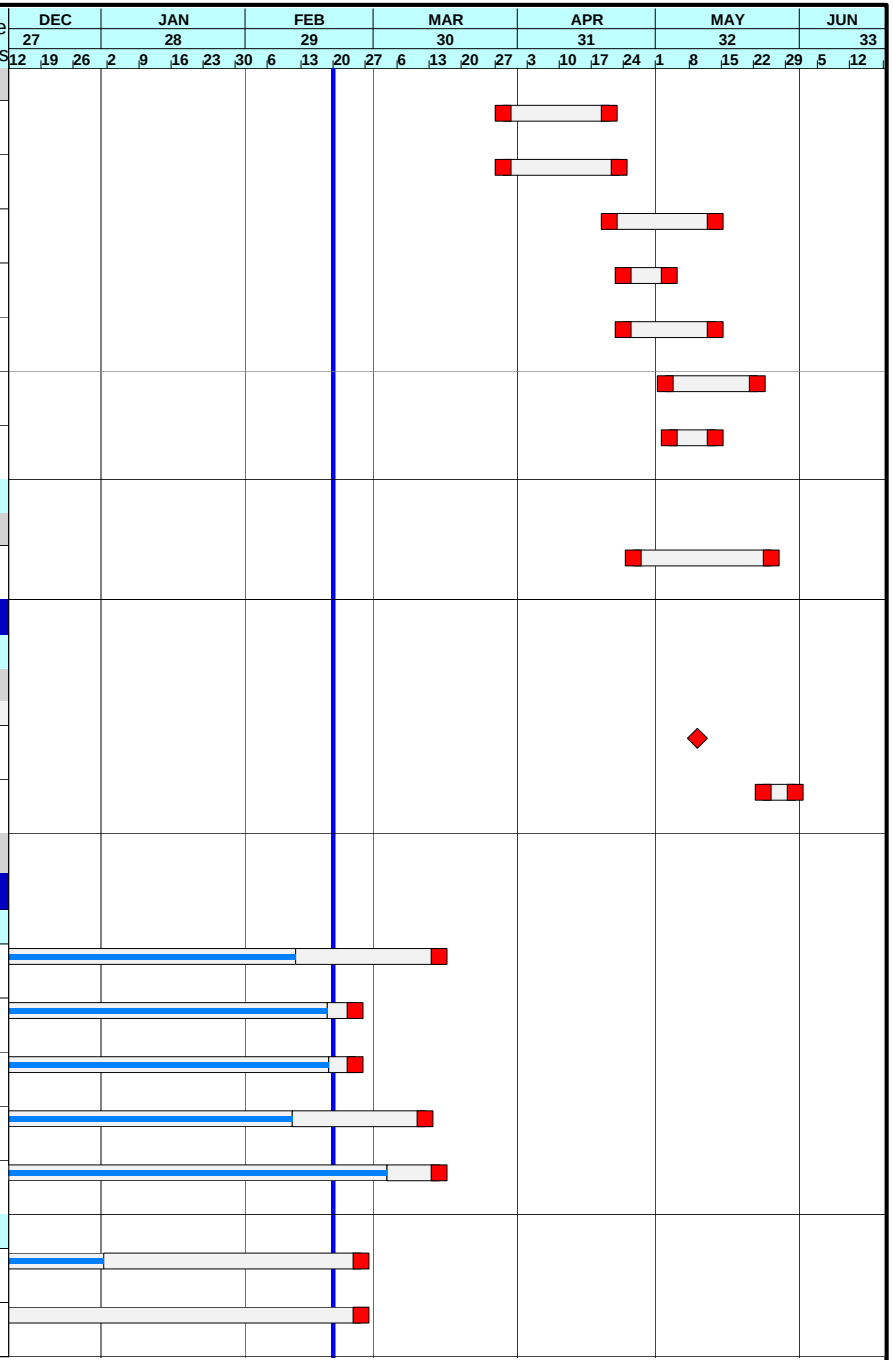
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
ARCHITECTURAL									
2038	VA Bldg. - Initial delivery aluminium cladding	0	10MAY06		0		0	-122	0
2031	VA Bldg. - Initial delivery slate cladding	0	22MAY06		0		0	-132	0
2033	VA Bldg. - Initial delivery louvres	0	22MAY06		0		0	-132	0
E&M MATERIALS									
6584	VaBldg-Proc & Manuf. LV power dist. equip't	180	20MAR05A	14JUN06	40	100	90	-73	-151
6583	VaBldg-Proc. & Manuf. of HV dist. equip't	180	25MAR05A	16MAY06	90	100	20	-55	-151
6591	VaBldg-Proc. & Manuf. of CMCS & ELV sys	180	25MAR05A	22AUG06	20	100	150	-125	-179
6636	VaBldg-Proc & Manuf. FS AFA & FM200 sys	120	25MAR05A	18JUL06	40	100	90	-47	-191
6865	VaBldg-Proc & Manuf. MCC, power & control sys	180	25MAR05A	22AUG06	20	100	150	-129	-221
6586	VaBldg-Proc & Manuf. FS wet sys	120	06JUN05A	18JUL06	30	100	120	-47	-191
6851	VaBldg-Proc & Manuf. TVF, Ductwks & Cont'l sys	180	09JUN05A	18JUL06	40	80	120	-47	-111
6585	VaBldg-Proc & Manuf. PD fresh & flush water sys	120	30SEP05A	04JUL06	10	100	90	-53	-191
8496	VaBldg-Proc & Manf bldg related luminaires	180	23NOV05A	21JUN06	90	100	50	-61	-151
8516	VaBldg-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	24NOV06	10		60	-143	-257
6588	VaBldg-Proc & Manuf. MVAC mech.vent. sys	180	13MAR06	19OCT06	0	100	180	-197	-257
7591	VaBldg-Proc & Manuf. PD irrig. sys	120	13MAR06	08AUG06	0	100	120	-71	-227
MAJOR EQUIPMENT DELIVERY									
6592	VaBldg-Del. HV power dist. equip't to 2/F	48	20FEB06A	13JUL06	40		48	-55	-151
E&M ACCESS DATES									
VENTILATION BUILDING									
1848	Int M/S - Vent Adit - E&M access to plenum	0		22APR06	0	100	0	-1	-186
1818	Int M/S - Vent Adit - E&M G/F access	0		13MAY06	0		0	-65	-185
1844	Int M/S - Vent Adit - E&M 1/F access	0		13MAY06	0		0	-65	-163
1845	Int M/S - Vent Adit - E&M 2/F access	0		29MAY06	0		0	-54	-159



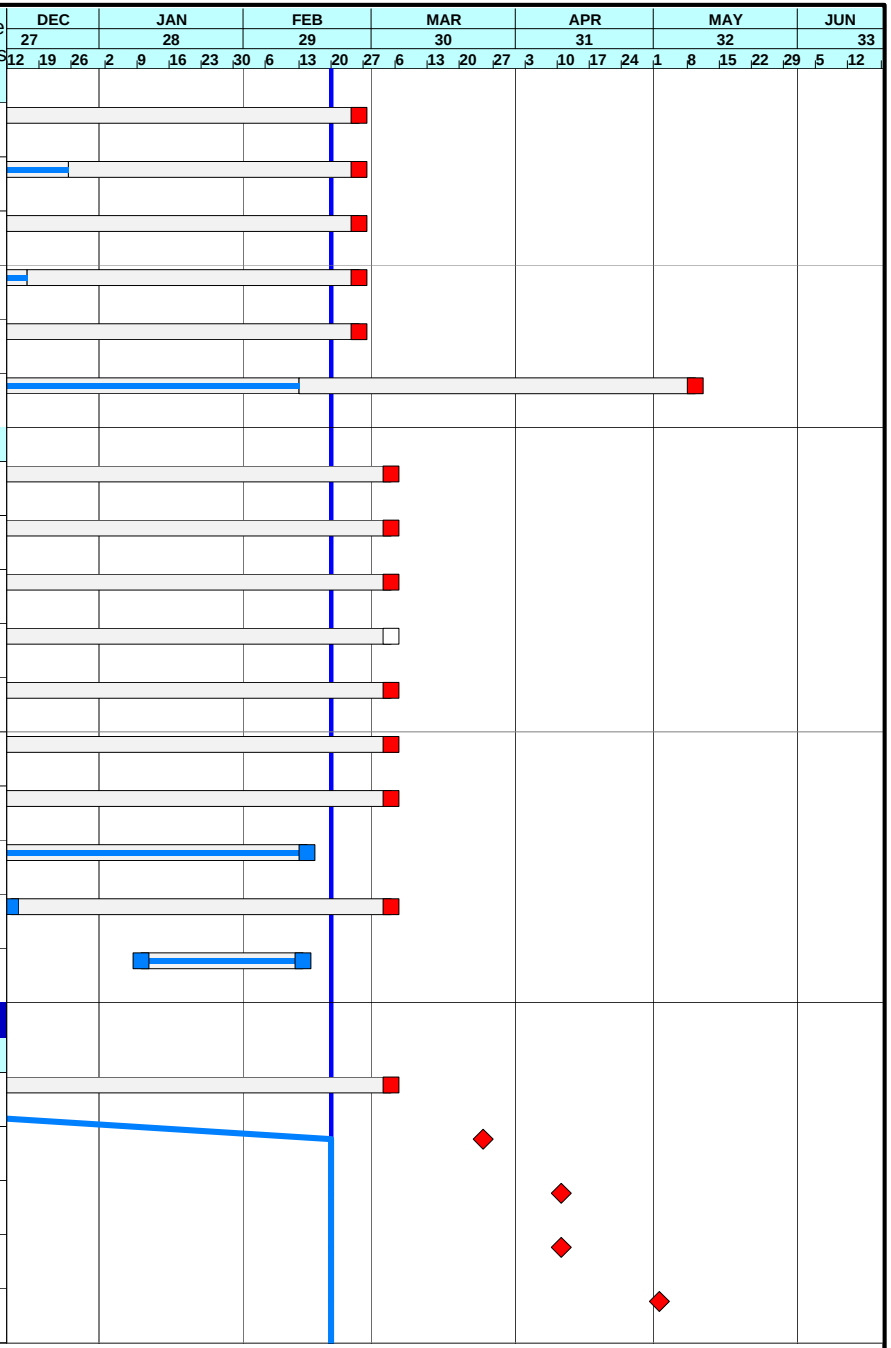
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
CONSTRUCTION WORKS									
ADIT TUNNEL									
TUNNEL LINING									
1536	VA Form Portal Transition Structure VA Bldg.	18	15DEC05A	11MAR06	60	100	18	-104	-231
VA TRANSITION STRUCTURE									
1923	VA RC Tnl Interface Lower part	40	18NOV05A	14MAR06	50	100	20	-142	-229
1924	VA RC Tnl Interface upper part	88	16JAN06A	22APR06	10	100	50	-142	-171
SUBSTRUCTURE									
6589	VaBldg Drainage & Earth mat	48	23APR05A	18MAR06	60	100	24	-168	-261
SUPERSTUCTURE									
RC WORKS									
1541	VA Bldg.RC S/Slab 1FL.GL.C-F/1-6 +116.70mPD	16	29DEC05A	23FEB06	90	100	4	-168	-182
1542	VA Bldg.RC Walls/Cols to 2FL GL.C-F/1-6	16	20FEB06	09MAR06	0	100	16	-168	-186
1543	VA Bldg.RC S/Slab 2FL GL.C-F/1-6 +124.95mPD	16	01MAR06	18MAR06	0	100	16	-168	-186
1544	VA Bldg.RC Walls/Cols to URFL GL.C-F/1-6	16	10MAR06	28MAR06	0	100	16	-168	-186
1545	VA Bldg.RC S/Slab URFL +131.65mPD	12	25MAR06	08APR06	0	100	12	-152	-186
1548	VA Bldg.RC.Walls/Cols to 1F GL.A-C/1-6	14	19NOV05A	03MAR06	50	100	11	-142	-150
1549	VA Bldg.RC S/Slab 1FL.GL.A-C/1-6 +116.70mPD	10	19DEC05A	21MAR06	20	100	26	-142	-159
1550	VA Bldg.RC Walls/Cols to 2FL GL.A-C/1-6	10	17MAR06	28MAR06	0	100	10	-129	-159
1551	VA Bldg.RC S/Slab 2FL GL.A-C/1-6 +124.95mPD	12	28MAR06	11APR06	0	100	12	-129	-159
STRUCTURAL STEELWORKS									
1546	VA Bldg.Struct.Steelworks URFL +131.65mPD	24	06APR06	09MAY06	0	100	24	-152	-186
1561	VA Bldg. - Crane Beam to underside of 1FL & test	18	13APR06	09MAY06	0	100	18	-61	-159
1560	VA Bldg. - Crane Beam to underside of 2FL & test	18	09MAY06	29MAY06	0	100	18	-54	-159
ARCHITECTURAL & BUILDER'S WORKS									
ROOFING & EXTERNAL FACADE									
1558	VA.Bldg.Roof W/Proofing & Testing	30	10MAY06	14JUN06	0		30	-152	-186
1809	VA.Bldg. Ext Doors & Windows	24	10MAY06	07JUN06	0		24	-146	-186



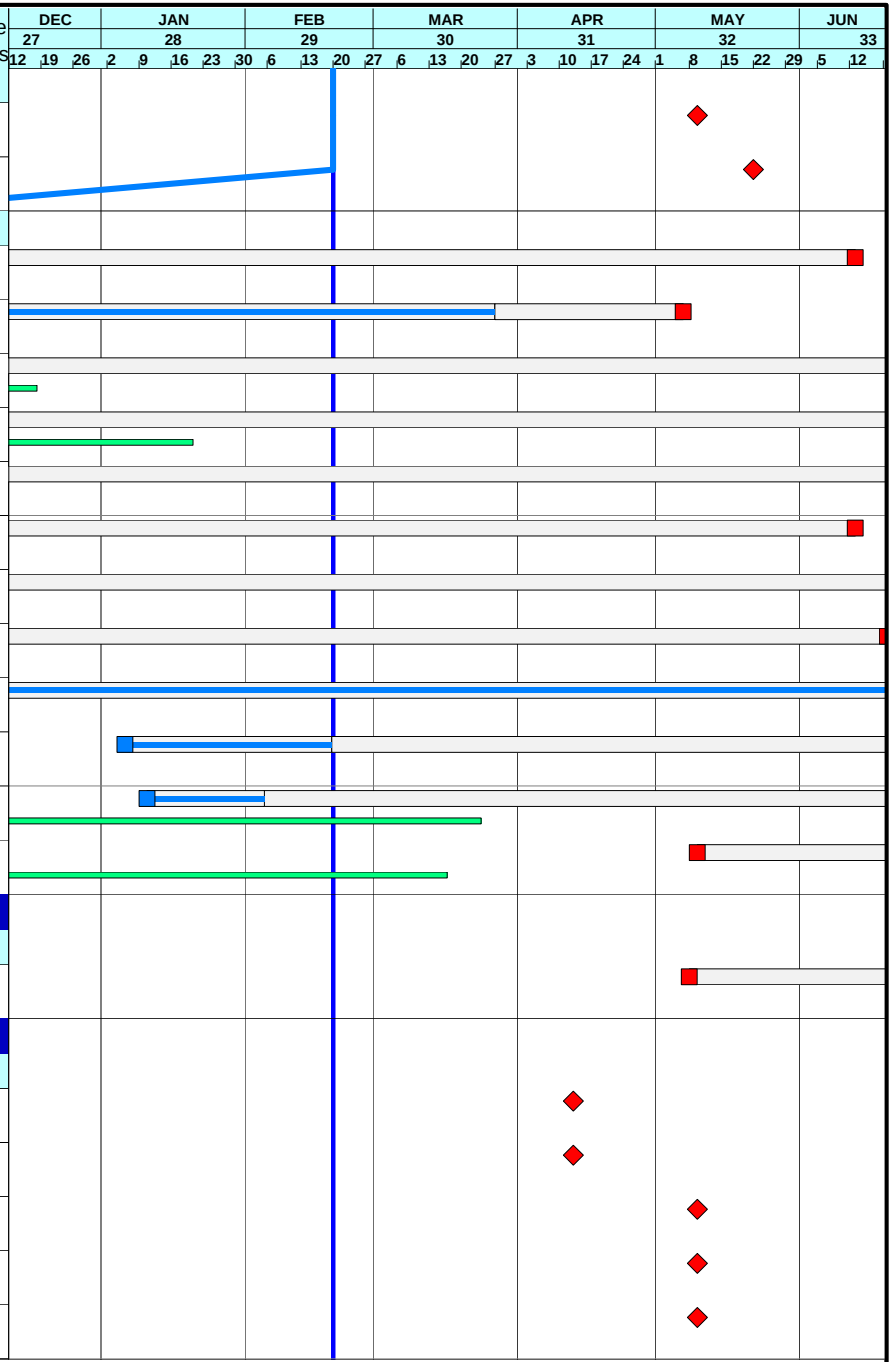
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
BUILDER'S WORKS									
1553	VA.Bldg.W/Proof Tanks/Pits & Test GL.H-S/10-12	16	29MAR06	20APR06	0	100	16	-168	-186
1554	VA.Bldg.Plinths LPL.	18	29MAR06	22APR06	0	100	18	-158	-186
1643	VA.Bldg. Wet Trades GL	18	21APR06	13MAY06	0	100	18	-168	-185
1555	VA.Bldg.Plinths GFL.	8	24APR06	03MAY06	0	100	8	-158	-186
1644	VA.Bldg. Wet Trades 1F/L	16	24APR06	13MAY06	0	100	16	-158	-175
1645	VA.Bldg. Wet Trades 2F/L	16	03MAY06	22MAY06	0	100	16	-129	-159
1556	VA.Bldg.Plinths 1F/L	8	04MAY06	13MAY06	0	100	8	-158	-186
E&M VENT ADIT TUNNEL									
TCSS CONTAINMENT									
8482	VA.Bldg. - TCSS Contain't for KD6	24	26APR06	25MAY06	0	100	24	-168	-185
TESTING & COMMISSIONING									
VENTILATION BUILDING									
STATUTORY INSPECTIONS									
FSD - FS INSPECTION									
6650	VaBldg-All FS design approved by FSD (MHJV)	0	10MAY06		0		0	-79	-139
6662	VaBldg-Issue, endorse & submit FSI 314 to FSD	6	24MAY06	30MAY06	0		6	-79	-139
ENT NORTH PORTAL VENTILATION BUILDING									
SUBMITTALS & APPROVALS									
E&M EQPT.& MATERIAL.SUBMITTALS									
8260	EntNpBldg-Sub.MVAC MCC, power & control sys	54	02JUL04A	14MAR06	95	100	20	-156	-328
8257	EntNpBldg-Sub.FS AFA & FM200 sys	54	05JUL04A	24FEB06	99	100	5	-26	-161
8253	EntNpBldg-Sub.FS wet sys	54	05AUG04A	24FEB06	99	100	5	-26	-245
8259	EntNpBldg-Sub.MVAC / TVF pneumatic sys	54	14AUG04A	11MAR06	95	100	18	-62	-134
8255	EntNpBldg-Sub.CMCS & ELV sys	78	28AUG04A	14MAR06	98	100	20	-108	-262
E&M EQPT.& MATERIAL APPROVALS									
8499	EntNpBldg-App. building related luminaires	18	18AUG04A	25FEB06	90	100	6	-90	-252
6199	EntNpBldg-App. FS wet sys	18	04SEP04A	25FEB06	80	100	6	-26	-228



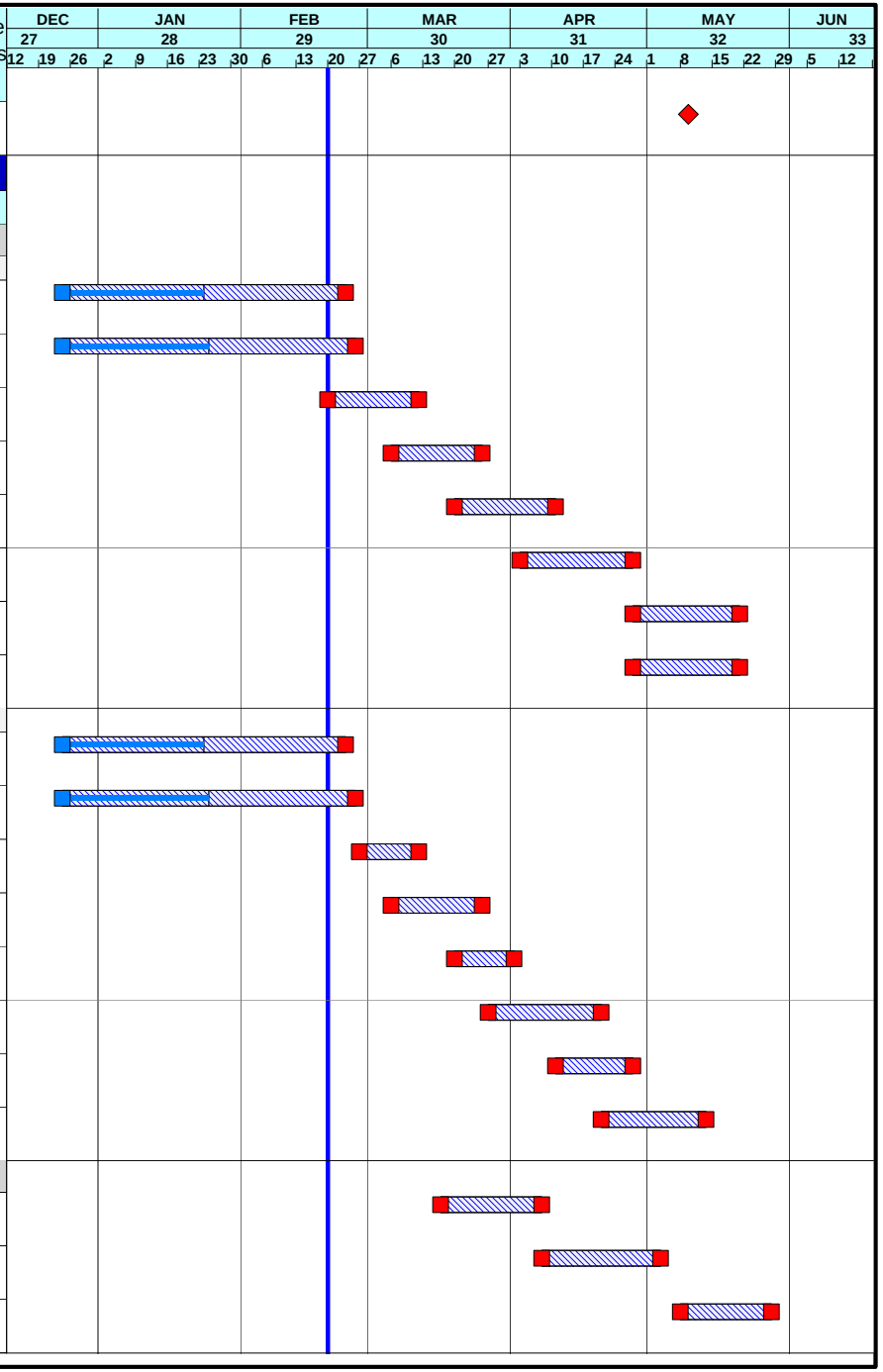
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
E&M EQPT.& MATERIAL APPROVALS									
6210	EntNpBldg-App. FS AFA & FM200 sys	18	14SEP04A	25FEB06	85	100	6	-26	-144
6203	EntNpBldg-App. CMCS & ELV sys	18	20SEP04A	25FEB06	88	100	6	-108	-230
6200	EntNpBldg-App. MVAC mech.vent. sys	18	23SEP04A	25FEB06	80	100	6	-178	-308
6198	EntNpBldg-App. PD cleans. & flush water sys	18	04NOV04A	25FEB06	85	100	6	-32	-246
6837	EntNpBldg-App. MVAC MCC, power & control sys	18	12NOV04A	25FEB06	80	100	6	-156	-296
6830	EntNpBldg-App. MVAC / TVF pneumatic sys	18	07MAR05A	09MAY06	80	100	6	-100	-160
ABWF WORKS									
1955	NP.Bldg. - Prep & submit louvre details	24	19NOV04A	04MAR06	50	100	12	-83	-350
1959	NP.Bldg. - Prep & sub aluminium cladding	24	19NOV04A	04MAR06	50	100	12	-85	-350
1970	NP.Bldg. - Prep & submit slate cladding	24	19NOV04A	04MAR06	50	100	12	-113	-350
1946	NP.Bldg. - Prep & submit door & window detail	24	17FEB05A	04MAR06	50	100	12	661	-282
1954	NP.Bldg. - Approve door & window details	24	06APR05A	04MAR06	50	100	12	-53	-258
1956	NP.Bldg. - Approve louvre details	24	08APR05A	04MAR06	50	100	12	-83	-326
1963	NP.Bldg. - Approve slate cladding	24	15JUN05A	04MAR06	50	100	12	-113	-326
1962	NP.Bldg. - Approve fall arrest system	24	14OCT05A	14FEB06A	100	100	0		-250
1960	NP.Bldg. - Approve aluminium cladding	24	13DEC05A	04MAR06	0	100	12	-85	-326
1958	NP.Bldg. - Approve balustrade & metal works	24	10JAN06A	13FEB06A	100	100	0		-259
PROCUREMENT - MATERIAL									
ABWF WORKS									
1967	NP.Bldg. - Procure aluminium cladding	180	18JAN05A	04MAR06	50	100	12	-85	-146
2052	NP.Bldg. - Initial delivery balust & metal works	0	25MAR06		0		0	-34	0
2039	NP.Bldg. - Initial delivery doors & windows	0	11APR06		0		0	-53	0
2049	NP.Bldg. - Initial delivery louvre	0	11APR06		0		0	-83	0
2053	NP.Bldg. - Initial delivery fall arrest system	0	02MAY06		0		0	-43	0



