

東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
Tel : 2695 8318 E-mail : etl@ets-testconsult.com  
Fax : 2695 3944 Web site : www.ets-testconsult.com

**TEST REPORT**

**PENTA-OCEAN CONSTRUCTION COMPANY LIMITED**

REMAINING ENGINEERING  
INFRASTRUCTURE WORKS FOR PAK  
SHEK KOK DEVELOPMENT PACKAGE 1  
(CONTRACT NO.: TP 35/02)

MONTHLY EM&A REPORT

(FEBRUARY 2005)

Prepared by: Linda Law  
Linda Law  
Environmental Officer

Checked by: C. L. Lau  
C. L. Lau  
Environmental Team Leader

Approved by: Tony Wong  
Tony Wong  
Operations Manager

Report No.: ENA 50108



<b>TABLE OF CONTENTS</b>		<b>Page</b>
<b>EXECUTIVE SUMMARY</b>		
<b>1.0</b>	<b>INTRODUCTION</b>	1
<b>2.0</b>	<b>PROJECT INFORMATION</b>	
	2.1 Background	1
	2.2 Site Description	1
	2.3 Construction Programme	1
	2.4 Project Organization and Management Structure	1
	2.5 Contact Details of Key Personnel	1- 2
<b>3.0</b>	<b>CONSTRUCTION PROGRESS IN THIS REPORTING MONTH</b>	2
<b>4.0</b>	<b>AIR QUALITY MONITORING</b>	
	4.1 Monitoring Requirement	3
	4.2 Monitoring Equipment	3
	4.3 Monitoring Parameters, Frequency and duration	3
	4.4 Monitoring Locations and Period	3 – 4
	4.5 Monitoring Methodology	4 – 5
	4.6 Action and Limit levels	5 – 6
	4.7 Event-Action Plans	6
	4.8 Results	6
<b>5.0</b>	<b>NOISE MONITORING</b>	
	5.1 Monitoring Requirement	6
	5.2 Monitoring Equipment	6 – 7
	5.3 Monitoring Parameters, Frequency and duration	7
	5.4 Monitoring Locations and Period	7 – 8
	5.5 Monitoring Methodology	8
	5.6 Action and Limit levels	8
	5.7 Event-Action Plans	8
	5.8 Results	9
<b>6.0</b>	<b>WASTEWATER MONITORING</b>	9
<b>7.0</b>	<b>ENVIRONMENTAL NON-CONFORMANCE</b>	
	7.1 Summary of air quality, noise and wastewater monitoring	9 – 10
	7.2 Summary of environmental complaints	10
	7.3 Summary of notification of summons and prosecutions	10
<b>8.0</b>	<b>SITE INSPECTION</b>	
	8.1 Summary of site inspection findings and Action(s) taken by POC and ET	10
	8.2 Status of Environmental Licensing and Permitting	11
	8.3 Recommendation on Site Inspection findings	11
<b>9.0</b>	<b>WASTE MANAGEMENT</b>	
	9.1 Waste Management Audit	11
	9.2 Records of waste quantities	12
<b>10.0</b>	<b>Implementation Status</b>	
	10.1 Implementation Status of Environmental Mitigation Measures	12
	10.2 Implementation Status of Event and Action Plan	12
	10.3 Implementation Status of Environmental Complaint Handling	12
<b>11.0</b>	<b>CONCLUSION</b>	13
<b>12.0</b>	<b>FUTURE KEY ISSUE</b>	
	12.1 Upcoming EM&A Schedule in coming two months	13
	12.2 Upcoming Construction Works Schedule in coming month	13



## APPENDIX

- A Organization Chart and Lines of Communication
- B1 Calibration Certificates for Impact Air Quality Monitoring Equipment
- B2 Impact Air Quality Monitoring Results
- B3 Graphical Plots of Impact Air Quality Monitoring Data
- C1 Calibration Certificates for Impact Noise Monitoring Equipment
- C2 Impact Noise Monitoring Results
- C3 Graphical Plots of Impact Noise Monitoring Data
- D Weather Condition
- E Event-Action Plans
- F Construction Programme
- G Construction Site Area
- H Summary of the Implementation Status of the Mitigation Measures
- I IEC and RE Comments on Monthly EM&A Report – January 2005

## Figure

- Figure 1 Location of Noise Monitoring Locations
- Figure 2 Location of Air Monitoring Locations
- Figure 3 Location of Air and Noise Monitoring Stations at HKIB Staff Accommodation
- Figure 4 Location of Noise Monitoring Station at CUHK Residence No. 10
- Figure 5 Location of Air and Noise Monitoring Stations at Cheung Shue Tan Village

## Tables

- 2.1 Contact Details of Key Personnel
- 3.1 Major Construction Activities in this reporting month
- 3.2 Implementation of Environmental Mitigation Measures
- 4.1 Air Quality Monitoring Equipment
- 4.2 Monitoring parameters, duration and frequency of air quality monitoring
- 4.3 Air Quality Monitoring Locations
- 4.4 Monitoring Schedule for air quality monitoring stations
- 4.5 Action and Limit levels for 24-hr TSP and 1-hr TSP
- 5.1 Noise Monitoring Equipment
- 5.2 Duration, Frequency and Parameters of noise monitoring
- 5.3 Noise Monitoring Locations
- 5.4 Monitoring Schedule for noise monitoring stations
- 5.5 Action and Limit levels for noise monitoring
- 7.1 A Cumulative Log of Notification of Summons and Prosecution
- 8.1 Summary of environmental licensing and permit status
- 9.1 Summary of Quantities of waste for disposal
- 12.1 Upcoming EM&A Schedule in coming two months
- 12.2 Upcoming Construction Works Schedule in coming month



## **EXECUTIVE SUMMARY**

This monthly EM&A report (No.26) has been prepared to document the impact monitoring works conducted for the Contract of the Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 (Contract No: TP 35/02) during the reporting period from 01 to 28 February 2005.

### **Construction Progress**

The major construction works in this reporting month were as below:

- Drainage works in Area Zone G and S2
- Watermain installation work at Zone L & H
- Roadworks for Section 16
- Construction of pumping station no.1 and no.2
- Construction of Road D1 Bridge
- General landscape works
- Installation of irrigation System

### **Environmental Monitoring Progress**

The summary of the monitoring activities in this monitoring month is listed below:

- Noise Monitoring (Day-time): 4 Occasions at 3 designated locations
- Noise Monitoring (Evening-time): 4 Occasions at 3 designated locations
- Noise Monitoring (Holiday): 3 Occasions at 3 designated locations
- 24-hour TSP Monitoring: 4 Occasions at 2 designated locations
- 1-hour TSP Monitoring: 11 Occasions at 2 designated locations
- Weekly-site inspection: 4 Occasions

### **Noise Monitoring**

No exceedances of Action and Limit levels for noise monitoring were recorded in the reporting month.

### **Air Monitoring**

No exceedances of Action and Limit levels were recorded for 24-hr TSP and 1-hr TSP monitoring in the reporting month.

### **Site Inspection**

Environmental site inspections conducted in this reporting month are presented as follows:

<u>Concerned Parties</u>	<u>Dates of Audit / Inspection</u>
ET (weekly site inspection)	05, 08, 19, 26
IEC/POC/ET (Monthly site inspection)	28

No observations were raised during this reporting month.

### **Environmental Complaints**

No environmental complaints were received in this monitoring month.

### **Notification of summons and successful prosecutions**

No notification of summons and prosecutions with respect to environmental issues were registered in this reporting month.



**Future Key Issues**

Base on the site inspections and forecast of engineering works in the coming month, key issues to be considered are as follows:

- Noise and air quality impact due to construction works;
- Maintain wheel washing facilities properly;
- Cleanup the access road regularly;
- Watering, hydro-seeding or covering all stockpiles with tarpaulin to avoid wind and water erosion;
- Diverting the silty runoff to sedimentation trap before discharge;
- Maintain good site practice and waste management to minimize environmental impacts at the site;
- Follow-up improvements on waste management issues.



## 1.0 INTRODUCTION

Penta-Ocean Construction Co., Ltd. (POC) appointed Environmental Team (ET) of ETS-Testconsult Limited (ETL) to undertake the Environmental Monitoring and Audit for Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 (Contract No.: TP 35/02).

Under the requirements of Section 10 of Environmental Permit to Construct and Operate a Designate Project (EP-108/2001/AEP-108/2001), EM&A programme as set out in the EM&A Manual is required to be implemented. In accordance with the EM&A manual, environmental monitoring of air quality and noise is required for the Project. The EM&A requirement for each parameter are described in details in subsequent 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 report;
- Environmental requirements in contract documents.

This monthly EM&A report summarizes the impact monitoring results and audit findings of the EM&A program during the reporting period from 01 to 28 February 2005.

## 2.0 PROJECT INFORMATION

### 2.1 Background

Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 (Contract No.: TP 35/02) was planned and designed by the Civil Engineering and Development Department (CEDD).

As the main Contractor of the captioned project: contracted by, POC will follow the environmental monitoring recommendation stated at the EM&A Manual that was prepared with reference to the EIA Study for Feasibility Study on the Pak Shek Kok Development Area (PSKDA) Environmental Monitoring and Audit Manual under Agreement No. CE 90/96.

### 2.2 Site Description

Generally, the construction site is located at Pak Shek Kok development area. Surrounding the construction site, there are two air sensitive receivers: HKIB Staff Accommodation and Cheung Shue Tan Village and three noise sensitive receivers: HKIB Staff Accommodation, CUHK Residence No.10 and Cheung Shue Tan Village.

Figure 1 and 2 show the noise and air monitoring locations of this project.

### 2.3 Construction Programme

Details of construction programme are shown in Appendix F.

### 2.4 Project Organization and Management Structure

The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in Appendix A.

### 2.5 Contact Details of Key Personnel

The key personnel contact names and telephone numbers, and construction programme are shown in table 2.1.



Table 2.1 Contact Details of Key Personnel

Organization	Project Role	Name of Key Staff	Tel. No.	Fax No.
CEDD	Employer	Mr. H W Lau	2158 5629	---
Hyder	Engineer	Mr. Herman Fong	2911 2233	2827 2891
Hyder	Independent Environmental Checker	Ir. Coleman Ng	2911 2233	2827 2891
POC	Contractor	Mr. Roger Lau	9870 6390	2691 6012
ETL	Contractor's Environmental Team	Mr C L Lau (Environmental Team Leader)	2946 7792	2695 3944

### 3.0 CONSTRUCTION PROGRESS IN THIS REPORTING MONTH

The site area of this project is shown in Appendix G.

A summary of the major construction activities undertaken in this monitoring month is shown in Table 3.1. The implementation of corresponding mitigation measures is summarized in Table 3.2.

Table 3.1 Major Construction Activities in this reporting month

Location	Major Construction Activity
Section 16	Roadworks
Zone G and S2	Drainage Works
Road D1	Construction of Road D1 Bridge
No.1 & No.2	Construction of pump stations
Zone L & H	Watermain installation work
---	General landscape works
---	Installation of irrigation system

Table 3.2 Implementation of Environmental Mitigation Measures

General construction works	<ul style="list-style-type: none"> <li>• Effective water sprays used on the site at potential dust emission sources such as unpaved area;</li> <li>• The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading;</li> <li>• Minimize of exposed soil areas to reduce the potential for increased siltation and contamination of run-off;</li> <li>• Water, hydro-seed or cover the open stockpile and exposed loose soil areas by using clean tarpaulin sheets;</li> <li>• Provide proper and efficient drainage facilities (e.g. wheel washing facilities) and sedimentation system to ensure that site runoff should be treated before discharged to drains;</li> <li>• Remove the sand/rubbish accumulated in the drain/channel regularly;</li> <li>• Provide good site practice (e.g. selection of quieter plant and working methods and reduction in number of plant operating in critical areas close to NSRs) to limit noise emissions at source;</li> <li>• Remove the construction waste accumulated inside or outside the site regularly;</li> <li>• Keep good waste management.</li> </ul>
----------------------------	--



## 4.0 AIR QUALITY MONITORING

### 4.1 Monitoring Requirement

1-hour and 24-hour TSP monitoring were required to be conducted to monitor the air quality, at designated monitoring locations:

- HKIB Staff Accommodation (on ground floor near the entrance facing south-east);
- Cheung Shue Tan Village (near the outer building, temple) for 1-hr TSP monitoring;
- Cheung Shue Tan Village (in front of Man Kee Store) for 24-hr TSP monitoring.

### 4.2 Monitoring Equipment

Continuous 24-hour TSP air quality monitoring was performed using a GMWS2310 High Volume Air Sampler (HVS) located at each of the designated monitoring station. One portable dust meter was used to carry out the 1-hour TSP monitoring. Table 4.1 summarizes the equipment used in the air quality monitoring programme. A copy of the calibration certificate for the HVS and portable dust meter are attached in Appendix B1.

Table 4.1 Air Quality Monitoring Equipment

<i>Equipment</i>	<i>Model and Make</i>
<i>HVS Sampler</i>	<i>Greasby GMWS2310</i>
<i>Calibrator</i>	<i>G25 A</i>
<i>1-hour TSP Dust Meter</i>	<i>TSI Model 8520 Dust Trak™ Aerosol Monitor</i>

### 4.3 Monitoring Parameters, Frequency and Duration

Table 4.2 summarizes the monitoring parameters, monitoring duration and frequencies of air quality monitoring.

Table 4.2 Monitoring parameters, duration, frequencies of impact air quality monitoring

<i>Parameter</i>	<i>Duration</i>	<i>Frequency</i>
<i>24-hr TSP</i>	<i>24 hr (0000-2400)</i>	<i>Once every six days</i>
<i>1-hr TSP</i>	<i>1 hr (0700-1900)</i>	<i>Three times every six days</i>

### 4.4 Monitoring Locations and Schedule

Two designated air quality monitoring locations – Cheung Shue Tan Village and HKIB Staff Accommodation were selected. Table 4.3 tabulates the air quality monitoring locations of this project.

Table 4.3 Air quality monitoring locations

<i>Air quality Monitoring stations</i>	<i>Locations</i>
<i>AM1</i>	<i>HKIB Staff Accommodation (on ground floor near the entrance facing south-east) for 1-hr TSP monitoring</i>
<i>AM3</i>	<i>Cheung Shue Tan Village (near the outer building, temple) for 1-hr TSP monitoring</i>
<i>AM3A</i>	<i>Cheung Shue Tan (in front of Man Kee Store) for 24-hr TSP monitoring</i>

The air quality monitoring schedule for 24-hr and 1-hr TSP monitoring at designated monitoring locations is summarized in table 4.4.



Table 4.4 Monitoring Schedule for the air quality monitoring stations

Air quality monitoring stations	Location	Monitoring Period									
		24-hr TSP				1-hr TSP					
		Start		Finish		Date	Start	Finish			
		Date	Time	Date	Time						
AM1	HKIB Staff Accommodation	---				01/02/05	09:10	10:10			
						03/02/05	15:10	16:10			
						05/02/05	08:45	09:45			
						07/02/05	08:46	09:46			
						08/02/05	10:40	11:40			
						12/02/05 *					
						15/02/05	08:47	09:47			
						17/02/05	08:50	09:50			
						19/02/05	13:00	14:00			
						22/02/05	08:40	09:40			
						24/02/05	10:23	11:23			
						26/02/05	10:30	11:30			
						AM3	Cheung Shue Tan Village (near the outer building, temple)	---			
03/02/05	10:00	11:00									
05/02/05	13:00	14:00									
07/02/05	10:02	11:02									
08/02/05	09:15	10:15									
12/02/05 *											
15/02/05	13:30	14:30									
17/02/05	13:50	14:50									
19/02/05	14:15	15:15									
22/02/05	13:00	14:00									
24/02/05	08:50	09:50									
26/02/05	15:30	16:30									
AM1	HKIB Staff Accommodation	---									
						07/02/05	08:53	08/02/05	08:48		
						12/02/05 *					
						18/02/05	11:09	19/02/05	11:04		
						24/02/05	10:29	25/02/05	10:14		
AM3A	Cheung Shue Tan (in front of Man Kee Store)	---				02/02/05	09:25	03/02/05	09:54		
						07/02/05	10:11	08/02/05	10:33		
						12/02/05 *					
						18/02/05	10:38	19/02/05	10:58		
						24/02/05	09:05	25/02/05	09:01		

Remark (\*): Monitoring cancelled due to no construction works carried out at Site Holiday

## 4.5 Monitoring Methodology

### 4.5.1 24-hour TSP Monitoring

#### Instrumentation

High volume sampler, as HVS, (Greasby GMWS2310) complete with appropriate sampling inlets are employed for 24-hour TSP. The sampler is composed of a motor, a filter holder, a flow controller and a sampling inlet and its performance specification complies with that required by USEPA standard Title 40, Code of Federation Regulations Chapter 1 (Part 50).

#### Installation

The installation of HVS refers to the requirement stated in EM&A Manual.

#### Operation/Analytical Procedures

Operating/analytical procedures for the operation of HVS are as below:

Prior to the commencement of the dust sampling, the flow rate of the high volume

sampler was properly set (between 0.6m<sup>3</sup>/min and 1.7m<sup>3</sup>/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 (GA-55) were used.
- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated 5 minutes to establish thermal equilibrium before placing any filter media at designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter. Then the filter holder frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The programmable timer will be set for a sampling period of 24 hours. 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 transferred from the filter holder of the HVS to a sealed plastic bag and sent to the laboratory for weighting. The elapsed time was also recorded.
- Before weighting, all filters were equilibrated in a desiccator for 24 hour with the temperature of  $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$  and the relative humidity (RH)  $<50\% \pm 5\%$ .

#### Maintenance & Calibration

- The HVS and their accessories should be maintained in good working condition, such as replacing motor brushes routinely and checking electrical wiring to ensure a continuous power supply.
- HVS should be calibrated at bi-monthly intervals.

### **4.5.2 1-hour TSP Monitoring**

#### Measuring Procedures

The measuring procedures of the 1-hr dust meter are in accordance with the Manufacturer's instruction Manual as follows:

- Set POWER to ON, check the battery indicator to ensure whether the power supply is enough to conduct the TSP monitoring;
- Calibrate the dust meter by zero check;
- Set the TIME CONSTANT of the dust meter;
- Press SAMPLE to start the TSP monitoring;
- Record the maximum, minimum and average reading directly from the dust meter by press STATISTICS when monitoring complete.

#### Maintenance & Calibration

- 1-hr dust meter should be checked at 3-month intervals and calibrated at 1-year intervals throughout all stages of impact air quality monitoring.

### **4.5.3 Wind Data Monitoring**

Wind data (wind speed and wind direction) were directly extracted from Sha Tin Station (located at Sha Tin Race Course) of Hong Kong Observatory. All wind data during this reporting month are shown in Appendix D.

## **4.6 Action and Limit Levels**

Action and Limit levels for 24-hr TSP and 1-hr TSP derived as illustrated in Table 4.5.



Table 4.5 Action and Limit Levels for 24-hr TSP and 1-hr TSP

Monitoring Location	24-hr TSP ( $\mu\text{g}/\text{m}^3$ )		1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	
	Action Level	Limit Level	Action Level	Limit Level
AM1	164 *	260 *	325 *	500 *
AM3	---	---	306	500
AM3A	183	260	---	---

\* = Reference to the information contained in the Baseline Monitoring Report submitted under the "Advance Engineering Infrastructure Works for Pak Shek Kok Development – Southern Access Road and Sewage Pumping Station No.3

#### 4.7 Event-Action Plans

Please refer to Appendix E for details.

#### 4.8 Results

##### 4.8.1 24-hour TSP Monitoring

All monitoring data of 24-hour TSP monitoring is provided in Appendix B2. Graphical presentation of 24-hour TSP monitoring results for the reporting month is shown in Appendix B3.

No exceedances of Action and Limit Level of 24-hour TSP monitoring results were recorded during the reporting month.

##### 4.8.2 1-hour TSP Monitoring

1-hour TSP monitoring was carried out at monitoring stations, AM1 and AM3 in the reporting month. All monitoring data of 1-hour TSP monitoring is provided in Appendix B2. Graphical presentation of 1-hour TSP monitoring results for the reporting month is shown in Appendix B3.

No exceedances of Action and Limit Level of 1-hour TSP monitoring results were recorded during the reporting month.

#### 5.0 Noise Monitoring

##### 5.1 Monitoring Requirements

As the requirement in EM&A Manual, noise monitoring was conducted at designated monitoring locations:

- HKIB Staff Accommodation (on ground floor near the entrance facing south-east);
- Cheung Shue Tan Village (near the outer building, temple);
- CUHK Residence No.10.

##### 5.2 Monitoring Equipment

Integrating Sound Level Meters were used for noise monitoring. They were Type 1 sound level meters capable of giving a continuous readout of the noise level reading including equivalent continuous sound pressure level ( $L_{eq}$ ) and percentile sound pressure level ( $L_x$ ). They comply with International Electro technical Commission Publications 651:1979 (Type1) and 804:1985 (Type1), and speed in m/s was used to monitor the wind speed.

Table 5.1 summarized noise monitoring equipment model being used. A copy of the calibration certificates for noise meters and calibrator are attached in Appendix C1.



Table 5.1 Noise Monitoring Equipment

Equipment	Model
Integrating Sound Level Meter	Rion NL-31 Sound Level Meter
Calibrator	Rion NC-73 Sound Level Calibrator
Portable Wind Speed Indicator	TSI Model 8340-M Air Velocity Meter

### 5.3 Monitoring Parameters, duration and Frequency

Noise monitoring for the A-weighted levels  $L_{eq}$ ,  $L_{10}$  and  $L_{90}$  were recorded. The following guide on the regular monitoring frequency for each monitoring station on a per week basis when noise generating activities are underway:

- One set of measurements between 0700-1900 hours on normal weekdays (6 consecutive  $L_{eq(5-min)}$ );
- One set of measurements between 1900-2300 hours (3 consecutive  $L_{eq(5-min)}$ )\*;
- One set of measurements between 2300-0700 hours of next day (3 consecutive  $L_{eq(5-min)}$ )\*;
- One set of measurements between 0700-1900 hours on holidays (3 consecutive  $L_{eq(5-min)}$ )\*.

(\*): Noise monitoring to be conducted only when there is construction work.

Duration, frequencies and parameters of noise measurement are presented in Table 5.2.

Table 5.2 Duration, Frequencies and Parameters of Noise Monitoring

Time period	Duration/min	Parameters	Frequency
Day-time: 0700-1900 hrs on normal weekday	30	$L_{eq}$ , $L_{10}$ , $L_{90}$	Once per week
Evening-time: 1900-2300 hrs	15	$L_{eq}$ , $L_{10}$ , $L_{90}$	Once per week
Night-time: 2300-0700 hrs of next day	15	$L_{eq}$ , $L_{10}$ , $L_{90}$	Once per week
Holiday: 0700-1900 hrs	15	$L_{eq}$ , $L_{10}$ , $L_{90}$	Once per week

### 5.4 Monitoring Locations and Period

In accordance with the EM&A Manual, there are three noise monitoring locations: HKIB Staff Accommodation, Cheung Shue Tan Village and CUHK Residence No.10. The location of the monitoring stations are described in Table 5.3 and depicted in Figure 1.

Table 5.3 Noise Monitoring Locations

Noise Monitoring station	Location
NM1	HKIB Staff Accommodation (on ground floor near the entrance facing south-east)
NM2	CUHK Residence No.10
NM3	Cheung Shue Tan Village (near the outer building, a temple)

The noise-monitoring programme of monitoring locations (Day-time, Evening-time, Holiday and Night-time) is summarized in Table 5.4.

Table 5.4 Monitoring Periods for noise monitoring stations

Noise monitoring stations	Monitoring Period							
	Day-time		Evening-time		Holiday		Night-time	
NM1	01/02/05	09:12	01/02/05	19:00	06/02/05	13:20	---	---
	08/02/05	10:43	08/02/05	20:10	13/02/05 *		---	---
	15/02/05	08:50	15/02/05	19:15	20/02/05	10:30	---	---
	22/02/05	08:42	22/02/05	19:00	27/02/05	14:10	---	---
NM2	01/02/05	09:55	01/02/05	19:25	06/02/05	13:50	---	---
	08/02/05	14:40	08/02/05	19:35	13/02/05 *		---	---
	15/02/05	14:55	15/02/05	19:42	20/02/05	10:55	---	---
	22/02/05	15:00	22/02/05	19:25	27/02/05	14:47	---	---
NM3	01/02/05	14:32	01/02/05	19:55	06/02/05	14:25	---	---
	08/02/05	09:23	08/02/05	19:00	13/02/05 *		---	---
	15/02/05	13:33	15/02/05	20:10	20/02/05	11:25	---	---
	22/02/05	13:02	22/02/05	19:55	27/02/05	15:23	---	---

Remark (\*): Monitoring cancelled due to no construction works carried out at Site Holiday



## 5.5 Monitoring Procedures and Calibration Details

### Operation/Analysis Procedures

- The Sound Level Meter was set on a tripod at a height of 1.2m above the ground.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces.
- 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 : 5 mins
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94 dB at 1000HZ. If the difference in the calibration level before and after measurement was more than 1dB(A), the measurement would be considered invalid and repeat measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with a portable wind meter.
- During the monitoring period, the Leq, L10 and L90 were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Free Field correction to the measurements should be made. Correction factor of +3dB(A) should be made to the free Field measurements.
- Noise monitoring would be cancelled in the presence of fog, rain, wind with a steady speed exceeding 5m/s, or wind gusts exceeding 10m/s.