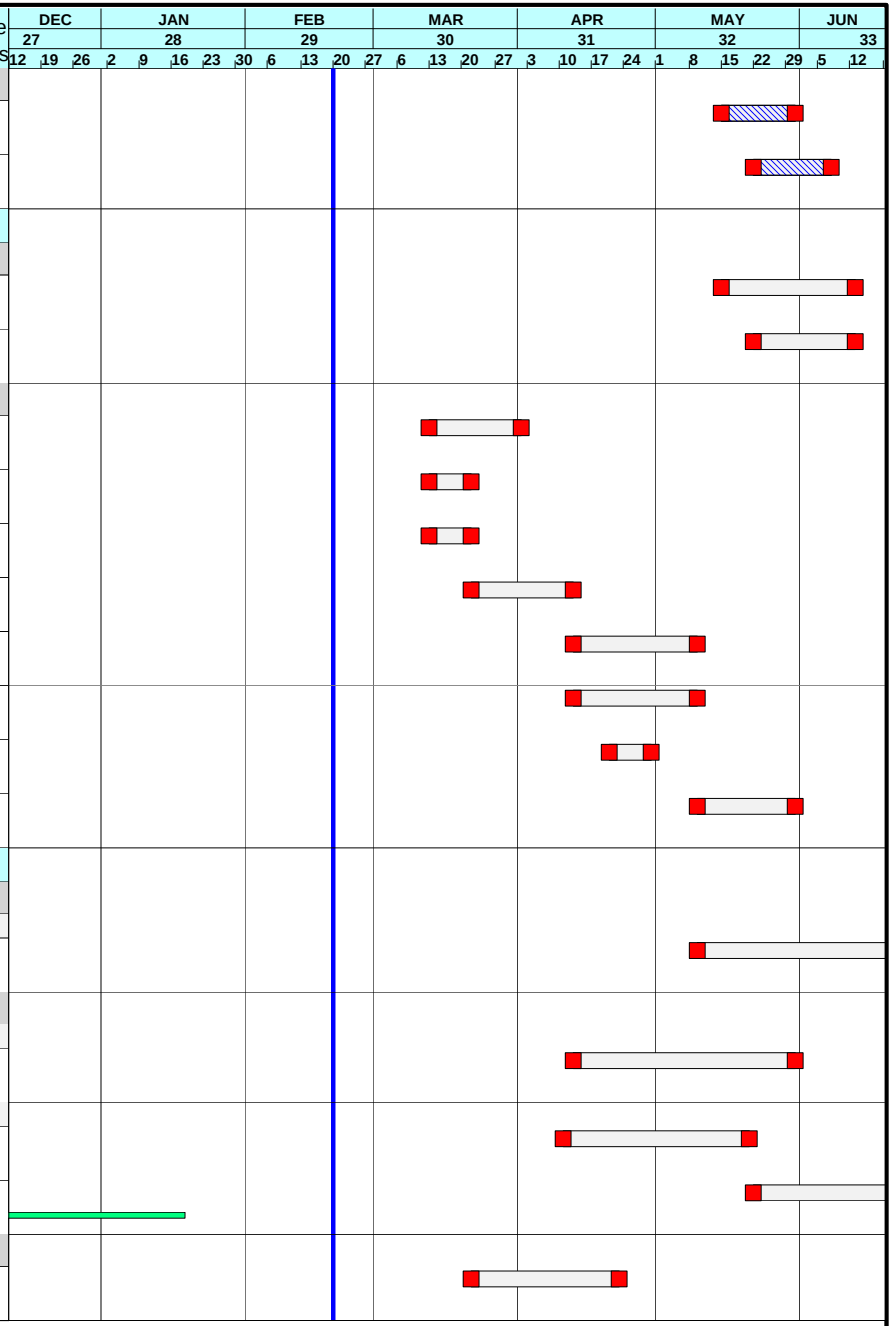
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
ABWF WORKS									
2050	NP.Bldg. - Initial delivery aluminium cladding	0	10MAY06		0		0	-85	0
2051	NP.Bldg. - Initial delivery slate cladding	0	22MAY06		0		0	-113	0
E&M WORKS									
6202	EntNpBldg-Proc & Manuf. LV power dist. equip't	180	20MAR05A	12JUN06	40	100	90	-122	-170
6201	EntNpBldg-Proc. & Manuf. of HV dist. equip't	180	25MAR05A	06MAY06	90	100	60	-86	-176
6208	EntNpBldg-Proc. & Manuf. of CMCS & ELV sys	180	25MAR05A	29JUL06	20	100	130	-108	-174
6269	EntNpBldg-Proc & Manuf. FS AFA & FM200 sys	120	25MAR05A	19AUG06	40	100	90	-78	-166
6838	EntNpBldg-Proc & Manuf. MCC, power & control sys	180	25MAR05A	29JUL06	20	100	130	-156	-240
6205	EntNpBldg-Proc & Manuf. FS wet sys	120	06JUN05A	12JUN06	30	100	90	-26	-192
6824	EntNpBldg-Proc & Manuf. TVF, Ductwks&Cont'l sys	180	09JUN05A	25JUL06	40	100	80	-104	-180
6204	EntNpBldg-Proc & Manuf. Cleans & flush water sys	120	30SEP05A	19JUN06	10	100	90	-32	-216
8500	EntNpBldg-Proc & Manf bldg related luminaires	180	23NOV05A	05AUG06	90	100	130	-90	-202
6206	EntNpBldg-Proc & Manuf. MVAC mech.vent. sys	180	06JAN06A	17AUG06	20	100	140	-178	-268
6230	EntNpBldg-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	21SEP06	10		80	-94	-148
6831	EntNpBldg-Proc & Manuf. MVAC / TVF pneumatic sys	120	10MAY06	28SEP06	0		120	-100	-160
MAJOR EQUIPMENT DELIVERY									
ENT NORTH PORTAL BUILDING									
6211	EntNpBldg-Del. HV power dist. equip't to 2/F	48	08MAY06	04JUL06	0		48	-86	-176
INTERFACE MILESTONES									
NORTH PORTAL BUILDING									
1833	Int M/S - ENT NPB - E&M 2/F access	0		12APR06	0	100	0	-106	-166
6219	EntNpBldg-E&M access to 2/F	0	13APR06*		0	100	0	-106	-148
1834	Int M/S - ENT NPB - E&M 3/F access	0		09MAY06	0		0	-100	-166
1837	Int M/S - ENT NPB - E&M Ext.Elev access	0		09MAY06	0		0	-40	-170
6213	EntNpBldg-E&M access to 3/F	0	10MAY06*		0		0	-100	-166



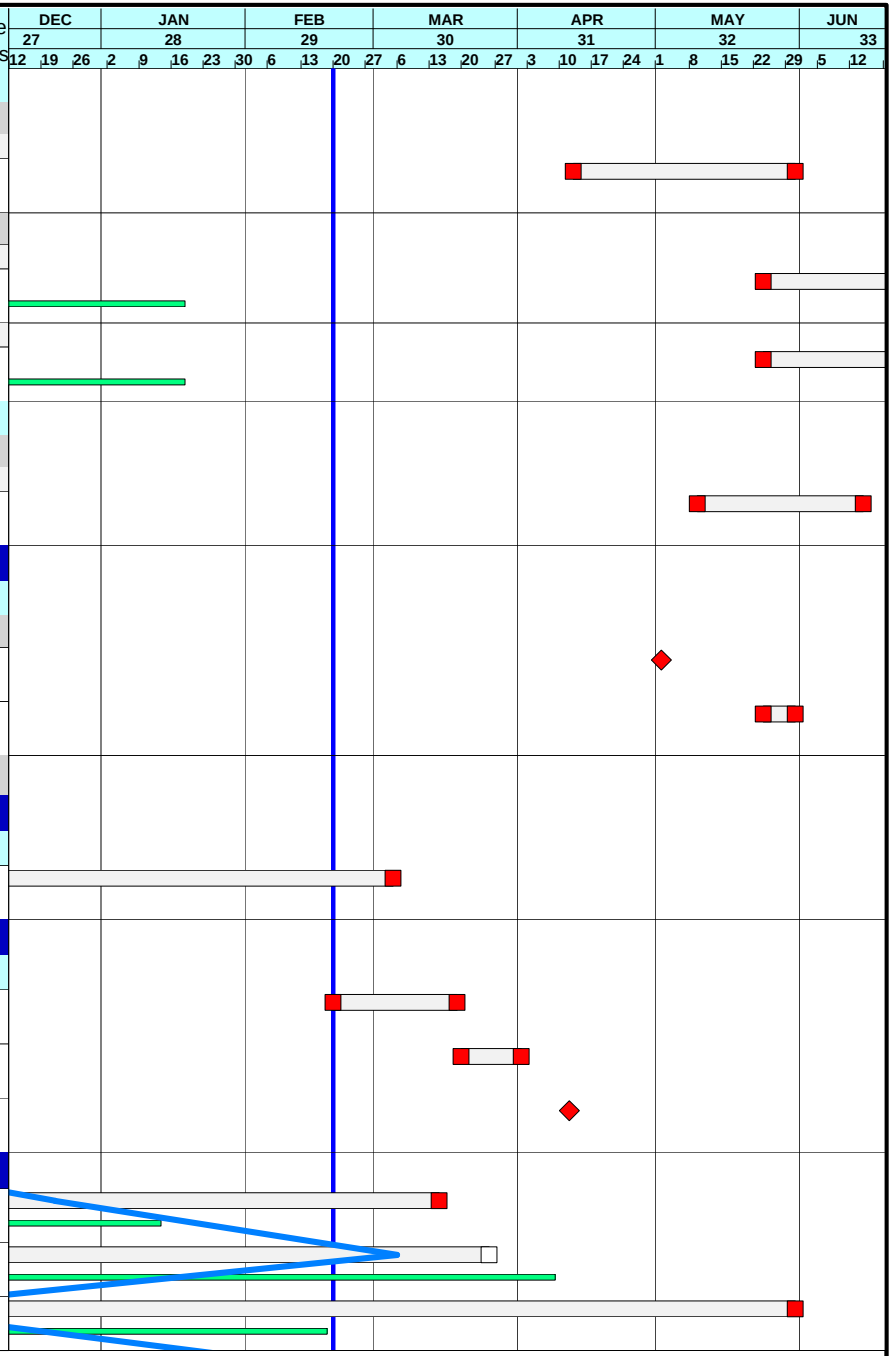
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
NORTH PORTAL BUILDING									
6218	EntNpBldg-E&M access to External Elevation	0	10MAY06*		0		0	-40	-142
CONSTRUCTION									
SUPERSTRUCTURE									
RC WORKS									
NB CARRIAGEWAY & CENTRAL RESERVE									
1394	NP.Bldg - RC S/Slab U2FL.+78.40.65mPD GL.E-H/3-7	12	24DEC05A	23FEB06	50	100	4	-149	-178
1395	NP.Bldg. - RC Cols.& Walls to 3FL.GL.A-J/3-6	18	24DEC05A	25FEB06	50	100	6	-149	-176
1396	NP.Bldg. - RC S/Slab 3FL.+85.98mPD GL.A-J/3-7	18	20FEB06	11MAR06	0	100	18	-149	-174
1397	NP.Bldg. - RC Cols.& Walls to 4FL.GL.A-J/3-7	18	06MAR06	25MAR06	0	100	18	-95	-174
1398	NP.Bldg. - RC S/Slab 4FL.+93.83mPD GL.A-H/3-7	18	20MAR06	10APR06	0	100	18	-95	-174
1399	NP.Bldg. - RC Cols.& Walls to 5FL.GL.A-H/3-7	18	03APR06	27APR06	0	100	18	-95	-174
1400	NP.Bldg. - RC S/Slab 5FL.+100.88mPD GL.A-H/3-7	18	28APR06	20MAY06	0	100	18	-95	-174
1401	NP.Bldg. - RC Stairs GL.A-H/5-7	18	28APR06	20MAY06	0	100	18	-64	-162
SB CARRIAGEWAY									
1407	NP.Bldg. - RC S/Slab U2FL.~78.5mPD GL.E-H/1-3	12	24DEC05A	23FEB06	50	100	4	-143	-162
1408	NP.Bldg. - RC Cols.& Walls to 3FL.GL.A-J/1-3	18	24DEC05A	25FEB06	50	100	6	-149	-176
1409	NP.Bldg. - RC S/Slab 3FL.+85.98mPD GL.A-J/1-3	12	27FEB06	11MAR06	0	100	12	-149	-170
1410	NP.Bldg. - RC Cols.& Walls to 4FL.GL.A-J/1-3	18	06MAR06	25MAR06	0	100	18	-77	-170
1411	NP.Bldg. - RC S/Slab 4FL.+93.83mPD GL.A-H/1-3	12	20MAR06	01APR06	0	100	12	-77	-170
1412	NP.Bldg. - RC Cols.& Walls to 5FL.GL.A-H/1-3	18	27MAR06	20APR06	0	100	18	-77	-170
1413	NP.Bldg. - RC S/Slab 5FL.+100.88mPD GL.A-H/1-3	9	11APR06	27APR06	0	100	12	-77	-170
1414	NP.Bldg. - RC Stairs GL.A-H/5-7	18	21APR06	13MAY06	0	100	18	-71	-170
STRUCTURAL STEELWORKS									
1232	NP.Bldg.- Crane beams to underside of U2F & test	18	17MAR06	07APR06	0	100	18	-102	-162
1233	NP.Bldg.- Crane beams to underside of 3FL & test	18	08APR06	03MAY06	0	100	18	-96	-162
1234	NP.Bldg.- Crane beams to underside of 4FL & test	18	08MAY06	27MAY06	0		18	-56	-164



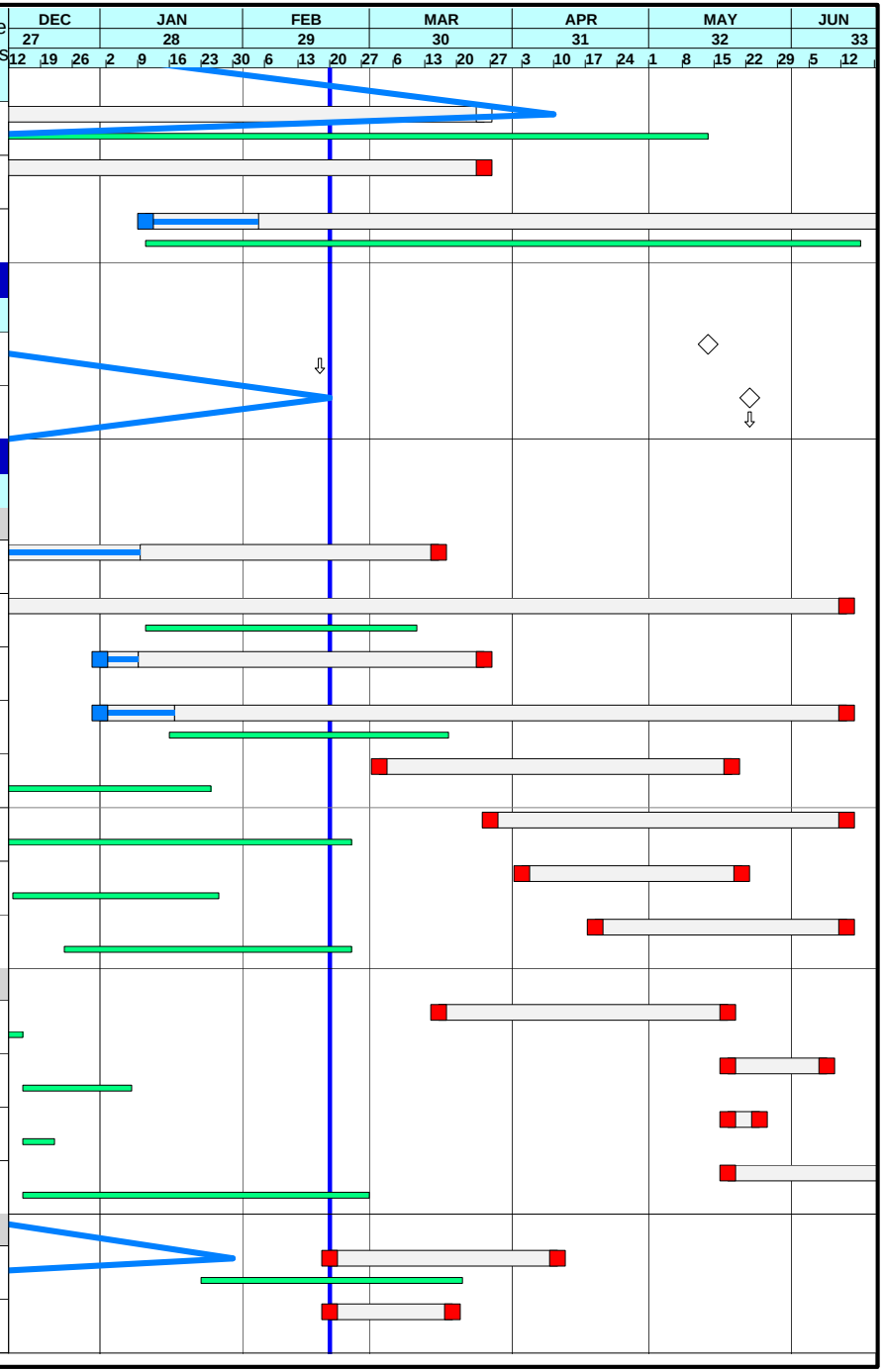
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
STRUCTURAL STEELWORKS									
1415	NP.Bldg.Struct.Steel Works GL.A-E/2	14	15MAY06	30MAY06	0		14	-58	-170
1402	NP.Bldg.Struct.Steel Works GL.A-E/6	14	22MAY06	07JUN06	0		14	-64	-162
ARCHITECTURAL & BUILDER'S WORKS									
ROOFING & EXTERNAL FACADE									
1423	NP.Bldg.Roof W/Proofing & Testing	24	15MAY06	12JUN06	0		24	-68	-166
1630	NP.Bldg.Ext Louvre & cladding 2FL to 3FL	18	22MAY06	12JUN06	0		18	-113	-206
BUILDER'S WORK									
1418	NP.Bldg. -W/Proof Tanks/Pits & Test GL.H-S/10-12	18	13MAR06	01APR06	0	100	18	-82	-174
1419	NP.Bldg. - Plinths GL.	8	13MAR06	21MAR06	0	100	8	-82	-170
1420	NP.Bldg. - Plinths 2FL.	8	13MAR06	21MAR06	0	100	8	-149	-170
1626	NP.Bldg.Wet Trades 2FL	18	22MAR06	12APR06	0	100	18	-149	-170
1627	NP.Bldg.Wet Trades 3FL	18	13APR06	09MAY06	0	100	18	-118	-170
1810	NP.Bldg. - Ext. Doors & Windows (frame)	18	13APR06	09MAY06	0		18	-55	-170
1421	NP.Bldg. - Plinths 4FL.	8	21APR06	29APR06	0	100	8	-52	-174
1527	NP.Bldg.Wet Trades GL	18	10MAY06	30MAY06	0		18	-118	-170
E&M - GENERAL									
MVAC WORKS									
MCC, POWER & CONTROL									
6840	EntNpBldg-MCC, power & control 1st fix	42	10MAY06	28JUN06	0		42	-82	-166
ELECTRICAL WORKS									
HV POWER DISTRIBUTION MAJOR EQPT.									
6225	EntNpBldg-HV power dist. sys 1st fix	36	13APR06	30MAY06	0	100	36	-100	-148
EARTHING & LIGHTNING PROTECTION									
6209	EntNpBldg-Earth'g & lightn'g - Earth Mat & Rods	30	11APR06	20MAY06	0	100	30	-50	-174
6228	EntNpBldg-Earth'g & lightn'g protection 1st fix	60	22MAY06	01AUG06	0		60	-50	-152
TCSS CONTAINMENT									
8481	EntNpBldg - TCSS Contain't for KD7	24	22MAR06	22APR06	0	100	24	-149	-170



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
E&M 2/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
6220	EntNpBldg 2F-AC(1st Fix) mech.vent.	36	13APR06	30MAY06	0	100	36	-106	-148
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTUION									
6251	EntNpBldg 2F-ES(1st Fix) Main & Sub-main dist.	54	24MAY06	27JUL06	0		54	-106	-148
FINAL CIRCUIT									
6252	EntNpBldg 2F-ES(1st Fix) Final Circuit dist.	54	24MAY06	27JUL06	0		54	-106	-148
E&M 3/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
6214	EntNpBldg 3F-AC(1st Fix) mech.vent.	30	10MAY06	14JUN06	0		30	-100	-166
TESTING & COMMISSIONING									
STATUTORY INSPECTION									
FSD INSPECTION									
6298	EntNpBldg-All FS design approved by FSD (MHJV)	0	02MAY06		0		0	-52	-170
6325	EntNpBldg-Issue, endorse & submit FSI 314 to FSD	6	24MAY06	30MAY06	0		6	-52	-170
TOLL PLAZA & ANCILLIARY STRUCTURES									
SUBMITTALS & APPROVALS									
ABWF & BUILDER'S WORKS									
1522	TP/FB - Approve footbridge details	24	28JUL05A	04MAR06	0	100	12	-38	-385
DESIGN & ENGINEERING									
PERMANENT WORKS									
1244	Design/ICE Check Tool Booth Canopy	24	20FEB06	18MAR06	0	100	24	-12	-133
1341	Eng Approve Dsg Tool Booth Canopy	12	20MAR06	01APR06	0	100	12	-12	-133
1358	Issue Constr Dwgs Tool Booth Canopy	0		11APR06	0	100	0	-12	-133
PROCUREMENT - MAJOR MATERIAL									
2184	Order/Fabricate/Deliver FBridge Structural Steel	120	01APR05A	14MAR06	0	100	20	-13	-44
1518	Admin Bldg - Procure & maunfacture lift	270	01JUN05A	25MAR06	0	80	30	82	11
2185	Order/Fabricate/Deliver Tool Booth Canopy	90	01DEC05A	30MAY06	0	80	80	-49	-80



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
TOLL PLAZA									
1512	TP/FB - Procure & maunfacture lifts (x2)	270	15JUL05A	25MAR06	0	80	30	103	36
1521	TP/FB - Procure & fabricate footbridge	110	15JUL05A	25MAR06	0	100	30	-38	-223
7548	TP-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	14SEP06	10		120	-25	-77
INTERFACE MILESTONES									
TOLL PLAZA COLLECTOR'S SUBWAY									
1492	Int M/S - TP/CS - E&M access	0		13MAY06	0		0	61	-67
7543	E&M access to Toll Plaza Subway	0	23MAY06*		0		0	54	0
CONSTRUCTION WORKS									
TOLL PLAZA ROADWORKS									
ROADS - FORMATION									
1770	TP/Rd - Perm materials storage area; Ptn D2 & D3	175	01JUN04A	15MAR06	90	100	21	-108	-213
1497	TP/Rd - Drainage ch.4+520 to 4+680	44	01AUG05A	12JUN06	20	20	90	-64	-73
1744	TP/Rd - Drainage ch.4+320 to 4+460	40	01JAN06A	25MAR06	10	100	30	-74	-85
1745	TP/Rd - Drainage ch.4+460 to 4+520	46	01JAN06A	12JUN06	10	0	30	-52	-67
1877	TP/Rd - Water main	60	03MAR06	18MAY06	0	90	60	-74	-85
1878	TP/Rd - HV & LV Cable ducting	60	27MAR06	12JUN06	0	60	60	-74	-85
1825	TP/Rd - Drain Testing - ch.4+320 to 4+460	36	03APR06	20MAY06	0	90	36	-40	-85
1775	TP/Rd - Telecom ducts	44	19APR06	12JUN06	0	0	44	-74	-85
ROADS - EVA									
1743	TP/Rd - Drainage - EVA loop road - SW area	48	16MAR06	17MAY06	0	100	48	-108	-116
1751	TP/Rd - Drain Testing - EVA loop road - SW area	18	18MAY06	08JUN06	0	100	18	-79	-116
1752	TP/Rd - Sub-base - EVA loop road - SW area	6	18MAY06	24MAY06	0	100	6	-67	-116
1756	TP/Rd - Drainage - EVA loop rd - E & NE area	55	18MAY06	22JUL06	0	60	55	-108	-116
ROADS - FINISHES									
1500	TP/Rd - TCSS Ducts SB&NB C'Way ch.4+520 to 4+680	42	20FEB06	10APR06	0	0	42	-31	-17
1824	TP/Rd - Ptn D4 TCSS Ducts S&NB ch.4+460 to 4+520	24	20FEB06	18MAR06	0	100	24	-183	-193