### Maintenance and Calibration

- The microphone head of the sound level meter and calibrator is cleaned with soft cloth at quarterly intervals.
- The meter is sent to be supplier or HOKLAS laboratory to check and calibrated at yearly intervals.

## 5.6 Action and Limit Levels

The Action and Limit levels for noise levels derived as illustrated in Table 5.5.

Table 5.5 Action and Limit Levels for noise monitoring

<i>Time Period</i>	<i>Time Period</i>	<i>Action</i>	<i>Limit</i>
<i>Normal hours</i>	<i>0700-1900 hrs on normal weekdays</i>	<i>When one documented complaint is received</i>	<i>75 dB(A) *</i>
<i>Holiday</i>	<i>0700-1900 hrs on holidays</i>		<i>70 dB(A) **</i>
<i>Evening-time</i>	<i>1900-2300 hrs on all other days</i>		<i>55 dB(A) **</i>
<i>Night-time</i>	<i>2300-0700 hrs of next day</i>		

\* = Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.

\*\* = Area Sensitivity Rating (ASR) C is selected from the "Technical Memorandum on Noise from Construction Work Other Than Percussive Piling".

## 5.7 Event-Action Plans

Please refer to the Appendix E for details.



## 5.8 Results

Day-time, Evening-time and Holiday noise monitoring were carried out at monitoring stations, NM1, NM2 and NM3 in this reporting month. No night-time noise monitoring were required since no construction works were processed during the night-time period. All noise levels are provided in Appendix C2. Graphical presentation of the monitoring results for the reporting month are shown in Appendix C3.

No day-time, evening-time and holiday noise monitoring results at all monitoring stations exceeded the Action Level since no documented complaints on noise issue were received in this reporting month. Besides, no exceedances in Limit Level were recorded according to the results from day-time, evening-time and holiday noise monitoring.

During the restricted hours, ET found that the PMEs used complied with the requirements stated in the valid CNP and no PMEs other than ones specified in the CNP to be used in the construction site.

## 6.0 WASTEWATER MONITORING

- 6.1 According to the Discharge of Industrial Trade Effluent Licence (Licence No.: 2946), POC is required to carry out wastewater monitoring of suspended solids quarterly at all effluent discharge points within the site. Under the Discharge of Industrial Trade Effluent Licence (Licence No.: 2946), the discharge limit of Suspended Solids content of the effluent at this site should be 30mg/L. It means that the suspended solids of wastewater discharged should be less than 30mg/L or otherwise no wastewater can be discharged under this Licence.
- 6.2 No water quality monitoring were carried out in this reporting month since no construction wastewater were discharged at the discharge point.
- 6.3 Next wastewater monitoring will be carried out when wastewater was found discharged at the discharge point.

## 7.0 ENVIRONMENTAL NON-CONFORMANCE

### 7.1 Summary of air quality, noise and wastewater monitoring

No exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting month.

No day-time, evening-time and holiday noise levels recorded at all monitoring stations exceeded the Action and Limit Level in the reporting month.

No water quality monitoring were carried out in this reporting month since no construction wastewater were discharged at the discharge point.

### 7.2 Summary of Environmental Complaints

No environmental complaints were received in this monitoring month.

### 7.3 Summary of Notification of Summons and Prosecution

There were no notification of summons respect to environmental issues registered in this month. Cumulative log of Notification of Summons and Prosecution is tabulated in Table 7.1.



Table 7.1 Cumulative Log of Notification of Summons and Prosecution

Date	Detail of Notice of Summons or Prosecution	Action Taken	Environmental Outcome
16 Oct 2002	The site main haul road was neither paved with any one of concrete, bituminous materials, hard core or metal plates, nor had the entire road surface maintained wet by the spraying of water or dust suppression chemical.	<ul style="list-style-type: none"> <li>POC paved the site main haul road with concrete and bituminous materials;</li> <li>The road surface was wet by the spraying of water regularly by POC.</li> </ul>	It was observed that the problem of dust emission from the site main haul road has been improved. No further complaint or ticket was received during the reporting month.
11 July 2003	Three stockpiles of dusty material namely aggregate, were wither covered entirely by impervious sheeting, nor place in an area sheltered on top and three sites, nor sprayed with water or dust suppression chemical so as to maintain entire surface wet.	The stockpiles of aggregates / excavated materials were covered with tarpaulin sheet / sprayed with water in order to avoid the dust emission.	No further complaints were received during the reporting month.

## 8.0 SITE INSPECTION

Weekly site inspections were carried out by the ET. Four site inspections were undertaken in this reporting month (05, 08, 19 and 26 February 2005). Monthly joint site inspection at 28 February 2005 was carried out by Engineer's Representative, IEC, POC and ET. A summary of the implementation status of the mitigation measures on site inspections is presented in Appendix H.

### 8.1 Summary of the site inspection findings and Action(s) taken by POC and ET

No site inspection findings were recorded in this reporting month.

### 8.2 Status of Environmental Licensing and Permitting

All permits/licenses valid in this reporting month are summarized in Table 8.2.

Table 8.1 Summary of environmental licensing and permit status

Description	Permit No.	Valid Period		Section
		From	To	
Environmental Permit	EP-108/2001	05/11/02	---	Whole work site
Waste Producer	5213 729 P2800 11	03/10/02	---	Generating waste at the work site
Wastewater Discharge License	No. 2946	18/12/02	18/12/07	Discharge of trade Effluent, surface run-off and all other wastewater arising from the construction site and sedimentation tank



Description	Permit No.	Valid Period		Section
		From	To	
Construction Noise Permit (General / Prescribed construction works)	GW-RN0440-04	15/0904	10/02/05	<p><u>Group A (For Area B2 or E)</u></p> <ul style="list-style-type: none"> <li>• 1 Poker, vibratory, hand-held (CNP 170)</li> <li>• 1 Concrete pump, lorry mounted (CNP 047)</li> <li>• 2 Concrete lorry mixer (CNP 044)</li> </ul> <p><u>Group B (For Area B2 or E)</u></p> <ul style="list-style-type: none"> <li>• 1 Poker, vibratory, hand-held (CNP 170)</li> <li>• 2 Concrete lorry mixer (CNP 044)</li> <li>• 1 Crane, mobile (diesel) (CNP 048)</li> </ul> <p><u>Group C (For Area B2 or E):</u></p> <ul style="list-style-type: none"> <li>• 2 Generator, silenced, 75dB(A) at 7m (CNP 102)</li> <li>• 1 Excavator, tracked (CNP 081)</li> <li>• 1 Lorry, with crane</li> </ul> <p><u>Group D (For Area B2 or E):</u></p> <ul style="list-style-type: none"> <li>• 1 Drill rig</li> </ul> <p><u>Group E (For Area B2 or E):</u></p> <ul style="list-style-type: none"> <li>• 2 Generator, silenced, 75dB(A) at 7m (CNP 102)</li> <li>• 2 Drill/Grinder, hand-held (electric) (CNP 065)</li> <li>• 1 Saw, circular, wood (CNP 201)</li> <li>• 2 Water pump, submersible (electric) (CNP 283)</li> <li>• 1 Air Compressor (CNP002)</li> <li>• 1 Bar bender and cutter (electric) (CNP 021)</li> </ul> <p><u>Group F (For Area B, C or D):</u></p> <ul style="list-style-type: none"> <li>• 1 Asphalt paver (CNP 004)</li> <li>• 1 Roller, vibratory (CNP 186)</li> <li>• 1 Excavator, tracked (CNP 081)</li> </ul> <p><u>Group G (For Area F):</u></p> <ul style="list-style-type: none"> <li>• 1 Excavator, tracked (CNP 081)</li> </ul>

### 8.3 Recommendations on site inspection findings in Site Inspections of this month

Although no site inspection findings were recorded in this reporting month, some recommendations are still raised for general site practice and indicated as below:

- All stockpiles with a volume of greater than 50m<sup>3</sup> should be covered with clean tarpaulin sheets, watering or hydro-seeding to avoid wind and water erosion;
- The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading;
- Placing enough sand bags or other protection should be applied to prevent the slity surface runoff onto the drains system;
- Checking and maintaining all the site machines to prevent dust emission;
- Providing briefing to the concerned site staff on remedial actions, such as handling method of chemicals and chemical waste;
- Maintain good waste management at the site.

## 9.0 WASTE MANAGEMENT

### 9.1 Waste Management Audit

Waste management audit was carried out by the ET on a weekly basis. A summary of the implementation status of the mitigation measures on waste management is presented in Appendix H.

### 9.2 Records of Waste Quantities

All type of wastes arising from the construction work are classified into the following:

- General refuses;
- Chemical waste;
- Construction & demolition (C&D) material.

The quantities of waste for disposal in this month are summarized in Table 9.1.





Table 9.1 Summary of Quantities of Waste for Disposal in this reporting month

Type of Waste	Quantity	Disposal Location
C&D Material (Inert) (m <sup>3</sup> )	0	Nil
C&D material (Non-inert) (m <sup>3</sup> )	0	Nil
General Refuse (m <sup>3</sup> )	45	Disposed at NENT Landfills
Chemical Waste (L)	0	Nil

## 10.0 IMPLEMENTATION STATUS

### 10.1 Implementation Status of Environmental Mitigation Measures

POC has been implementing the required environmental mitigation measures according to Implementation of Mitigation Measures (clause 4.2, 5.2 and 6.2) in Environmental Management Plan for Contract No. TP 35/02 Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 (Revision 2). A summary of the implementation status of the mitigation measures is presented in Appendix H.

#### Air Quality

The Contractor was reminded to water, hydro-seed or cover all the stockpiles by using clean tarpaulin sheets. The Contractor was also reminded to cleanup the access road regularly to avoid dust emission.

#### Noise

All mitigation measures stated in Appendix I were implemented properly in this reporting month.

#### Water Quality

The Contractor was reminded to provide more effort to implement mitigation measures, such as diverting site runoff to suitable treatment processes before discharge, sedimentation system and drainage facilities (e.g. sedimentation trap and U-channels), and remove the sand/rubbish accumulated in the drain / channel regularly.

#### Waste Management

POC has been implementing most mitigation measures on waste management.

### 10.2 Implementation Status of Event and Action Plan

There were no exceedances in air quality and noise monitoring parameters recorded in this monitoring month. No further mitigation measures were required.

### 10.3 Implementation Status of Environmental Complaint Handling

No complaints had been received during this monitoring month.

## 11.0 CONCLUSION

Impact monitoring of air quality and noise were carried out at designated locations in accordance with the EM&A Manual in this reporting month.

According to the summary of air and noise monitoring results, no exceedances of Action and Limit Level of 24-hour and 1-hour TSP monitoring results were recorded during the reporting month. Besides, no day-time, evening-time and holiday noise levels were recorded at all monitoring stations exceeded the Action and Limit Level in this reporting month. No night-time noise monitoring were required since no construction works were processed during the night-time period.



During the restricted hours, ET found that the PMEs used complied with the requirements stated in the valid CNP and no PMEs other than ones specified in the CNP to be used in the site.

No water quality monitoring were carried out in this reporting month since no construction wastewater were discharged at the discharge point.

According to the ET weekly site inspections and IEC monthly site audit carried out this month, it indicated that site practices of the POC were generally undertaken in an environmentally acceptable manner and the overall site environmental performance was satisfactory.

## 12.0 FUTURE KEY ISSUES

### 12.1 Upcoming EM&A Schedule in coming two months

The Proposed EM&A program in coming two months are presented as following table:

Table 12.1 – Upcoming EM&A Schedule in coming two months

Type of Monitoring	March 2005	April 2005
Noise Monitoring (Day-time)	01, 08, 15, 22, 29	07, 14, 21, 28
Noise Monitoring (Evening-time)	01, 08, 15, 22, 29	07, 14, 21, 28
Noise Monitoring (Holiday)	06, 13, 20, 27	03, 10, 17, 24
1-hour TSP	01, 03, 05, 08, 10, 12, 15, 17, 19, 22, 23, 24, 29, 31	02, 06, 07, 09, 12, 14, 16, 19, 21, 23, 26, 28, 30
24-hour TSP	02, 08, 14, 19, 24, 30	04, 09, 15, 21, 27
Site Inspection	05, 12, 19, 24	02, 09, 16, 23, 30

### 12.2 Upcoming construction works schedule in the coming month

The major construction works planned to be carried out in next two months and their possible impact is tabulated (Table 12.2) for reference.

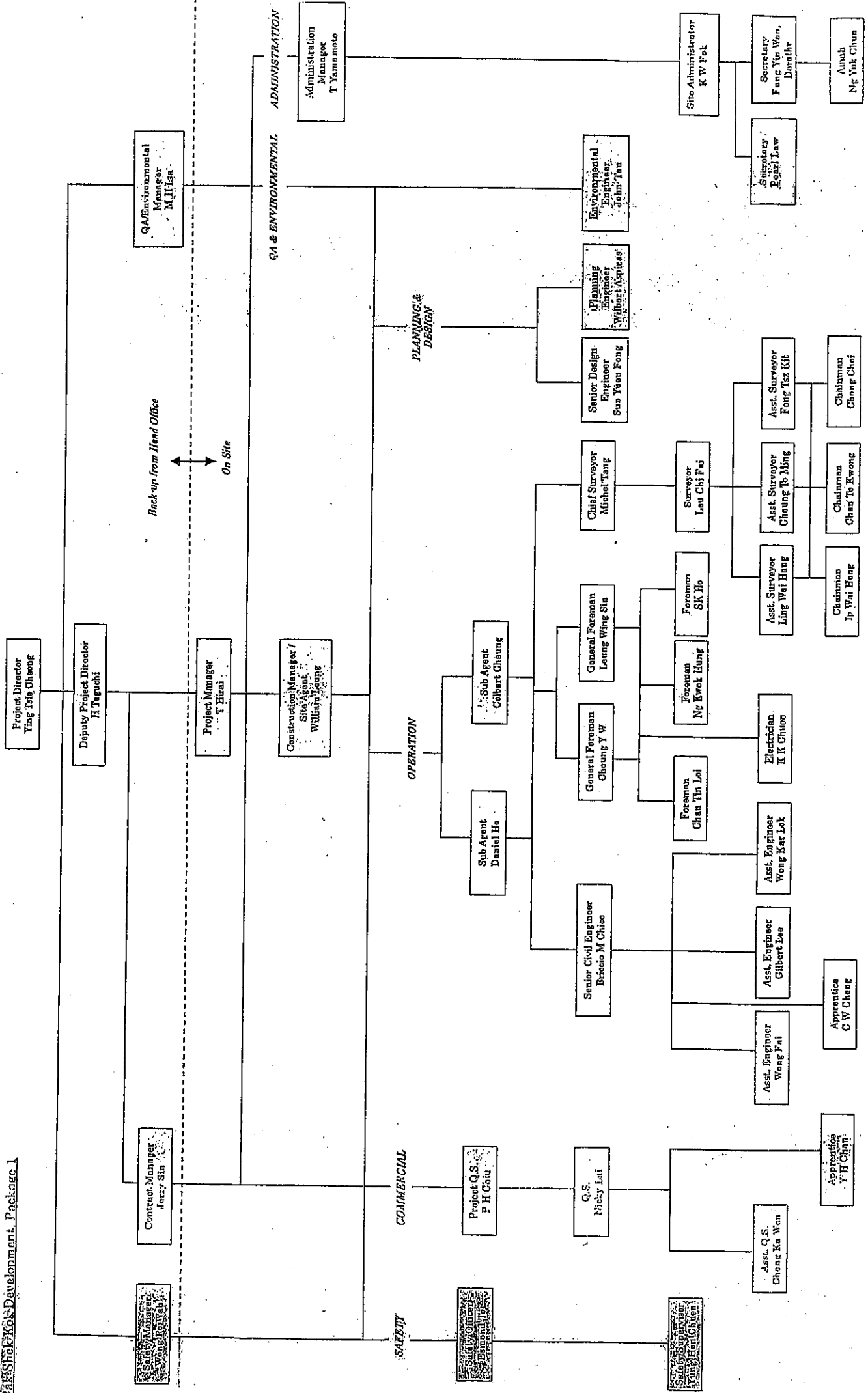
Table 12.2 – Construction Plan in the coming month

Month	Works Planned to be Carried Out
Between March and April 2005	▪ Drainageworks in Zone G and S2
	▪ Watermain installation works at Zone L & H
	▪ Roadworks for Road D1 bridge
	▪ Construction of Road D1 Bridge
	▪ Construction of pumping station no.1 and no.2
	▪ General landscape works
	▪ Installation of irrigation system

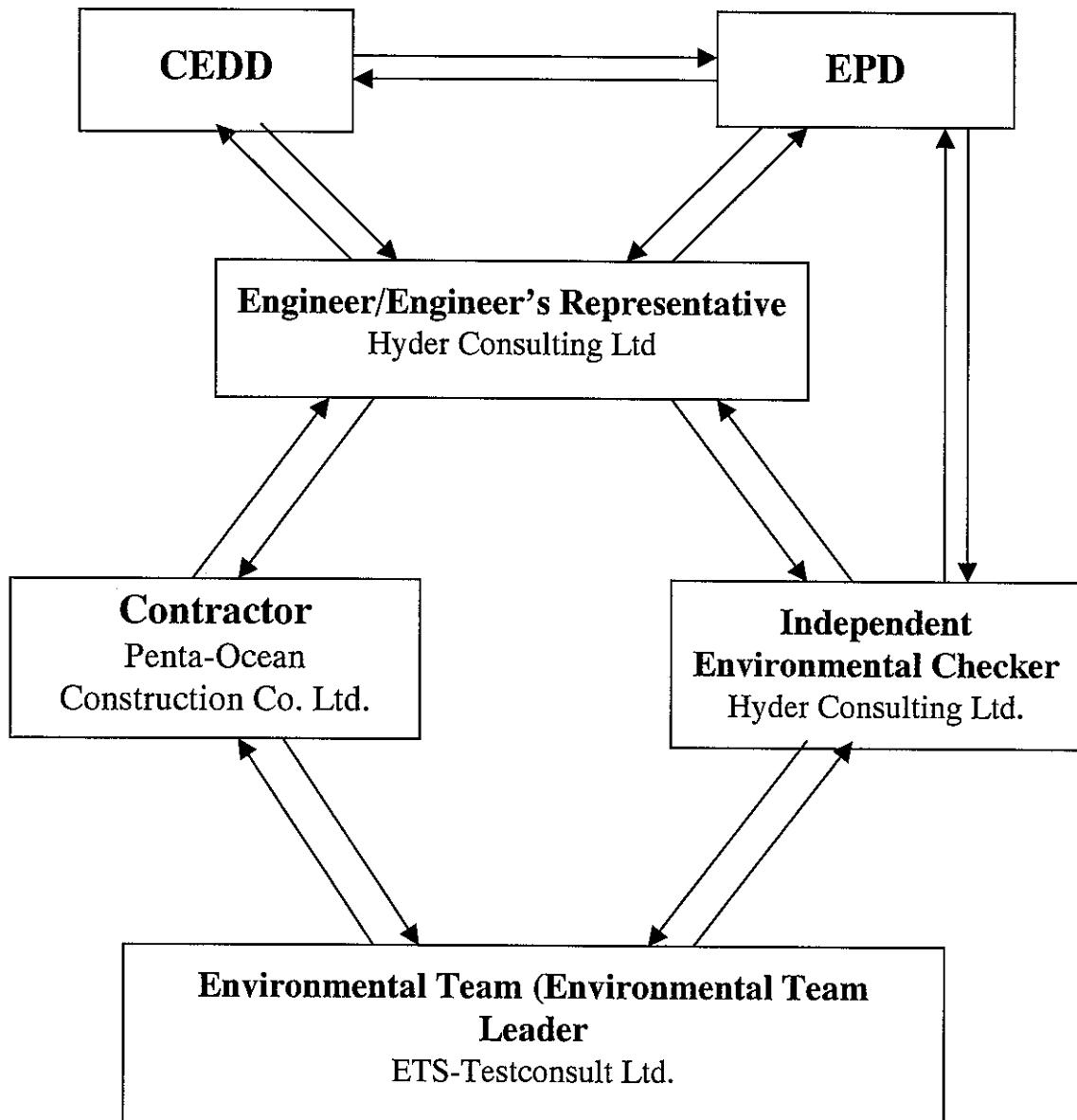


## **Appendix A**

### **Organization Chart and Lines of Communication**



# Lines of Communication





## **Appendix B1**

### **Calibration Certificates for Air Quality Monitoring Equipments**



東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
Tel : 2695 8318 E-mail : etl@ets-testconsult.com  
Fax : 2695 3944 Web site : www.ets-testconsult.com

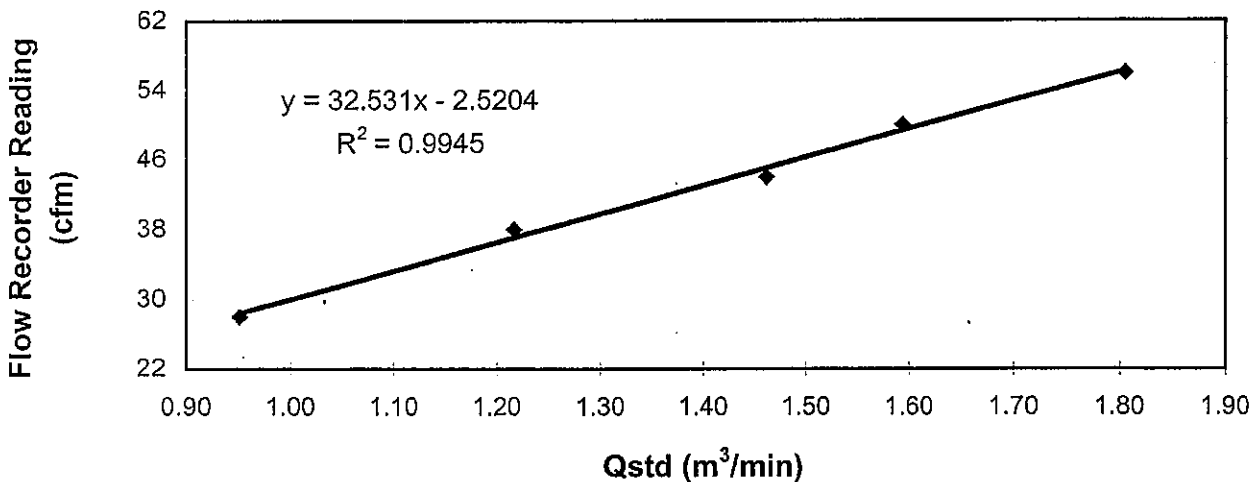
**TEST REPORT**

Calibration Report  
of  
High Volume Air Sampler

Manufacturer : Greasby GMW Date of Calibration : 17 January 2005  
Serial No. : 1178 (ET / EA / 003 / 01) Calibration Due Date : 16 March 2005  
Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results	Flow recorder reading (cfm)	56	50	44	38	28
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.80	1.59	1.46	1.22	0.95
	Pressure : 766.56 mm Hg	Temp. : 287 K				

**Sampler1178 Calibration Curve**  
**Site: Pak Shek Kok Monitoring Station AM1 (24hr.)**  
**Date of Calibration: 17 January 2005**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / does not comply\* with the specified requirements and is deemed acceptable \* / unacceptable\* for use.