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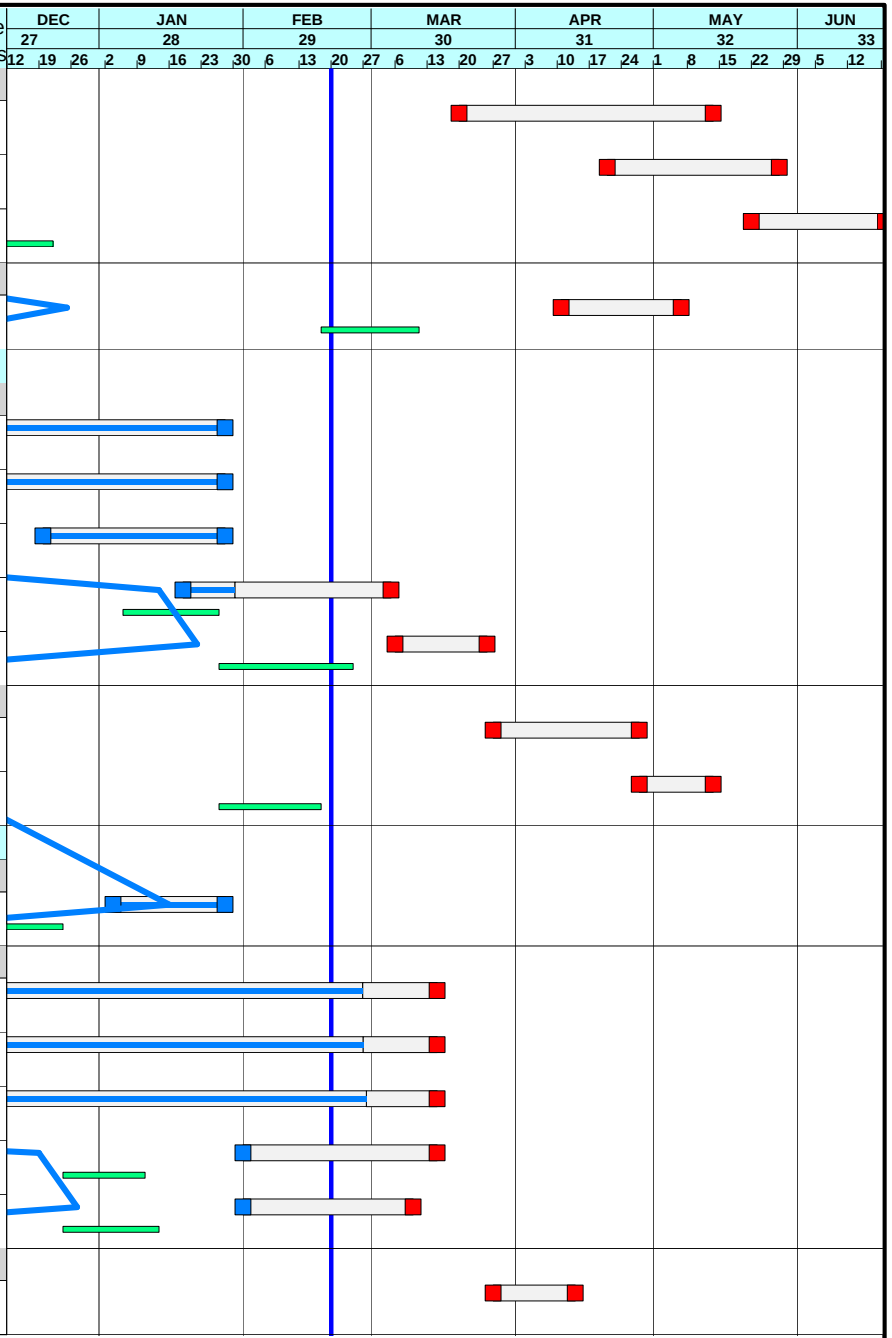
ROADS - FINISHES									
1736	TP/Rd - Ptn D2&D3TCSS Dct S&NB ch.4+320 to 4+460	42	20MAR06	13MAY06	0	100	42	-183	-193
1747	TP/Rd - Ptn D5 - TCSS Dct S&NB ch.4+320 to 4+460	30	21APR06	27MAY06	0	100	30	-109	-143
1831	TP/Rd - Ptn D5 TCSS Ducts S&NB ch.4+460 to 4+520	24	22MAY06	19JUN06	0		24	-109	-137
STRUCTURAL STEEL									
1849	TP/Rd - TCSS Sign ch.4+520 to 4+680	18	11APR06	06MAY06	0	0	18	-31	-43
TOLL PLAZA COLLECTOR'S SUBWAY									
STRUCTURE									
1719	TP/CS - Waterproof & backfill - Ptn B	18	14OCT05A	27JAN06A	100	100	0		-165
1718	TP/CS - Waterproof & backfill - Ptn A	18	14NOV05A	27JAN06A	100	100	0		-183
1720	TP/CS - Waterproof & backfill - Ptn C	18	20DEC05A	27JAN06A	100	100	0		-147
1717	TP/CS - Substructure construction - Ptn D	18	19JAN06A	04MAR06	25	80	12	-37	-25
1721	TP/CS - Waterproof & backfill - Ptn D	18	06MAR06	25MAR06	0	0	18	-37	-25
ABWF									
1471	TP/CS - Internal Finishes Ptn A, B & C	24	27MAR06	27APR06	0	100	24	-37	-207
1472	TP/CS - Internal Finishes Ptn D	12	28APR06	13MAY06	0		12	-37	-67
TOLL PLAZA FOOTBRIDGE									
FOUNDATIONS									
1495	TP/FB - Pile Cap - Cap FT1	12	04JAN06A	27JAN06A	100	100	0		-27
RC SUPERSTRUCTURE									
1694	TP/FB - Column & bearings C2	12	27APR05A	14MAR06	95	100	20	-28	-213
1707	TP/FB - Column & bearings C1	12	29APR05A	14MAR06	95	100	20	-19	-212
1494	TP/FB - Column & bearings W2 (FT4)	12	13MAY05A	14MAR06	95	100	20	-28	-240
1506	TP/FB - Column & bearings W1 (FT1)	56	01FEB06A	14MAR06	0	100	20	-19	-47
1507	TP/FB - Lift Machine room walls & stair (FT1)	15	01FEB06A	09MAR06	0	100	16	-9	-40
STRUCTURAL STEELWORKS									
1502	TP/FB - Stair (FT4)	15	27MAR06	13APR06	0	100	15	-38	-250



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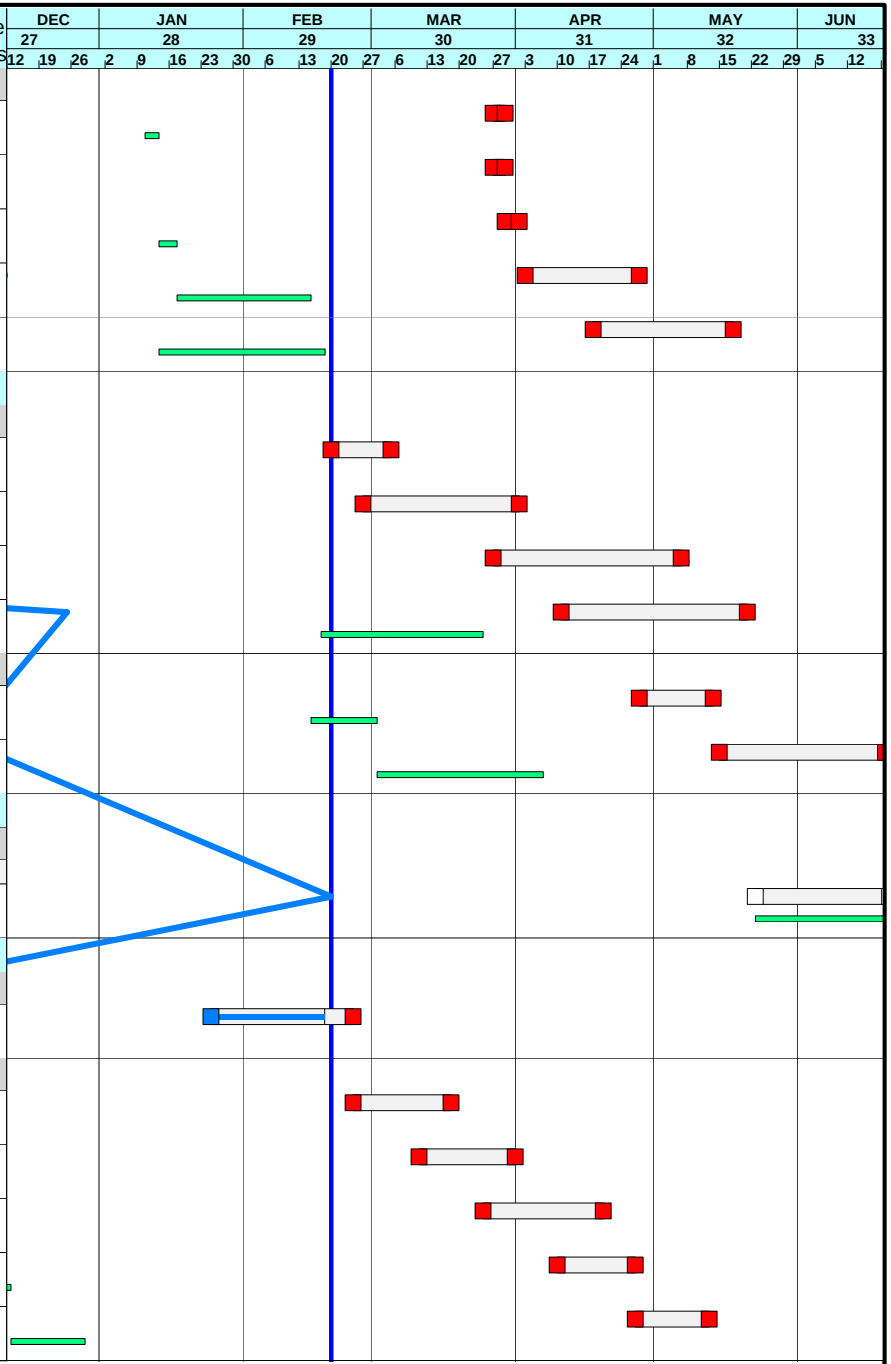
STRUCTURAL STEELWORKS									
1709	TP/FB - Erect & install frame A1	3	27MAR06	29MAR06	0		3	-29	-57
1710	TP/FB - Erect & install frame A2	3	27MAR06	29MAR06	0	100	3	-29	-223
1711	TP/FB - Erect & install frame B	3	30MAR06	01APR06	0		3	-29	-57
1712	TP/FB - Site weld, test & remove temp supports	18	03APR06	27APR06	0		18	-29	-57
1496	TP/FB - Px Lift (x2) Structural Steelwork Inst.	24	18APR06	17MAY06	0		24	-38	-69
TOLL PLAZA BOOTHS									
STRUCTURE									
1510	TP/B - Construct toll islands - Portion A - 1 no	12	20FEB06	04MAR06	0	100	12	-159	-195
1713	TP/B - Construct toll islands - Portion B - 5 no	30	27FEB06	01APR06	0	100	30	-159	-183
1722	TP/B - Construct toll islands - Portion C - 5 no	30	27MAR06	06MAY06	0	100	30	-159	-183
1723	TP/B - Construct toll islands - Portion D - 6 no	30	11APR06	20MAY06	0		30	-13	-43
ABWF									
1511	TP/B - Construct toll kiosks - Portion A - 1 no	12	28APR06	13MAY06	0		12	-29	-57
1726	TP/B - Construct toll kiosks - Portion B - 5 no	30	15MAY06	19JUN06	0		30	-29	-57
TOLL PLAZA E&M WORKS									
FS WORKS									
AFA DISTRIBUTION									
7565	TP-FS(1st Fix) AFA dist.	24	23MAY06	20JUN06	0		24	63	0
ADMIN.BLDG. - WORKSHOP									
FOUNDATIONS									
1750	Admin.Bldg. Wk Shop - Raft footing	18	25JAN06A	24FEB06	80	100	5	-84	-102
STRUCTURE									
1749	Admin.Bldg. Wk Shop - GF Slab	18	25FEB06	17MAR06	0	100	18	-84	-102
1768	Admin.Bldg. Wk Shop - Columns & walls GF to Roof	18	11MAR06	31MAR06	0	100	18	-84	-102
1777	Admin.Bldg. Wk Shop - Roof Slab	18	25MAR06	19APR06	0	100	18	-84	-102
1779	Admin. Wk Shop - Col & walls Roof to Upper Roof	12	10APR06	26APR06	0	100	12	-84	-102
1780	Admin.Bldg. Wk Shop - Upper Roof slab	12	27APR06	12MAY06	0		12	-84	-102



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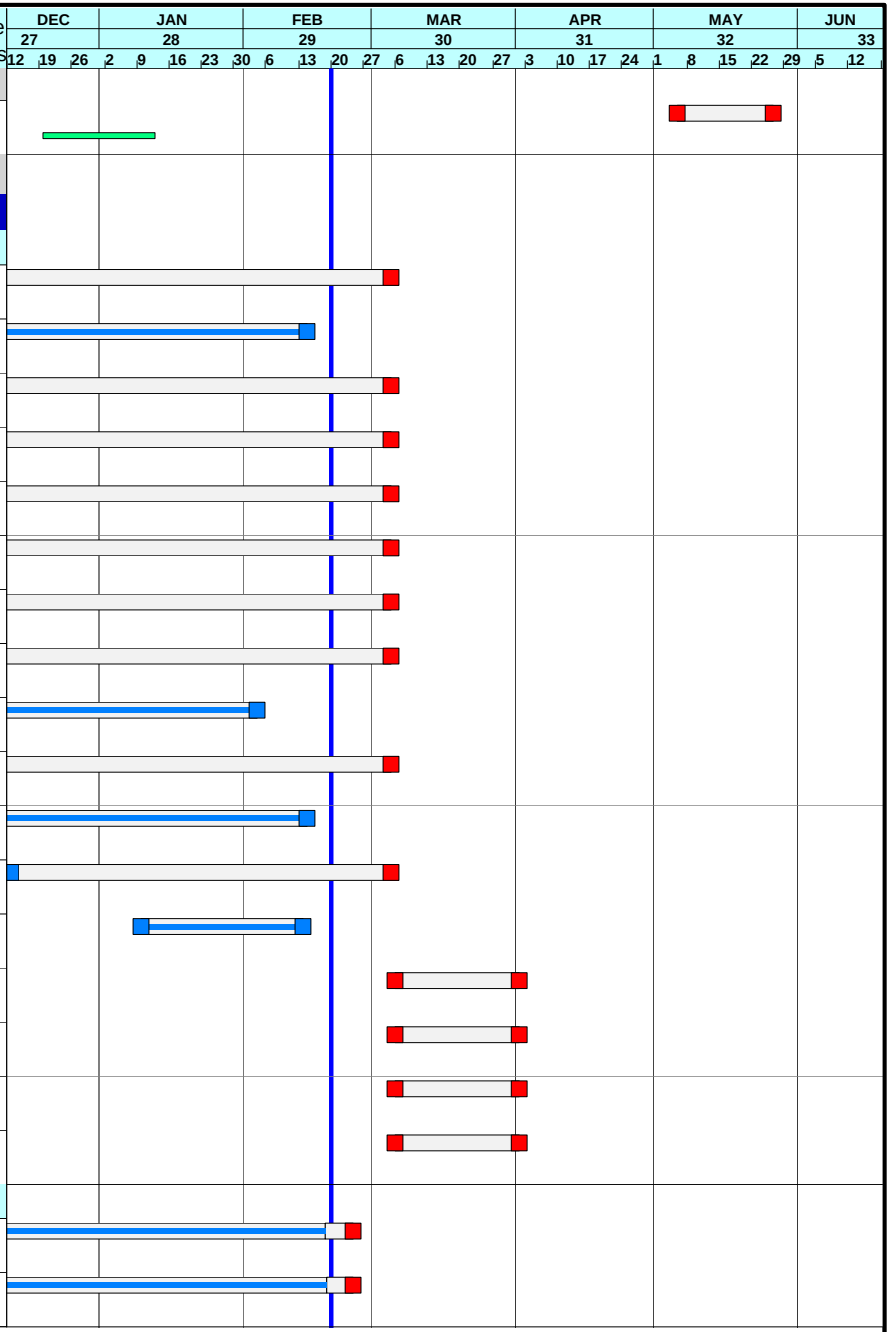
ABWF									
1783	Admin.Bldg. Wk Shop - Ext. Doors & Windows GF	18	06MAY06	26MAY06	0		18	-66	-102
ADMINISTRATION BUILDING									
SUBMITTALS & APPROVALS									
ABWF & BUILDER'S WORKS									
1883	Admin.Bldg. - Prep & sub sheet decking details	24	13NOV04A	04MAR06	12	100	12	-195	-355
1891	Admin.Bldg. - Prep & submit door & window detail	24	13NOV04A	14FEB06A	100	100	0		-339
1885	Admin.Bldg. - Prep & submit wood ceiling details	24	20NOV04A	04MAR06	50	100	12	-183	-349
1881	Admin.Bldg. - Prep & sub GRP water tank details	24	12JAN05A	04MAR06	50	100	12	-201	-307
1892	Admin.Bldg. - Approve door & window details	24	06APR05A	04MAR06	50	100	12	-189	-331
1894	Admin.Bldg. - Approve louvre details	24	07APR05A	04MAR06	50	100	12	-26	-397
1819	Admin.Bldg. - Approve stone cladding design	24	15JUN05A	04MAR06	50	100	12	-56	-247
1820	Admin.Bldg. - Approve slate cladding design	24	15JUN05A	04MAR06	50	100	12	-56	-247
1890	Admin.Bldg. - Approve curtain wall details	24	22JUN05A	03FEB06A	100	100	0		-343
1887	Admin.Bldg. - Prep & sub suspend ceiling details	24	12AUG05A	04MAR06	50	100	12	-24	-139
1900	Admin.Bldg. - Approve fall arrest system	24	14OCT05A	14FEB06A	100	100	0		-285
1898	Admin.Bldg. - Approve aluminium cladding	24	13DEC05A	04MAR06	0	100	12	-56	-397
1896	Admin.Bldg. - Approve balustrade & metal works	24	10JAN06A	13FEB06A	100	100	0		-272
1882	Admin.Bldg. - Approve GRP water tank details	24	06MAR06	01APR06	0	100	24	-201	-307
1884	Admin.Bldg. - Approve sheet decking details	24	06MAR06	01APR06	0	100	24	-195	-355
1886	Admin.Bldg. - Approve wood ceiling details	24	06MAR06	01APR06	0	100	24	-183	-349
1888	Admin.Bldg. - Approve suspended ceiling details	24	06MAR06	01APR06	0	100	24	-24	-139
E&M EQPT. / MTRL. SUBMITTALS									
8244	AdmBldg-Sub.FS AFA & FM200 sys	54	05JUL04A	24FEB06	99	100	5	-56	-184
8240	AdmBldg-Sub.FS wet sys	54	05AUG04A	24FEB06	99	100	5	-62	-328



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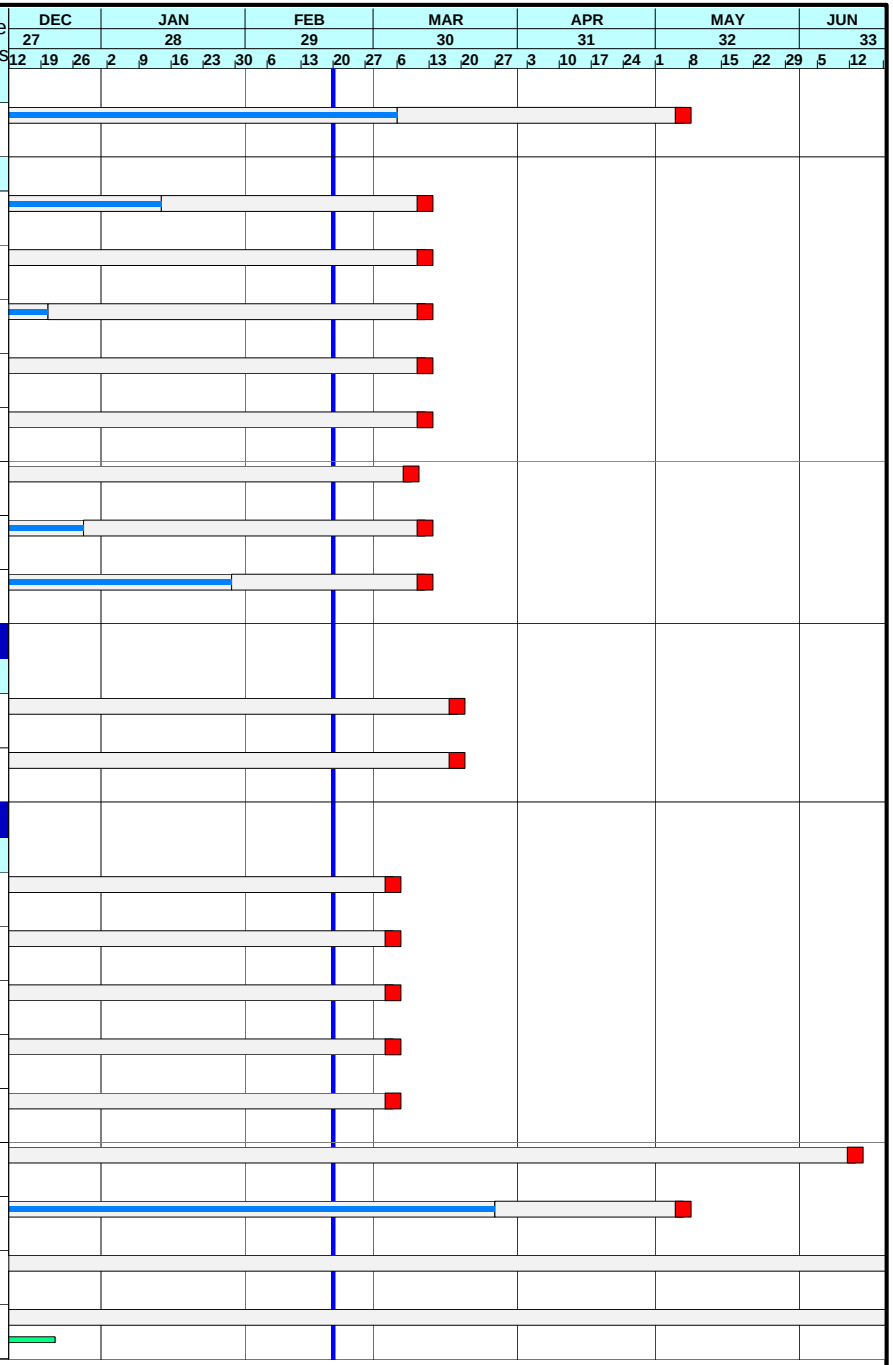
E&M EQPT. / MTRL. SUBMITTALS									
8242	AdmBldg-Sub.CMCS, TCS & ELV sys	78	26AUG04A	06MAY06	90	100	60	-189	-349
E&M EQPT. / MTRL. APPROVALS									
8503	AdmBldg-App. building related luminaires	18	18AUG04A	11MAR06	90	100	18	-170	-245
6388	AdmBldg-App. FS wet sys	18	04SEP04A	11MAR06	80	100	18	-62	-323
6399	AdmBldg-App. FS AFA & FM200 sys	18	14SEP04A	11MAR06	85	100	18	-56	-179
6392	AdmBldg-App. of CMCS, TCS & ELV sys	18	20SEP04A	11MAR06	80	100	18	-189	-289
6389	AdmBldg-App. MVAC mech.vent. sys	18	23SEP04A	11MAR06	80	100	18	-206	-335
6396	AdmBldg-App. FCUs & PAUs	18	23SEP04A	08MAR06	80	100	15	-203	-392
6387	AdmBldg-App. PD all fresh & flush water sys	18	04NOV04A	11MAR06	85	100	18	-80	-347
6478	AdmBldg-App. Chiller & Pumps	18	17JAN05A	11MAR06	90	100	18	-136	-353
DESIGN & ENGINEERING									
ABWF WORKS									
1802	Admin.Bldg. - Design stone cladding	36	04APR05A	18MAR06	50	100	24	-56	-283
1803	Admin.Bldg. - Design slate cladding	36	04APR05A	18MAR06	50	100	24	-56	-283
PROCUREMENT - MATERIAL									
ABWF WORKS									
1904	Admin.Bldg. - Procure wood ceiling	90	19JAN05A	04MAR06	0	100	12	-185	-145
1909	Admin.Bldg. - Procure balustrade & metal works	90	09MAR05A	04MAR06	0	100	12	-177	-199
1910	Admin.Bldg. - Procure aluminium cladding	90	09MAR05A	04MAR06	0	100	12	-86	-217
1916	Admin.Bldg. - Procure slate cladding	90	14MAR05A	04MAR06	50	100	12	-86	-67
1902	Admin.Bldg. - Procure GRP water tank	90	16MAR05A	04MAR06	0	100	12	-177	-163
6391	AdmBldg-Proc & Manuf. LV power dist. equip't	120	20MAR05A	12JUN06	40	100	90	-152	-251
6390	AdmBldg-Proc & Manuf. of HV dist. equip't	120	25MAR05A	06MAY06	90	100	60	-122	-257
6397	AdmBldg-Proc & Manuf. of CMCS, ELV & TCS sys	180	25MAR05A	25AUG06	15	100	153	-189	-244
6444	AdmBldg-Proc & Manuf. FS AFA & FM200 sys	120	25MAR05A	04JUL06	40	100	90	-56	-149



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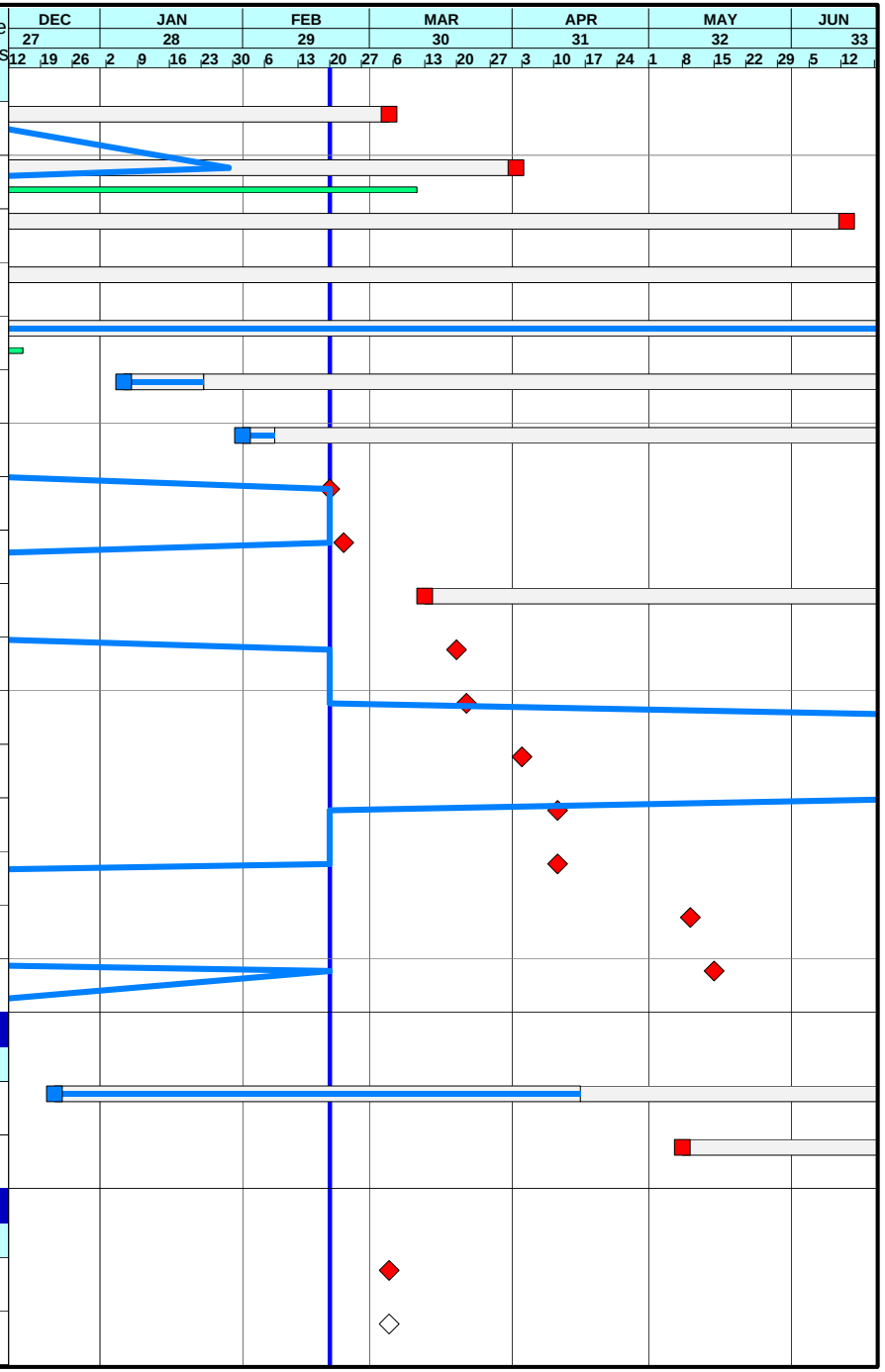
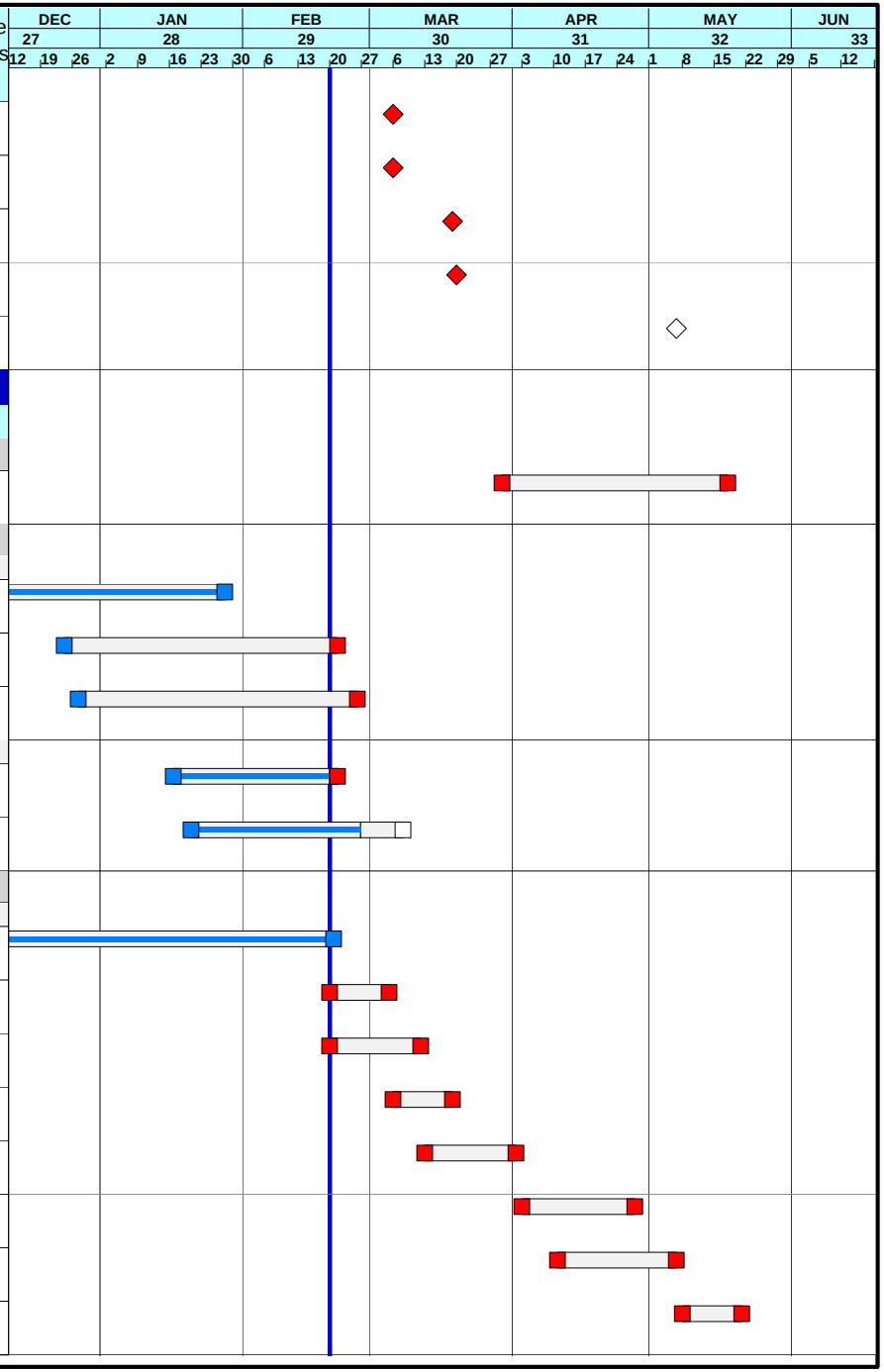
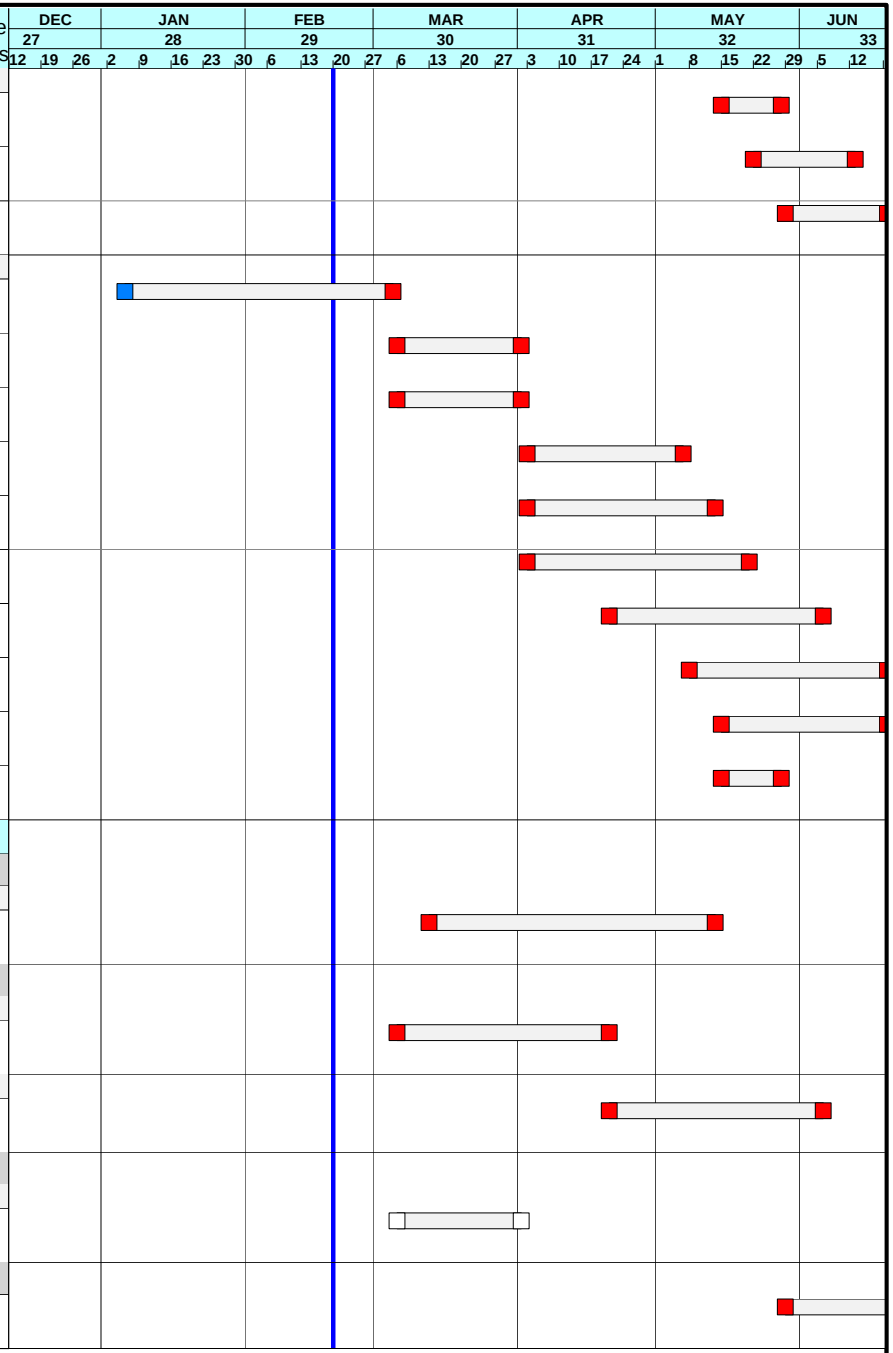
ABWF WORKS									
1917	Admin.Bldg. - Procure stone cladding	90	03MAY05A	04MAR06	50	100	12	-86	-67
1905	Admin.Bldg. - Procure suspended ceiling	120	09MAY05A	01APR06	0	80	36	-54	-19
6394	AdmBldg-Proc & Manuf. FS wet sys	90	06JUN05A	12JUN06	30	100	90	-62	-275
6393	AdmBldg-Proc & Manuf. PD fresh & flush water sys	90	30SEP05A	04JUL06	10	100	90	-80	-317
8504	AdmBldg-Proc & Manf bldg related luminaires	180	23NOV05A	19OCT06	90	100	180	-170	-245
6415	AdmBldg-Proc & Manuf. FCUs & PAUs	90	06JAN06A	29JUN06	10	100	90	-203	-302
6479	AdmBldg-Proc & Manuf. Chiller & Pumps	90	01FEB06A	21JUN06	5	100	80	-136	-253
1938	Admin.Bldg. - Initial delivey glass canopy	0	20FEB06		0	0	0	-177	0
2055	Admin.Bldg. - Initial delivery curtain wall	0	23FEB06		0	0	0	-162	0
6395	AdmBldg-Proc & Manuf. MVAC mech.vent. sys	90	13MAR06	04JUL06	0	100	90	-206	-305
2060	Admin.Bldg. - Initial delivery balust & mtl wks	0	20MAR06		0	0	0	-177	0
2059	Admin.Bldg. - Initial delivery fall arrest syst	0	22MAR06		0	0	0	-10	0
2057	Admin.Bldg. - Initial delivery doors & windows	0	03APR06		0	0	0	-189	484
2054	Admin.Bldg. - Initial delivery louvres	0	11APR06		0	0	0	-26	0
2056	Admin.Bldg. - Initial delivery sheet decking	0	11APR06		0	0	0	-195	0
2058	Admin.Bldg. - Initial delivery wood ceiling	0	10MAY06		0		0	-185	-572
2063	Admin.Bldg. - Initial delivery GRP water tank	0	15MAY06		0		0	-201	0
MAJOR EQUIPMENT DELIVERY									
ADMINISTRATION BUILDING									
6401	AdmBldg-Del. LV power dist. equip't to 2/F	48	22DEC05A	08AUG06	50		48	-152	-251
6400	AdmBldg-Del. HV power dist. equip't to 2/F	48	08MAY06	04JUL06	0		48	-122	-257
INTERFACE DATES									
ADMINISTRATION BUILDING									
1827	Int. MS - Admin.Bldg. - E&M 1/F access (partial)	0		04MAR06	0	100	0	-114	-187
4003	Int. MS - Admin.Bldg. - E&M G/F access (full)	0		04MAR06	0	100	0	661	-181



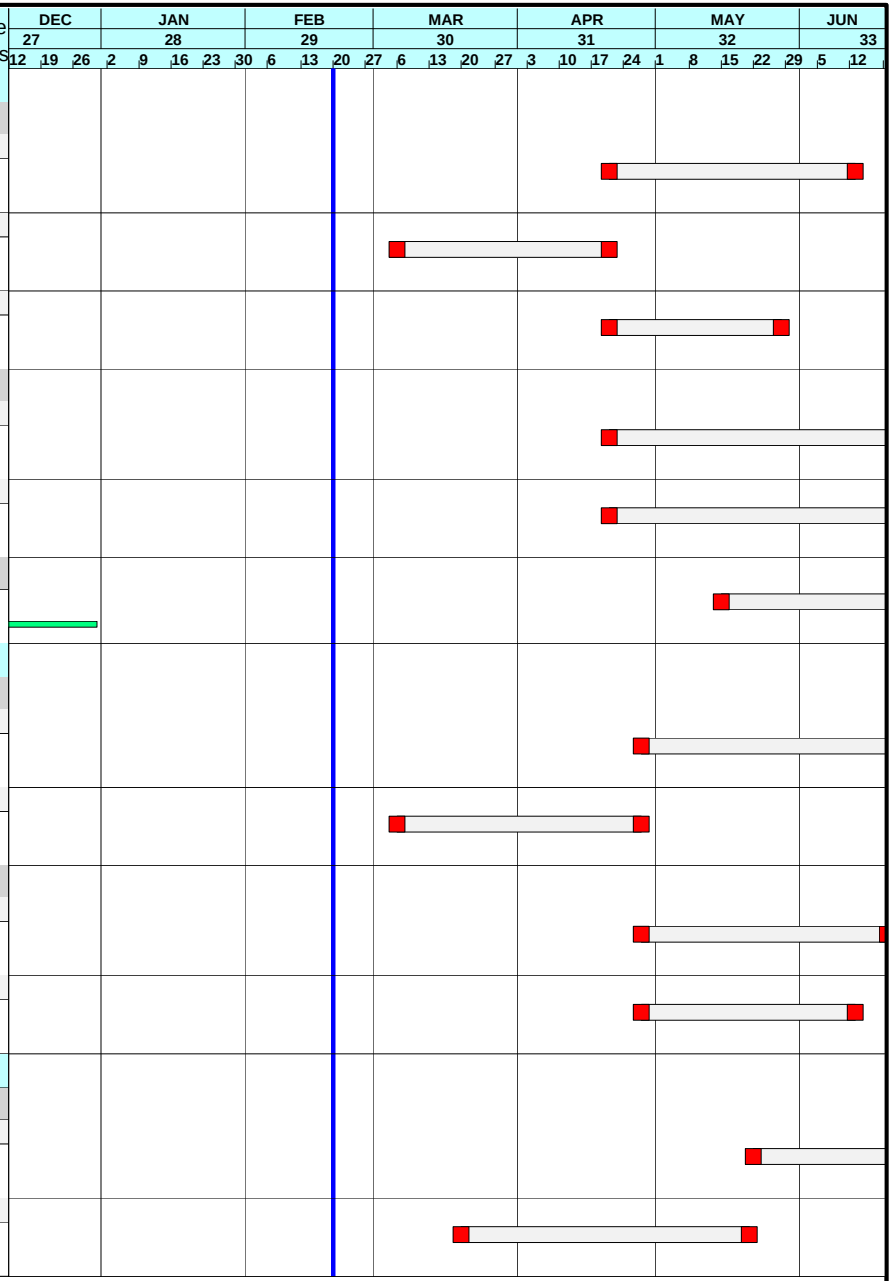
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
ADMINISTRATION BUILDING									
6404	AdmBldg-E&M access to G/F (partial)	0	06MAR06*		0	100	0	-122	-197
6406	AdmBldg-E&M access to 1/F (partial)	0	06MAR06		0	100	0	-114	-187
1828	Int. MS - Admin.Bldg. - E&M 2/F access (partial)	0		18MAR06	0	100	0	-122	-175
6402	AdmBldg-E&M access to 2/F (partial)	0	20MAR06		0	100	0	-122	-175
4004	Int. MS - Admin.Bldg. - E&M 1/F access (full)	0		06MAY06	0		0	613	-181
CONSTRUCTION									
CIVIL & ABWF WORKS									
SUBSTRUCTURE									
6398	Admin.Bldg. - Earth Mat & Rods - All in ptn D4	36	30MAR06	17MAY06	0	100	36	-108	-376
RC SUPERSTRUCTURE									
NORTH [GL.1-11]									
1666	Admin.Bldg Nth - Roof Slab	24	07DEC05A	27JAN06A	100	100	0		-163
1672	Admin.Bldg Nth - Columns & walls 3F to Upp Roof	24	24DEC05A	21FEB06	0	100	2	-125	-165
1673	Admin.Bldg Nth - Upper Roof Slab	24	27DEC05A	25FEB06	0	100	6	-105	-157
SOUTH [GL.11-21]									
1791	Admin.Bldg Sth - Columns & walls 3F to Upp Roof	24	17JAN06A	21FEB06	95	100	2	-58	-153
1790	Admin.Bldg Sth - Upper Roof Slab	24	21JAN06A	07MAR06	80	100	6	32	-153
ABWF									
CRITICAL ROOMS									
1730	Admin.Bldg Crit Rm - Int. Blockwork GF	12	05DEC05A	20FEB06A	100	100	0		-188
1731	Admin.Bldg Crit Rm - Int. Blockwork 1F	12	20FEB06	04MAR06	0	100	12	-171	-187
1804	Admin.Bldg Crit Rm - Ext. Doors & Glazing GF	18	20FEB06	11MAR06	0	100	18	-177	-205
1734	Admin.Bldg Crit Rm - Int. Blockwork 2F	12	06MAR06	18MAR06	0	100	12	-165	-175
1733	Admin.Bldg Crit Rm - Ext. Glazing 1F	18	13MAR06	01APR06	0	100	18	-177	-193
1380	Admin.Bldg Crit Rm - Ext. Glazing 2F	18	03APR06	27APR06	0		18	-177	-187
1366	Admin.Bldg Crit Rm - Int. Finishes GF	18	11APR06	06MAY06	0	100	18	-195	-229
1422	Admin.Bldg Crit Rm - Int. Finishes 1F	12	08MAY06	20MAY06	0		12	-195	-229



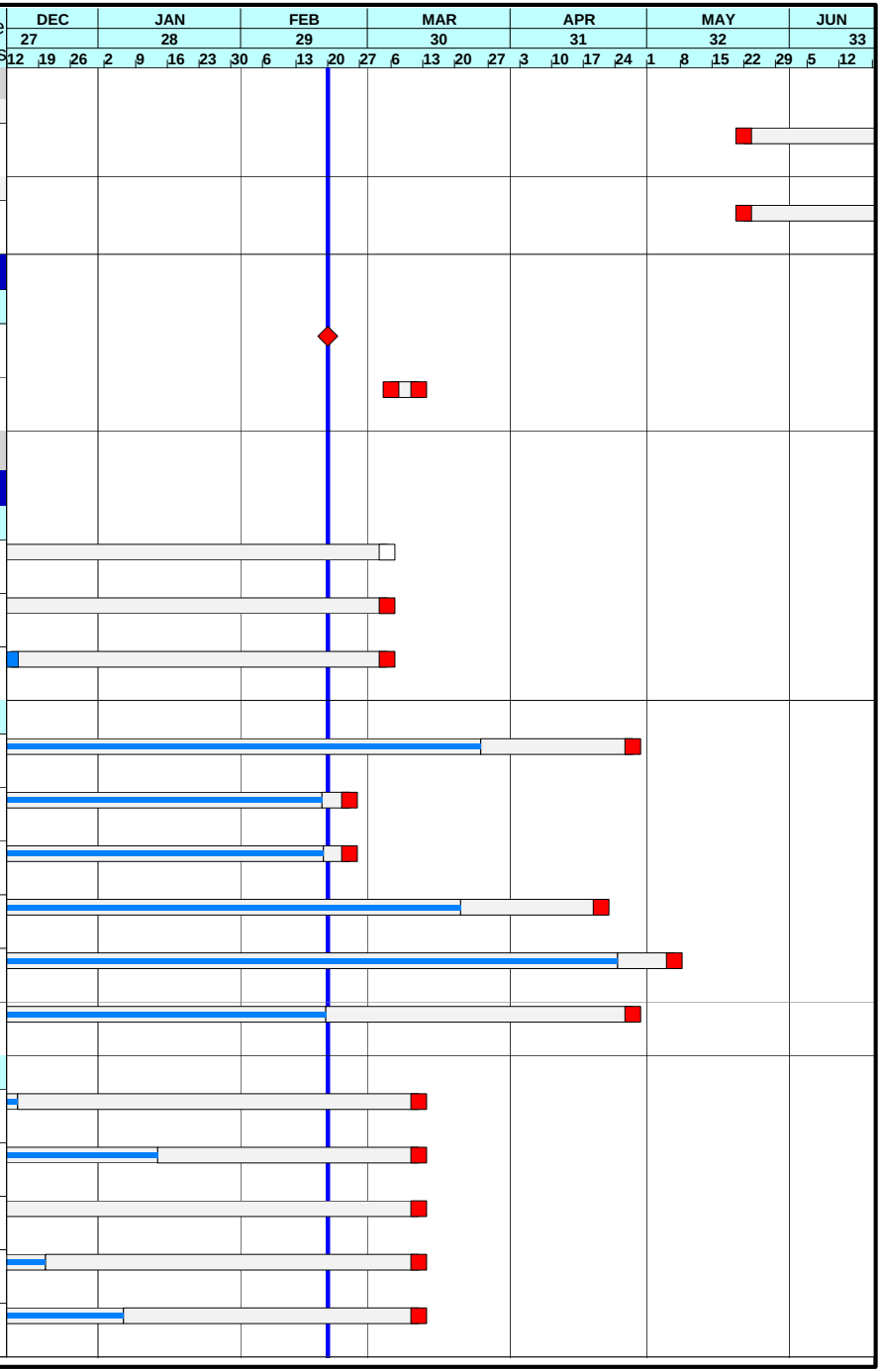
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
CRITICAL ROOMS									
1748	Admin.Bldg Crit Rm - Int. Blockwork - 3F to Roof	12	15MAY06	27MAY06	0		12	-201	-217
1523	Admin.Bldg Crit Rm - Int. Finishes 2F	18	22MAY06	12JUN06	0		18	-195	-205
1735	Admin.Bldg Crit Rm - Ext. Glazing 3F	18	29MAY06	19JUN06	0		18	-201	-211
REMAINING ROOMS									
1792	Admin.Bldg Oth Rm - Int. Blockwork GF	24	06JAN06A	04MAR06	0	100	12	-134	-181
1793	Admin.Bldg Oth Rm - Int. Blockwork 1F	24	06MAR06	01APR06	0	100	24	-134	-181
1805	Admin.Bldg Oth Rm - Ext. Doors & Windows GF	24	06MAR06	01APR06	0	100	24	-134	-181
1794	Admin.Bldg Oth Rm - Int. Blockwork 2F	24	03APR06	06MAY06	0		24	-116	-181
1796	Admin.Bldg Oth Rm - Ext. Glazing 1F	30	03APR06	13MAY06	0		30	-134	-181
1798	Admin.Bldg Oth Rm - Int. Finishes GF	36	03APR06	20MAY06	0		36	-116	-181
1799	Admin.Bldg Oth Rm - Int. Finishes 1F	36	21APR06	05JUN06	0		36	-116	-181
1800	Admin.Bldg Oth Rm - Int. Finishes 2F	36	08MAY06	19JUN06	0		36	-116	-181
1440	Admin.Bldg Oth Rm - Ext. Glazing 2F	30	15MAY06	19JUN06	0		30	-134	-181
1806	Admin.Bldg Oth Rm - Int. Blockwork - 3F to Roof	12	15MAY06	27MAY06	0		12	-116	-187
E&M WORKS - GENERAL									
FS WORKS									
FS MAJOR EQUIPMENT									
6411	AdmBldg-Hydrant Pump & Tank set 1st fix	48	13MAR06	13MAY06	0	100	48	10	-203
ELECTRICAL WORKS									
HV POWER DISTRIBUTION MAJOR EQPT.									
6408	AdmBldg-HV power dist. sys 1st fix	36	06MAR06	20APR06	0	100	36	-98	-197
LV POWER DISTRIBUTION MAJOR EQPT.									
6418	AdmBldg-LV power dist. sys 1st fix	36	21APR06	05JUN06	0		36	-98	-197
P&D WORKS									
P&D MAJOR EQUIPMENT									
6412	AdmBldg-Water Pumps & Tanks 1st fix	24	06MAR06	01APR06	0	100	24	40	-197
TCSS CONTAINMENT									
8483	AdminBldg - TCSS Contain't for KD7	24	29MAY06	26JUN06	0		24	-201	-211