Calibrated by : Mak Kei Wai  
Mak Kei Wai  
(Technician)

Approved by : H. T. Chow  
H. T. Chow  
(Asst. Environmental Officer)



東業德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
Tel : 2695 8318 E-mail : etl@ets-testconsult.com  
Fax : 2695 3944 Web site : www.ets-testconsult.com

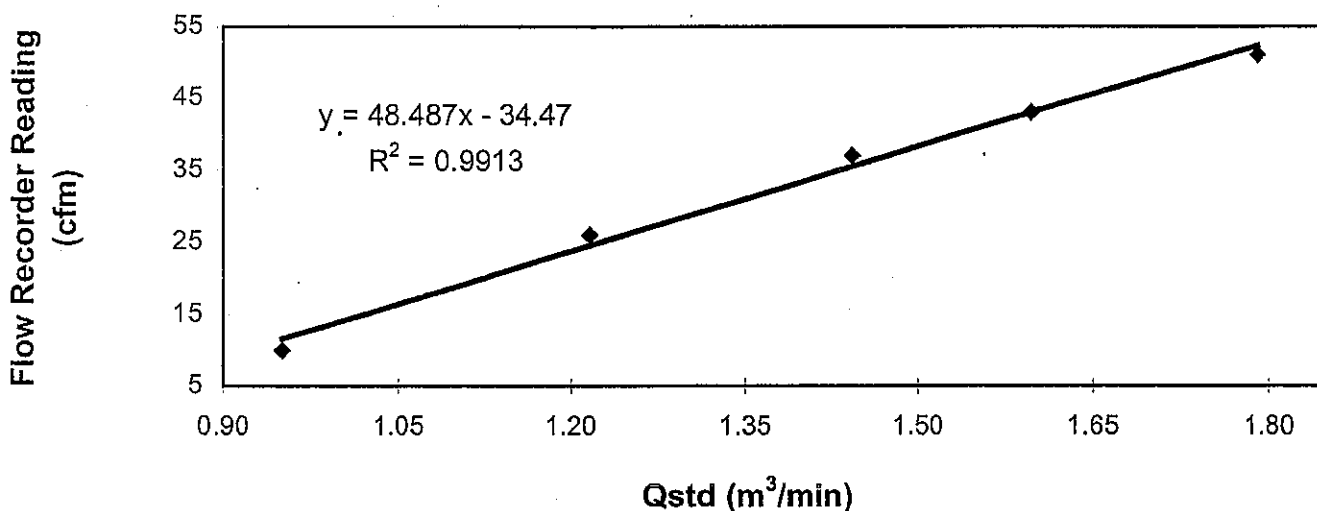
**TEST REPORT**

**Calibration Report**  
of  
**High Volume Air Sampler**

Manufacturer : Greasby GMW Date of Calibration : 17 January 2005  
Serial No. : 7179 ( ET / EA / 003 / 16 Calibration Due Date : 16 March 2005  
Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results	Flow recorder reading (cfm)	51	43	37	26	10
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.79	1.60	1.44	1.22	0.95
	Pressure : 766.56 mm Hg	Temp. : 287 K				

**Sampler 7179 Calibration Curve**  
**Site: Pak Shek Kok (AM3A)**  
**Date of Calibration: 17 January 2005**



Acceptance Criteria : Correlation coefficient (r) of the calibration curve greater than 0.990 after a 5 point calibration

The high volume sampler complies \* / ~~does not comply~~ \* with the specified requirements and is deemed acceptable \* / ~~unacceptable~~ \* for use.

Calibrated by : Mak Kei Wai  
Mak Kei Wai  
(Technician)

Approved by : H. T. Chow  
H. T. Chow  
(Asst. Environmental Officer)





## **Appendix B2**

### **Air Quality Monitoring Results**

## Summary of 24-hr TSP Monitoring Results

Monitoring Station : AM1  
Location : HKIB Staff Accommodation

Start Date	Time	Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m <sup>3</sup> /min.)		Average (m <sup>3</sup> /min.)	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )	Weather Condition
		Date	Time	Initial	Final		Initial	Final		Initial	Final		
02/02/05	09:02	03/02/05	09:06	7663.86	7687.92	24.06	1.31	1.31	1.31	2.8381	3.0558	115	Cloudy
07/02/05	08:53	08/02/05	08:48	7711.85	7735.76	23.91	1.18	1.18	1.18	2.8108	2.9120	60	Cloudy
12/02/05		Monitoring cancelled due to no construction works carried out at Site Holiday											
18/02/05	11:09	19/02/05	11:04	7759.51	7783.42	23.91	1.37	1.37	1.37	2.8489	2.9494	51	Cloudy
24/02/05	10:29	25/02/05	10:14	7807.41	7831.16	23.75	1.09	1.09	1.09	2.8367	3.0176	116	Cloudy

Monitoring Station : AM3A  
Location : Cheung Shue Tan (in front of Man Kee Store)

Start Date	Time	Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m <sup>3</sup> /min.)		Average (m <sup>3</sup> /min.)	Filter Weight (g)		Conc. (µg/m <sup>3</sup> )	Weather Condition
		Date	Time	Initial	Final		Initial	Final		Initial	Final		
02/02/05	09:25	03/02/05	09:54	12991.19	13015.67	24.48	1.33	1.33	1.33	2.8620	3.1272	136	Cloudy
07/02/05	10:11	08/02/05	10:33	13040.24	13064.60	24.36	1.37	1.37	1.37	2.8377	2.9552	59	Cloudy
12/02/05		Monitoring cancelled due to no construction works carried out at Site Holiday											
18/02/05	10:38	19/02/05	10:58	13089.02	13113.35	24.33	1.33	1.33	1.33	2.8363	2.9148	40	Cloudy
24/02/05	09:05	25/02/05	09:01	13137.99	13161.92	23.93	1.33	1.33	1.33	2.8484	3.0171	88	Cloudy

## Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM1  
Location : HKIB Staff Accommodation

Date	Monitoring Period		1-hr TSP ( $\mu\text{g}/\text{m}^3$ )			Weather
	Start	Finish	Minimum	Maximum	Average	
01/02/05	09:10	10:10	78	306	99	Cloudy
03/02/05	15:10	16:10	98	340	155	Cloudy
05/02/05	08:45	09:45	87	320	138	Cloudy
07/02/05	08:46	09:46	70	298	100	Cloudy
08/02/05	10:40	11:40	111	398	130	Cloudy
12/02/05	Monitoring cancelled due to no construction works carried out at Site Holiday					
15/02/05	08:47	09:47	90	389	102	Cloudy
17/02/05	08:50	09:50	82	368	129	Cloudy
19/02/05	13:00	14:00	91	379	120	Cloudy
22/02/05	08:40	09:40	89	396	105	Cloudy
24/02/05	10:23	11:23	103	396	148	Cloudy
26/02/05	10:30	11:30	97	332	114	Cloudy

Monitoring Station : AM3  
Location : Cheung Shue Tan Village (near the outer building, a temple)

Date	Monitoring Period		1-hr TSP ( $\mu\text{g}/\text{m}^3$ )			Weather
	Start	Finish	Minimum	Maximum	Average	
01/02/05	14:30	15:30	70	289	85	Cloudy
03/02/05	10:00	11:00	92	310	150	Cloudy
05/02/05	13:00	14:00	77	305	107	Cloudy
07/02/05	10:02	11:02	68	241	99	Cloudy
08/02/05	09:15	10:15	99	367	115	Cloudy
12/02/05	Monitoring cancelled due to no construction works carried out at Site Holiday					
15/02/05	13:30	14:30	87	350	92	Cloudy
17/02/05	13:50	14:50	72	304	88	Cloudy
19/02/05	14:15	15:15	82	310	105	Cloudy
22/02/05	13:00	14:00	81	308	92	Cloudy
24/02/05	08:50	09:50	89	328	118	Cloudy
26/02/05	15:30	16:30	84	310	107	Cloudy

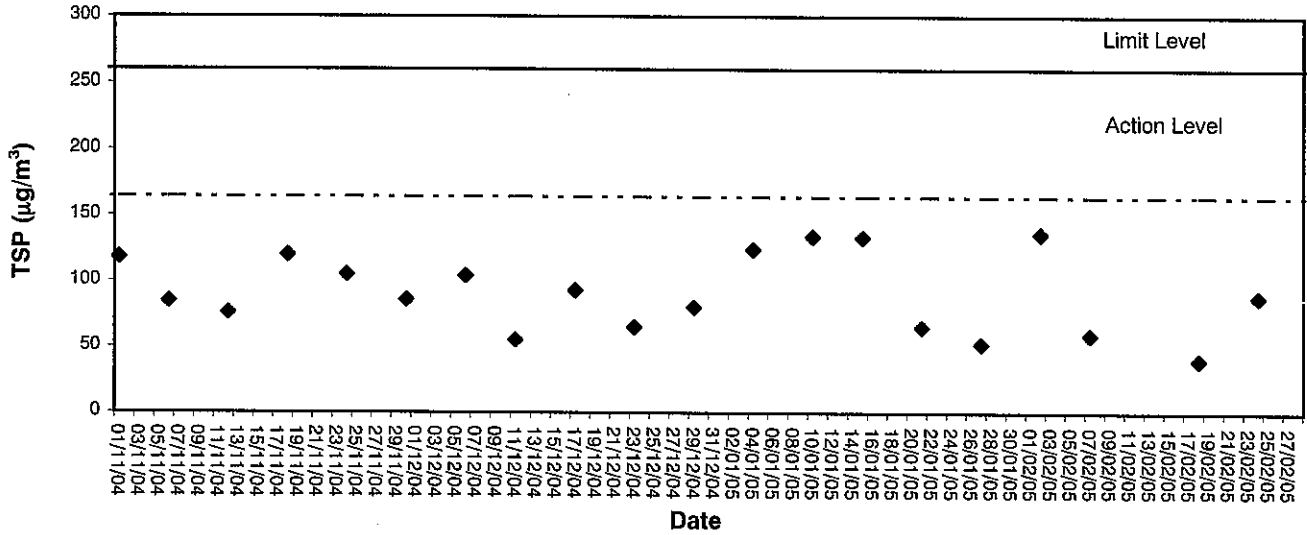


## **Appendix B3**

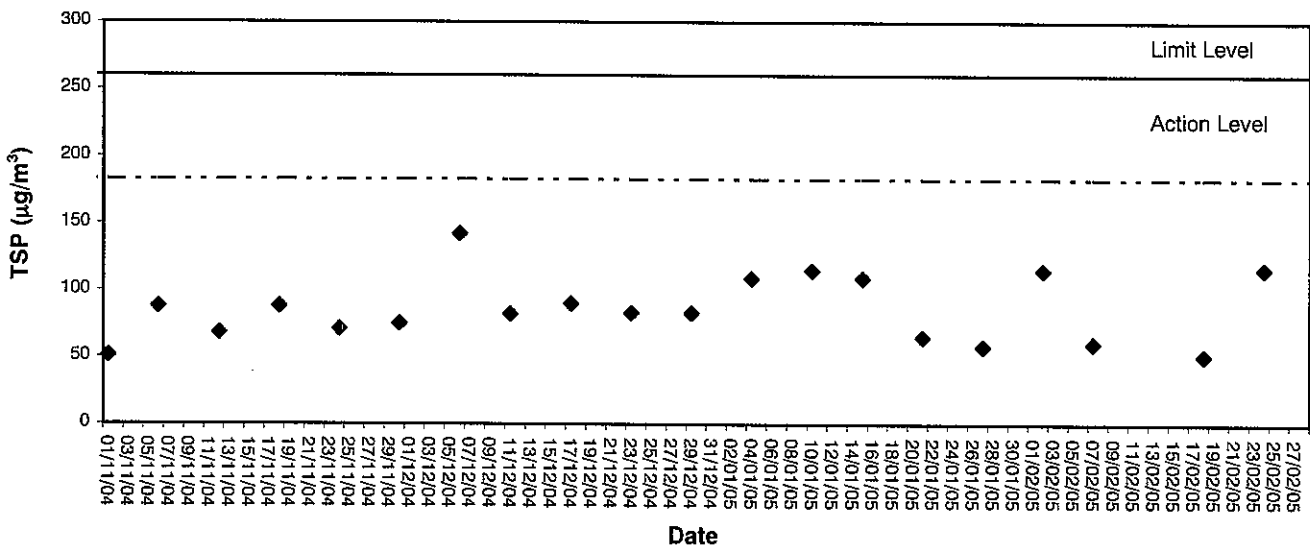
### **Graphical Plots of Air Quality Monitoring Data**



### 24-hour TSP level at AM1 (HKIB Staff Accommodation)

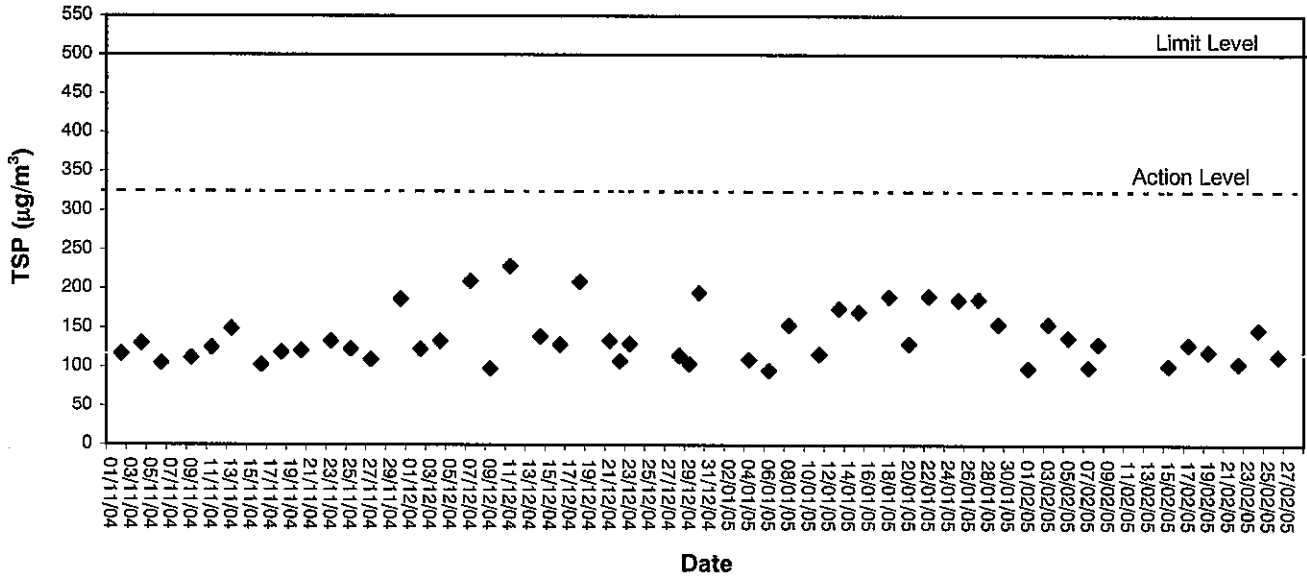


### 24-hour TSP level at AM3A (Cheung Shue Tan in front of Man Kee Store)

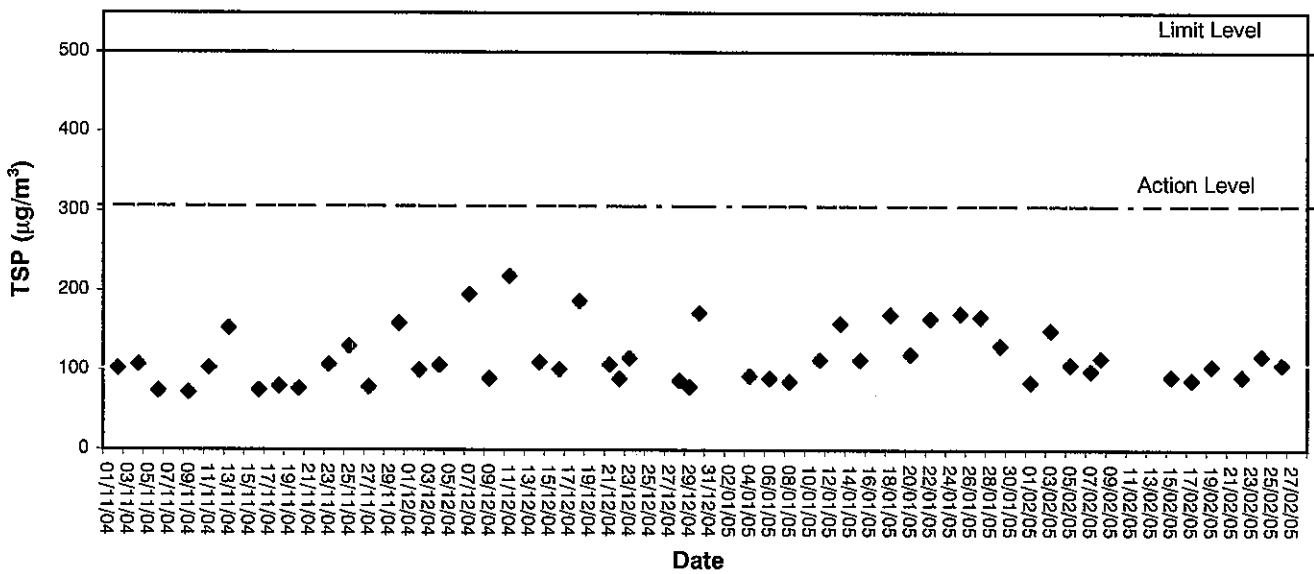




### 1-hour TSP level at AM1, HKIB Staff Accommodation



### 1-hour TSP level at AM3, Cheung Shue Tan Village (near the outer building, a temple)





## **Appendix C1**

### **Calibration Certificates for Noise Monitoring Equipments**



# Calibration Certificate

Certificate No. **41649**

Page 1 of 2 Pages

**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q40536

**Date of receipt :** 6-Apr-04

## Item Tested

**Description :** Sound Level Calibrator (ET/0527/002)

**Manufacturer :** Rion

**Model :** NC-73

**Serial No. :** 10644871

## Test Conditions

**Date of Test :** 16-Apr-04

**Supply Voltage :** --

**Ambient Temperature :** (22.5 ± 2.5)°C

**Relative Humidity :** (50 ± 20) %

## Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : F21, Z02.

## Test Results

All results were within the manufacturer's specification.

The results are shown in the attached page(s).

Test equipment used:

<u>Equipment No.</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S014	30961	1-Jun-04	PRC-NIM
S024	Z02050078	29-May-04	PRC-NIM
S041	35075	2-Dec-04	PRC-NIM

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to national standards/International System of Units (SI).  
The test results apply to the above Unit-Under-Test only

Calibrated by : 

Approved by :   
Alan Chu - Manager

Date: 16-Apr-04





# Calibration Certificate

Certificate No. 41649

Page 2 of 2 Pages

Results :

**1. Level Accuracy (at 1 kHz)**

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	- 0.8 dB	$\pm 1$ dB

Uncertainty :  $\pm 0.2$  dB

**2. Frequency Accuracy**

UUT Nominal Value	Measured Value	Mfr's Spec.
1 kHz	0.986 kHz	$\pm 2$ %

Uncertainty :  $\pm 0.1$  %

**3. Level Stability : 0.0 dB**

Uncertainty :  $\pm 0.01$  dB

**4. Total Harmonic Distortion : < 0.2 %**

Mfr's Spec. : < 3 %

Uncertainty :  $\pm 2.3$  % of reading

Remark : 1. UUT : Unit-Under-Test

2. The uncertainty claimed is for a confidence probability of not less than 95%.

3. Atmospheric Pressure : 995 hPa

4. The above measured values are the mean of 3 measurement.

----- END -----



# Calibration Certificate

Certificate No. **41648**

Page **1** of **3** Pages

**Customer :** ETS-Testconsult Limited

**Address :** 8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan St., Fotan, Hong Kong.

**Order No. :** Q40536

**Date of receipt :** 6-Apr-04

## Item Tested

**Description :** Precision Integrating Sound Level Meter

**Manufacturer :** Rion

**Model :** NL-31

**Serial No. :** 00531142

## Test Conditions

**Date of Test :** 16-Apr-04

**Supply Voltage :** --

**Ambient Temperature :**  $(22.5 \pm 2.5)^\circ\text{C}$

**Relative Humidity :**  $(50 \pm 20) \%$

## Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : Z01.

## Test Results

All results were within the manufacturer's, IEC 651 Type 1, IEC 804 Type 1 specification.

The results are shown in the attached page(s).


Test equipment used:

<u>Equipment No.</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S017	S30857	8-Apr-05	PRC-NIM
S024	Z02050078	29-May-04	PRC-NIM

The values given in this Calibration Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environmental changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Hong Kong Calibration Ltd. shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to national standards/International System of Units (SI).  
The test results apply to the above Unit-Under-Test only

Calibrated by : 

Approved by :   
Alan Chu - Manager

Date: 16-Apr-04



# Calibration Certificate

Certificate No. 41648

Page 2 of 3 Pages

Results :

## 1. SPL Accuracy

UUT Setting			UUT Reading (dB)	Correction (dB)
Level Range (dB)	Weight	Response		
20 - 100	L <sub>A</sub>	Fast	94.0	+ 0.1
		Slow		+ 0.1
	L <sub>C</sub>	Fast		+ 0.1
	L <sub>p</sub>	Fast		0.0
30 - 120	L <sub>A</sub>	Fast	94.0	+ 0.1
		Slow		+ 0.1
	L <sub>C</sub>	Fast		+ 0.1
	L <sub>p</sub>	Fast		0.0
30 - 120	L <sub>A</sub>	Fast	114.0	0.0
		Slow		0.0
	L <sub>C</sub>	Fast		0.0
	L <sub>p</sub>	Fast		0.0

IEC 651 Type 1 Spec. : ± 0.7 dB

Uncertainty : ± 0.2 dB

## 2. Level Stability : 0.0 dB

IEC 651 Type 1 Spec. : ± 0.3 dB

Uncertainty : ± 0.01 dB



# Calibration Certificate

Certificate No. 41648

Page 3 of 3 Pages

### 3. Frequency Weighting

A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	- 39.5	- 39.4 dB, $\pm 1.5$ dB
63 Hz	- 26.3	- 26.2 dB, $\pm 1.5$ dB
125 Hz	- 16.2	- 16.1 dB, $\pm 1$ dB
250 Hz	- 8.7	- 8.6 dB, $\pm 1$ dB
500 Hz	- 3.3	- 3.2 dB, $\pm 1$ dB
1 kHz	0.0 (Ref.)	0 dB, $\pm 1$ dB
2 kHz	+ 1.3	+ 1.2 dB, $\pm 1$ dB
5 kHz	+ 1.1	+ 1.0 dB, $\pm 1$ dB
8 kHz	- 1.1	- 1.1 dB, + 1.5 dB ~ - 3 dB
16 kHz	- 6.7	- 6.6 dB, + 3 dB ~ $\infty$

Uncertainty :  $\pm 0.1$  dB

### 4. Time Averaging

Applied Burst duty Factor	UUT Reading (dB)	Correction (dB)	IEC 804 Type 1 Spec.
continuous	36.9	--	--
1/10	36.7	+ 0.2	$\pm 0.5$ dB
1/10 <sup>2</sup>	36.7	+ 0.2	
1/10 <sup>3</sup>	36.7	+ 0.2	$\pm 1.0$ dB
1/10 <sup>4</sup>	36.7	+ 0.2	

Uncertainty :  $\pm 0.1$  dB

Remark : 1. UUT : Unit-Under-Test

2. True Value = UUT Reading + Correction.

3. The uncertainty claimed is for a confidence probability of not less than 95%.

4. Atmospheric Pressure : 995 hPa.

----- END -----



## **Appendix C2**

### **Noise Monitoring Results**



## Day-time Noise Monitoring

### Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (30)	L10	L90		
01/02/05	09:12	58.3	60.1	55.3	1.2	Cloudy
08/02/05	10:43	60.1	61.9	56.2	0.6	Cloudy
15/02/05	08:50	58.9	60.7	54.3	0.7	Cloudy
22/02/05	08:42	58.3	60.3	56.0	0.8	Cloudy

### Monitoring Location: NM2 (CUHK Residence No.10)

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (30)	L10	L90		
01/02/05	09:55	56.2	58.6	53.3	0.7	Cloudy
08/02/05	14:40	59.4	61.5	54.3	0.6	Cloudy
15/02/05	14:55	59.1	61.0	54.2	0.5	Cloudy
22/02/05	15:00	56.4	58.1	52.6	0.7	Cloudy

### Monitoring Location: NM3 (Cheung Shue Tan Village)

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (30)	L10	L90		
01/02/05	14:32	54.1	56.2	49.4	0.9	Cloudy
08/02/05	09:23	56.4	58.2	52.0	0.5	Cloudy
15/02/05	13:33	53.8	56.0	50.1	0.5	Cloudy
22/02/05	13:02	53.7	55.9	49.9	0.9	Cloudy

## Evening-time Noise Monitoring

### Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
01/02/05	19:00	57.2	57.0	56.8	59.8	59.6	59.4	54.3	54.1	54.0	1.1	Fine
08/02/05	20:10	58.4	57.3	59.3	60.1	59.5	61.0	54.6	53.7	53.0	0.4	Cloudy
15/02/05	19:15	57.2	57.4	57.9	58.9	59.3	59.7	54.0	54.3	55.0	1.2	Cloudy
22/02/05	19:00	57.2	57.0	56.4	59.3	58.9	58.6	56.0	55.7	55.4	0.6	Cloudy