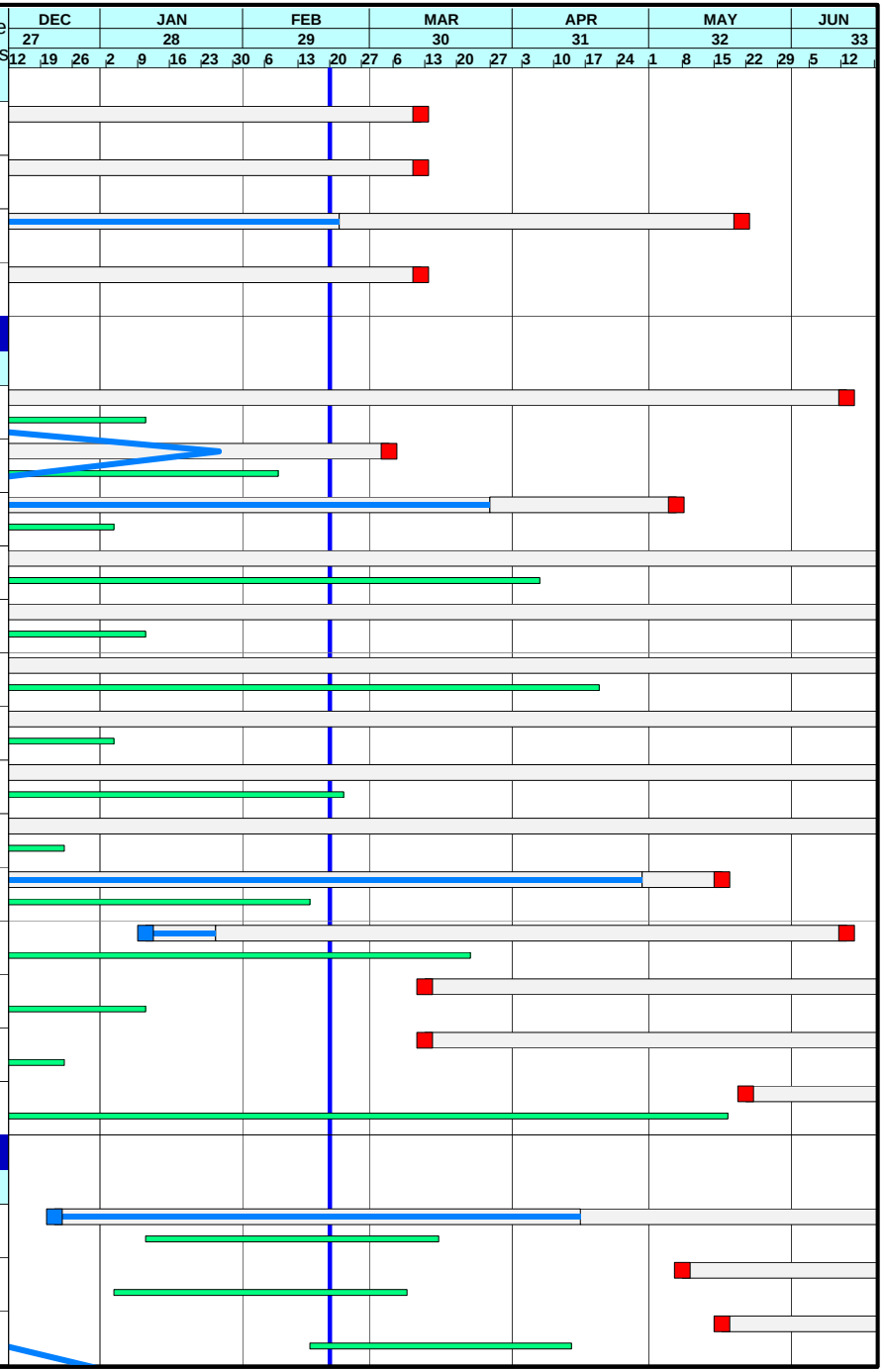
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
ADMINISTRATION BLDG. - G/F									
MVAC WORKS									
CHILLED WATER SYSTEM									
6452	AdmBldg G/F -AC(1st Fix) Chilled water sys	42	21APR06	12JUN06	0		42	-104	-197
MECH.VENT / AIR CONDITIONING									
6405	AdmBldg G/F -AC(1st Fix) mech.vent.	36	06MAR06	20APR06	0	100	36	-122	-197
KITCHEN EXHAUST									
6484	AdmBldg G/F -AC(1st Fix) Kitchen Exhaust	30	21APR06	27MAY06	0		30	-92	-197
ELECTRICAL WORKS									
MAIN & SUBMAIN DISTRIBUTION									
6421	AdmBldg G/F -ES(1st Fix) Main & Sub-main dist.	60	21APR06	04JUL06	0		60	-122	-197
FINAL CIRCUIT									
6422	AdmBldg G/F -ES(1st Fix) Final Circuit dist.	60	21APR06	04JUL06	0		60	-122	-197
ELV WORKS									
6426	AdmBldg G/F -ELV(1st Fix) CMCS & Misc Works	96	15MAY06	05SEP06	0		96	-114	-197
ADMINISTRATION BLDG. - 1/F									
MVAC WORKS									
CHILLED WATER SYSTEM									
6464	AdmBldg 1F-AC(1st Fix) Chilled water sys	48	28APR06	26JUN06	0		48	-114	-187
MECH.VENT / AIR CONDITIONING									
6407	5AdmBldg 1F-AC(1st Fix) mech.vent.	42	06MAR06	27APR06	0	100	42	-114	-187
ELECTRICAL WORKS									
MAIN & SUBMAIN DISTRIBUTION									
6437	AdmBldg 1F-ES(1st Fix) Main & Sub-main dist.	42	28APR06	19JUN06	0		42	-102	-187
FINAL CIRCUIT									
6438	AdmBldg 1F-ES(1st Fix) Final Circuit dist.	36	28APR06	12JUN06	0		36	-102	-187
ADMINISTRATION BLDG. - 2/F									
MVAC WORKS									
CHILLED WATER SYSTEM									
6488	AdmBldg 2F-AC(1st Fix) Chilled water sys	48	22MAY06	18JUL06	0		48	-110	-175
MECH.VENT / AIR CONDITIONING									
6403	AdmBldg 2F-AC(1st Fix) mech.vent.	48	20MAR06	20MAY06	0	100	48	-122	-175



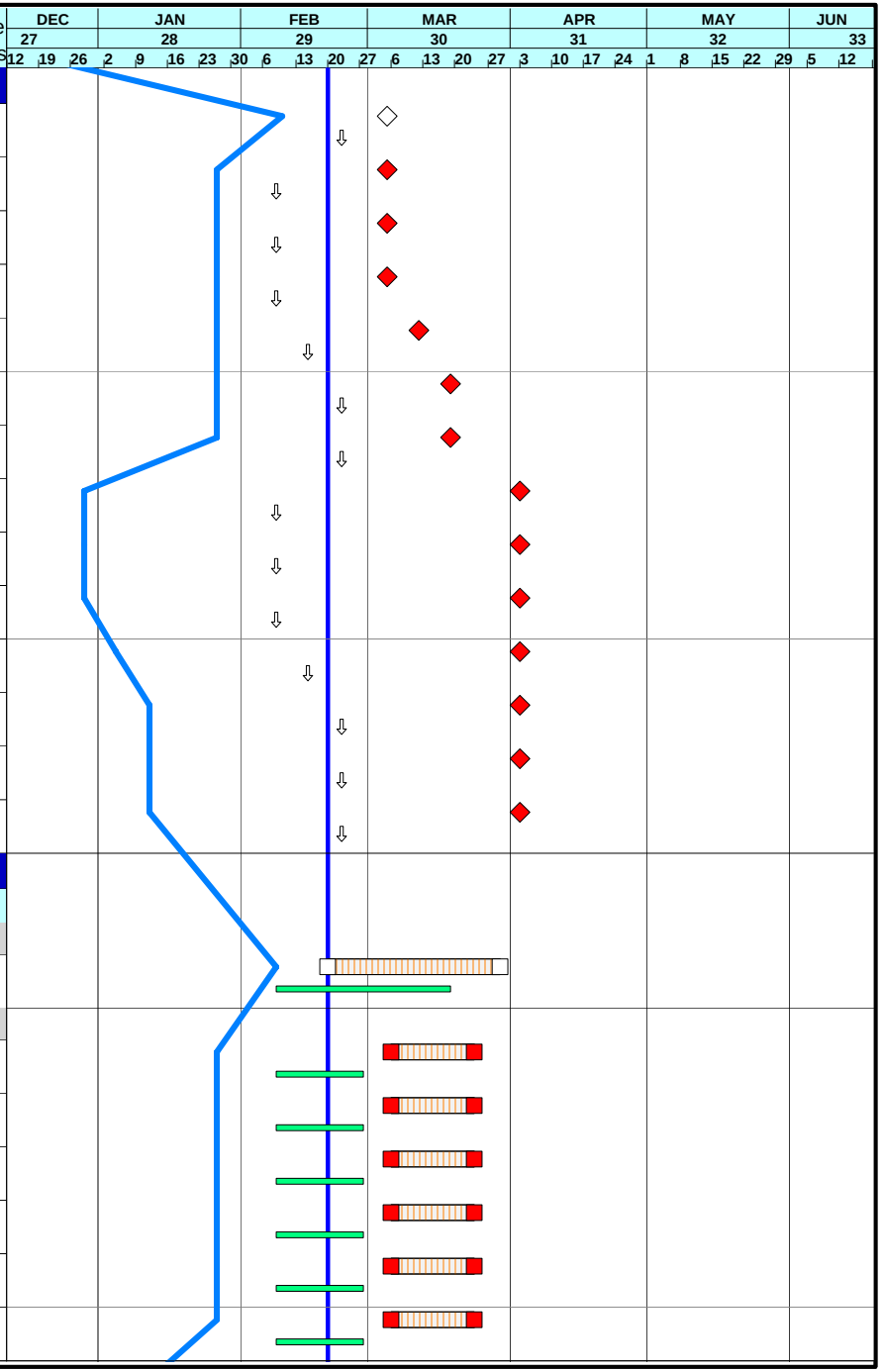
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
Electrical Works									
MAIN & SUBMAIN DISTRIBUTION									
6433	AdmBldg 2F-ES(1st Fix) Main & Sub-main dist.	30	22MAY06	26JUN06	0		30	-120	-175
FINAL CIRCUIT									
6434	AdmBldg 2F-ES(1st Fix) Final Circuit dist.	42	22MAY06	11JUL06	0		42	-86	-175
STATUTORY INSPECTIONS									
FSD INSPECTIONS									
6468	AdmBldg-All FS design approved by FSD (MHJV)	0	20FEB06		0	100	0	-32	-203
6493	AdmBldg-Issue, endorse & submit FSI 314 to FSD	6	06MAR06	11MAR06	0	100	6	-32	-203
SHATIN HEIGHTS SOUTH PORTAL BUILDING									
SUBMITTALS & APPROVALS									
ABWF & BUILDER'S WORKS									
2000	SHT SPB - Approve door & window details	24	03JUN05A	04MAR06	0	100	12	28	-141
2006	SHT SPB - Prep & sub balustrade & metal wks	24	13JUL05A	04MAR06	50	100	12	-2	-165
2007	SHT SPB - Approve balustrade & metal works	24	13DEC05A	04MAR06	0	100	12	-2	-141
E&M EQPT. / MTRL. SUBMITTALS									
8268	ShtSpBldg-Sub.MVAC MCC, power & control sys	54	02JUL04A	27APR06	95	100	54	-168	-279
8270	ShtSpBldg-Sub.FS AFA & FM200 sys	54	05JUL04A	24FEB06	99	100	5	-14	-96
8269	ShtSpBldg-Sub.FS wet sys	54	05AUG04A	24FEB06	99	100	5	-84	-176
8267	ShtSpBldg-Sub.MVAC / TVF pneumatic sys	54	14AUG04A	20APR06	95	100	48	-98	-117
8263	ShtSpBldg-Sub.CMCS & ELV sys	78	26AUG04A	06MAY06	98	100	60	-76	-219
8272	ShtSpBldg-Sub.PD irrig. sys	54	04FEB05A	27APR06	85	100	54	-84	-231
E&M EQPT. / MTRL. APPROVALS									
7209	ShtSpBldg-App. PD cleans. & flush water sys	18	04AUG04A	11MAR06	85	100	18	-60	-177
8507	ShtSpBldg-App. building related luminaires	18	18AUG04A	11MAR06	90	100	18	-16	-201
7155	ShtSpBldg-App. FS wet sys	18	04SEP04A	11MAR06	80	100	18	-84	-171
7205	ShtSpBldg-App. FS AFA & FM200 sys	18	14SEP04A	11MAR06	85	100	18	-14	-91
7085	ShtSpBldg-App. of CMCS & ELV sys	18	20SEP04A	11MAR06	88	100	18	-76	-159



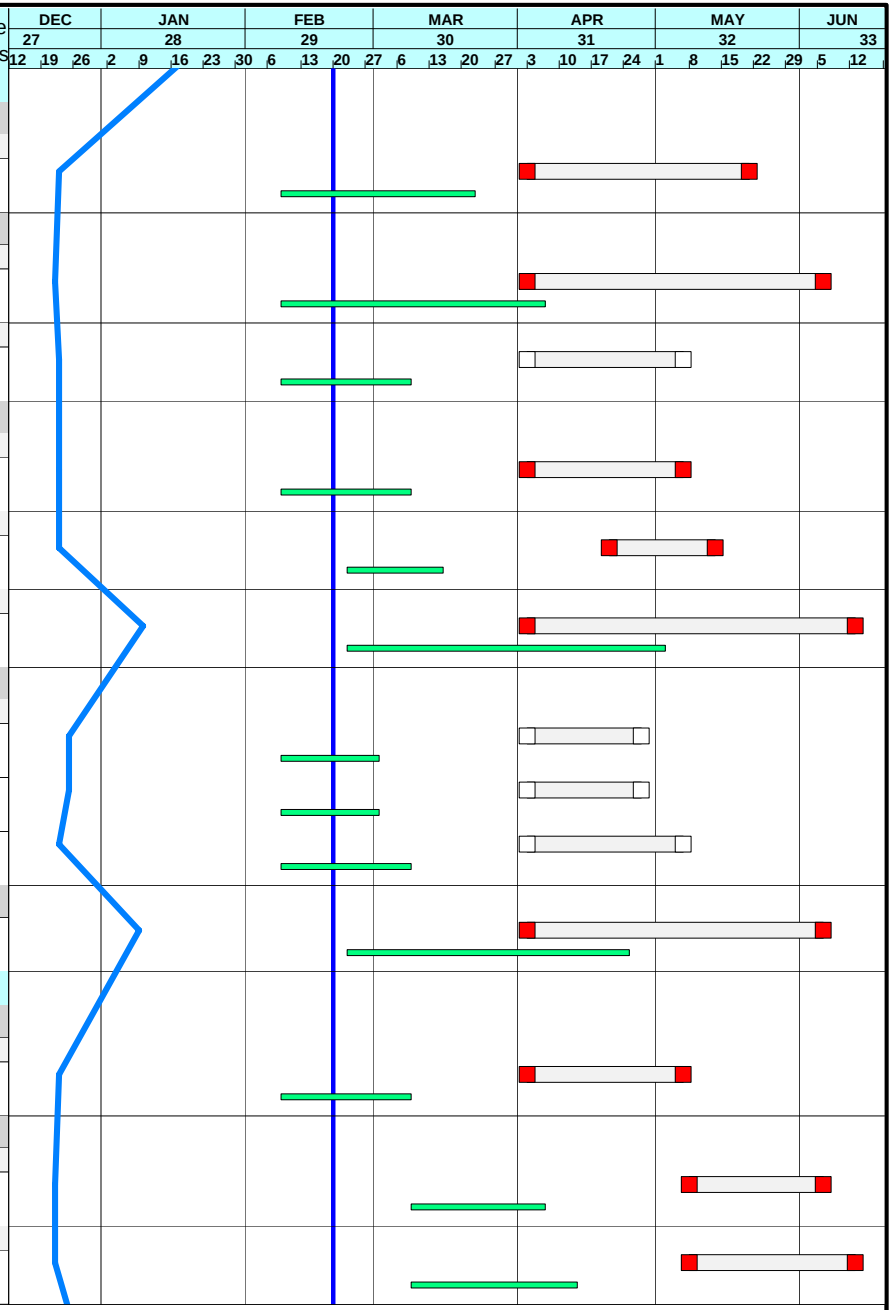
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
E&M EQPT. / MTRL. APPROVALS									
7116	ShtSpBldg-App. MVAC mech.vent. sys	18	23SEP04A	11MAR06	80	100	18	-144	-165
7147	ShtSpBldg-App. MVAC MCC, power & control sys	18	12NOV04A	11MAR06	80	100	18	-168	-225
7140	ShtSpBldg-App. MVAC / TVF pneumatic sys	18	07MAR05A	20MAY06	80		18	-104	-123
7229	ShtSpBldg-App. PD irrig. sys	18	05MAY05A	11MAR06	30	100	18	-84	-177
PROCUREMENT - MATERIAL									
E & M WORKS									
7047	ShtSpBldg-Proc & Manuf. LV power dist. equip't	180	20MAR05A	12JUN06	40	100	90	-74	-117
2024	SHT SPB - Procure balustrade & metal works	120	24MAR05A	04MAR06	50	90	12	-2	-21
7041	ShtSpBldg-Proc. & Manuf. of HV dist. equip't	180	25MAR05A	06MAY06	90	100	60	-32	-93
7086	ShtSpBldg-Proc. & Manuf. of CMCS & ELV sys	180	25MAR05A	10AUG06	20	80	140	-76	-101
7148	ShtSpBldg-Proc & Manuf. MCC, power & control sys	180	25MAR05A	02SEP06	10	100	160	-168	-187
7206	ShtSpBldg-Proc & Manuf. FS AFA & FM200 sys	120	25MAR05A	04JUL06	40	40	90	-14	-61
7156	ShtSpBldg-Proc & Manuf. FS wet sys	120	06JUN05A	18JUL06	30	100	120	-84	-153
7134	ShtSpBldg-Proc & Manuf. TVF,Ductwks & Cont'l sys	180	09JUN05A	18JUL06	40	90	120	-98	-117
7210	ShtSpBldg-Proc & Manuf. Cleans & flush water sys	120	30SEP05A	04JUL06	10	100	90	-60	-147
8508	ShtSpBldg-Proc & Manf bldg related luminaires	180	23NOV05A	16MAY06	90	90	50	-16	-71
7102	ShtSpBldg-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	12JUN06	10	60	90	-20	-63
7117	ShtSpBldg-Proc & Manuf. MVAC mech.vent. sys	120	13MAR06	08AUG06	0	100	120	-144	-165
7230	ShtSpBldg-Proc & Manuf. PD irrig. sys	120	13MAR06	08AUG06	0	100	120	-84	-177
7141	ShtSpBldg-Proc & Manuf. MVAC / TVF pneumatic sys	120	22MAY06	12OCT06	0		120	-104	-123
MAJOR EQUIPMENT DELIVERY									
E&M WORKS									
7048	ShtSpBldg-Del. LV power dist. equip't to 2/F	48	22DEC05A	08AUG06	50		48	-74	-117
7042	ShtSpBldg-Del. HV power dist. equip't to 2/F	48	08MAY06	04JUL06	0		48	-32	-93
8509	ShtSpBldg-Del. building related luminaires	48	17MAY06	13JUL06	0		48	-16	-71



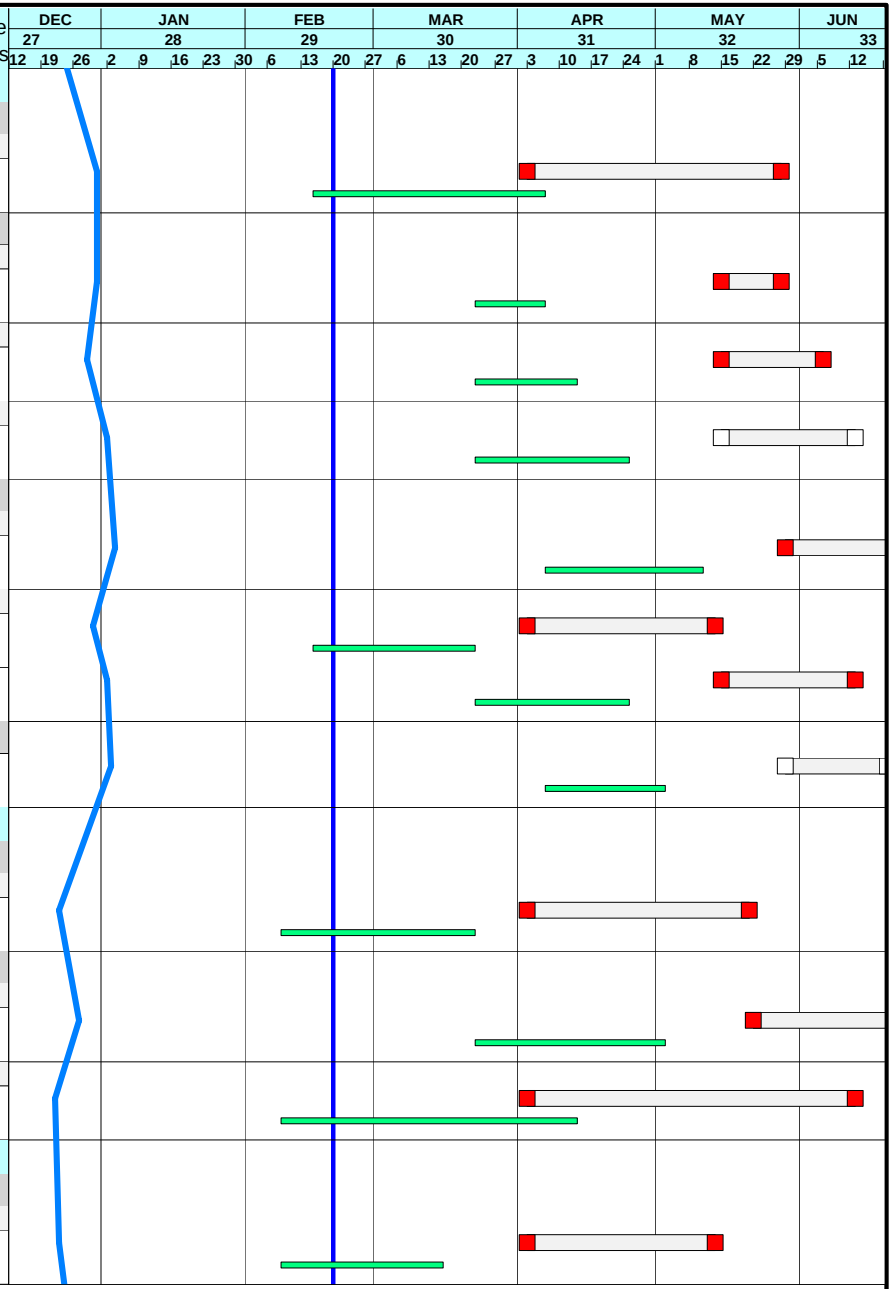
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
INTERFACE DATES									
1853	Int M/S - SHT Sth Ptal Bldg-E&M access Ext.Elev	0		04MAR06	0	0	0	28	-9
1854	Int M/S - SHT S Ptal Bldg - E&M access 3/F	0		04MAR06	0	0	0	-2	-21
1855	Int M/S - SHT S Ptal Bldg - E&M access G/F	0		04MAR06	0	0	0	-2	-21
1859	Int M/S - SHT S Ptal Bldg - E&M access 2/F	0		04MAR06	0	0	0	-2	-21
1856	Int M/S - SHT S Ptal Bldg - E&M access 1/F	0		11MAR06	0	0	0	4	-21
1857	Int M/S - SHT S Ptal Bldg - E&M access Plenum	0		18MAR06	0	0	0	-2	-21
1858	Int M/S - SHT S Ptal Bldg - E&M access Roof	0		18MAR06	0	0	0	10	-21
7033	ShtSpBldg-E&M access to 3/F	0	03APR06*		0		0	-26	-45
7034	ShtSpBldg-E&M access to 2/F	0	03APR06*		0		0	-26	-45
7035	ShtSpBldg-E&M access to G/F	0	03APR06*		0		0	-26	-45
7036	ShtSpBldg-E&M access to 1/F	0	03APR06*		0		0	-14	-39
7037	ShtSpBldg-E&M access to Plenum	0	03APR06*		0		0	-14	-33
7038	ShtSpBldg-E&M access to Roof (Exhaust Shaft)	0	03APR06*		0		0	-2	-33
7039	ShtSpBldg-E&M access to External Elevation	0	03APR06*		0		0	4	-33
CONSTRUCTION									
ARCHITECTURAL & BUILDER'S WORKS									
ROOFING & EXTERNAL FACADE									
1811	SHT Sth PBldg - Ext. Doors & Windows	33	20FEB06	29MAR06	0	0	33	28	-9
BUILDER'S WORK									
1808	SHT Sth PBldg - Wet Trades 1FL	16	06MAR06	23MAR06	0	0	16	4	-21
1815	SHT Sth PBldg - Wet Trades GL	16	06MAR06	23MAR06	0	0	16	-2	-21
1851	SHT Sth PBldg - Wet Trades 2FL	16	06MAR06	23MAR06	0	0	16	-2	-21
1852	SHT Sth PBldg - Wet Trades 4FL	16	06MAR06	23MAR06	0	0	16	-2	-21
1860	SHT Sth PBldg - Wet Trades 3FL	16	06MAR06	23MAR06	0	0	16	-2	-21
1861	SHT Sth PBldg - Wet Trades 5FL	16	06MAR06	23MAR06	0	0	16	10	-21



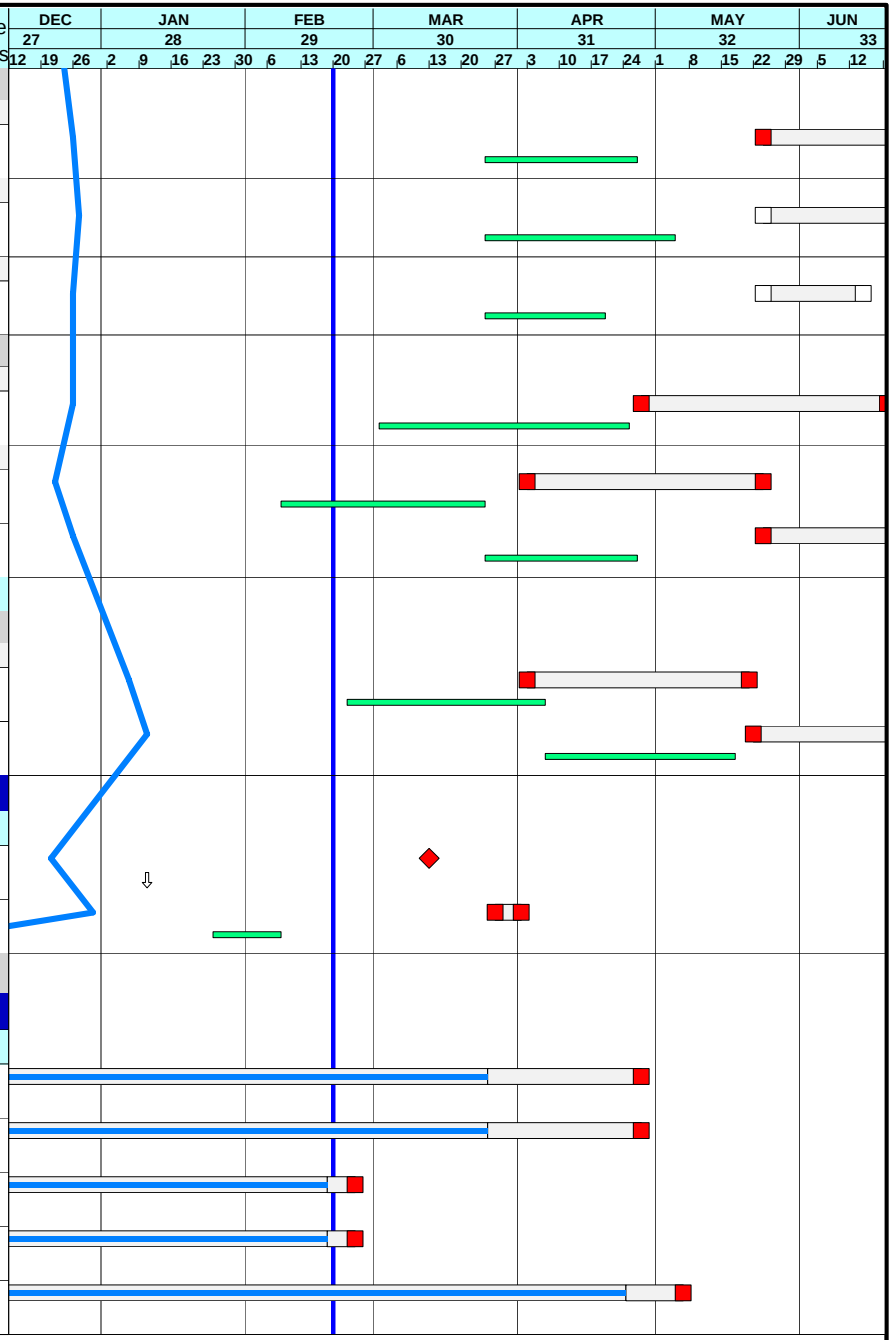
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
E&M - GENERAL									
MVAC WORKS									
MCC, POWER & CONTROL									
7150	ShtSpBldg-MCC, power & control 1st fix	36	03APR06	20MAY06	0		36	-26	-45
FS WORKS									
FS MAJOR EQUIPMENT									
7158	ShtSpBldg-Hydrant Pump & Tank set 1st fix	48	03APR06	05JUN06	0		48	0	-45
TUNNEL HYDRANT + HOSE REEL									
7163	ShtSpBldg-ENT Tunnel (Hyd/HR) pumps set 1st fix	24	03APR06	06MAY06	0		24	60	-45
ELECTRICAL WORKS									
HV POWER DISTRIBUTION MAJOR EQPT.									
7043	ShtSpBldg-HV power dist. sys 1st fix	24	03APR06	06MAY06	0		24	-2	-45
LV POWER DISTRIBUTION MAJOR EQPT.									
7049	ShtSpBldg-LV power dist. sys 1st fix	18	21APR06	13MAY06	0		18	-2	-45
EARTHING & LIGHTNING PROTECTION									
7083	ShtSpBldg-Earth'g & lightn'g protection 2nd fix	54	03APR06	12JUN06	0		54	4	-33
PLUMBING & DRAINAGE WORKS									
IRRIGATION SYSTEM									
7212	ShtSpBldg-Cleansing Water Pumps & Tanks 1st fix	18	03APR06	27APR06	0		18	42	-45
7232	ShtSpBldg-irrig. Water Pumps & Tanks 1st fix	18	03APR06	27APR06	0		18	48	-45
8310	ShtSpBldg Ext-PD(1st Fix) irrig. sys	24	03APR06	06MAY06	0		24	73	-45
TUNNEL VENTILATION SYSTEM									
7136	ShtSpBldg-AC/TVF TVF, Duct & Control 1st fix	48	03APR06	05JUN06	0		48	-14	-33
E&M G/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
7121	ShtSpBldg G/F-AC(1st Fix) mech.vent.	24	03APR06	06MAY06	0		24	-26	-45
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTUION									
7054	ShtSpBldg G/F-ES(1st Fix) Main & Sub-main dist.	24	08MAY06	05JUN06	0		24	-26	-45
FINAL CIRCUIT									
7067	ShtSpBldg G/F-ES(1st Fix) Final Circuit dist.	30	08MAY06	12JUN06	0		30	-26	-45



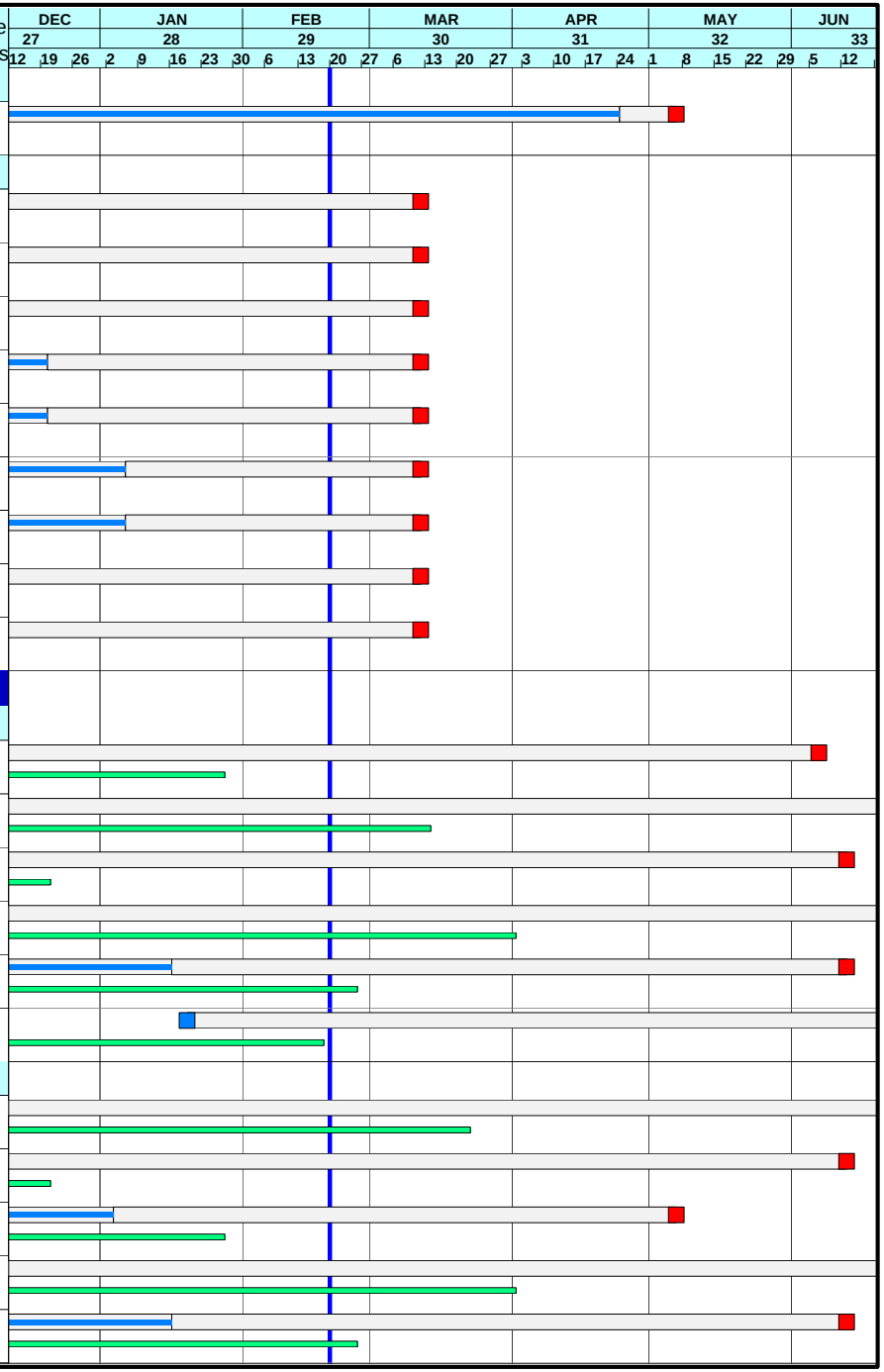
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
E&M 1/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
7122	ShtSpBldg 1F-AC(1st Fix) mech.vent.	42	03APR06	27MAY06	0		42	-14	-39
FS WORKS									
WET DISTRIBUTION									
7169	ShtSpBldg 1F-FS(1st Fix) Wet dist. sys	12	15MAY06	27MAY06	0		12	-14	-39
AFA DISTRIBUTION									
7186	ShtSpBldg 1F-FS(1st Fix) AFA dist.	18	15MAY06	05JUN06	0		18	-14	-39
FM200 SYSTEM									
7200	ShtSpBldg 1F-FM200 sys 1st fix	24	15MAY06	12JUN06	0		24	52	-39
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTUION									
7057	ShtSpBldg 1F-ES(1st Fix) Main & Sub-main dist.	24	29MAY06	26JUN06	0		24	-14	-39
FINAL CIRCUIT									
7070	ShtSpBldg 1F-ES(1st Fix) Final Circuit dist.	30	03APR06	13MAY06	0		30	-14	-39
7074	ShtSpBldg 1F-ES(2nd Fix) Final Circuit dist.	24	15MAY06	12JUN06	0		24	-14	-39
PLUMBING & DRAINAGE WORKS									
7217	ShtSpBldg 1F-PD(1st Fix) dist. sys	18	29MAY06	19JUN06	0		18	16	-39
E&M 2/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
7120	ShtSpBldg 2F-AC(1st Fix) mech.vent.	36	03APR06	20MAY06	0		36	-20	-45
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTUION									
7056	ShtSpBldg 2F-ES(1st Fix) Main & Sub-main dist.	30	22MAY06	26JUN06	0		30	-20	-45
FINAL CIRCUIT									
7069	ShtSpBldg 2F-ES(1st Fix) Final Circuit dist.	54	03APR06	12JUN06	0		54	-26	-45
E&M 3/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
7119	ShtSpBldg 3F-AC(1st Fix) mech.vent.	30	03APR06	13MAY06	0		30	-24	-45



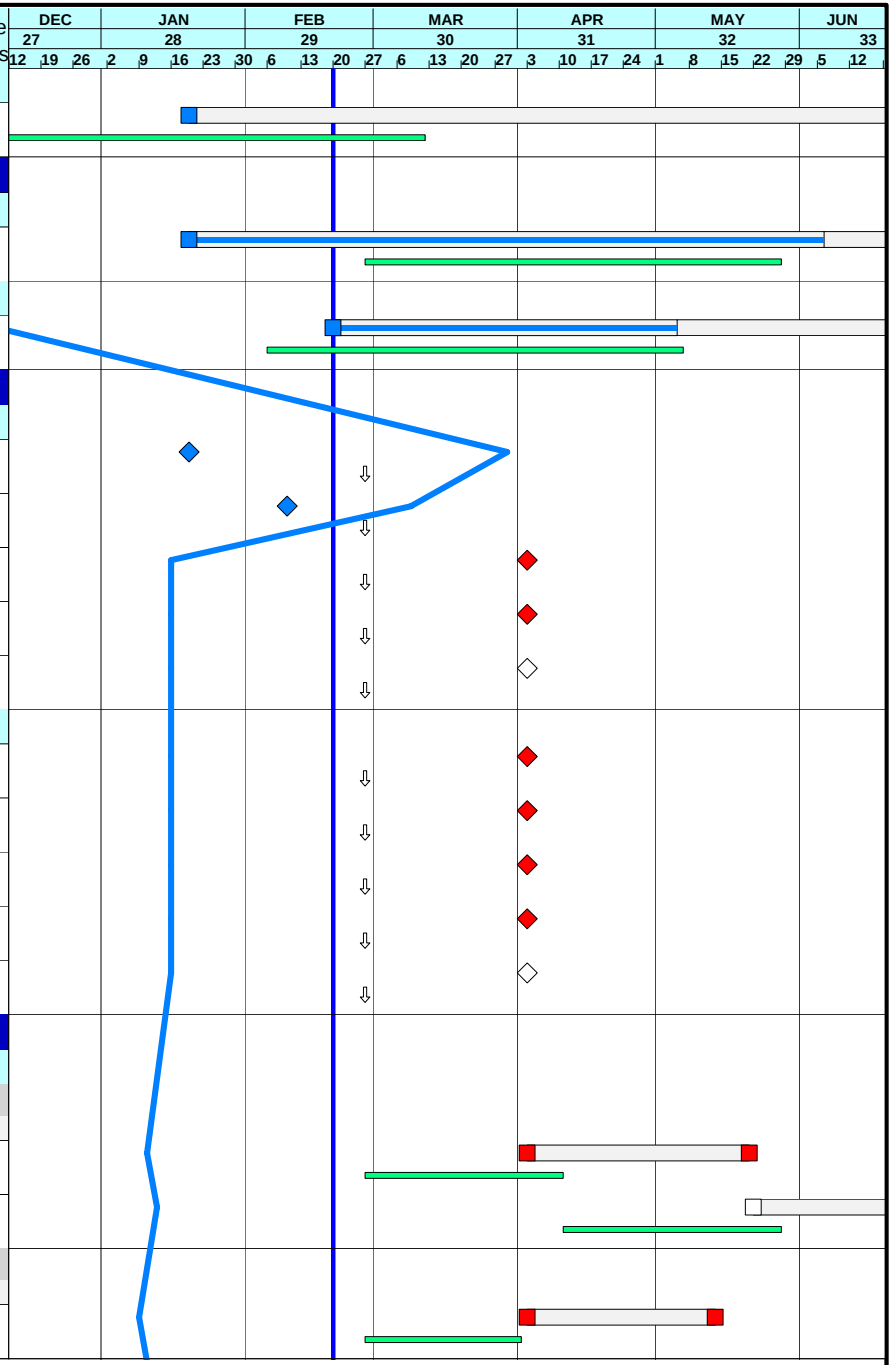
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
	FS WORKS								
	WET DISTRIBUTION								
7168	ShtSpBldg 3F-FS(1st Fix) Wet dist. sys	24	24MAY06	21JUN06	0		24	-2	-45
	AFA DISTRIBUTION								
7185	ShtSpBldg 3F-FS(1st Fix) AFA dist.	30	24MAY06	28JUN06	0		30	14	-45
	FM200 SYSTEM								
7199	ShtSpBldg 3F-FM200 sys 1st fix	18	24MAY06	14JUN06	0		18	68	-45
	ELECTRICAL WORKS								
	MAIN & SUB-MAIN DISTRIBUTUION								
7055	ShtSpBldg 3F-ES(1st Fix) Main & Sub-main dist.	42	28APR06	19JUN06	0		42	-8	-45
	FINAL CIRCUIT								
7068	ShtSpBldg 3F-ES(1st Fix) Final Circuit dist.	38	03APR06	23MAY06	0		38	-2	-45
7073	ShtSpBldg 3F-ES(2nd Fix) Final Circuit dist.	24	24MAY06	21JUN06	0		24	8	-45
	E&M ROOF								
	ELECTRICAL WORKS								
	FINAL CIRCUIT								
7066	ShtSpBldg R/F-ES(1st Fix) Final Circuit dist.	36	03APR06	20MAY06	0		36	-2	-33
7071	ShtSpBldg R/F-ES(2nd Fix) Final Circuit dist.	30	22MAY06	26JUN06	0		30	-2	-33
	STATUTORY INSPECTIONS								
	FSD INSPECTIONS								
7239	ShtSpBldg-All FS design approved by FSD (MHJV)	0	13MAR06		0	100	0	0	-45
7240	ShtSpBldg-Issue, endorse & submit FSI 314 to FSD	6	27MAR06	01APR06	0		6	0	-45
	SHT TUNNEL								
	SUBMITTALS & APPROVALS								
	E&M EQPT. / MTRL. SUBMITTALS								
8281	ShtRtNb-Sub.TVS control sys	54	02JUL04A	27APR06	95	100	54	-86	-216
8287	ShtRtSb-Sub.TVS control sys	54	02JUL04A	27APR06	95	100	54	-86	-216
8282	ShtRtNb-Sub.FS AFA & Linear sys	54	05JUL04A	24FEB06	99	100	5	-82	-245
8288	ShtRtSb-Sub.FS AFA & Linear sys	54	05JUL04A	24FEB06	99	100	5	-82	-245
8280	ShtRtNb-Sub.CMCS & ELV sys	78	26AUG04A	06MAY06	98	100	60	-102	-239



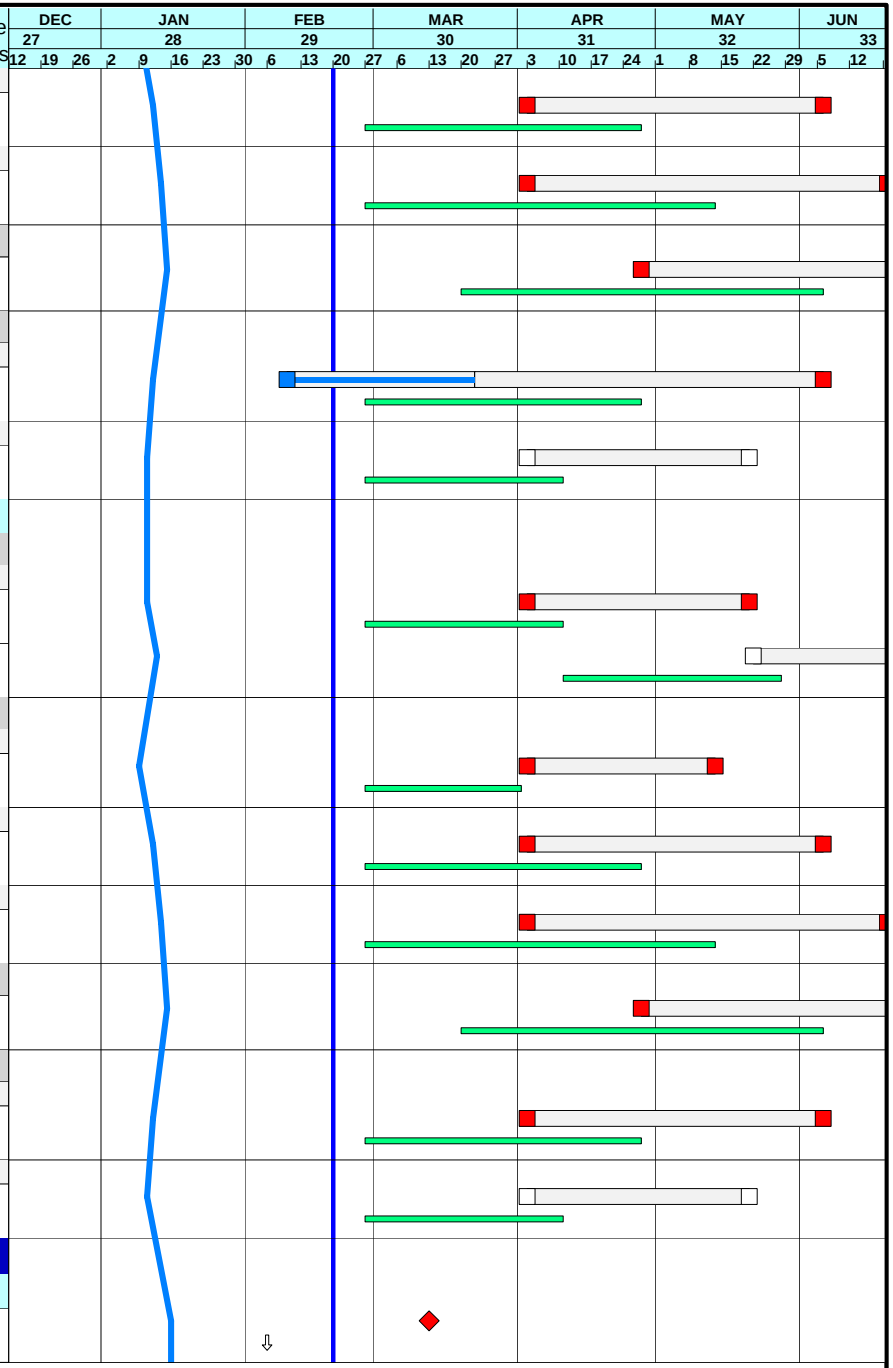
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
E&M EQPT. / MTRL. SUBMITTALS									
8286	ShtRtSb-Sub.CMCS & ELV sys	78	26AUG04A	06MAY06	98	100	60	-94	-231
E&M EQPT. / MTRL. APPROVALS									
6938	ShtRtSb-App. Tunnel Lgt sys	18	05AUG04A	11MAR06	80	100	18	-68	-180
6991	ShtRtNb-App. Tunnel Lgt sys	18	05AUG04A	11MAR06	80	100	18	-89	-198
6932	ShtRtSb-App. HV/LV main & submain dist. sys	18	13AUG04A	11MAR06	80	100	18	-32	-210
6969	ShtRtSb-App. FS AFA & Linear sys	18	14SEP04A	11MAR06	85	100	18	-82	-240
7022	ShtRtNb-App. FS AFA & Linear sys	18	14SEP04A	11MAR06	85	100	18	-82	-240
6945	ShtRtSb-App. CMCS & TCS & ELV sys	18	20SEP04A	11MAR06	88	100	18	-94	-171
6998	ShtRtNb-App. CMCS & ELV sys	18	20SEP04A	11MAR06	88	100	18	-102	-179
6957	ShtRtSb-App. TVS control sys	18	12NOV04A	11MAR06	70	100	18	-86	-162
7010	ShtRtNb-App. TVS control sys	18	12NOV04A	11MAR06	70	100	18	-86	-162
PROCUREMENT - MATERIAL									
SHT TUNNEL NORTHBOUND									
6986	ShtRtNb-Proc & Manuf. ES Main & submain dist.	180	20MAR05A	06JUN06	40	90	85	-69	-97
6999	ShtRtNb-Proc & Manuf. CMCS & ELV sys	180	25MAR05A	10AUG06	20	80	140	-102	-121
7023	ShtRtNb-Proc & Manuf. FS AFA & Linear sys	180	25MAR05A	12JUN06	40	100	90	-82	-132
7011	ShtRtNb-Proc & Manuf. TVS control sys	180	25MAY05A	02SEP06	10	80	160	-86	-124
7628	ShtRtNb-Proc & Manuf. TVS in Tunnel	180	09JUN05A	12JUN06	60	90	90	-46	-84
6992	ShtRtNb-Proc & Manuf. Tunnel Lgt sys	180	20JAN06A	04JUL06	0	90	90	-89	-108
SHT TUNNEL SOUTHBOUND									
6946	ShtRtSb-Proc & Manuf. CMCS & ELV sys	180	25MAR05A	10AUG06	20	70	140	-94	-113
6970	ShtRtSb-Proc & Manuf. FS AFA & Linear sys	180	25MAR05A	12JUN06	40	100	90	-82	-132
6933	ShtRtSb-Proc & Manuf. ES Main & submain dist.	180	20MAY05A	06MAY06	65	95	60	-32	-72
6958	ShtRtSb-Proc & Manuf. TVS control sys	180	25MAY05A	02SEP06	10	70	160	-86	-124
7625	ShtRtSb-Proc & Manuf. TVS in Tunnel	180	09JUN05A	12JUN06	60	90	90	-46	-84