### Monitoring Location: NM2 (CUHK Residence No.10)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
01/02/05	19:25	54.1	54.4	54.0	56.3	56.7	56.1	52.1	52.3	52.0	0.9	Fine
08/02/05	19:35	57.3	56.2	58.0	58.6	58.1	59.8	51.3	50.7	51.0	0.5	Cloudy
15/02/05	19:42	53.6	53.1	53.8	56.2	55.6	56.6	52.4	52.0	52.9	1.6	Cloudy
22/02/05	19:25	54.7	55.0	55.2	56.2	56.8	56.9	50.6	50.9	51.2	0.6	Cloudy

### Monitoring Location: NM3 (Cheung Shue Tan Village)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
01/02/05	19:55	52.7	53.0	53.4	54.9	55.1	55.5	48.2	48.7	49.0	1.0	Fine
08/02/05	19:00	53.7	52.6	53.2	55.1	55.0	55.3	49.1	19.3	49.0	0.4	Cloudy
15/02/05	20:10	50.9	49.7	49.3	53.0	52.6	52.2	48.4	48.1	47.5	0.9	Cloudy
22/02/05	19:55	52.7	53.0	52.6	54.6	55.1	54.9	49.8	50.2	49.9	0.7	Cloudy



## Holiday Noise Monitoring

### Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
06/02/05	13:20	60.1	59.7	58.2	62.1	61.7	60.8	55.9	55.5	56.1	0.7	Cloudy
13/02/05	Monitoring cancelled due to no construction works carried out at Site Holiday											
20/02/05	10:30	56.8	57.0	56.7	59.0	59.2	58.9	53.4	53.7	53.1	1.0	Cloudy
27/02/05	14:10	60.7	59.2	58.6	62.2	61.9	60.8	54.2	55.1	54.7	1.0	Cloudy

### Monitoring Location: NM2 (CUHK Residence No.10)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
06/02/05	13:50	59.3	57.6	58.4	61.1	59.8	60.7	55.7	54.8	55.0	0.7	Cloudy
13/02/05	Monitoring cancelled due to no construction works carried out at Site Holiday											
20/02/05	10:55	54.0	54.3	53.9	56.7	56.9	56.4	50.3	50.6	50.1	0.9	Cloudy
27/02/05	14:47	58.6	57.2	56.3	59.9	59.2	58.1	52.4	53.6	53.4	0.8	Cloudy

### Monitoring Location: NM3 (Cheung Shue Tan Village)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L <sub>eq</sub> (5)			L10			L90				
06/02/05	14:25	57.1	56.2	58.3	59.6	58.0	59.9	50.7	51.6	52.1	0.6	Cloudy
13/02/05	Monitoring cancelled due to no construction works carried out at Site Holiday											
20/02/05	11:25	52.7	53.0	53.4	54.9	55.2	55.6	49.0	49.2	49.5	0.6	Cloudy
27/02/05	15:23	56.1	55.6	54.2	57.3	56.9	56.1	49.8	50.7	50.8	0.6	Cloudy





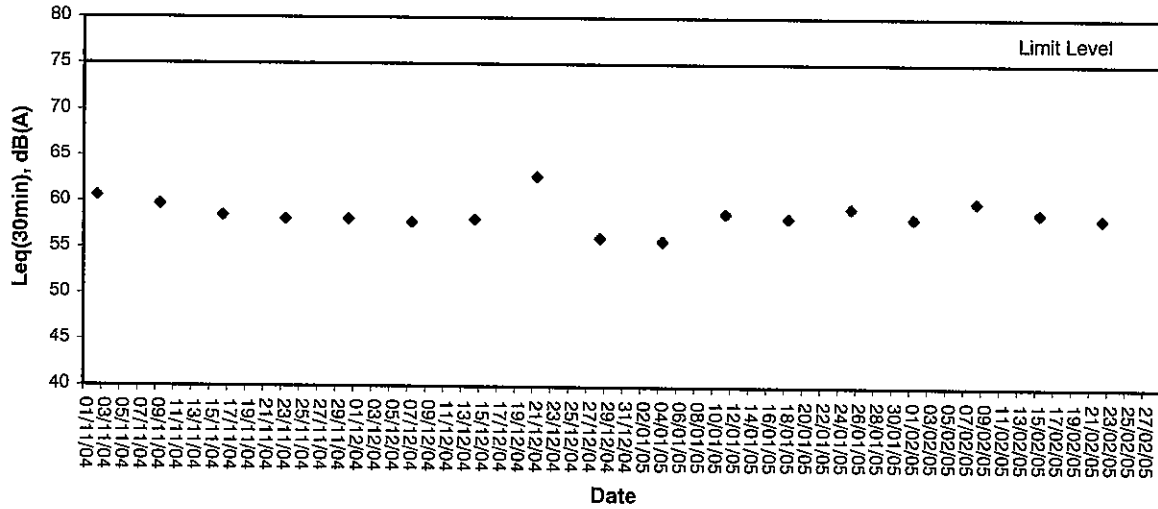
## **Appendix C3**

### **Graphical Plots of Noise Monitoring Data**

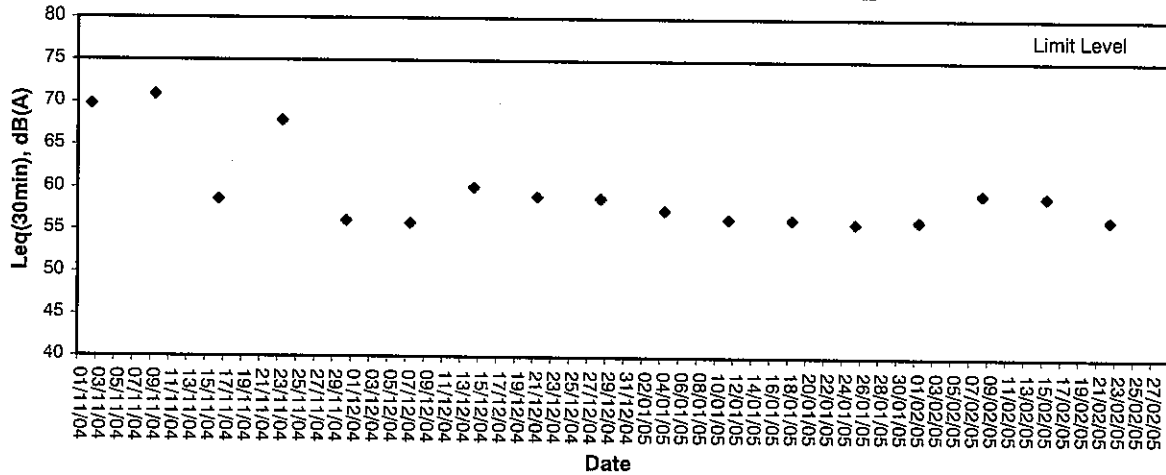


## Noise Monitoring (Day-time)

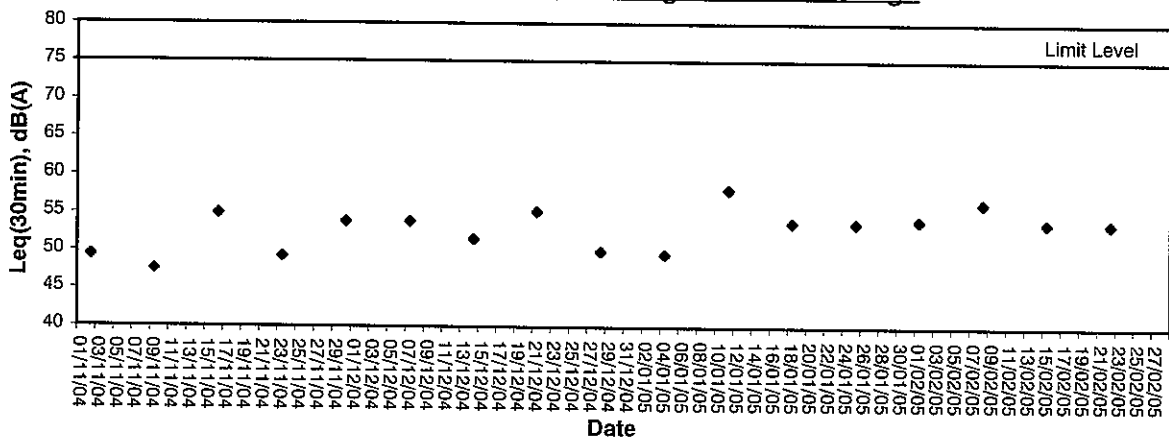
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10



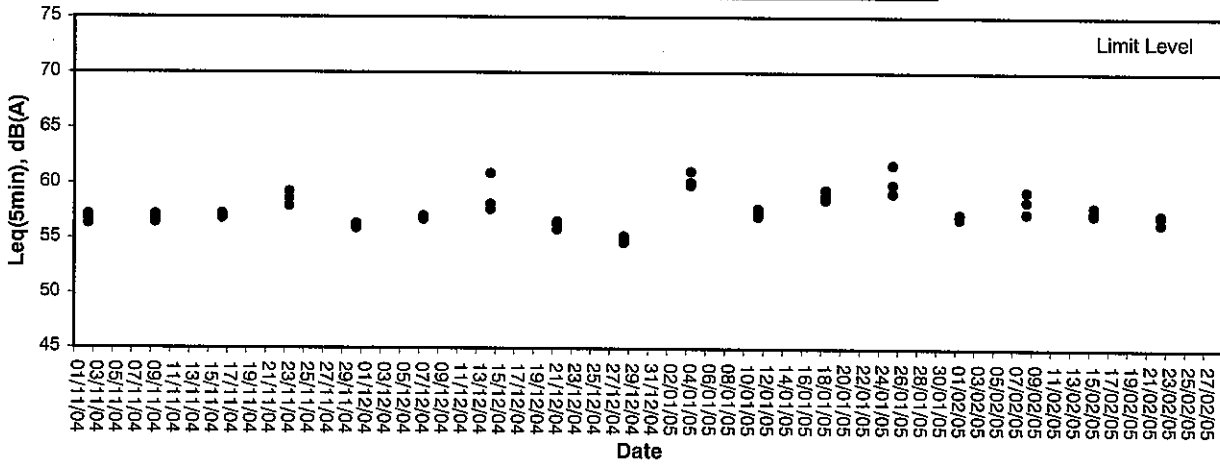
Noise level at NM3, Cheung Shue Tan Village



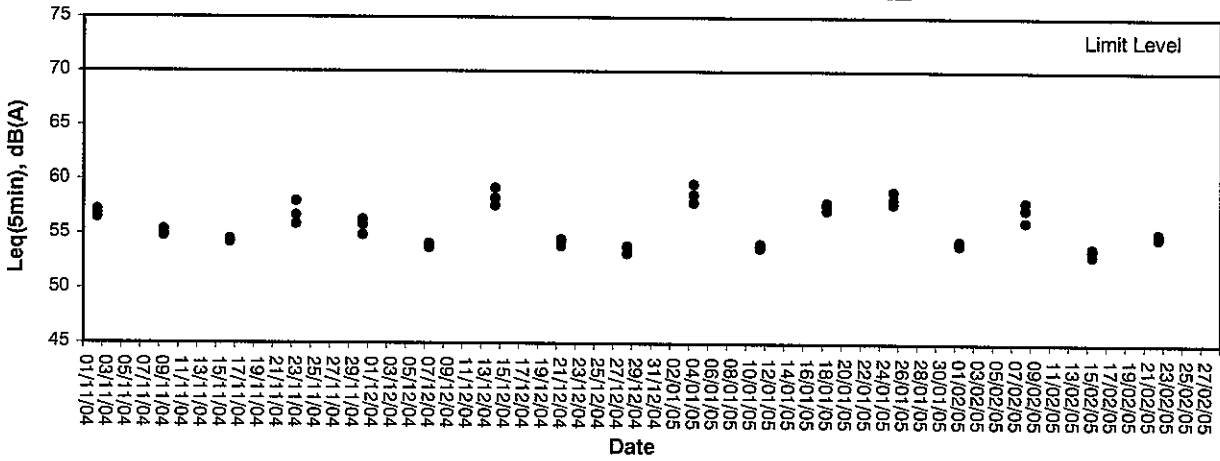


## Noise Monitoring (Evening-time)

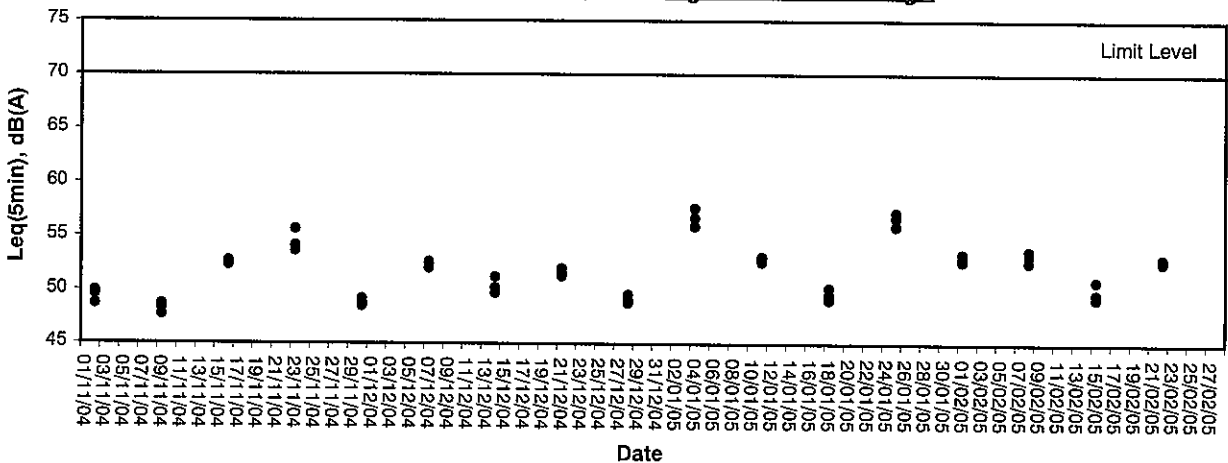
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10



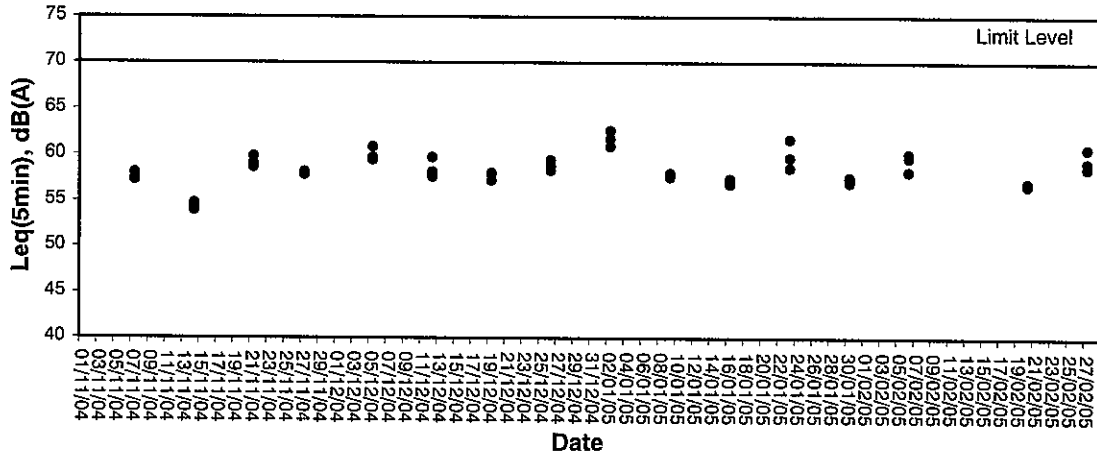
Noise level at NM3, Cheung Shue Tan Village



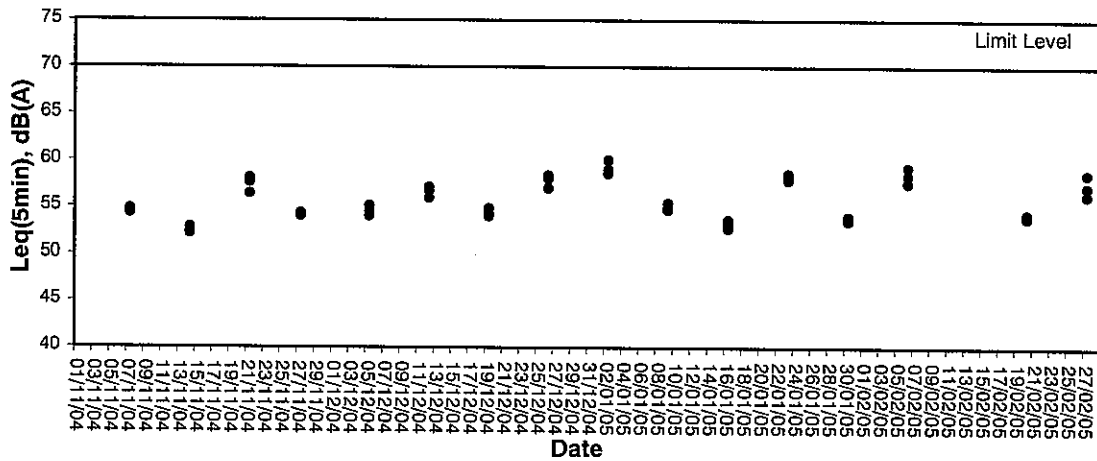


## Noise Monitoring (Holiday)

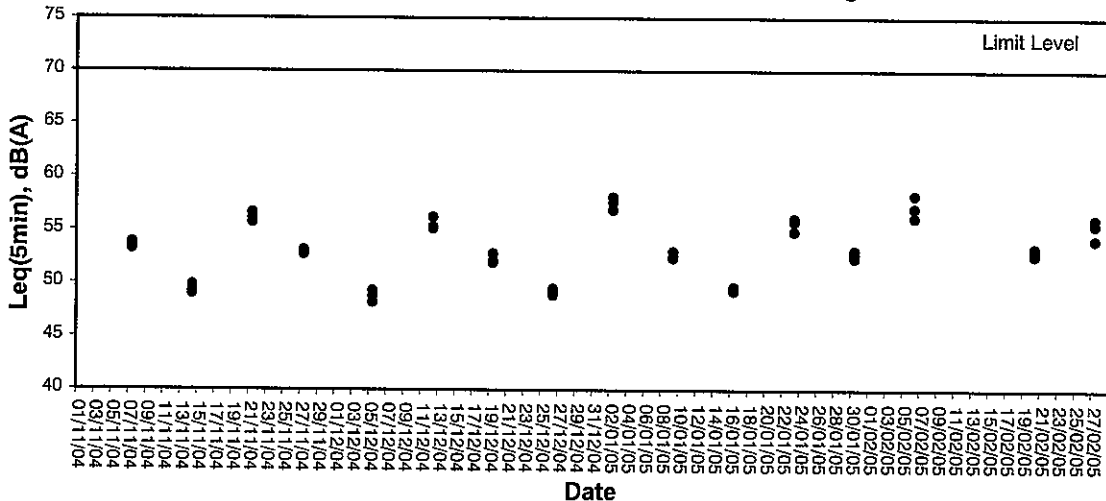
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10



Noise level at NM3, Cheung Shue Tan Village





## **Appendix D**

### **Weather Condition**



## Weather Condition

Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp. (°C)	Relative Humidity (%)	Wind Direction	Wind Speed (m/s)
01/02/05	Trace	14.2	12.0	75	NE	<5
02/02/05	Trace	13.9	12.0	82	E	<5
03/02/05	0.6	14.6	12.9	91	E	<5
04/02/05	Trace	18.9	14.3	93	NE	<5
05/02/05	Trace	19.2	17.9	94	NE	<5
06/02/05	0.1	19.4	17.8	93	NE	<5
07/02/05	0.1	24.5	18.1	87	NE	<5
08/02/05	0.3	21.2	17.9	94	NE	<5
09/02/05	Trace	21.2	17.6	85	NE	<5
10/02/05	Trace	24.1	16.6	85	NE	<5
11/02/05	-	17.5	14.8	77	N	<5
12/02/05	-	20.3	15.7	80	E	<5
13/02/05	Trace	17.9	15.2	82	E	<5
14/02/05	Trace	18.4	15.4	85	E	<5
15/02/05	0.2	20.8	17.3	94	N	<5
16/02/05	Trace	24.7	20.5	89	S	<5
17/02/05	1.1	24.4	19.5	90	S	<5
18/02/05	0.9	19.5	12.8	85	N	<5
19/02/05	-	14.6	10.6	61	N	<5
20/02/05	Trace	10.8	9.0	70	N	<5
21/02/05	Trace	11.0	9.4	79	N	<5
22/02/05	Trace	13.8	10.6	87	N	<5
23/02/05	Trace	18.0	13.6	91	NE	<5
24/02/05	2.7	23.1	17.4	93	N	<5
25/02/05	0.8	20.8	16.0	95	NE	<5
26/02/05	Trace	16.5	14.0	88	E	<5
27/02/05	3.7	14.5	13.1	89	E	<5
28/02/05	8.7	15.4	11.7	86	N	<5

Remark: Data of wind speed and wind direction were extracted from Hong Kong Observatory (Shatin Station).