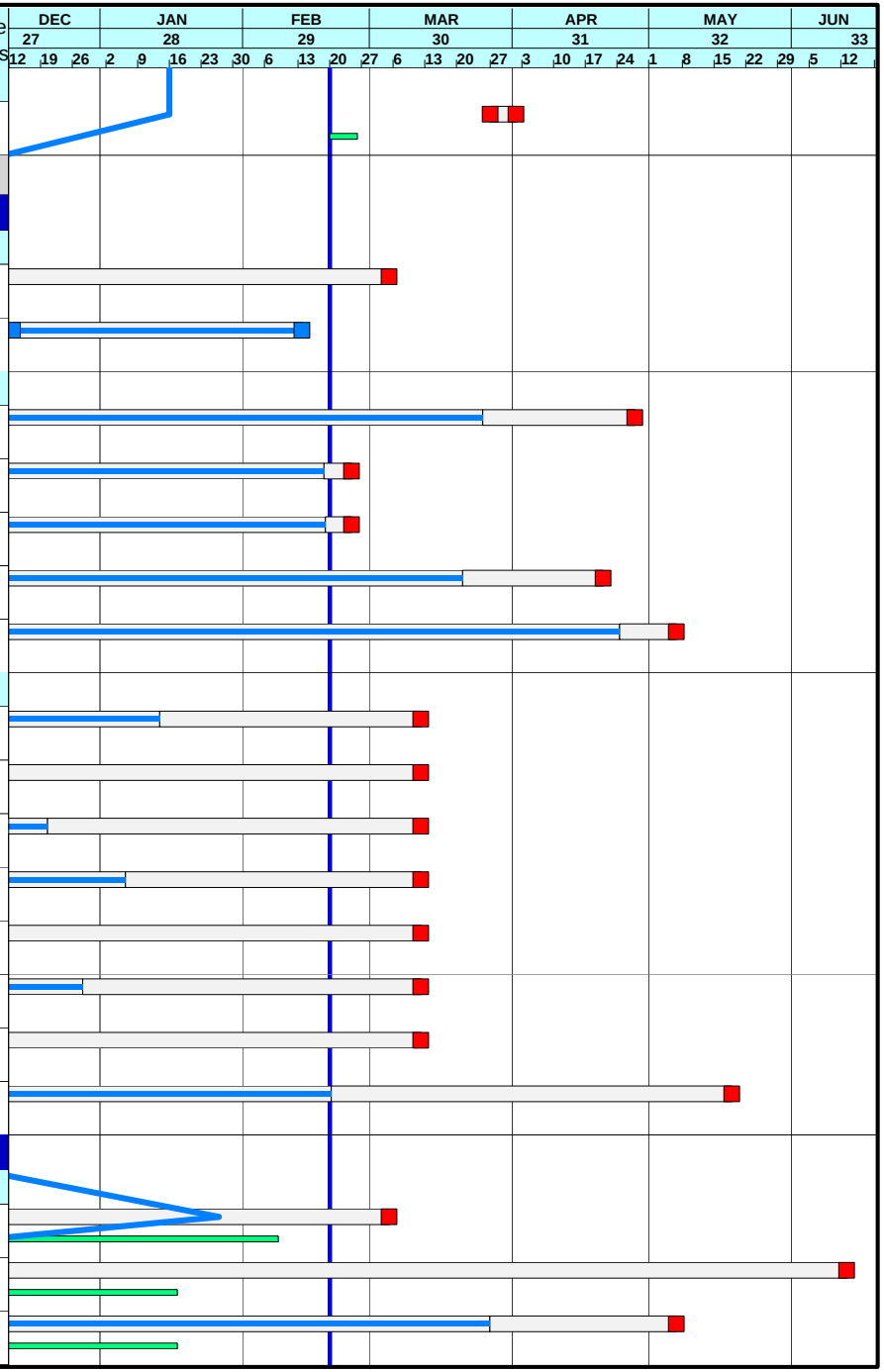
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
SHT TUNNEL SOUTHBOUND									
6939	ShtRtSb-Proc & Manuf. Tunnel Lgt sys	180	20JAN06A	04JUL06	0	90	90	-68	-90
MAJOR EQUIPMENT DELIVERY									
SHT TUNNEL NORTHBOUND									
7629	ShtRtNb-Del. TVS in Tunnel	72	20JAN06A	05SEP06	60		72	-46	-84
SHT TUNNEL SOUTH BOUND									
6934	ShtRtSb-Del. HV/LV main & submain dist. sys	72	20FEB06A	18JUL06	50		60	-32	-60
INTERFACE DATES									
SHT TUNNEL NORTHBOUND									
6981	ShtRtNb-E&M Access to SB OHVD	0	20JAN06A		100		0		25
6980	ShtRtNb-E&M Access to SB Tunnel (under OHVD)	0	10FEB06A		100		0		14
6982	ShtRtNb-E&M Access to NB Cable Troughs	0	03APR06*		0		0	-11	-30
6983	ShtRtNb-E&M Access to SB Cross Passages	0	03APR06*		0		0	-11	-30
6984	ShtRtNb-E&M Access to SB Niches	0	03APR06*		0		0	28	-30
SHT TUNNEL SOUTHBOUND									
6927	ShtRtSb-E&M Access to SB Tunnel (under OHVD)	0	03APR06*		0		0	-8	-30
6928	ShtRtSb-E&M Access to SB OHVD	0	03APR06*		0		0	-2	-30
6929	ShtRtSb-E&M Access to SB Cable Troughs	0	03APR06*		0		0	-11	-30
6930	ShtRtSb-E&M Access to SB Cross Passages	0	03APR06*		0		0	-8	-30
6931	ShtRtSb-E&M Access to SB Niches	0	03APR06*		0		0	28	-30
CONSTRUCTION									
SHT NORTHBOUND TUNNEL									
FS WORKS									
TUNNEL HYDRANT & HOSE REEL									
7016	ShtRtNb-Wet dist. (HR/Hyd) 1st fix	36	03APR06	20MAY06	0		36	-11	-30
7017	ShtRtNb-Wet dist. (HR/Hyd) 2nd fix	36	22MAY06	04JUL06	0		36	56	-30
ELECTRICAL WORKS									
MAIN & SUBMAIN DISTRIBUTION									
6988	ShtRtNb-HV, LV main & submain dist. 1st fix	30	03APR06	13MAY06	0		30	-2	-30



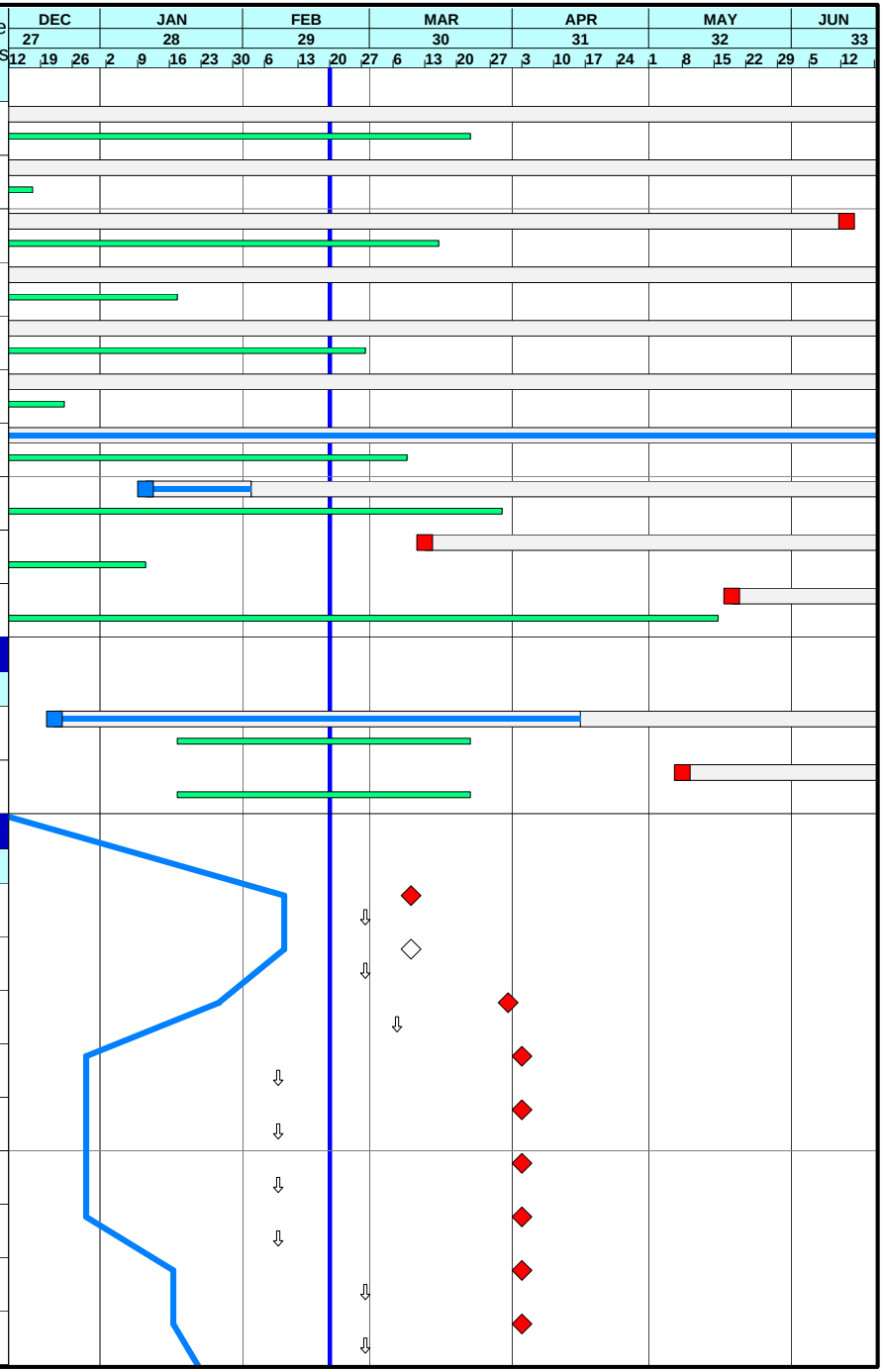
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
	FINAL CIRCUIT								
7600	ShtRtNb-Final circuit 1st fix	48	03APR06	05JUN06	0		48	-2	-30
	TUNNEL / EXTERNAL LIGHTING								
6994	ShtRtNb-Tunnel Lgt sys 1st fix	60	03APR06	19JUN06	0		60	-11	-30
	ELV WORKS								
7001	ShtRtNb-CMCS, other ELV 1st fix & TCSS Enabling	60	28APR06	11JUL06	0		60	-11	-30
	TUNNEL VENTILATION SYSTEM								
	TUNNEL VENTILATION & SMOKE EXTRACTION								
7004	ShtRtNb-TVS Tunnel vent. & SE 1st fix	48	10FEB06A	05JUN06	35		48	8	-30
	PNEUMATIC SYSTEM								
7007	ShtRtNb-TVS pneumatic 1st fix	36	03APR06	20MAY06	0		36	56	-30
	SHT TUNNEL SOUTHBOUND								
	FS WORKS								
	TUNNEL HYDRANT & HOSE REEL								
6963	ShtRtSb-Wet dist. (HR/Hyd) 1st fix	36	03APR06	20MAY06	0		36	-11	-30
6964	ShtRtSb-Wet dist. (HR/Hyd) 2nd fix	36	22MAY06	04JUL06	0		36	22	-30
	ELECTRICAL WORKS								
	MAIN & SUBMAIN DISTRIBUTION								
6935	ShtRtSb-HV, LV main & submain dist. 1st fix	30	03APR06	13MAY06	0		30	-2	-30
	FINAL CIRCUIT								
7472	ShtRtSb-Final circuit 1st fix	48	03APR06	05JUN06	0		48	-2	-30
	TUNNEL / EXTERNAL TUNNEL								
6941	ShtRtSb-Tunnel Lgt sys 1st fix	60	03APR06	19JUN06	0		60	-8	-30
	ELV WORKS								
6948	ShtRtSb-CMCS, Other ELV 1st fix & TCSS Enabling	60	28APR06	11JUL06	0		60	-11	-30
	TUNNEL VENTILATION SYSTEM								
	TUNNEL VENTILATION & SMOKE EXTRACTION								
6951	ShtRtSb-TVS Tunnel vent. & SE 1st fix	48	03APR06	05JUN06	0		48	8	-30
	PNEUMATIC SYSTEM								
6954	ShtRtSb-TVS pneumatic 1st fix	36	03APR06	20MAY06	0		36	56	-30
	STATUTORY INSPECTIONS								
	FSD INSPECTIONS								
6973	ShtRt-All FS design approved by FSD (MHJV)	0	13MAR06		0	0	0	-11	-30



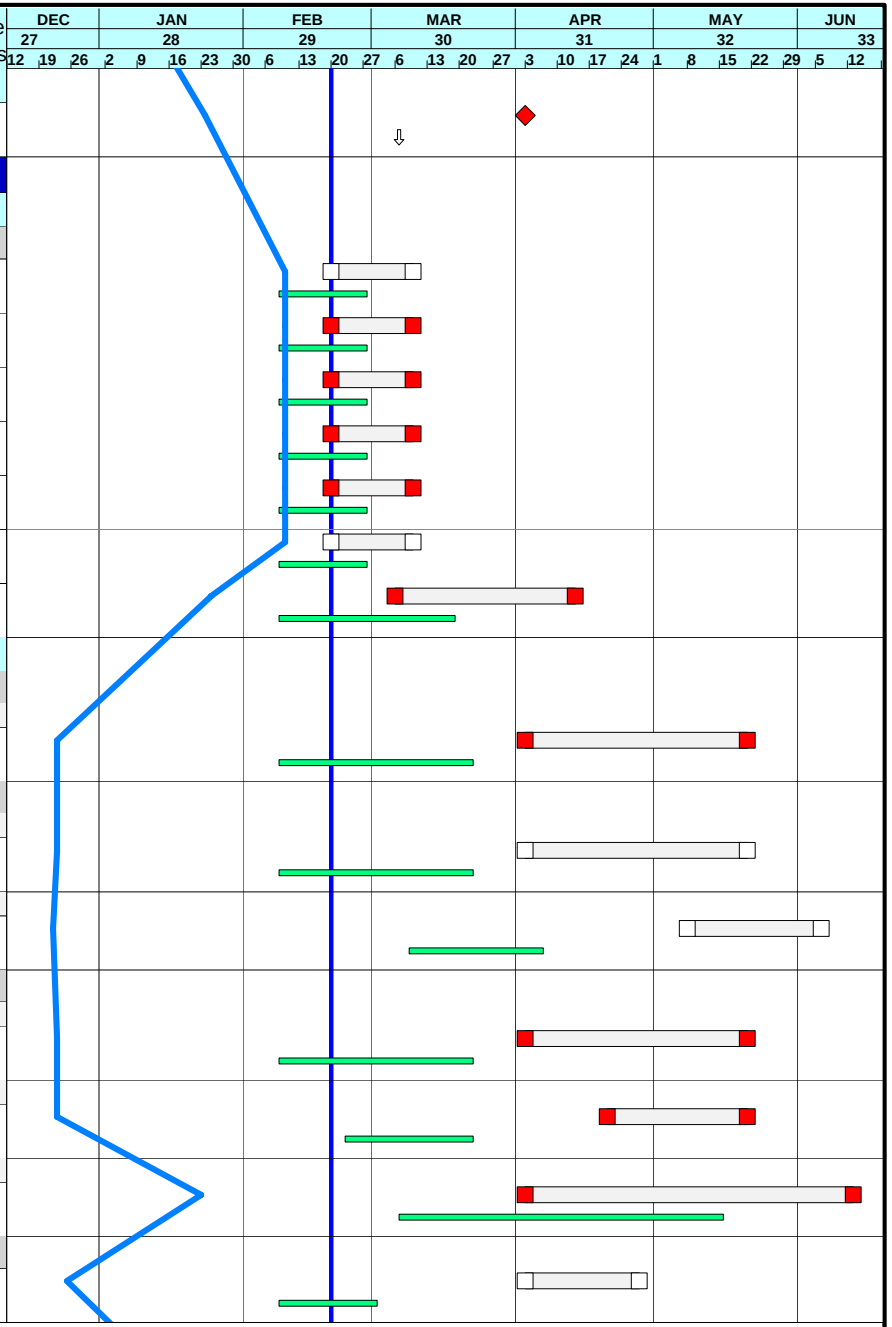
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
FSD INSPECTIONS									
6974	ShtRt-Issue, endorse & submit FSI 314 to FSD	6	27MAR06	01APR06	0		6	-11	-30
SHT NORTH PORTAL BUILDING									
SUBMITTALS & APPROVALS									
ABWF & BUILDER'S WORKS									
2001	SHT NPB - Approve door & window details	24	03JUN05A	04MAR06	0	100	12	10	-141
2009	SHT NPB - Approve balustrade & metal works	24	13DEC05A	13FEB06A	100	100	0		-124
E&M EQPT. / MTRL. SUBMITTALS									
8297	ShtNpBldg-Sub.MVAC MCC, power & control sys	54	02JUL04A	27APR06	95	100	54	-186	-297
8299	ShtNpBldg-Sub.FS AFA & FM200 sys	54	05JUL04A	24FEB06	99	100	5	-26	-122
8298	ShtNpBldg-Sub.FS wet sys	54	05AUG04A	24FEB06	99	100	5	-62	-164
8296	ShtNpBldg-Sub.MVAC / TVF pneumatic sys	54	14AUG04A	20APR06	95	100	48	-100	-119
8292	ShtNpBldg-Sub.of CMCS & ELV sys	78	26AUG04A	06MAY06	98	100	60	-90	-231
E&M EQPT. / MTRL. APPROVALS									
8511	ShtSpBldg-App. building related luminaires	18	18AUG04A	11MAR06	90	100	18	-122	-183
7377	ShtNpBldg-App. FS wet sys	18	02SEP04A	11MAR06	80	100	18	-62	-159
7427	ShtNpBldg-App. FS AFA & FM200 sys	18	14SEP04A	11MAR06	85	100	18	-26	-117
7307	ShtNpBldg-App. of CMCS & ELV sys	18	20SEP04A	11MAR06	88	100	18	-90	-171
7338	ShtNpBldg-App. MVAC mech.vent. sys	18	23SEP04A	11MAR06	80	100	18	-143	-165
7431	ShtNpBldg-App. PD cleans. & flush water sys	18	04NOV04A	11MAR06	85	100	18	-62	-177
7369	ShtNpBldg-App. MVAC MCC, power & control sys	18	12NOV04A	11MAR06	80	100	18	-186	-243
7362	ShtNpBldg-App. MVAC / TVF pneumatic sys	18	07MAR05A	18MAY06	80		18	-104	-123
PROCUREMENT - MATERIAL									
ABWF WORKS									
2016	SHT NPB - Procure doors & windows	120	12JAN05A	04MAR06	50	90	12	10	-21
7269	ShtNpBldg-Proc & Manuf. LV power dist. equip't	180	20MAR05A	12JUN06	40	100	90	-92	-111
7263	ShtNpBldg-Proc. & Manuf. of HV dist. equip't	180	25MAR05A	06MAY06	90	100	60	-58	-81



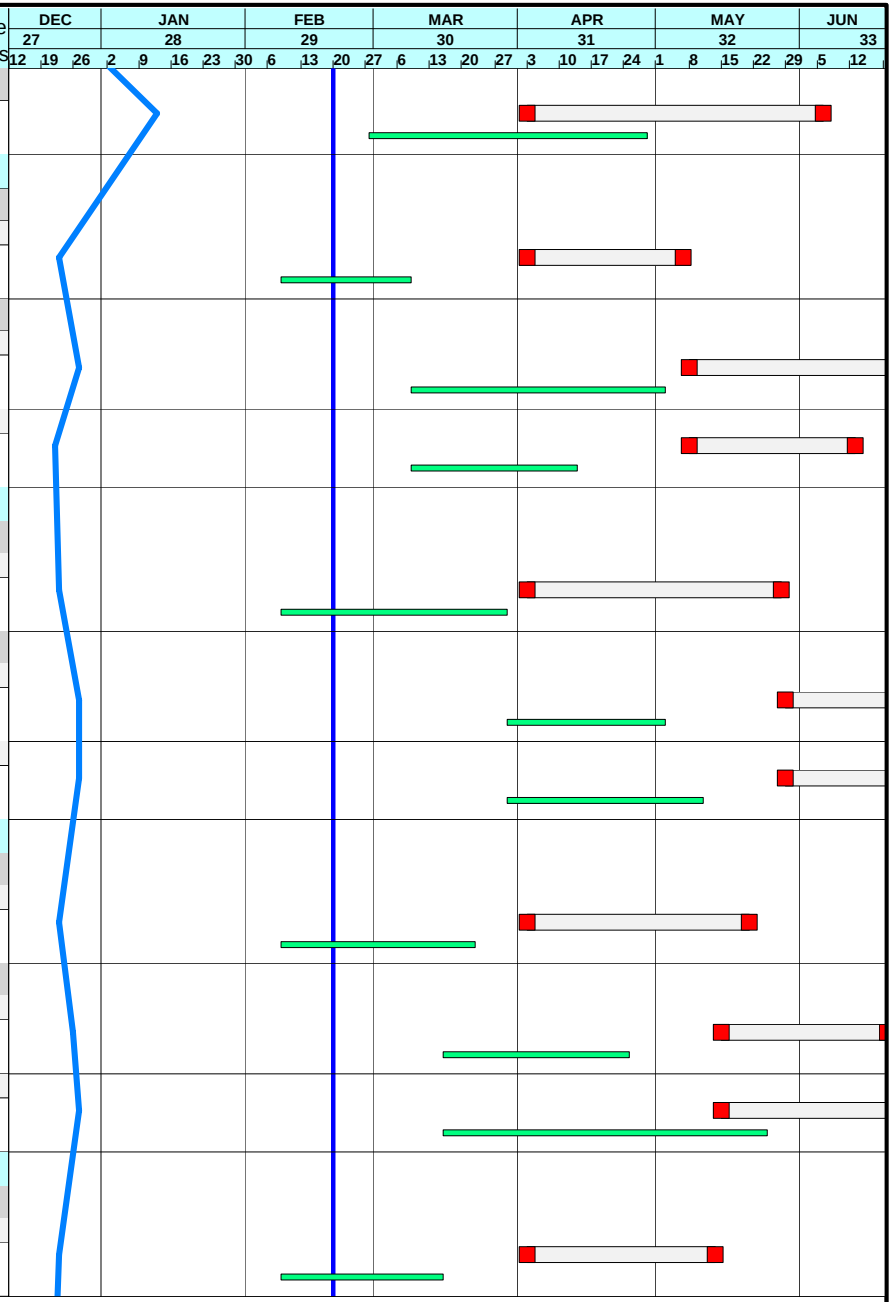
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
ABWF WORKS									
7308	ShtNpBldg-Proc. & Manuf. of CMCS & ELV sys	180	25MAR05A	10AUG06	20	80	140	-90	-113
7370	ShtNpBldg-Proc & Manuf. MCC, power & control sys	180	25MAR05A	02SEP06	10	100	160	-186	-205
7428	ShtNpBldg-Proc & Manuf. FS AFA & FM200 sys	120	25MAR05A	12JUN06	40	70	90	-26	-69
7378	ShtNpBldg-Proc & Manuf. FS wet sys	120	06JUN05A	18JUL06	30	100	120	-62	-141
7356	ShtNpBldg-Proc & Manuf. TVF,Ductwks&Cont'l sys	180	09JUN05A	18JUL06	40	90	120	-94	-113
7432	ShtNpBldg-Proc & Manuf. Cleans & flush water sys	120	30SEP05A	04JUL06	10	100	90	-62	-147
8512	ShtSpBldg-Proc & Manf bldg related luminaires	180	23NOV05A	23SEP06	90	80	160	-122	-163
7324	ShtNpBldg-Proc & Manuf. MVAC Package AC Units	120	11JAN06A	29AUG06	10	60	120	-70	-123
7339	ShtNpBldg-Proc & Manuf. MVAC mech.vent. sys	120	13MAR06	08AUG06	0	100	120	-143	-165
7363	ShtNpBldg-Proc & Manuf. MVAC / TVF pneumatic sys	120	19MAY06	10OCT06	0		120	-104	-123
MAJOR EQUIPMENT DELIVERY									
SHT NORTH PORTAL BUILDING									
7270	ShtNpBldg-Del. LV power dist. equip't to 1/F	48	22DEC05A	08AUG06	50		48	-92	-111
7264	ShtNpBldg-Del. HV power dist. equip't to 2/F	48	08MAY06	04JUL06	0		48	-58	-81
INTERFACE DATES									
SHT NORTH PORTAL BUILDING									
1866	Int M/S - SHT N Ptal Bldg - E&M access Plenum	0		09MAR06	0	0	0	10	-9
1867	Int M/S - SHT N Ptal Bdng - E&M access Roof	0		09MAR06	0	0	0	22	-9
1862	Int M/S - SHT Nth Ptal Bldg-E&M access Ext.Elev	0		30MAR06	0	0	0	10	-21
7255	ShtNpBldg-E&M access to 3/F	0	03APR06*		0		0	-26	-45
7256	ShtNpBldg-E&M access to 2/F	0	03APR06*		0		0	-26	-45
7257	ShtNpBldg-E&M access to 1/F	0	03APR06*		0		0	-26	-45
7258	ShtNpBldg-E&M access to G/F	0	03APR06*		0		0	-20	-45
7259	ShtNpBldg-E&M access to Plenum	0	03APR06*		0		0	-10	-29
7260	ShtNpBldg-E&M access to Roof (Exhaust Shaft)	0	03APR06*		0		0	2	-29