## **Appendix E**

### **Event-Action Plans**



## Event / Action Plan for Air Quality

EVENT	ET Leader	ACTION		CNOTRACTOR
		IC(E)	ER	
<p>Action Level</p> <p>1. Exceedance of one sample</p> <p>2. Exceedance for two more consecutive samples</p>	<ol style="list-style-type: none"> <li>Identify source</li> <li>Inform IC(E) and ER</li> <li>Repeat measurement to confirm finding</li> <li>Increase monitoring frequency to daily</li> <li>Identify source</li> <li>Inform IC(E) and ER</li> <li>Repeat measurement to confirm findings</li> <li>Increase monitoring frequency to daily</li> <li>Discuss with IC(E) and Contractor on remedial actions required</li> <li>If exceedance continuous, arrange meeting with IC(E) and ER</li> <li>If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET</li> <li>Check Contractor's working method.</li> </ol> <ol style="list-style-type: none"> <li>Checking monitoring data submitted by ET</li> <li>Check Contractor's working method</li> <li>Discuss with ET and Contractor on possible remedial measures</li> <li>Advise the ER on the effectiveness of the proposed remedial measures</li> <li>Supervisor implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>Notify Contractor</li> <li>Confirm receipt of notification of failure in writing</li> <li>Notify Contractor</li> <li>Ensure remedial measures properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>Rectify any unacceptable practice</li> <li>Amend working methods if possible</li> <li>Submit proposals for remedial action to IC(E) within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal if possible</li> </ol>
<p>Limit Level</p> <p>1. Exceedance of one sample</p> <p>2. Exceedance for two or more consecutive samples</p>	<ol style="list-style-type: none"> <li>Identify source</li> <li>Inform ER and EPD</li> <li>Repeat measurement to confirm finding</li> <li>Increase monitoring frequency to daily</li> <li>Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results</li> <li>Notify IC(E), ER, Contractor and EPD</li> <li>Identify source</li> <li>Repeat measurement to confirm findings</li> <li>Increase monitoring frequency to daily</li> <li>Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented</li> <li>Arrange meeting with IC(E) and ER to discuss the remedial actions to be taken</li> <li>Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER to discuss the remedial action to taken</li> <li>If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>Check monitoring data submitted by ET</li> <li>Check Contractor's working method.</li> <li>Discuss with ET and Contractor on possible remedial measures</li> <li>Advise the ER on the effectiveness of the proposal remedial measures</li> <li>Supervisor implementation of remedial measures</li> <li>Discuss amongst ER, ET, and Contractor on potential remedial actions</li> <li>Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly</li> <li>Supervise the implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>Confirm receipt of notification of failure in writing</li> <li>Notify Contractor</li> <li>Ensure remedial measures properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>Take immediate action to avoid further exceedance</li> <li>Submit proposal for remedial actions to IC(E) within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Amend proposal if appropriate</li> <li>Take immediate action to avoid further exceedance</li> <li>Submit proposals for remedial actions to IC(E) within 3 working days of notification</li> <li>Implement the agreed proposals</li> <li>Resubmit proposals if possible still not under control</li> <li>Stop the relevant portion of works as determined by the ER until the exceedance is abated.</li> </ol>



## Event / Action Plan for Construction Noise

EVENT	ACTION			CNTRACTOR
	ET Leader	IC(E)	ER	
Action Level	<ol style="list-style-type: none"> <li>1. Notify IC(E) and Contractor</li> <li>2. Carry out investigation</li> <li>3. Report the results of investigation to the IC(E) and Contractor</li> <li>4. Discuss with the Contractor and formulate remedial measures</li> <li>5. Increase monitoring frequency to check mitigation effectiveness</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the analyzed results submitted by the ET</li> <li>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly</li> <li>3. Supervise the implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures for the analyzed noise problem</li> <li>4. Ensure remedial measures are properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposal to IC(E)</li> <li>2. Implement noise mitigation proposals</li> </ol>
Limit Level	<ol style="list-style-type: none"> <li>1. Notify IC(E), ER, and Contractor</li> <li>2. Identify source</li> <li>3. Repeat measurement to confirm findings</li> <li>4. Increase monitoring frequency</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented</li> <li>6. Inform IC(E), ER and EPD the causes &amp; action taken for the exceedances</li> <li>7. Assess effectiveness of Contractor's remedial action and keep IC(E), EPD and ER informed to the results</li> <li>8. If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst ER, ET and Contractor on the potential remedial actions</li> <li>2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly</li> <li>3. Supervise the implementation of remedial measures</li> </ol>	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem</li> <li>4. Ensure remedial measures are properly implemented</li> <li>5. 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</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance</li> <li>2. Submit proposals for remedial actions to IC(E) within 3 working days of notification</li> <li>3. Implement the agreed proposals</li> <li>4. Resubmit proposals if problem still not under control</li> <li>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated</li> </ol>



## **Appendix F**

### **Construction Programme**

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Date	Finish	Total Percent Complete	Float	Approved
BS-130580	Continue Screen Room to GL(Walls, Slabs & Beams)	8	15SEP04 A	P04 A	15SEP04 A	22SEP04 A			100		
BS-130580	Backfilling @ G.L. 4 Wall	2	15SEP04 A	24SEP04 A	18SEP04 A	20SEP04 A			100		
BS-130580	Construct Footing of Transformer Room	12	21SEP04 A	02OCT04 A	02OCT04 A	02OCT04 A			100		
BS-130670	Other Walls@GL(Walls, Beams&Slabs) remaining	20	21SEP04 A	09OCT04 A	21SEP04 A	09OCT04 A			100		
BS-130540	Construct Transformer Room Structure	13	06OCT04 A	29OCT04 A	06OCT04 A	29OCT04 A			100		
BS-130630	Walls and Ground Slab Curing Period	7	09OCT04 A	16OCT04 A	09OCT04 A	16OCT04 A			100		
BS-130540	Walls, Beams & Roof Construction	14	11OCT04 A	05NOV04 A	11OCT04 A	05NOV04 A			100		
BS-130610	Curing and formworks removal	7	06NOV04 A	20NOV04 A	06NOV04 A	20NOV04 A			100		
BS-130650	Waterproofing Walls & slab soffit	4	11OCT04 A	21OCT04 A	11OCT04 A	21OCT04 A			100		
BS-130660	Water Tightness Test of Group A Screen Room	18	25OCT04 A	02DEC04 A	25OCT04 A	02DEC04 A			100		
BS-130680	Water Tightness Test of Group B Screen Room	18	06NOV04 A	04DEC04 A	06NOV04 A	21DEC04 A			17d		
BS-131020	Preparation works for Wet Well Watertightness	12	05DEC04 A	16DEC04 A	22DEC04 A	02JAN05			17d		
BS-131000	Watertightness Test of Group A Wet Well	18	17DEC04 A	03JAN05	03JAN05	14FEB05			17d		
BS-131010	Watertightness Test of Group B Wet Well	18	04JAN05	21JAN05	21JAN05	14FEB05			17d		
BS-130760	Staircase Construction & Platform @ Dry Well	25	26NOV04 A	20DEC04 A	26NOV04 A	11JAN05			22d		
BS-130770	Construct Internal Wall @ Screen Room A	7	02DEC04 A	08DEC04 A	16MAR05	21MAR05			96d		
BS-130780	Construct Internal Wall @ Screen Room B	6	05DEC04 A	10DEC04 A	16MAR05	21MAR05			94d		
BS-130740	Buffer Wall & Platform Construction @ Wet Well A	7	04JAN05	10JAN05	15FEB05	21FEB05			95d		
BS-130750	Buffer Wall & Platform Construction @ Wet Well B	7	22JAN05	28JAN05	15FEB05	21FEB05			17d		
BS-130810	Rising Main Chamber Construction	38	15NOV04 A	24DEC04 A	15NOV04 A	31MAR05			96d		
BS-130790	Inlet Chamber Construction	22	03DEC04 A	22DEC04 A	02APR05	08MAR05			19d		
BS-130700	Backfilling Works to platform level	20	22JAN05	17FEB05	17FEB05	08MAR05			81d		
BS-130690	DSD Inspection for Building Works	15	18FEB05	04MAR05	09MAR05	23MAR05			19d		
BS-130710	Sheepile Extraction	10	03MAR05	12MAR05	06APR05	15APR05			34d		
BS-130800	Inlet Chamber connection to PS2	10	05MAR05	14MAR05	06APR05	15APR05			32d		
BS-130730	General Backfilling around PS2	15	05MAR05	19MAR05	01APR05	15APR05			27d		
BS-131030	Rising Main Chamber connection to PS2	15	20MAR05	03APR05	16APR05	30APR05			27d		
BS-131040	Construct Boundary Wall								0		
BS-130820	Roof Finishing	30	26NOV04 A	25DEC04 A	26NOV04 A	25JAN05			31d		
BS-130830	Finishing Works @ Transformer room	30	03NOV04 A	09DEC04 A	08NOV04 A	23JAN05			45d		
BS-130820	E&M works @ Transformer Room	11	10DEC04 A	20DEC04 A	24JAN05	09FEB05			45d		
BS-130900	Ceiling Finishing & Painting	12	01DEC04 A	12DEC04 A	01DEC04 A	18DEC04 A			6d		
BS-130990	Completion of Prep.on Windows/Louvers/Revisions	0	11DEC04 A	11DEC04 A	11DEC04 A	11DEC04 A			0		
BS-130910	Wall Finishing	7	12DEC04 A	18DEC04 A	12DEC04 A	18DEC04 A			0		
BS-130920	Wall painting	3	19DEC04 A	21DEC04 A	19DEC04 A	21DEC04 A			0		
BS-130930	Platform Removal @ Loading Bay	5	22DEC04 A	28DEC04 A	22DEC04 A	28DEC04 A			0		
BS-130940	Booster room, Toilet(Brickwall+Plastering+Tile+Paint)	14	27DEC04 A	03JAN05	02JAN05	15JAN05			6d		
BS-130950	Newly added Wall w/cabinet	20	27DEC04 A	15JAN05	27DEC04 A	15JAN05			0		
BS-130960	Brickwall @ G.L. 2(7days curing)	10	16JAN05	25JAN05	16JAN05	25JAN05			0		
BS-130970	Finishing Works on these walls	0	26JAN05	26JAN05	26JAN05	26JAN05			0		
BS-130980	Handover to E&M @ Loading Bay Area	5	09DEC04 A	19DEC04 A	26MAR05	26MAR05			96d		
BS-130840	Mass Concrete/Platform construction @Screen RoomA	5	11DEC04 A	15DEC04 A	22MAR05	26MAR05			94d		
BS-130850	Mass Concrete/Platform construction @Screen RoomB	15	12DEC04 A	04JAN05	12JAN05	26JAN05			22d		
BS-130880	Pipe Trench Construction @ Dry Well	21	05JAN05	25JAN05	27JAN05	23FEB05			22d		
BS-130890	Bamboo platform & Finishing @ Dry Well	2	11JAN05	12JAN05	25FEB05	23FEB05			35d		
BS-130860	Benching Stair@Wet Well A & Finishing	2	29JAN05	30JAN05	22FEB05	23FEB05			17d		
BS-130870	Benching Stair@Wet Well B & Finishing	30	05MAR05	03APR05	01APR05	30APR05			27d		
BS-130820	External Finishing Works								0		
BS-130820	Electrical WR1 Submission								0		
BS-13020	Power Supply Application		01DEC03 A		11DEC03 A				100		
BS-134030	Direct Link Application		07JUL04 A		07JUL04 A				100		
BS-134110	CLP Inspection of Transformer Room		01DEC04 A		04FEB05				36d		
BS-134010	Electrical WR1 Submission		02MAR05		04APR05				27d		

Revision	Date	Checked	Approved
No.9 Revision G	01JUN04	W/J	W/L
No.10 Revision G1	07JUL04	W/J	W/L
No.11 Revision H	04OCT04	W/J	W/L
No.12 Revision I	17DEC04	W/J	W/L

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Start date: 27/10/02  
 End date: 28/02/05  
 Date: 02DEC04  
 Run date: 19DEC04  
 Page number: 13A  
 Number/Version: TP35/02/05/011  
 © Primavera Systems, Inc.

Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
BS-135050	FS 314 Submission	0	20SEP04 A	20SEP04 A	20SEP04 A	20SEP04 A	100	100
BS-135110	WWO46 Part I & II Submission	0	20SEP04 A	20SEP04 A	20SEP04 A	20SEP04 A	100	100
BS-135030	Survey of Civil As-built	7	25NOV04 A	30NOV04 A	30NOV04 A	30NOV04 A	118d	0
BS-135100	Expected availability of power supply	0	04APR05	11FEB05	11FEB05	11FEB05	36d	0
BS-134190	CLP's Final Inspection of Transformer Room	0	30DEC04	30DEC04	30DEC04	30DEC04	111d	0
BS-135090	Expected availability of Fresh&Salt water supply	0	01DEC04	01DEC04	01DEC04	01DEC04	36d	0
BS-135170	VAC submission	0	26JAN05	04APR05	04APR05	04APR05	31d	0
BS-135200	CLP Energization	0	10MAR05	16APR05	16APR05	16APR05	17d	0
BS-135190	CLP's Inspection for Metering & Power On	0	14MAR05	04APR05	04APR05	04APR05	38d	0
BS-135200	CLP's Final Inspection for Metering & Power On	0	14MAR05	28APR05	28APR05	28APR05	17d	0
BS-135120	WWO46 Part IV Submission	0	14MAR05	20APR05	20APR05	20APR05	23d	0
BS-135160	Expected DSD Inspection for Other Works	0	31MAR05	04APR05	04APR05	04APR05	20d	0
BS-135030	Expected WSD Inspection	0	01APR05	28APR05	28APR05	28APR05	8d	0
BS-135040	Expected DSD Inspection for Sewage Pumpset & VSD	0	04APR05	28APR05	28APR05	28APR05	8d	0
BS-135060	FS 501 Submission	0	05APR05	27APR05	27APR05	27APR05	0	0
BS-135130	Expected DSD Inspection for Mech. Screen System	0	07APR05	27APR05	27APR05	27APR05	0	0
BS-135180	WSD's Final Inspection	0	19APR05	28APR05	28APR05	28APR05	8d	0
BS-135140	Expected DSD Inspection for Valves & Pipeworks	0	19APR05	28APR05	28APR05	28APR05	8d	0
BS-135150	Expected DSD Inspection for Deodorizer System	0	20APR05	27APR05	27APR05	27APR05	0	0
BS-135070	Expected FSD Inspection	0	20APR05	27APR05	27APR05	27APR05	0	0
BS-135210	FSD's Final Inspection	114*	31DEC04	30APR05	30APR05	30APR05	0	0
BS-133000	Pump Station 2- E&M Works	40	26JAN05	13MAR05	13MAR05	13MAR05	0	0
BS-136040	Conduit & Trunking	30	26JAN05	03MAR05	24APR05	24APR05	52d	0
BS-136060	Lighting & Earthing Installation	35	26JAN05	08MAR05	18APR05	18APR05	41d	0
BS-136080	SCADA and PLC Works	30	26JAN05	03MAR05	03MAR05	03MAR05	21d	0
BS-136090	MVAC	30	26JAN05	23FEB05	03MAR05	03MAR05	0	0
BS-136100	P & D Installation	30	26JAN05	03MAR05	03MAR05	03MAR05	0	0
BS-136120	Cable Tray Installation	20	27FEB05	18MAR05	18MAR05	18MAR05	0	0
BS-136070	Cabling Works	30	05MAR05	03APR05	03APR05	03APR05	0	0
BS-136110	F.S. Services Installation	41	14MAR05	23APR05	23APR05	23APR05	0	0
BS-136050	Lighting & Electrical Services	10	19MAR05	28MAR05	28MAR05	28MAR05	0	0
BS-136130	Cable terminations to Major Equipment	15	29MAR05	12APR05	12APR05	12APR05	36d	0
BS-136140	Cable terminations to other equipment	42	31DEC04	18FEB05	12FEB05	12FEB05	53d	0
BS-136010	CLP Installation	20	26JAN05	21FEB05	27MAR05	11APR05	53d	0
BS-134040	Sewage Pumpset & VSD	16	26JAN05	17FEB05	27MAR05	11APR05	29d	0
BS-134050	Mechanical Screen System	12	26JAN05	08FEB05	30MAR05	12APR05	53d	0
BS-134060	Penstock	14	26JAN05	18FEB05	30MAR05	12APR05	29d	0
BS-134080	Deodorizer System	14	26JAN05	08FEB05	30MAR05	12APR05	53d	0
BS-134090	Lifting Appliance	30	26JAN05	01MAR05	26APR05	25APR05	69d	0
BS-134100	LV Switchboard and Control Panels	40	31JAN05	24FEB05	02APR05	02APR05	27d	0
BS-134070	Valves & Pipeworks	16	05MAR05	20MAR05	09APR05	12APR05	21d	0
BS-134120	PCCW cable laying & wiring works	58*	04MAR05	30APR05	24APR05	24APR05	35d	0
BS-137010	Functional Testing	3	04MAR05	08MAR05	25APR05	30APR05	0	0
BS-137040	Lighting & Earthing functional testing	7	04MAR05	10MAR05	25APR05	27APR05	52d	0
BS-137130	Fan Functional Test	2	14MAR05	16MAR05	22APR05	27APR05	48d	0
BS-137180	Cleansing Water Pump Hydraulic Test	4	16MAR05	19MAR05	24APR05	23APR05	39d	0
BS-137190	Cleansing Water Pump Functional Test	6	29MAR05	10APR05	24APR05	27APR05	39d	0
BS-137070	Penstock functional testing	15	29MAR05	12APR05	04APR05	18APR05	15d	0
BS-137100	LV Switchboard & Control pa. functional testing	3	29MAR05	31MAR05	04APR05	18APR05	6d	0
BS-137110	Sewage pumpset and VSD functional testing	7	29MAR05	04APR05	12APR05	18APR05	18d	0
BS-137120	Mech. Screen System functional testing	3	04APR05	06APR05	25APR05	27APR05	14d	0
BS-137030	F.S. Services functional testing	6	19APR05	18APR05	13APR05	27APR05	21d	0
BS-137060	Valves & Pipeworks testing	5	19APR05	17APR05	28APR05	18APR05	0	0
BS-137080	Lifting Appliance functional testing	6	19APR05	18APR05	19APR05	30APR05	13d	0
BS-137090	Deodorizer System functional testing	0	19APR05	18APR05	19APR05	18APR05	0	0

FS 314 Submission  
 WWO46 Part I & II Submission  
 Survey of Civil As-built  
 Expected availability of power supply  
 CLP's Final Inspection of Transformer Room  
 Expected availability of Fresh&Salt water supply  
 VAC submission  
 CLP Energization  
 CLP's Inspection for Metering & Power On  
 CLP's Final Inspection for Metering & Power On  
 WWO46 Part IV Submission  
 Expected DSD Inspection for Other Works  
 Expected WSD Inspection  
 Expected DSD Inspection for Sewage Pumpset & VSD  
 FS 501 Submission  
 Expected DSD Inspection for Mech. Screen System  
 WSD's Final Inspection  
 Expected DSD Inspection for Valves & Pipeworks  
 Expected DSD Inspection for Deodorizer System  
 Expected FSD Inspection  
 FSD's Final Inspection  
 Pump Station 2- E&M Works  
 Conduit & Trunking  
 Lighting & Earthing Installation  
 SCADA and PLC Works  
 MVAC  
 P & D Installation  
 Cable Tray Installation  
 Cabling Works  
 F.S. Services Installation  
 Lighting & Electrical Services  
 Cable terminations to Major Equipment  
 Cable terminations to other equipment  
 CLP Installation  
 Sewage Pumpset & VSD  
 Mechanical Screen System  
 Penstock  
 Deodorizer System  
 Lifting Appliance  
 LV Switchboard and Control Panels  
 Valves & Pipeworks  
 PCCW cable laying & wiring works  
 Functional Testing  
 Lighting & Earthing functional testing  
 Fan Functional Test  
 Cleansing Water Pump Hydraulic Test  
 Cleansing Water Pump Functional Test  
 Penstock functional testing  
 LV Switchboard & Control pa. functional testing  
 Sewage pumpset and VSD functional testing  
 Mech. Screen System functional testing  
 F.S. Services functional testing  
 Valves & Pipeworks testing  
 Lifting Appliance functional testing  
 Deodorizer System functional testing

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	W.A.J.	W.L.
07JUL04	No.10 Revision G1	W.A.J.	W.L.
04OCT04	No.11 Revision H	W.A.J.	W.L.
17DEC04	No.12 Revision I	W.A.J.	W.L.

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Legend:  
 ■ Early bar  
 ■ Progress bar  
 ■ Critical bar  
 ■ Summary bar  
 ■ Start milestone point  
 ■ Finish milestone point



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Float Complete	Total Percent
B3-16221A	Zone E, Excavate ex-mound #1, N of school site	12	20OCT02 A	04	20OCT02 A	04NOV02 A	100	100
B3-16221B	Zone E, Excavate ex-mound #1, W of office area	13	28OCT02 A	07NOV02 A	28OCT02 A	07NOV02 A	100	100
B3-16221C	Zone E, Excavate ex-mound #1, the rest	12	28NOV02 A	13JAN03 A	28NOV02 A	13JAN03 A	100	100
B3-1622M0	Excavate, NE of H.Site 1, Promenade	70	07DEC02 A	26APR03 A	07DEC02 A	26APR03 A	100	100
B3-1623F2	S5, Preloading Mound Formation, Zone S3, Phase 9B	10	09DEC02 A	31JUL03 A	09DEC02 A	31JUL03 A	100	100
B3-1623H2	S5, Preloading Mound Formation, Zone S3, Phase 9D	10	12DEC02 A	31JUL03 A	12DEC02 A	31JUL03 A	100	100
B3-1623H3	S5, Preloading Mound Formation, Zone S3, Phase 9E	10	12DEC02 A	31JUL03 A	12DEC02 A	31JUL03 A	100	100
B3-1601A1	Vibrating wire piezometer, S6, No. 6P6	6	02JAN03 A	28JAN03 A	02JAN03 A	28JAN03 A	100	100
B3-1601E2	Moving rigs, S5, 4 nr.	12	03JAN03 A	23FEB03 A	03JAN03 A	23FEB03 A	100	100
B3-1601A2	Vibrating wire piezometer, S5, No. 6P1	6	27JAN03 A	27FEB03 A	27JAN03 A	27FEB03 A	100	100
B3-1601I2	Fieldwork Reports, S5	12	03FEB03 A	26FEB03 A	03FEB03 A	26FEB03 A	100	100
B3-1601G2	Ground Investigation, S5, 4nr	12	17FEB03 A	17FEB03 A	17FEB03 A	17FEB03 A	100	100
B3-1601D0	Establish rigs for G1, S6	3	27FEB03 A	01MAR03 A	27FEB03 A	01MAR03 A	100	100
B3-1601E1	Moving rigs, S6, 4 nr.	12	02MAR03 A	13MAR03 A	02MAR03 A	13MAR03 A	100	100
B3-1601G1	Ground Investigation, S6, 4nr	12	05MAR03 A	16MAR03 A	05MAR03 A	16MAR03 A	100	100
B3-1601I1	Fieldwork Reports, S6	12	14MAR03 A	25MAR03 A	14MAR03 A	25MAR03 A	100	100
B3-1601C1	Subsurface Settlement Marker, No. 6M6	3	27MAR03 A	29MAR03 A	27MAR03 A	29MAR03 A	100	100
B3-1601C2	Subsurface Settlement Marker, No. 5M1	3	27MAR03 A	29MAR03 A	27MAR03 A	29MAR03 A	100	100
B3-1601C3	Subsurface Settlement Marker, No. 5M2	3	30MAR03 A	01APR03 A	30MAR03 A	01APR03 A	100	100
B3-1623F3	S5, Preloading Mound Formation, Zone S3, Phase 9C	10	31JUL03 A	31JUL03 A	31JUL03 A	31JUL03 A	100	100
B3-1601B3	Surface Settlement Marker, No. 5M2	3	05AUG03 A	07AUG03 A	05AUG03 A	07AUG03 A	100	100
B3-1601B2	Surface Settlement Marker, No. 5M1	3	06AUG03 A	08AUG03 A	06AUG03 A	08AUG03 A	100	100
B3-160005	Earthworks-Section 16, Remainder, after surcharge	367 *	23DEC03 A	31DEC04	23DEC03 A	31DEC04	0	92
B3-162302	S5, Mound Removal, Zone S3, Phase 9B&D	19	23DEC03 A	24DEC03 A	23DEC03 A	24DEC03 A	100	100
B3-162303	S5, Mound Removal, Zone S3, Phase 9C&E	19	24DEC03 A	31DEC03 A	24DEC03 A	31DEC03 A	100	100
B3-1622M4	Excavate, D1/Ch.1500-1860	45	10MAR04 A	26MAY04 A	10MAR04 A	26MAY04 A	100	100
B3-1622M6	Excavate, D1/Ch.1860-2180	15	30APR04 A	24MAY04 A	30APR04 A	24MAY04 A	100	100
B3-1622M12	Excavate, D1/Ch.1500-1860 remaining	25	28MAY04 A	08JUN04 A	28MAY04 A	08JUN04 A	100	100
B3-1622M2	Excavate, D1/Ch.1020-1360	25	21JUL04 A	16JUL04 A	21JUL04 A	16JUL04 A	100	100
B3-1622M1	Excavate, D1/Ch.920-1020	25	20SEP04 A	30SEP04 A	20SEP04 A	30SEP04 A	100	100
B3-1622N7	Deposit/ Compact, L4/Ch.397-437	5	25SEP04 A	08DEC04	25SEP04 A	20MAR05	95d	35
B3-1622N9	Deposit/ Compact, D1/Ch.1360-1500	5	08OCT04 A	30NOV04 A	08OCT04 A	30NOV04 A	100	100
B3-1622N9	Deposit/ Compact, N. end, Promenade	2	30DEC04	31DEC04	30DEC04	31DEC04	0	0
B4-160000	Drainage & Sewerage-Section16, Area 15+Remainder	728 *	09DEC02 A	21DEC04	09DEC02 A	07JAN05	17d	97
B4-1689B0	Drainage, S764-S779, NW of H.Site 1, Promenade	75	09DEC02 A	30MAR03 A	09DEC02 A	30MAR03 A	100	100
B4-1689C1	Trapzoidal Channel, Area 13A	12	19DEC02 A	13DEC02 A	19DEC02 A	13DEC02 A	100	100
B4-1689B6	Drainage, D1, S0076-S0080	70	26APR03 A	26DEC03 A	26APR03 A	26DEC03 A	100	100
B4-1689B6	Sewerage, D1, F056-F054	18	18DEC03 A	18DEC03 A	18DEC03 A	18DEC03 A	100	100
B4-1689B36	Drainage, D1, S0076-S0080 remaining	75	26DEC03 A	15APR04 A	26DEC03 A	15APR04 A	100	100
B4-1689B16	Drainage connection to SIB5	41	29DEC03 A	23FEB04 A	29DEC03 A	23FEB04 A	100	100
B4-1689B26	Sewerage, D1, F054-F052	25	09FEB04 A	27MAR04 A	09FEB04 A	27MAR04 A	100	100
B4-1689B16	Sewerage, D1, F056-F058	20	19FEB04 A	03MAR04 A	19FEB04 A	03MAR04 A	100	100
B4-1689B26	Drainage connection to SIB3	16	25FEB04 A	22FEB04 A	25FEB04 A	24FEB04 A	100	100
B4-1689B12	Drainage, D1, S0080 to Existing	25	04MAR04 A	27MAR04 A	04MAR04 A	27MAR04 A	100	100
B4-1689B76	Site Investigation & preliminary works	15	29MAR04 A	24MAY04 A	29MAR04 A	24MAY04 A	100	100
B4-1689B86	Sewerage, D1, F56 to Existing	30	25MAY04 A	26AUG04 A	25MAY04 A	26AUG04 A	100	100
B4-1689B46	Drainage, D1/Ch.1660-2180 Gully works	30	06JUN04 A	12AUG04 A	06JUN04 A	12AUG04 A	100	100
B4-1689B86	F57-F58 Sewer Pipe remedial works	24	20SEP04 A	12OCT04 A	20SEP04 A	12OCT04 A	100	100
B4-1689B56	U-Channel, D1/1860-2180	45	25SEP04 A	21DEC04	25SEP04 A	07JAN05	17d	90
B4-1689B2	Sewerage, D1, F038-F040	40	20JUN03 A	12NOV03 A	20JUN03 A	12NOV03 A	100	100
B4-1689B2	Drainage, D1, S0051-S0056	40	08OCT03 A	15MAY04 A	08OCT03 A	15MAY04 A	100	100
B4-1689B4	Drainage, D1, S0061-S0074	90	10JUN03 A	28DEC03 A	10JUN03 A	28DEC03 A	100	100
B4-1689B4	Sewerage, D1, F048-F051	80	17OCT03 A	15NOV03 A	17OCT03 A	15NOV03 A	100	100

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME 1

Start date: 27AUG02  
 End date: 30DEC06  
 Run date: 08DEC04  
 Page number: 16A  
 Number/Version: TP35/02/APP/011  
 © Primavera Systems, Inc.  
 Start milestone point  
 Finish milestone point

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WAJ	WL
07JUL04	No.10 Revision G1	WAJ	WL
04OCT04	No.11 Revision H	WAJ	WL
17DEC04	No.12 Revision I	WAJ	WL

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete	2004	2005	2006
B4-1683B14	Drainage, D1, S0061-S0074 remaining	60	28DEC03	29FEB04	28DEC03	29FEB04	100	100			
B4-1691B4	Sewerage Rising Mains, D1, Ch1500-F47	30	14FEB04	27MAR04	14FEB04	27MAR04	100	100			
B4-1685B11	Sewerage, D1, F044-F038	72	25JUL03	20MAR04	25JUL03	20MAR04	100	100			
B4-1683B11	Drainage, D1, S0043-S0051	90	13OCT03	29MAR04	13OCT03	29MAR04	100	100			
B4-1695B1	Sewerage, D1, F031-F034	32	06JAN04	04MAR04	06JAN04	04MAR04	100	100			
B4-1683B1	Drainage, D1, S0038-S0043	50	07FEB04	24MAR04	07FEB04	24MAR04	100	100			
B4-1685B21	Sewerage, D1, (Ch.1020-1360)F034-F038 remaining	52	26MAY04	05JUL04	26MAY04	05JUL04	100	100			
B4-1683B21	Drainage, D1, S0043-S0058 remaining	55	28JUN04	22SEP04	28JUN04	22SEP04	100	100			
B4-1683B5	Drainage, D1, S0074-S0076 preliminary works	35	03NOV03	05NOV03	03NOV03	05NOV03	100	100			
B4-1683B15	Drainage, D1, S0074-S0076 remaining	37	03JAN04	28JAN04	03JAN04	28JAN04	100	100			
B4-1685B5	Sewerage, LA, F043-F402	95	23MAR04	20APR04	23MAR04	20APR04	100	100			
B4-1685B8	Sewerage, LA, F043-F402	28	19JUL03	19JUL03	19JUL03	19JUL03	100	100			
B4-1683B8	Drainage, L4, S402-S406 Pipe Laying Works	80	22SEP03	31OCT03	22SEP03	31OCT03	100	100			
B4-1683B7	Drainage, L4, S406-S401	14	01NOV03	23APR04	01NOV03	23APR04	100	100			
B4-1685B7	Sewerage, LA, F042-F043	14	25NOV03	17DEC03	25NOV03	17DEC03	100	100			
B4-1683B17	Drainage, L4, S406-S407	45	02JAN04	30MAR04	02JAN04	30MAR04	100	100			
B4-1683B27	Drainage, L4, S406-S404	35	02JAN04	30MAR04	02JAN04	30MAR04	100	100			
B4-1683B8A	Drainage, L4, S402-S406 remaining	96	15JAN04	26MAY04	15JAN04	26MAY04	100	100			
B4-1691B7	Sewerage Rising Mains, L4, F045-F046	20	05MAR04	26MAY04	05MAR04	26MAY04	100	100			
B4-1691B8	Sewerage Rising Mains, L4, F044-F45+	30	10MAY04	26MAY04	10MAY04	26MAY04	100	100			
B4-1685B28	Sewerage Rising mains, L4 remaining	45	26MAY04	15JUL04	26MAY04	15JUL04	100	100			
B4-1685B38	Drainage, L4 remaining	35	26JUN04	26SEP04	26JUN04	26SEP04	100	100			
B4-1683B3	Drainage, D1, S0056-S0081	70	10NOV03	30DEC03	10NOV03	30DEC03	100	100			
B4-1685B3	Sewerage, D1, F040-F042	35	18NOV03	22DEC03	18NOV03	22DEC03	100	100			
B4-1691B3	Sewerage Rising Mains, D1, F046-Ch1500	25	16MAR04	30MAR04	16MAR04	30MAR04	100	100			
B4-1685B13	Sewerage, D1, F040-F042 remaining	25	23JUN04	15JUL04	23JUN04	15JUL04	100	100			
B4-1683B13	Drainage, D1, S0056-S0061 remaining	50	16JUL04	13SEP04	16JUL04	13SEP04	100	100			
B4-1691B23	Sewer Rising Main Testing	46	16AUG04	20OCT04	16AUG04	20OCT04	100	100			
B4-1691B13	Sewerage Rising Mains, D1, F046-Ch1500remaining	7	21OCT04	27OCT04	21OCT04	27OCT04	100	100			
B4-1078B15	Preparation Works for 2.5m Trapezoidal Channel	60	02APR04	02APR04	02APR04	02APR04	100	100			
B4-1078B25	Fabrication Works and Delivery of 2.5m Trapezoidal Channel	55	20APR04	27APR04	20APR04	27APR04	100	100			
B4-1078B35	Installation and Construction of 2.5m Trap. Ch.	60	28APR04	16AUG04	28APR04	16AUG04	100	100			
B4-1689C5	Trapezoidal Channel, NE of H Site 1	90	19AUG03	01NOV03	19AUG03	01NOV03	100	100			
B4-1689C3	Trapezoidal Channel, at L1, S of H Site 1	14	01NOV03	01NOV03	01NOV03	01NOV03	100	100			
B4-1689C4	Trapezoidal Channel, Area 14	14	28DEC03	02APR04	28DEC03	02APR04	100	100			
B4-1689D9	Trapezoidal Channel, L5 South	100	08MAR04	25MAR04	08MAR04	25MAR04	100	100			
B4-1689D1	Trapezoidal Channel, D1 at area of Mount S5	50	17MAR04	30MAR04	17MAR04	30MAR04	100	100			
B4-1689C2	Trapezoidal Channel, NE of School Site	25	02APR04	20APR04	02APR04	20APR04	100	100			
B4-1689C6	Trapezoidal Channel, Zone T	60	25MAY04	26JUL04	25MAY04	26JUL04	100	100			
B4-1683B67	Sewerage, F58 to existing (remaining)	15	07SEP04	02OCT04	07SEP04	02OCT04	100	100			
B4-1683B96	Drainage, D1/Ch.1860-2180 gully works remaining	20	08SEP04	19SEP04	08SEP04	19SEP04	100	100			
B4-1689D6	Trapezoidal Channel, D1, L4 to Culvert C10	50	08SEP04	30SEP04	08SEP04	30SEP04	100	100			
B6-1595D46	Drain Pipe laying	15	07OCT04	16OCT04	07OCT04	16OCT04	100	100			
B4-1689D2	Trapezoidal Channel, D1 at S0049 to Area 9B bound	30	10NOV04	09DEC04	10NOV04	07JAN05	29d	75			
B4-1689C8	Trapezoidal Channel, at H Site 3	40	19NOV04	11DEC04	19NOV04	07JAN05	27d	75			
<b>Waterworks Section 16</b>											
B6-1609A0	Waterworks, NE of H Site 1, Promenade	60	28APR03	30JUN03	28APR03	30JUN03	100	100			
B6-1607A0	Trial Pits	14	26JUN03	06JUL03	26JUN03	06JUL03	100	100			
<b>Utilities Section 16</b>											
UT-160000	Utilities - Section 16, Remainder	453	20SEP03	29DEC04	20SEP03	29DEC04	0	94			
UT-160011A	PCOW, D1/Ch.920-1020	28	08MAR04	15MAR04	08MAR04	15MAR04	100	100			
UT-160011B	HGC-New World, D1/Ch.920-1020	30	08MAR04	17MAR04	08MAR04	17MAR04	100	100			

2004  
2005  
2006

SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR  
Total Float  
Percent Complete

Checked  
Approved  
Revision  
Date

Start date  
Finish date  
Data date  
Prog date  
Page number  
Page total  
Page number  
Page total

Early bar  
Progress bar  
Critical bar  
Summary bar  
Start milestone point  
Finish milestone point

Contract No. TP95/02  
Remaining Engineering Infrastructure Works  
for Pak Shek Kok Development Package 1  
REVISED WORKS PROGRAMME 1



Table with columns: Act ID, Description, Orig Dur, Early Start, Early Finish, Late Start, Late Finish, Total Percent Complete, Float Complete, Date, Revision, Checked, Approved. Contains detailed project schedule data for infrastructure works including gas mains, footpaths, and roadworks.

Contract No. TP85/02  
Remaining Engineering Infrastructure Works  
for Pak Shek Kok Development Package 1  
REVISED WORKS PROGRAMME 1

Legend: 27 AUG 02 Early bar, 28 FEB 06 Progress bar, 02 DEC 04 Critical bar, 01 OCT 04 Start milestone point, 18 SEP 04 Finish milestone point, 18 SEP 04 Start milestone point, 18 SEP 04 Finish milestone point

Revision	Checked	Approved
No.9 Revision G	WJL	WJL
No.10 Revision G	WJL	WJL
No.11 Revision H	WJL	WJL
No.12 Revision I	WJL	WJL



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
BS-1670A6	Roadworks, D1/Ch.1860-2070 Seaside	25	07SEP04	104	07SEP04	12OCT04	100	100
BS-1670A16	Existing kerb demolition	12	16SEP04	16SEP04	16SEP04	16SEP04	100	100
BS-1672A6	Footpath, D1/Ch.1860-2180	45	25SEP04	21DEC04	25SEP04	07JAN05	17d	55
BS-1670A26	Roadworks, D1/Ch.1860-2070 Landside paving	20	27SEP04	20OCT04	27SEP04	20OCT04	100	100
BS-1670A36	Roadworks, D1/Ch.2070-2180 (End Portion)	15	20OCT04	27OCT04	20OCT04	27OCT04	100	100
BS-1674G0	Road Furnitures&Misc. D1/Ch920-2180	60	08OCT04	03JAN05	08OCT04	07JAN05	4d	45
BS-1672A3	Footpath, D1/Ch.1360-1500	25	02DEC04	26DEC04	14DEC04	07JAN05	12d	0
BS-1670A0	Cycle Track, NE of H.Site 1, Promenade	75	04AUG03	17AFR04	04AUG03	17AFR04	100	100
BS-1672A9	Cycle Track & Footway, N end, Promenade	30	08MAR04	26MAR04	08MAR04	26MAR04	100	100
BS-1670A46	Diversion Works for Cycle Track at N. Entrance	14	17SEP04	02DEC04	17SEP04	02DEC04	100	100
BS-1670A76	Diversion Works for Cycle Track @ N. Entrance remaining	16	02DEC04	16DEC04	02DEC04	16DEC04	0	5
BS-1670A76	Breaking of Existing Cycle Track N. Entrance	2	17DEC04	18DEC04	17DEC04	18DEC04	0	0
BS-1670A56	Cycle Track and Footpath, North End	7	01JAN05	07JAN05	01JAN05	07JAN05	0	0

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
BL-170000	Landscape Softworks in Areas 1, 2, 6, 7A & 7B	378	10FEB04	28FEB05	10FEB04	28FEB05	0	78
BL-1705A1	Area 1- Drain, Duct+Pipework & Preparation Works	40	10FEB04	20SEP04	10FEB04	20SEP04	100	100
BL-1705A4	Area 7B- Drain, Duct+Pipework & Preparation Works	45	11JUN04	20SEP04	11JUN04	20SEP04	100	100
BL-1705A11	Area 2+6- Drain, Duct+Pipework & Preparation Works	45	15JUN04	20SEP04	15JUN04	20SEP04	100	100
BL-1705A12	Area 1- Drain, Duct+Pipework & Prep. Works remaining	26	20SEP04	02DEC04	20SEP04	02DEC04	100	100
BL-1705A14	Area 2+6- Drain, Duct+Pipework & Prep. Works remaining	26	08OCT04	02DEC04	08OCT04	02DEC04	100	100
BL-1705A14	Area 7B- Drain, Duct+Pipework & Preparation Works	26	11OCT04	02DEC04	11OCT04	02DEC04	100	100
BL-1705A3	Area 7A- Drain, Duct+Pipework & Preparation Works	35	15OCT04	02DEC04	15OCT04	02DEC04	100	100
BL-1707A1	Area 1- Planting Works (25% completed)	45	28NOV04	02DEC04	29NOV04	02DEC04	100	100
BL-1707A11	Area 1, 2, 6, 7B & 7A Preparation & Miscellaneous Works	30	02DEC04	30DEC04	02DEC04	30DEC04	0	2
BL-1707A21	Area 1- Planting Works remaining	34	22DEC04	24JAN05	22DEC04	24JAN05	0	0
BL-1707A2	Area 2+6- Planting Works	35	01JAN05	04FEB05	01JAN05	04FEB05	0	0
BL-1707A4	Area 7B- Planting Works	25	16JAN05	16FEB05	16JAN05	16FEB05	0	0
BL-1707A3	Area 7A- Planting Works	35	25JAN05	28FEB05	25JAN05	28FEB05	0	0

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
BL-180000	Landscape Softworks - Section 18, Remainder	127	12OCT04	15FEB05	12OCT04	15FEB05	0	40
BL-1814A1	Drain, Duct+Pipework & Prepar. Work, Remainder 65% com	35	12OCT04	02DEC04	12OCT04	02DEC04	100	100
BL-1814A11	Preparation Works remain & CLP related obstructions	35	02DEC04	03JAN05	02DEC04	03JAN05	0	5
BL-1814A2	Planting Works, Remainder	43	04JAN05	15FEB05	04JAN05	15FEB05	0	0

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
BL-190000	Establishment Works - Section 19, Areas 1, 2, 6, 7A & 7B	365	01MAR05	28FEB06	01MAR05	28FEB06	0	0
BL-200000	Establishment Works - Areas 1, 2, 6, 7A & 7B Done	365	01MAR05	28FEB06	01MAR05	28FEB06	0	0
BL-200001	Establishment Works - Areas 1, 2, 6, 7A & 7B Done	0	0	28FEB06	0	28FEB06	0	0

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
BL-300000	Establishment Works - Section 20, Remainder	365	16FEB05	15FEB06	16FEB05	15FEB06	0	0
BL-300001	Establishment Works - Remainder	365	16FEB05	15FEB06	16FEB05	15FEB06	0	0
BL-300002	Establishment Works - Remainder	0	0	15FEB06	0	15FEB06	0	0

**Part 14 Site Safety**

BT-140000	Site Safety	977	27AUG02	29AFR05	27AUG02	30APR05	1d	85
BT-1401A0	Complete Draft Safety Plan	2	27AUG02	28AUG02	27AUG02	28AUG02		100
BT-1401D0	Provide Safety Officer, 2nr.	810	27AUG02	02DEC04	27AUG02	02DEC04		100
BT-1401B0	Complete Safety Plan	2	29AUG02	30AUG02	29AUG02	30AUG02		100

Contract No. TP95/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REVISED WORKS PROGRAMME I**

Start date: 21 AUG 02  
 Finish date: 02 DEC 04  
 Run date: 18 DEC 04  
 Pass number: 19A  
 Number/Revision: TP95/02/P2/011  
 © Primavera Systems, Inc.

Legend:  
 ■ Early bar  
 ▨ Progress bar  
 ▨▨▨ Critical bar  
 ▨▨▨ Summary bar  
 ▲ Start milestone point  
 ▼ Finish milestone point

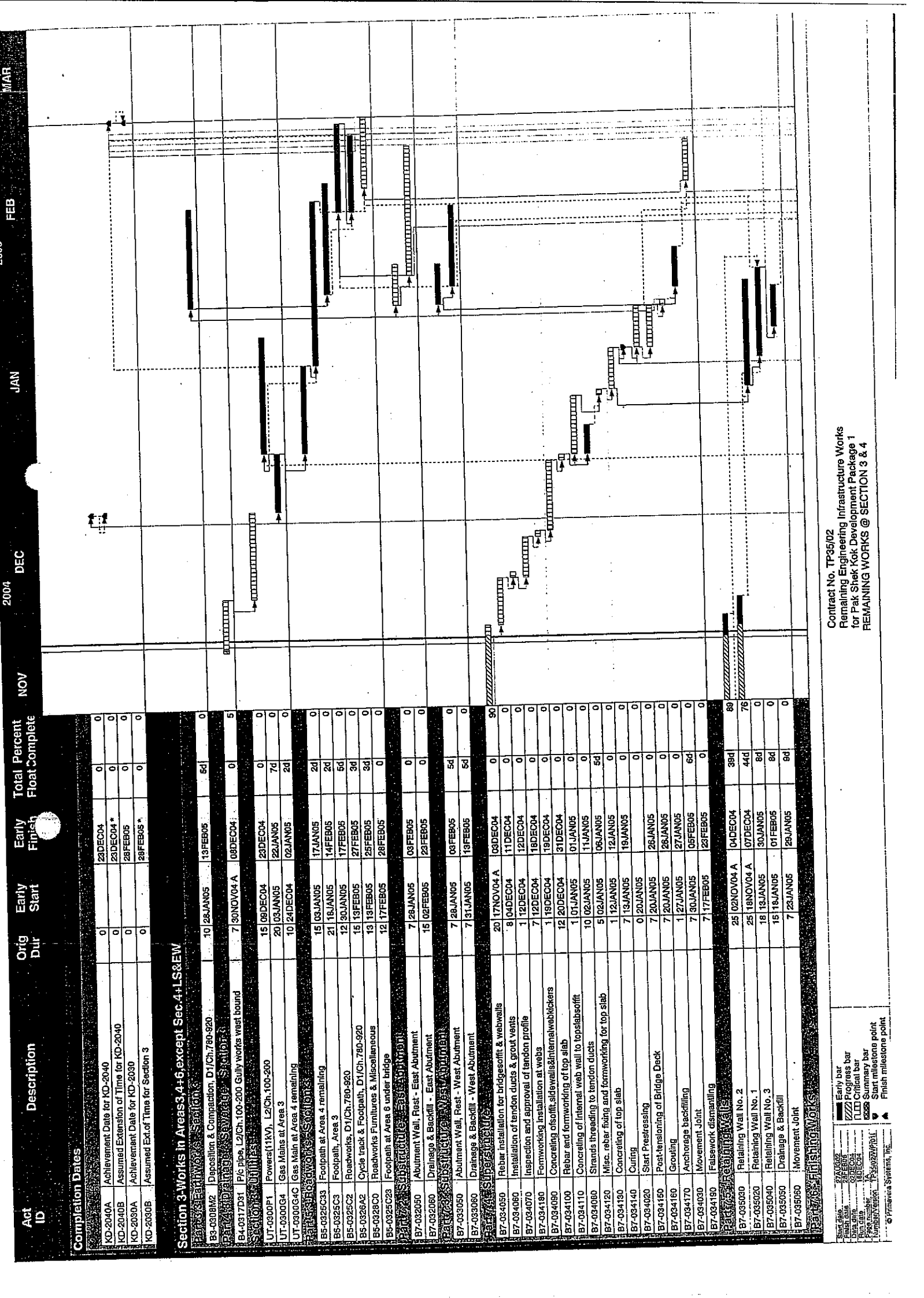
Checked: Approved  
 WJA WL  
 01JUN04  
 Revision G  
 WJA WL  
 07JUL04  
 Revision H  
 WJA WL  
 04OCT04  
 Revision I  
 WJA WL  
 17DEC04

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float Complete	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
BT-1401C0	Update Safety Plan	810	31AUG02 A	02DEC04 A	31AUG02 A	02DEC04 A	100																
BT-1401G0	Arrange & Attend Weekly Safety Walk	805	03SEP02 A	02DEC04 A	03SEP02 A	02DEC04 A	100																
BT-1401H0	Provide Safety Training	810	10SEP02 A	02DEC04 A	10SEP02 A	02DEC04 A	100																
BT-1401E0	Attend Site Safety Committee & Mgmt Committee	694	26OCT02 A	02DEC04 A	26OCT02 A	02DEC04 A	100																
BT-1401K0	Participate in safety promotional campaign	150	28NOV02 A	02DEC04 A	28NOV02 A	02DEC04 A	1																
BT-1401K10	Site Safety Remaining Works		29APR05	29APR05	02DEC04 A	30APR05	1d																

Start date	End date	Run date	Page number	Number/Version	Start date	End date	Run date	Page number	Number/Version
27AUG02	28FEB06	02DEC04	20A	TP35/02/01P0611	01JUN04	07JUL04	04OCT04	17DEC04	No.9 Revision G
									No.10 Revision G1
									No.11 Revision H
									No.12 Revision I

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Legend:  
 ■ Early bar  
 ▨ Progress bar  
 ▨ Critical bar  
 ▨ Summary bar  
 ▲ Start milestone point  
 ▼ Finish milestone point



Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Complete	Float Complete
KD-2040A	Achievement Date for KD-2040	0	28JAN05	13FEB05	5d	0
KD-2040B	Assumed Extension of Time for KD-2040	0	0	28DEC04	0	0
KD-2030A	Achievement Date for KD-2030	0	0	28FEB05	0	0
KD-2030B	Assumed Ext. of Time for Section 3	0	0	28FEB05	0	0