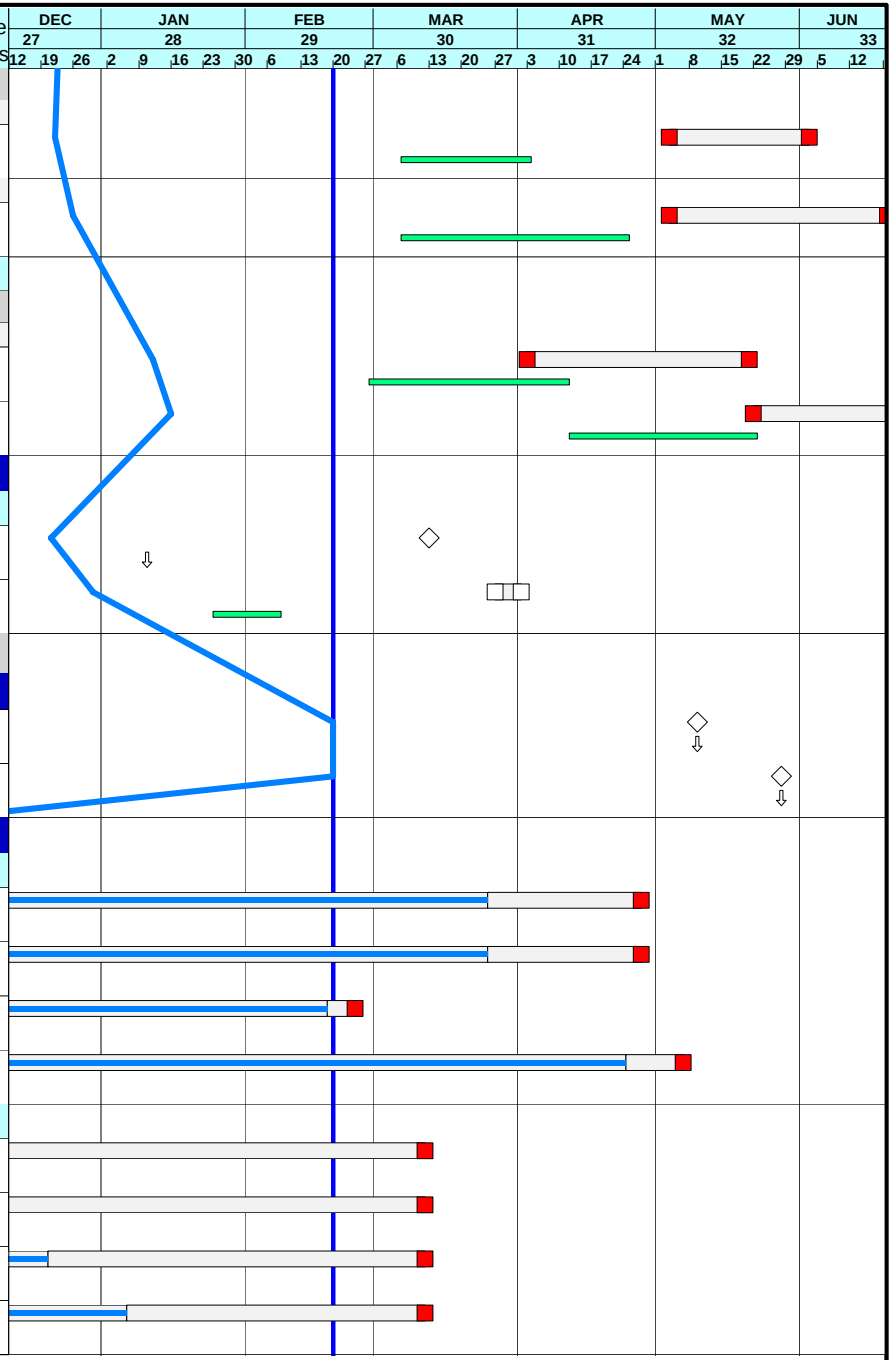
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
SHT NORTH PORTAL BUILDING									
7261	ShtNpBldg-E&M access to External Elevation	0	03APR06*		0		0	8	-23
CONSTRUCTION									
ARCHITECTURAL & BUILDER'S WORKS									
BUILDER'S WORK									
1821	SHT Nth PBldg - Wet Trades GL	16	20FEB06	09MAR06	0	0	16	16	-9
1823	SHT Nth PBldg - Wet Trades 1FL	16	20FEB06	09MAR06	0	0	16	10	-9
1869	SHT Nth PBldg - Wet Trades 2FL	16	20FEB06	09MAR06	0	0	16	10	-9
1870	SHT Nth PBldg - Wet Trades 4FL	16	20FEB06	09MAR06	0	0	16	10	-9
1871	SHT Nth PBldg - Wet Trades 3FL	16	20FEB06	09MAR06	0	0	16	10	-9
1872	SHT Nth PBldg - Wet Trades 5FL	16	20FEB06	09MAR06	0	0	16	22	-9
1812	SHT Nth PBldg - Ext. Doors & Windows	33	06MAR06	13APR06	0	0	33	10	-21
E&M - GENERAL									
MVAC WORKS									
MCC, POWER & CONTROL									
7372	ShtNpBldg-MCC, power & control 1st fix	36	03APR06	20MAY06	0		36	-26	-45
FS WORKS									
FS MAJOR EQUIPMENT									
7380	ShtNpBldg-Hydrant Pump & Tank set 1st fix	36	03APR06	20MAY06	0		36	34	-45
TUNNEL HYDRANT + HOSE REEL									
7385	ShtNpBldg-ENT Tunnel (Hyd/HR) pumps set 1st fix	24	08MAY06	05JUN06	0		24	34	-45
ELECTRICAL WORKS									
HV POWER DISTRIBUTION MAJOR EQPT.									
7265	ShtNpBldg-HV power dist. sys 1st fix	36	03APR06	20MAY06	0		36	-26	-45
LV POWER DISTRIBUTION MAJOR EQPT.									
7271	ShtNpBldg-LV power dist. sys 1st fix	24	21APR06	20MAY06	0		24	-26	-45
EARTHING & LIGHTNING PROTECTION									
7305	ShtNpBldg-Earth'g & lightn'g protection 2nd fix	54	03APR06	12JUN06	0		54	8	-23
PLUMBING & DRAINAGE WORKS									
7434	ShtNpBldg-Cleansing Water Pumps & Tanks 1st fix	18	03APR06	27APR06	0		18	40	-45



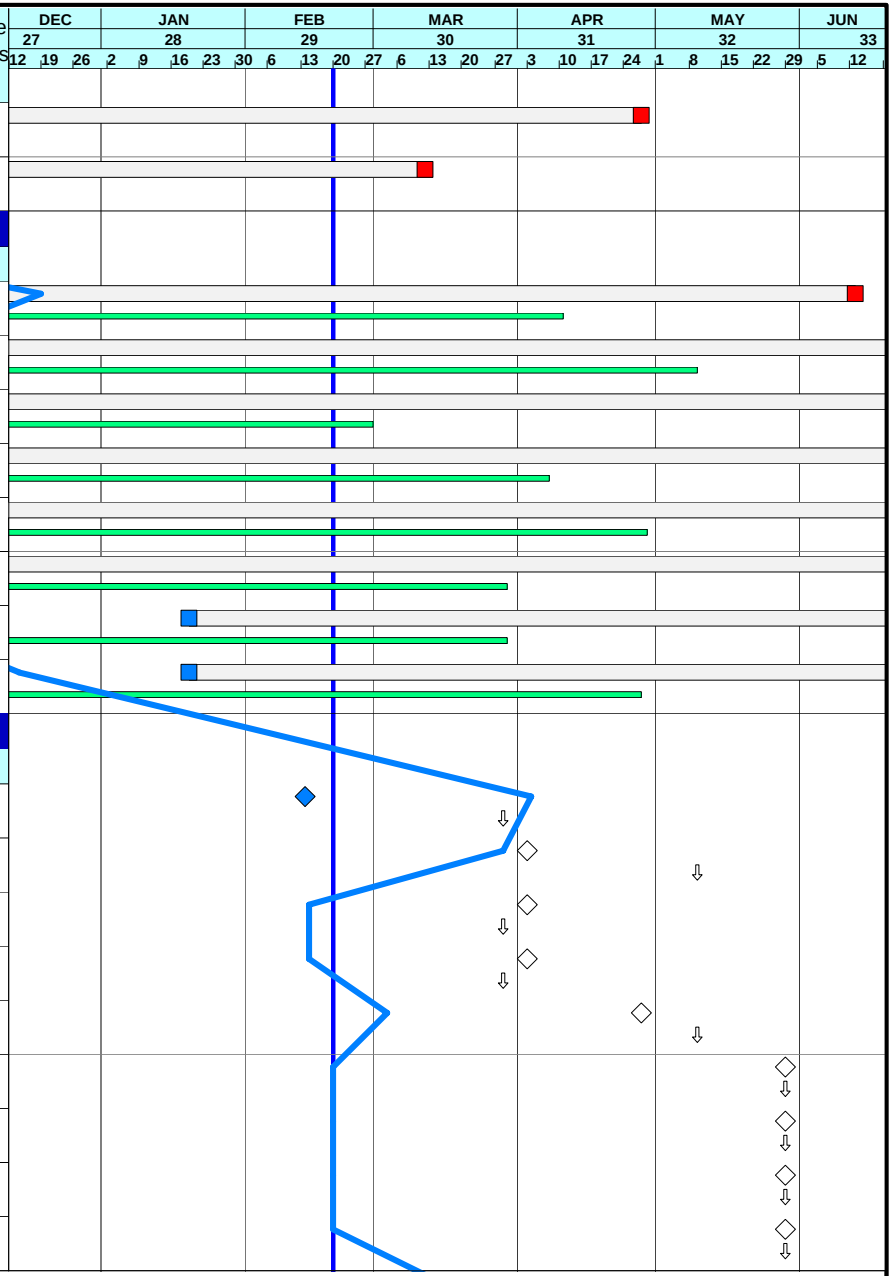
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
TUNNEL VENTILATION SYSTEM									
7358	ShtNpBldg-AC/TVF TVF, Duct & Control 1st fix	48	03APR06	05JUN06	0		48	-10	-29
E&M G/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
7344	ShtNpBldg G/F-AC(1st Fix) mech.vent.	24	03APR06	06MAY06	0		24	-20	-45
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTUION									
7276	ShtNpBldg G/F-ES(1st Fix) Main & Sub-main dist.	42	08MAY06	26JUN06	0		42	-20	-45
FINAL CIRCUIT									
7289	ShtNpBldg G/F-ES(1st Fix) Final Circuit dist.	30	08MAY06	12JUN06	0		30	-20	-45
E&M 1/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
7343	ShtNpBldg 1F-AC(1st Fix) mech.vent.	42	03APR06	27MAY06	0		42	-26	-45
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTUION									
7279	ShtNpBldg 1F-ES(1st Fix) Main & Sub-main dist.	24	29MAY06	26JUN06	0		24	-26	-45
FINAL CIRCUIT									
7292	ShtNpBldg 1F-ES(1st Fix) Final Circuit dist.	30	29MAY06	04JUL06	0		30	-26	-45
E&M 2/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
7342	ShtNpBldg 2F-AC(1st Fix) mech.vent.	36	03APR06	20MAY06	0		36	-26	-45
ELECTRICAL WORKS									
MAIN & SUB-MAIN DISTRIBUTUION									
7278	ShtNpBldg 2F-ES(1st Fix) Main & Sub-main dist.	30	15MAY06	19JUN06	0		30	-26	-45
FINAL CIRCUIT									
7291	ShtNpBldg 2F-ES(1st Fix) Final Circuit dist.	54	15MAY06	18JUL06	0		54	-26	-45
E&M 3/F									
MVAC WORKS									
MECH.VENT./AIR CONDITIONING									
7341	ShtNpBldg 3F-AC(1st Fix) mech.vent.	30	03APR06	13MAY06	0		30	-26	-45



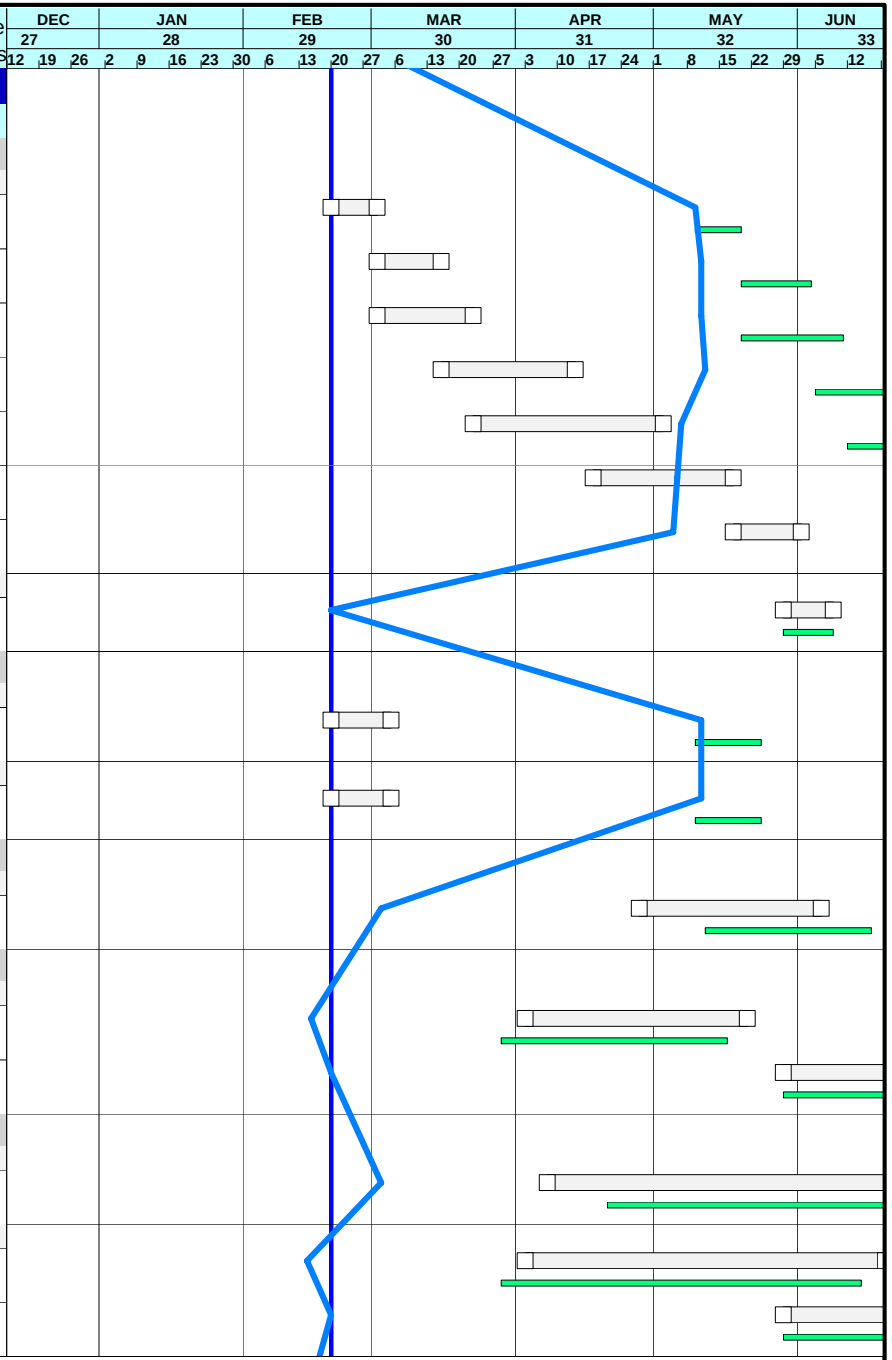
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
	ELECTRICAL WORKS								
	MAIN & SUB-MAIN DISTRIBUTUION								
7277	ShtNpBldg 3F-ES(1st Fix) Main & Sub-main dist.	24	04MAY06	02JUN06	0		24	-26	-45
	FINAL CIRCUIT								
7290	ShtNpBldg 3F-ES(1st Fix) Final Circuit dist.	38	04MAY06	19JUN06	0		38	-26	-45
	E&M ROOF								
	ELECTRICAL WORKS								
	FINAL CIRCUIT								
7288	ShtNpBldg R/F-ES(1st Fix) Final Circuit dist.	36	03APR06	20MAY06	0		36	2	-29
7293	ShtNpBldg R/F-ES(2nd Fix) Final Circuit dist.	30	22MAY06	26JUN06	0		30	2	-29
	STATUTORY INSPECTIONS								
	FSD INSPECTIONS								
7455	ShtNpBldg-All FS design approved by FSD (MHJV)	0	13MAR06		0	100	0	34	-45
7456	ShtNpBldg-Issue, endorse & submit FSI 314 to FSD	6	27MAR06	01APR06	0		6	34	-45
	SHT RC ENCLOSURE & T3 UNDERPASS								
	CONTRACT DEFINED DATES & SECTIONS								
ACS_J6	Access to Portion - J6 (SH-R9 Slip Rd.Over KCRC)	0	10MAY06		0		0	760	0
ACS_L	Access to Portions - L	0	28MAY06		0		0	24	0
	SUBMITTALS & APPROVALS								
	E&M EQPT./ MTRL.SUBMITTALS								
8304	Sht-N.R9-Sub.TVS control sys	54	02JUL04A	27APR06	95	100	54	-86	-197
8309	Sht-N.R9-Sub.MCC, power & control sys	54	02JUL04A	27APR06	95	100	54	-121	-212
8305	Sht-N.R9-Sub.FS AFA & Linear sys	54	05JUL04A	24FEB06	99	100	5	-65	-135
8303	Sht-N.R9-Sub.CMCS & ELV sys	78	26AUG04A	06MAY06	98	100	60	-59	-196
	E&M EQP. / MTRL. APPROVALS								
7487	Sht-N.R9-App. Tunnel Lgt sys	18	05AUG04A	11MAR06	80	100	18	-56	-165
7604	Sht-N.R9-App. LCC, power & control sys	18	18AUG04A	11MAR06	80	100	18	-35	-144
7517	Sht-N.R9-App. FS AFA & Linear sys	18	14SEP04A	11MAR06	85	100	18	-65	-130
7494	Sht-N.R9-App. CMCS & ELV sys	18	20SEP04A	11MAR06	88	100	18	-59	-136



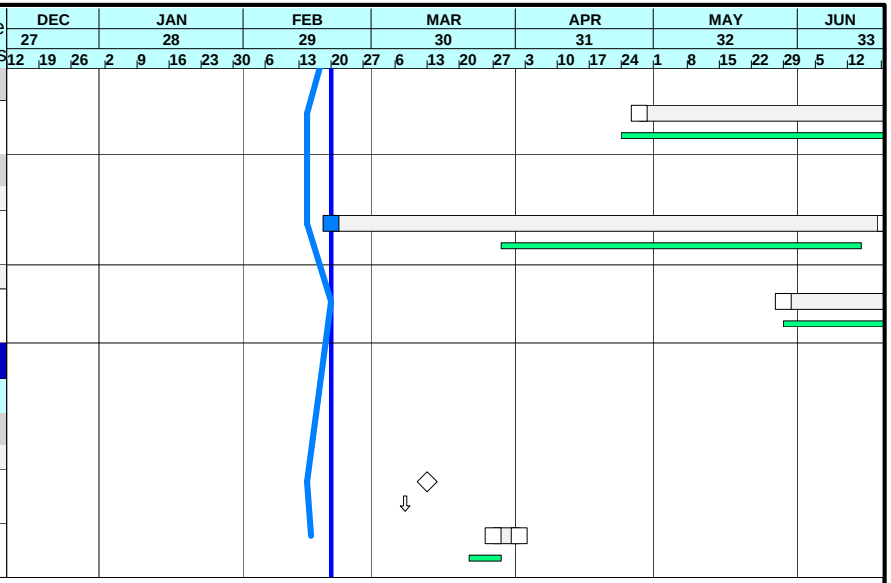
Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
E&M EQP. / MTRL. APPROVALS									
7505	Sht-N.R9-App. TVS control sys	18	12NOV04A	27APR06	70	100	54	-86	-179
7612	Sht-N.R9-App. MCC, power & control sys	18	12NOV04A	11MAR06	80	100	18	-121	-158
PROCUREMENT - MATERIAL									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
7482	Sht-N.R9-Proc & Manuf. ES Main & submain dist.	180	20MAR05A	12JUN06	40	80	90	-29	-48
7495	Sht-N.R9-Proc & Manuf. CMCS & ELV sys	180	25MAR05A	10AUG06	20	70	140	-59	-78
7518	Sht-N.R9-Proc & Manuf. FS AFA & Linear sys	120	25MAR05A	04JUL06	15	80	108	-65	-100
7613	Sht-N.R9-Proc & Manuf. MCC, power & control sys	180	25MAR05A	30SEP06	10	70	180	-125	-144
7506	Sht-N.R9-Proc & Manuf. TVS control sys	180	25MAY05A	02SEP06	10	70	160	-86	-105
7530	Sht-N.R9-Proc & Manuf. TVF, Ductwks & Cont'l sys	180	09JUN05A	18JUL06	40	80	120	-68	-87
7488	Sht-N.R9-Proc & Manuf. Tunnel Lgt sys	180	20JAN06A	04JUL06	0	80	90	-56	-75
7605	Sht-N.R9-Proc & Manuf. LCC, power & control sys	180	20JAN06A	04JUL06	0	80	90	-35	-54
INTERFACE DATES									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
7477	Sht-N.R9-E&M Access to Encl from SHT(ST89/02)	0	14FEB06A		100		0		37
7478	E&M Access to cable duct & pit (SPB to SP LV/R)	0	03APR06*		0		0	45	26
7479	E&M Access to Cable Troughs from SHT(ST89/02)	0	03APR06*		0		0	15	-4
7480	Sht-N.R9-E&M Access to Niches from SHT(ST89/02)	0	03APR06*		0		0	33	-4
7503	E&M Access to South Portal LV Sw/R from SHT	0	28APR06*		0		0	27	8
7532	Sht-N.R9-E&M Access to Encl. from T3(ST79/02)	0	29MAY06*		0		0	21	0
7533	E&M Access to Cable Troughs from T3(ST79/02)	0	29MAY06*		0		0	21	0
7534	Sht-N.R9-E&M Access to Niches from T3(ST79/02)	0	29MAY06*		0		0	19	0
7535	E&M Access to North Portal LV Sw/R from T3	0	29MAY06*		0		0	19	0



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
CONSTRUCTION WORKS									
SHT RC FULL ENCLOSURE / T3 UNDERPASS									
KIOSKS									
KIOSK 1									
2287	Kiosk S1 - Substructure	9	20FEB06	01MAR06	0	0	9	106	62
2289	Kiosk S1 - Steelwork & glazing	12	02MAR06	15MAR06	0	0	12	106	62
2293	Weighbridge S1 - Install	18	02MAR06	22MAR06	0	0	18	190	62
2291	Kiosk S1 - Builders' work	24	16MAR06	13APR06	0	0	24	106	62
2296	Weighbridge S1 - Test and commission	30	23MAR06	02MAY06	0	0	30	190	62
8531	Kiosk S1 - Elect Works	24	18APR06	17MAY06	0	0	24	130	62
8532	Kiosk S1 - MVAC Works	12	18MAY06	01JUN06	0	0	12	130	62
KIOSK 2									
2288	Kiosk S2 - Substructure	9	29MAY06	08JUN06	0		9	52	0
SWITCHROOMS									
SOUTH SWITCHROOM									
3720	Sth.Switchroom - Builders Work	12	20FEB06	04MAR06	0	0	12	81	62
NORTH SWITCHROOM									
3730	Nth.Switchroom - Builders Work	12	20FEB06	04MAR06	0	0	12	81	62
MVAC WORKS									
MCC, POWER & CONTROL									
7536	Sht-N.R9-MCC, power & control 1st fix	30	28APR06	05JUN06	0		30	29	10
FS WORKS									
FS MAJOR EQUIPMENT									
7511	Sht-N.R9-Wet dist. (HR/Hyd) 1st fix	36	03APR06	20MAY06	0		36	15	-4
7512	Sht-N.R9-Wet dist. (HR/Hyd) 2nd fix	36	29MAY06	11JUL06	0		36	19	0
ELECTRICAL WORKS									
MAIN & SUBMAIN DISTRIBUTION									
7484	Sht-N.R9-LV main & submain dist. 1st fix	60	08APR06	23JUN06	0		60	27	8
TUNNEL & EXTERNAL LIGHTING									
7490	Sht-N.R9-Tunnel Lgt sys 1st fix	60	03APR06	19JUN06	0		60	15	-4
7607	Sht-N.R9-LCC, power & control 1st fix	36	29MAY06	11JUL06	0		36	19	0



Act. ID	Activity Description	Orig Dur	Early Start	Early Finish	% Compl.	DWP % Compl.	Rem Dur	Total Float	Variance arly Finis
ELV WORKS									
7497	Sht-N.R9-CMCS, TCS 1st fix & TCSS Enabling	60	28APR06	11JUL06	0		60	15	-4
TUNNEL VENTILATION SYSTEM									
TUNNEL VENTILATION & SMOKE EXTRACTION									
7500	Sht-N.R9-TVS Tunnel vent. & SE 1st fix	60	20FEB06A	19JUN06	1		60	15	-4
MCC, POWER & CONTROL									
7508	Sht-N.R9-TVS Control & Power 1st fix	30	29MAY06	04JUL06	0		30	19	0
T&C and Inspections									
SHT RC Full Enclosure / T3 Underpass									
STATUTORY INSPECTIONS									
FSD INSPECTION									
7521	Sht-N.R9-All FS design approved by FSD (MHJV)	0	13MAR06		0	0	0	15	-4
7522	7Sht-N.R9-Issue, endorse & submit FSI 314 to FSD	6	27MAR06	01APR06	0		6	15	-4



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

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

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

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

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

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