**Section 3-Works in Areas 3,4+6, except Sec. 4-L&EW**

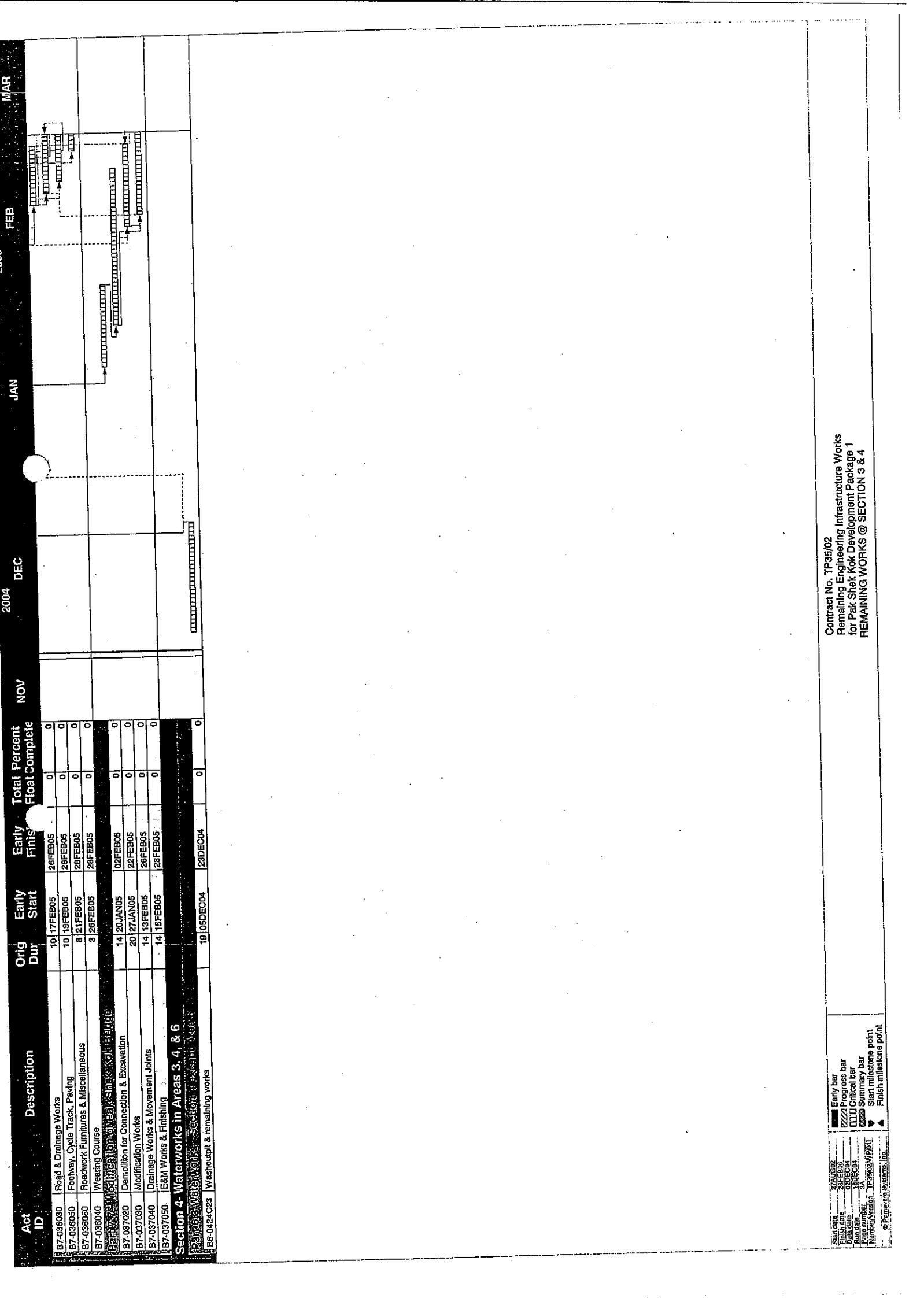
B5-0308H2	Deposition & Compaction, D1/Ch.780-920.	10	28JAN05	13FEB05	5d	0
B4-0317D81	16" pipes, L2/Ch.100-200. Gully works west bound	7	30NOV04	08DEC04	0	5
UT-0300P1	Powers(11KV), L2/Ch.100-200	15	09DEC04	28DEC04	0	0
UT-0300G4	Gas Mains at Area 3	20	03JAN05	22JAN05	7d	0
UT-0300G4C	Gas Main at Area 4 remaining	10	24DEC04	02JAN05	2d	0
B5-0325C33	Footpath at Area 4 remaining	15	03JAN05	17JAN05	2d	0
B5-0325C3	Footpath, Area 3	21	18JAN05	14FEB05	2d	0
B5-0325C2	Roadworks, D1/Ch.780-920	12	30JAN05	17FEB05	5d	0
B5-0326A2	Cycle track & Footpath, D1/Ch.780-920	15	13FEB05	27FEB05	3d	0
B5-0328C0	Roadworks Furnitures & Miscellaneous	13	18FEB05	25FEB05	3d	0
B5-0325C23	Footpath at Area 6 under bridge	12	17FEB05	28FEB05	0	0
B7-032050	Abutment Wall, Rest - East Abutment	7	28JAN05	03FEB05	0	0
B7-032060	Drainage & Backfill - East Abutment	15	02FEB05	23FEB05	0	0
B7-033050	Abutment Wall, Rest - West Abutment	7	28JAN05	03FEB05	5d	0
B7-033060	Drainage & Backfill - West Abutment	7	31JAN05	13FEB05	5d	0
B7-034050	Rebar installation for bridgesoffit & webwalls	20	17NOV04	03DEC04	0	9d
B7-034060	Installation of tendon ducts & grout vents	8	04DEC04	11DEC04	0	0
B7-034070	Inspection and approval of tendon profile	1	12DEC04	12DEC04	0	0
B7-034180	Formworking installation at webs	7	12DEC04	18DEC04	0	0
B7-034080	Concreting ofsoffit, sidewalks&internalwebkickers	1	19DEC04	19DEC04	0	0
B7-034100	Rebar and formworking of top slab	12	20DEC04	31DEC04	0	0
B7-034110	Concreting of internal web wall to topslabsoffit.	10	02JAN05	11JAN05	0	0
B7-034120	Misc. rebar fixing and formworking for top slab	5	02JAN05	06JAN05	5d	0
B7-034130	Concreting of top slab	1	12JAN05	12JAN05	0	0
B7-034140	Curing	7	13JAN05	19JAN05	0	0
B7-034020	Start Prestressing	0	20JAN05	0	0	0
B7-034150	Post-tensioning of Bridge Deck	7	20JAN05	26JAN05	0	0
B7-034160	Grouting	1	20JAN05	26JAN05	0	0
B7-034170	Anchorage backfilling	1	27JAN05	27JAN05	0	0
B7-034030	Movement Joint	7	30JAN05	05FEB05	6d	0
B7-034190	Falsework dismantling	7	17FEB05	23FEB05	0	0
B7-035030	Retaining Wall No. 2	25	02NOV04	04DEC04	38d	89
B7-035020	Retaining Wall No. 1	25	18NOV04	07DEC04	44d	76
B7-035040	Retiffing Wall No. 3	18	13JAN05	30JAN05	8d	0
B7-035050	Drainage & Backfill	15	18JAN05	01FEB05	8d	0
B7-035060	Movement Joint	7	23JAN05	29JAN05	8d	0

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 3 & 4**

Start date: 27/06/02  
 Finish date: 28FEB05  
 Data only: 03DEC04  
 Font color: 12/05/04  
 Font style: 12/05/04  
 Number version: TP35/02/P01

■ Early bar  
 ▨ Progress bar  
 ▨ Critical bar  
 ▨ Summary bar  
 ▨ Start milestone point  
 ▨ Finish milestone point

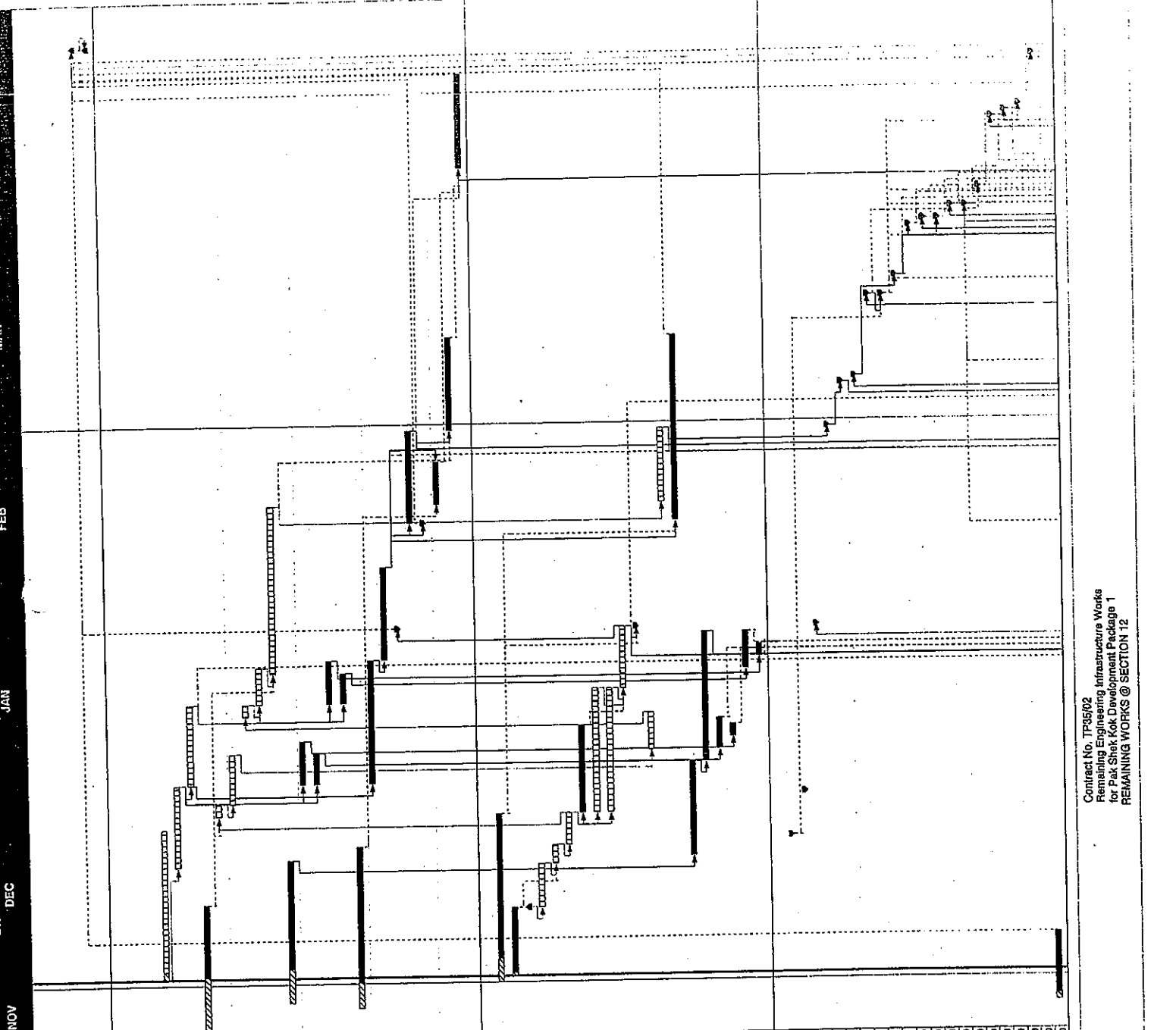
© Primavera Systems, Inc.



Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REMAINING WORKS @ SECTION 3 & 4

Start date: 2004/11/05  
 Finish date: 2005/02/05  
 Run date: 2005/02/04  
 Page number: 2A  
 Number/Version: TP35/02/1/P011  
 © PricewaterhouseCoopers, Inc.

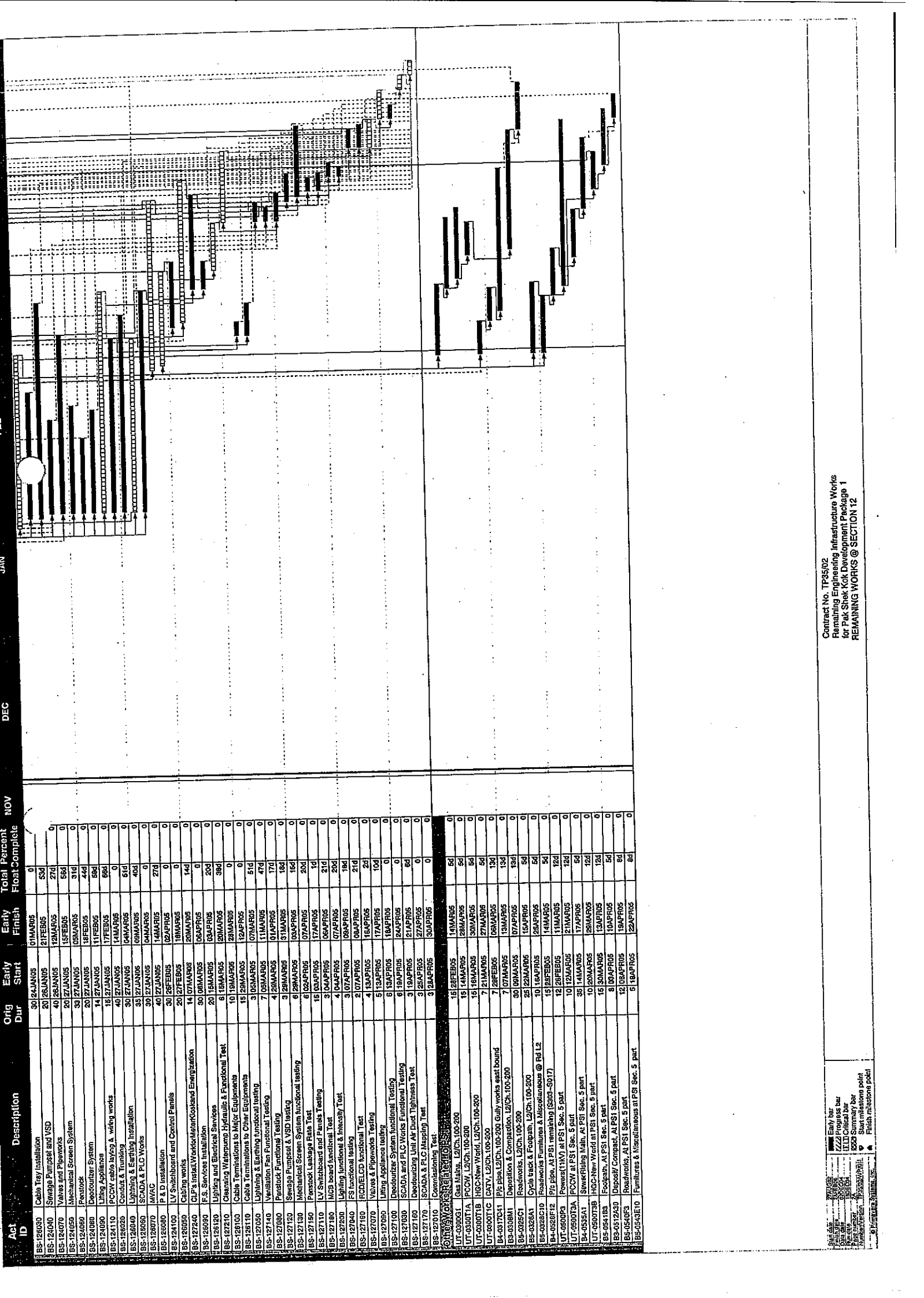
Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point



Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float	Percent Complete
10-2120A	Achievement Date for KD-2120	0	00APR05	0	0	0
10-2120B	Assumed Extension of Time for KD-2120	0	30APR05 *	0	0	0
<b>Section 12 - Works of Sewage Pumping Station No.1</b>						
BS-120760	Preliminary Testing and Leakage Repair Works	28	02DEC04	29DEC04	0	5
BS-120760	Water-tightness Test for Group A	19	20DEC04	01JAN05	0	0
BS-120660	Water-tightness Test for Group B	19	02JAN05	14JAN05	0	0
BS-120710	Struct Removal & Backfilling around Dry Well	42	02NOV04 A	13DEC04	14d	72
BS-121010	Scaffolding Erection for new Wall @ GL-4-S/E	2	02DEC04	29DEC04	0	0
BS-121020	New Wall Construction @GL-4-S/E	8	02DEC04	06JAN05	0	0
BS-121030	New Wall Construction @GL-4-S/E	2	13JAN05	14JAN05	0	0
BS-121040	Scaffolding removal @ Switch Room Area	20	20JAN05	15FEB05	0	0
BS-120620	Shaft/sie Extraction @ Switch Room Area	25	02NOV04 A	20DEC04	24d	21
BS-120770	Inspection Gallery & Switchroom construction	7	02JAN05	09JAN05	0	0
BS-120650	Shaftcase & Platform Construction @ Dry Well A	5	02JAN05	07JAN05	0	0
BS-120760	Buffer wall & Platform Construction @ Wet Well A	5	02JAN05	07JAN05	0	0
BS-120680	Constant Vertical wall @ Screen Room A	7	15JAN05	28JAN05	28d	0
BS-120740	Buffer Wall & Platform Construction @ Wet Well B	5	15JAN05	18JAN05	0	0
BS-120790	Constant Vertical Wall @ Screen Room B	100d	25NOV04 A	20DEC04	100d	19
BS-120850	Inset Chamber Construction	20	02JAN05	21JAN05	5d	0
BS-120700	Backfilling works after Water-tightness Test	15	22JAN05	06FEB05	87d	0
BS-120730	Shaft/sie Extraction	15	22JAN05	06FEB05	87d	0
BS-120740	Expected OSD Inspection Building Works	15	13FEB05	27FEB05	80	0
BS-120810	Backfilling Works around PSI to Ground Level	77d	0	0	77d	0
BS-120810	Remaining Drainage Works around PSI (refer to Sec5)	0	13FEB05	22FEB05	92d	0
BS-121050	Valv Chamber connection to PSI	7	15FEB05	14MAR05	32d	0
BS-120950	Rising main Chamber Construction	15	11APR05	25APR05	5d	0
BS-120750	Constraint Boundary Wall	30	01DEC04 A	27DEC04	30d	14
BS-120830	Roof Finishing	7d	12DEC04	19DEC04	0	0
BS-120820	Calling Finishing & Painting	0	12DEC04 *	12DEC04 *	0	0
BS-121000	Completion of High Voltage Work @ Switch Room	7	13DEC04	19DEC04	0	0
BS-120850	Wall Finishing	3	20DEC04	22DEC04	0	0
BS-120940	Wall Painting	5	20DEC04	27DEC04	0	0
BS-120950	Platform Removal @ Loading Bay	14	28DEC04	10JAN05	6d	0
BS-120970	Boosterm/oller @ (down-hill-Plumb-stem)-R-Paint	20	28DEC04	16JAN05	0	0
BS-120970	Newly added Wall @ (down-hill-Plumb-stem)-R-Paint	20	28DEC04	16JAN05	0	0
BS-120950	Blockwall @ GL-2 (7 days curing)	10	17JAN05	26JAN05	0	0
BS-120950	Finishing on Inset Walls	0	27JAN05	12JAN05	0	0
BS-121060	Handover to E&M Works @ Loading Area	0	07JAN05	27FEB05	0	0
BS-120800	Finishing of New Wall @ GL-4-S/E	12	18FEB05	27FEB05	47d	0
BS-120630	Finishing Works for Insp.gallery & Switchroom	30	19FEB05	14MAR05	47d	0
BS-120640	External Finishing Works	15	21DEC04	04JAN05	24d	0
BS-120920	Pipe Trench Construction @ Dry Well	21	05JAN05	25JAN05	24d	0
BS-120940	Bamboe platform & Finishing works @ Dry Well	5	07JAN05	11JAN05	64d	0
BS-120950	Miscellaneous Platform construction @ Screen Room A	2	08JAN05	09JAN05	38d	0
BS-120970	Benching stair @ Wet Well A & finishing	5	20JAN05	25JAN05	48d	0
BS-120860	Mass concrete Platform construction @ Screen Room B	2	22JAN05	23JAN05	25d	0
BS-120860	Benching stair @ Wet Well B & finishing	0	24DEC04	0	94d	0
BS-120860	Expected availability of power supply	0	0	0	0	0
BS-120980	Expected availability of fresh heat water supply	0	0	0	0	0
BS-121160	VAG Submission	14d	0	0	14d	0
BS-121720	CLP's Inspection for Meter Room	14d	0	0	14d	0
BS-121730	CLP's Final Inspection of Meter Room	22d	0	0	22d	0
BS-125100	Water Certification WWO46 Part IV	11d	0	0	11d	0
BS-124010	Electrical WRI Submission	11d	0	0	11d	0
BS-121920	CLP Energization	22d	0	0	22d	0
BS-125030	Expected VSD Inspection	23d	0	0	23d	0
BS-125040	Expected OSD Inspection for Sewage Pump & VSD	25d	0	0	25d	0
BS-125130	Expected OSD Inspection for Puratank	26d	0	0	26d	0
BS-125180	WSD's Final Inspection	21d	0	0	21d	0
BS-125110	Expected OSD Inspection for Mech. Screen Syst.	21d	0	0	21d	0
BS-125150	Expected OSD Inspection for Other Works	8d	0	0	8d	0
BS-125160	F-S 501 Submission	8d	0	0	8d	0
BS-125170	Expected OSD Inspection for Valves & Pipeworks	8d	0	0	8d	0
BS-125140	Expected OSD Inspection for Deburrer System	0	0	0	0	0
BS-125070	Expected FSD Inspection	0	0	0	0	0
BS-125170	FSD Final Inspection	0	0	0	0	0
BS-125010	Survey of Civil As-built	7	27NOV04 A	07DEC04	137d	101

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 12**

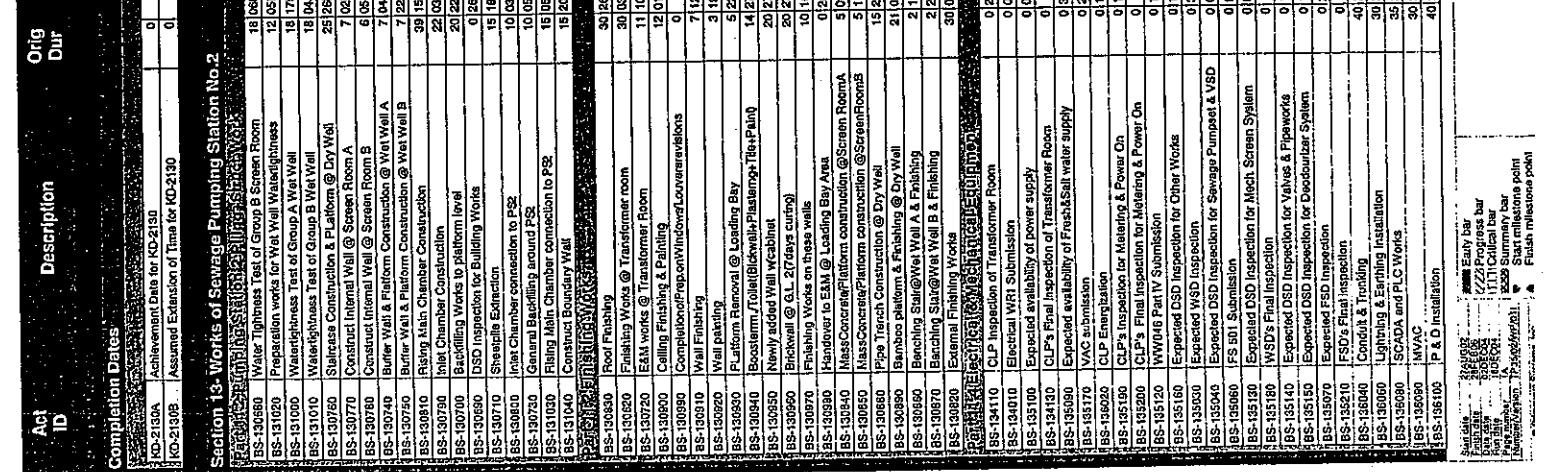
Scale: 1:100  
 Date: 15/04/2005  
 Drawn by: [Name]  
 Checked by: [Name]  
 Approved by: [Name]  
 Legend:  
 - Early bar  
 - 1/24 Progress bar  
 - 1/11 Critical bar  
 - 50% Summary bar  
 - Finish milestone point



Act ID	Description	Orig Dur	Early Start	Finish	Total Float	Percent Complete	NOV	DEC	JAN
BS-126040	Cable Tray Installation	30/26JAN05	01MAR05	0	0	0			
BS-126040	Sewage Pumpset and VSD	20/26JAN05	21FEB05	53d	53d	0			
BS-124070	Valves and Pipework	40/28JAN05	12MAR05	27d	27d	0			
BS-124050	Mechanical Screen System	20/27JAN05	15FEB05	56d	56d	0			
BS-124060	Penstock	30/27JAN05	09MAR05	31d	31d	0			
BS-124080	Decoupler System	20/27JAN05	18FEB05	44d	44d	0			
BS-124090	Lifting Appliances	14/27JAN05	11FEB05	58d	58d	0			
BS-124100	PCW cable laying & wiring works	18/27JAN05	17FEB05	66d	66d	0			
BS-126020	Conduit & Trimming	30/27JAN05	04MAR05	61d	61d	0			
BS-126040	Lighting & Earthing Installation	30/27JAN05	04MAR05	61d	61d	0			
BS-126060	SCADA & PLC Works	30/27JAN05	09MAR05	40d	40d	0			
BS-126070	MVAC	30/27JAN05	12MAR05	0	0	0			
BS-126080	P & D Installation	40/27JAN05	12MAR05	27d	27d	0			
BS-126090	LV Switchboard and Control Panels	20/27FEB05	02MAR05	0	0	0			
BS-126100	Cabling works	20/27FEB05	02MAR05	0	0	0			
BS-126110	CLP's install/Work/Maint/Kiosk/energization	14/07MAR05	20MAR05	14d	14d	0			
BS-126120	F.S. Services Installation	30/08MAR05	06APR05	0	0	0			
BS-126130	Lighting and Electrical Services	20/15MAR05	03APR05	20d	20d	0			
BS-127100	Cleaning Waterpump Hydraulic & Functional Test	10/19MAR05	20MAR05	38d	38d	0			
BS-126110	Cable Terminations to Motor Equipments	15/29MAR05	28MAR05	0	0	0			
BS-127050	Lighting & Earthing functional testing	30/29MAR05	07APR05	0	0	0			
BS-127140	Ventilation Fan Functional Testing	7/09MAR05	07APR05	51d	51d	0			
BS-127090	Penstock Functional Testing	4/29MAR05	11MAR05	47d	47d	0			
BS-127150	Sewage Pumpset & VSD testing	3/29MAR05	31MAR05	16d	16d	0			
BS-127130	Mechanical Screen System functional testing	6/02APR05	07APR05	20d	20d	0			
BS-127160	Penstock Leakage Rate Test	15/03APR05	17APR05	1d	1d	0			
BS-127110	LV Switchboard and Panels Testing	3/04APR05	06APR05	21d	21d	0			
BS-127180	MCR board functional Test	4/04APR05	07APR05	20d	20d	0			
BS-127200	Lighting functional & Intensity Test	3/07APR05	09APR05	16d	16d	0			
BS-127040	FS functional testing	2/07APR05	09APR05	21d	21d	0			
BS-127190	REDUCED functional Test	4/13APR05	16APR05	2d	2d	0			
BS-127070	Valves & Pipework Testing	5/13APR05	17APR05	10d	10d	0			
BS-127090	Lifting Appliances testing	6/13APR05	18APR05	0	0	0			
BS-127030	SCADA and PLC Works Functional Testing	6/19APR05	24APR05	0	0	0			
BS-127160	Decoupling Unit Air Duct Tightness Test	3/19APR05	21APR05	6d	6d	0			
BS-127170	SCADA & PLC Mapping Test	3/25APR05	27APR05	0	0	0			
BS-127010	Commissioning Test	3/28APR05	30APR05	0	0	0			
UT-030003	Gas Matics, LZCh, 100-200	15/28FEB05	14MAR05	5d	5d	0			
UT-030001	Gas Matics, LZCh, 100-200	19/14MAR05	28MAR05	5d	5d	0			
UT-030007	PCGW, LZCh, 100-200	19/14MAR05	28MAR05	5d	5d	0			
UT-030007	HGC-New World, LZCh, 100-200	19/14MAR05	28MAR05	5d	5d	0			
UT-030007	CASTV, LZCh, 100-200	7/21MAR05	27MAR05	5d	5d	0			
BS-030004	PE pipe LZCh, 100-200 Gully works east bound	7/28FEB05	06MAR05	13d	13d	0			
BS-030004	Deposition & Compaction, LZCh, 100-200	7/07MAR05	13MAR05	13d	13d	0			
BS-030004	Roadworks, LZCh, 100-200	30/09MAR05	07APR05	19d	19d	0			
BS-030004	Cycle track & Footpath, LZCh, 100-200	22/29MAR05	15APR05	5d	5d	0			
BS-030004	Roadworks Furniture & Miscellaneous @ Rd L2	10/10APR05	23APR05	6d	6d	0			
BS-030004	PE pipe, AT PSI remaining (S909-S917)	15/10FEB05	14MAR05	5d	5d	0			
UT-030003	Power (11kV) at PSI Sec. 5 part	12/28FEB05	11MAR05	12d	12d	0			
UT-030003	FOCW at PSI Sec. 5 part	10/12MAR05	21MAR05	12d	12d	0			
BS-030003	Stover/Rising Valve, AT PSI Sec. 5 part	35/14MAR05	17APR05	0	0	0			
UT-030003	HGC-New World at PSI Sec. 5 part	10/20MAR05	29MAR05	12d	12d	0			
BS-030003	Footpath, AT PSI Sec. 5 part	15/30MAR05	13APR05	12d	12d	0			
BS-030003	Deposit/ Compact, AT PSI Sec. 5 part	8/10APR05	10APR05	6d	6d	0			
BS-030003	Roadworks, AT PSI Sec. 5 part	12/08APR05	19APR05	6d	6d	0			
BS-030003	Furniture & Miscellaneous at PSI Sec. 5 part	5/18APR05	12APR05	6d	6d	0			

Contract No. TF55/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 12**

Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point



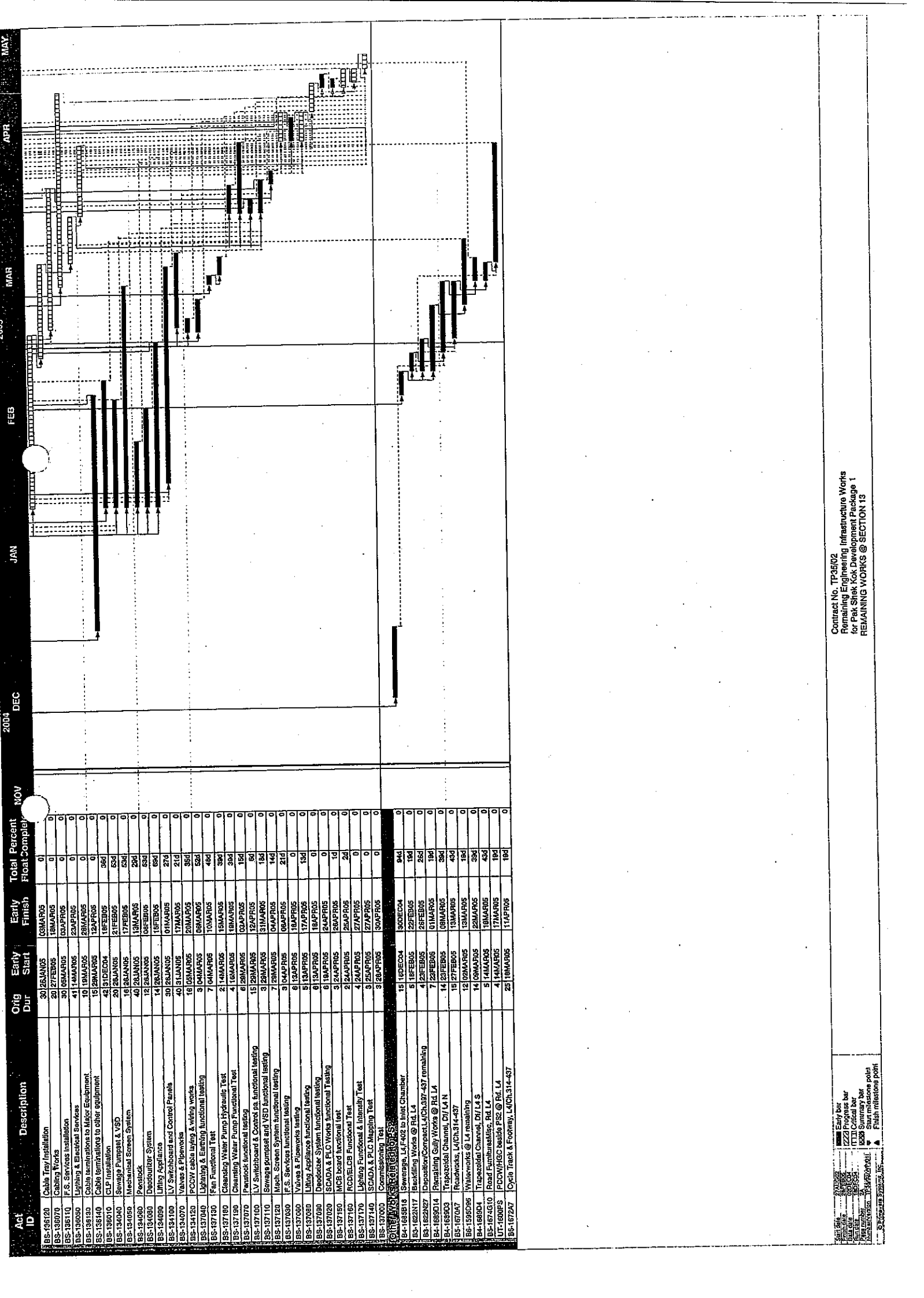
Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float Complete
KS-2130A	Achievement Date for KD-2130	0	30APR05	0	0
KS-2130B	Assumed Extension of Time for KD-2130	0	30APR05*	0	0

**Section 13- Works of Sewage Pumping Station No.2**

BS-130580	Water Tightness Test of Group B Screen Room	17d	18/08NOV04 A	16DEC04	17d	84
BS-131020	Preparation works for Wet Well Watertightness	17d	12/09DEC04	16DEC04	17d	0
BS-131000	Watertightness Test of Group A Wet Well	17d	18/17DEC04	03JAN05	17d	0
BS-131010	Watertightness Test of Group B Wet Well	22d	18/04JAN05	21JAN05	22d	24
BS-130780	Slab/ceiling Construction & Platform @ Dry Well	96d	25/28NOV04 A	20DEC04	96d	0
BS-130770	Construct Internal Wall @ Screen Room A	94d	7/02DEC04	08DEC04	94d	0
BS-130780	Construct Internal Wall @ Screen Room B	95d	10/JAN05	08DEC04	95d	0
BS-130740	Butler Wall & Platform Construction @ Wet Well A	17d	7/12/JAN05	28/JAN05	17d	0
BS-130750	Butler Wall & Platform Construction @ Wet Well B	90d	30/15NOV04 A	24DEC04	90d	42
BS-130810	Rising Main Chamber Construction	19d	22/03DEC04 A	22DEC04	19d	7
BS-130790	Inlet Chamber Construction	81d	20/22JAN05	17FEB05	81d	0
BS-130690	DSD Inspection for Building Works	18d	15/16FEB05	04/MAR05	18d	0
BS-130710	Structural Extraction	34d	10/03/MAR05	12/MAR05	34d	0
BS-130800	Inlet Chamber connection to PSE	32d	10/03/MAR05	14/MAR05	32d	0
BS-131030	General Backfilling around PSE	27d	16/10/MAR05	10/MAR05	27d	0
BS-131040	Filling Main Chamber connection to PSE	27d	16/10/MAR05	10/MAR05	27d	0
BS-131040	Construct Boundary Wall	27d	16/10/MAR05	03/APR05	27d	0
BS-130830	Roof Finishing	31d	30/28NOV04 A	28DEC04	31d	20
BS-130950	Finishing Works @ Transformer room	45d	30/03NOV04 A	08DEC04	45d	74
BS-130720	Exam works @ Transformer Room	6d	11/10DEC04	20DEC04	6d	9
BS-130990	Ceiling Finishing & Painting	0	12/01DEC04 A	12DEC04	0	0
BS-130990	Completion of Repoint Windows/Louvre/vents	0	11DEC04*	11DEC04*	0	0
BS-130910	Wall painting	0	7/12DEC04	18DEC04	0	0
BS-130920	Wall painting	0	3/18DEC04	21DEC04	0	0
BS-130930	Platform Removal @ Loading Bay	6d	5/22DEC04	26DEC04	6d	0
BS-130940	Recessing/Installation of Passageway/Door/Panel	0	14/27DEC04	06/JAN05	0	0
BS-130950	Newly added Wall work/Detail	0	20/27DEC04	15/JAN05	0	0
BS-130960	Brickwall @ GL 277days cutting	0	10/16/JAN05	25/JAN05	0	0
BS-130970	Finishing Works on these walls	0	0/26/JAN05	0	0	0
BS-130940	Mass Concrete Platform construction @ Screen Room A	96d	5/08DEC04	13DEC04	96d	0
BS-130950	Mass Concrete Platform construction @ Screen Room B	94d	5/11DEC04	15DEC04	94d	0
BS-130880	Pipe trench construction @ Dry Well	22d	13/21DEC04	04/JAN05	22d	0
BS-130890	Bamboo platform & Finishing @ Dry Well	22d	21/02/JAN05	26/JAN05	22d	0
BS-130960	Batching Stat@ Wet Well A & Finishing	35d	2/11/JAN05	12/JAN05	35d	0
BS-130870	Batching Stat@ Wet Well B & Finishing	17d	2/25/JAN05	30/JAN05	17d	0
BS-130820	External Finishing Works	27d	30/05/MAR05	03/APR05	27d	0
BS-130820	CLP Inspection of Transformer Room	0	0/21DEC04	0	0	0
BS-130810	Electrical WRI Submission	27d	0/23/JAN05	0	27d	0
BS-130810	Expected availability of power supply	116d	0/02DEC04	0	116d	0
BS-130810	CLP's Final Inspection of Transformer Room	35d	30DEC04	0	35d	0
BS-130800	Expected availability of Fresh & Salt water supply	111d	0/31DEC04	0	111d	0
BS-130810	VAC submission	35d	0/18FEB05	0	35d	0
BS-130820	CLP Energisation	31d	0/10/MAR05	0	31d	0
BS-130810	CLP's Final Inspection for Molding & Power On	17d	0/14/MAR05	0	17d	0
BS-130820	WWR/46 Part V Submission	36d	0/14/MAR05	0	36d	0
BS-130810	Expected DSD Inspection for Other Works	17d	0/14/MAR05	0	17d	0
BS-130810	Expected WSD Inspection	22d	0/31/MAR05	0	22d	0
BS-130810	Expected DSD Inspection for Sewage Pumps & VSD	0	0/01/APR05	0	0	0
BS-130810	F5 501 Submission	20d	0/04/APR05	0	20d	0
BS-130810	Expected DSD Inspection for Mech. Screen System	17d	0/05/APR05	0	17d	0
BS-130810	WSD's Final Inspection	8d	0/19/APR05	0	8d	0
BS-130810	Expected DSD Inspection for Valves & Pipework	6d	0/19/APR05	0	6d	0
BS-130810	Expected DSD Inspection for Doublebar System	0	0/20/APR05	0	0	0
BS-130810	Expected FSD Inspection	0	0/20/APR05	0	0	0
BS-130810	FSD's Final Inspection	0	0/27/APR05	0	0	0
BS-130810	Control & Tronding	62d	40/28/JAN05	13/MAR05	62d	0
BS-130810	Lighting & Earthing Installation	41d	30/28/JAN05	03/MAR05	41d	0
BS-130810	SCADA and PLC Works	0	30/28/JAN05	03/MAR05	0	0
BS-130810	M/VAC	21d	40/28/JAN05	13/MAR05	21d	0
BS-130810	P & D Installation	0	40/28/JAN05	13/MAR05	0	0

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 13**

Scale: 1:1000  
 Date: 12/02/2005  
 Author: [Name]  
 Checker: [Name]  
 Engineer: [Name]  
 Surveyor: [Name]  
 Survey Station: [Name]  
 Survey Point: [Name]  
 Survey Method: [Name]  
 Survey Date: [Name]  
 Survey Time: [Name]  
 Survey Location: [Name]  
 Survey Area: [Name]  
 Survey Status: [Name]  
 Survey Notes: [Name]



Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float	Percent Complete
--------	-------------	----------	-------------	--------------	-------------	------------------

BS-136120	Cable Tray Installation	30	26JAN05	03MAR05	0	0
BS-136070	Cabling Works	20	27FEB05	18MAR05	0	0
BS-136110	F.S. Services Installation	30	05MAR05	03APR05	0	0
BS-136090	Lighting & Electrical Services	41	14MAR05	23APR05	0	0
BS-136130	Cable terminations to Major Equipment	10	19MAR05	28MAR05	0	0
BS-136140	Cable terminations to other equipment	15	29MAR05	12APR05	0	0
BS-136010	CLP Installation	45	31DEC04	18FEB05	960	0
BS-134040	Sewage Pumps and VSD	20	28JAN05	21FEB05	534	0
BS-141030	Mechanical Screen System	18	28JAN05	17FEB05	534	0
BS-191080	Penstock	12	28JAN05	10FEB05	534	0
BS-191090	Distributor System	14	28JAN05	15FEB05	634	0
BS-191100	LV Switchboard and Control Panels	30	28JAN05	01MAR05	274	0
BS-134070	Valves & Pipework	16	05MAR05	21F	216	0
BS-134120	PCCW cable laying & video works	9	04MAR05	20MAR05	361	0
BS-137100	Lighting & Earthing functional testing	7	04MAR05	06MAR05	524	0
BS-137130	Fan Functional Test	7	04MAR05	10MAR05	484	0
BS-137160	Cleaning Water Pump Hydraulic Test	2	14MAR05	15MAR05	394	0
BS-137190	Cleaning Water Pump Functional Test	4	18MAR05	18MAR05	384	0
BS-137070	Penstock functional testing	6	28MAR05	02APR05	154	0
BS-137110	LV Switchboard & Control pa. functional testing	15	29MAR05	12APR05	184	0
BS-137120	Sewage pumps and VSD functional testing	3	29MAR05	31MAR05	144	0
BS-137090	F.S. Services functional testing	6	04APR05	08APR05	214	0
BS-137060	Valves & Pipeworks testing	6	13APR05	18APR05	134	0
BS-137080	Lifting Appliance functional testing	3	13APR05	17APR05	134	0
BS-137020	SCADA & FLO Works functional testing	8	18APR05	18APR05	6	0
BS-137150	MCE board functional test	3	24APR05	24APR05	10	0
BS-137160	RCWELCB Functional Test	2	24APR05	25APR05	24	0
BS-137170	Lighting Functional & Intensity Test	4	24APR05	27APR05	0	0
BS-137140	SCADA & PLC Mapping Test	3	25APR05	27APR05	0	0
BS-137000	Commissioning Test	3	26APR05	30APR05	0	0
B4-168518	Sewerage, L4 F402 to Inlet Chamber	15	19DEC04	30DEC04	946	0
B4-168517	Recliffing Works @ Rd. L4	5	18FEB05	22FEB05	184	0
B3-162A27	Disposal/Comcast L4 Ch 437-437 remaining	4	23FEB05	26FEB05	264	0
B4-168914	Reinstalling Gully Works @ Rd. L4	7	28FEB05	01MAR05	184	0
B4-168903	Tripartite Channel, D1/L4 N	14	27FEB05	08MAR05	384	0
BS-1670A7	Roadworks, L4/Ch 314-437	15	27FEB05	13MAR05	434	0
B6-159D36	Waterworks @ L4 remaining	12	02MAR05	13MAR05	194	0
B4-168904	Trapezoidal Channel, D1/L4 S	14	08MAR05	22MAR05	384	0
BS-1674G10	Road Embankment, Rd. L4	5	14MAR05	18MAR05	434	0
UT-1680P5	PCCW/HCC leads @ Rd. L4	4	14MAR05	17MAR05	184	0
B5-1672A7	Cycle Track & Footway, L4/Ch 314-437	25	18MAR05	11APR05	184	0

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 13**

Legend:  
 ■ Early bar  
 ■ Progress bar  
 ■ Critical bar  
 ■ Summary bar  
 ■ Milestone point  
 ■ Finish milestone point



Act ID

Description

Orig Dur

Early Start

Early Finish

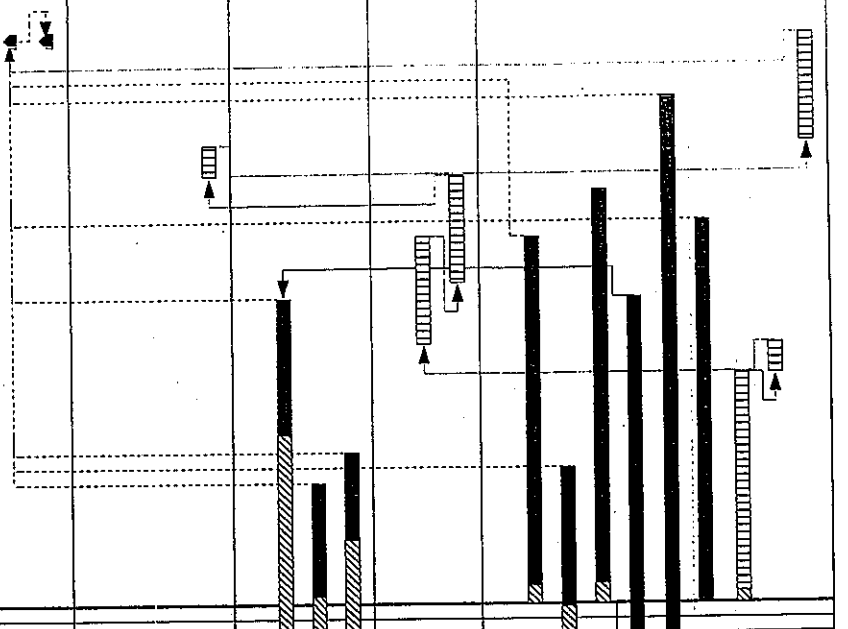
Total Percent Float Complete

**Completion Dates**

KD-2160A	Achievement Date for KD-2160	0	07JAN05	0	0
KD-2160B	Assumed Extension of Time for KD-2160	0	07JAN05 *	0	0

**Section 16- Remainder of Works, except LS+EW**

<b>Part 5-10 Road Works Section 16</b>					
B3-1622N9	Deposit/ Compact, N. end, Promenade	2	30DEC04	31DEC04	0
<b>Part 4-11 Drainage &amp; Sewerage Section 16</b>					
B4-1663B56	U-Channel, D1/1860-2180	45	25SEP04 A	21DEC04	17d
B4-1669D2	Trapezoidal Channel, D1 at S0049 to Area 9B bound	30	10NOV04 A	09DEC04	29d
B4-1689C8	Trapezoidal Channel, at H Site 3	40	19NOV04 A	11DEC04	27d
<b>Section 16 Utilities</b>					
UT-1600T9A	PCCW, N. end, Promenade	7	19DEC04	25DEC04	0
UT-1600T9B	HGC, N. end, Promenade	7	23DEC04	29DEC04	0
<b>Part 5-10 Road Works Section 16</b>					
B5-1672A31	Footpath, D1/Ch. 920-1020 remaining	25	02DEC04 A	25DEC04	13d
B5-1672A2	Cycle Track & Footway, D1/Ch. 1020-1360	45	26OCT04 A	10DEC04	28d
B5-1670A13	Roadworks, D1/Ch. 1360-1500 remaining	28	02DEC04 A	28DEC04	4d
B5-1672A6	Footpath, D1/Ch. 1860-2180	45	25SEP04 A	21DEC04	55
B5-1674G0	Road Furnitures & Misc., D1/Ch. 920-2180	60	08OCT04 A	03JAN05	4d
B5-1672A3	Footpath, D1/Ch. 1360-1500	25	02DEC04	26DEC04	12d
B5-1670A66	Diversion Works for Cycle Track @ N. Entrance remaining	16	02DEC04 A	16DEC04	0
B5-1670A76	Breaking of Existing Cycle Track N. Entrance	2	17DEC04	18DEC04	0
B5-1670A56	Cycle Track and Footpath, North End	7	01JAN05	07JAN05	0



Start date	27AUG02
Finish date	28FEB06
Data date	02DEC04
Print date	18DEC04
Page number	1A
Number/Version	TP35/02/M/P/011

- Early bar
- ▨ Progress bar
- ▤ Critical bar
- ▥ Summary bar
- ◆ Start milestone point
- ▲ Finish milestone point

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REMAINING WORKS @ SECTION 16**

Completion Dates

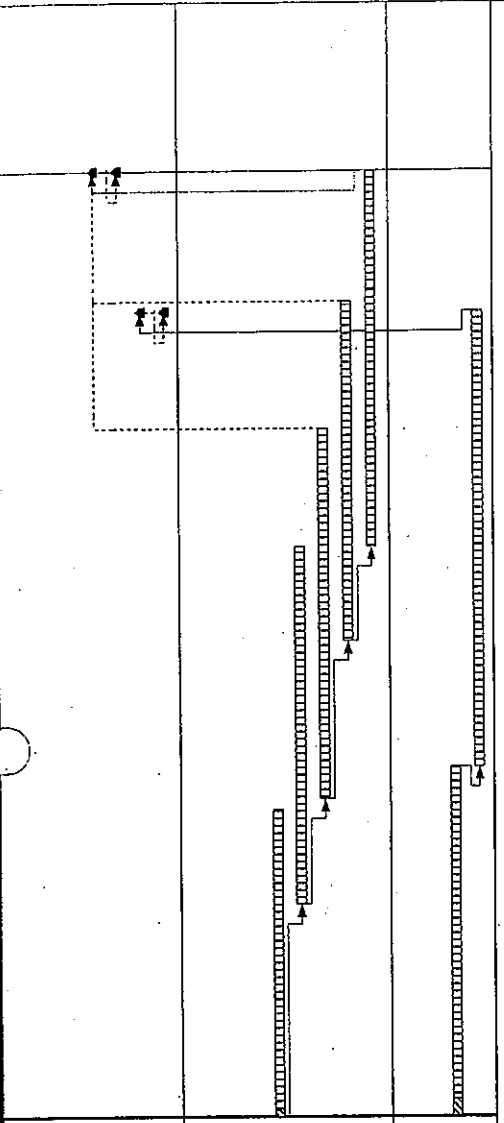
KD-2170A	Achievement Date for KD-2170	0	28FEB05	0	0
KD-2170B	Assumed Extension of Time for KD-2170	0	28FEB05 *	0	0
KD-2180A	Achievement Date for KD-2180	0	15FEB05	0	0
KD-2180B	Assumed Extension of Time for KD-2180	0	15FEB05 *	0	0

Section 17- Areas 1,2,6,7A-7B Landscape Softwork

BL-1707A11	Area 1,2,6,7B&7A Preparation & Miscellaneous Works	30	02DEC04 A	30DEC04	0	2
BL-1707A21	Area 1- Planting Works remaining	94	22DEC04	24JAN05	0	0
BL-1707A2	Areas 2-6- Planting Works	35	01JAN05	04FEB05	0	0
BL-1707A4	Area 7B- Planting Works	25	16JAN05	16FEB05	0	0
BL-1707A3	Area 7A- Planting Works	35	25JAN05	28FEB05	0	0

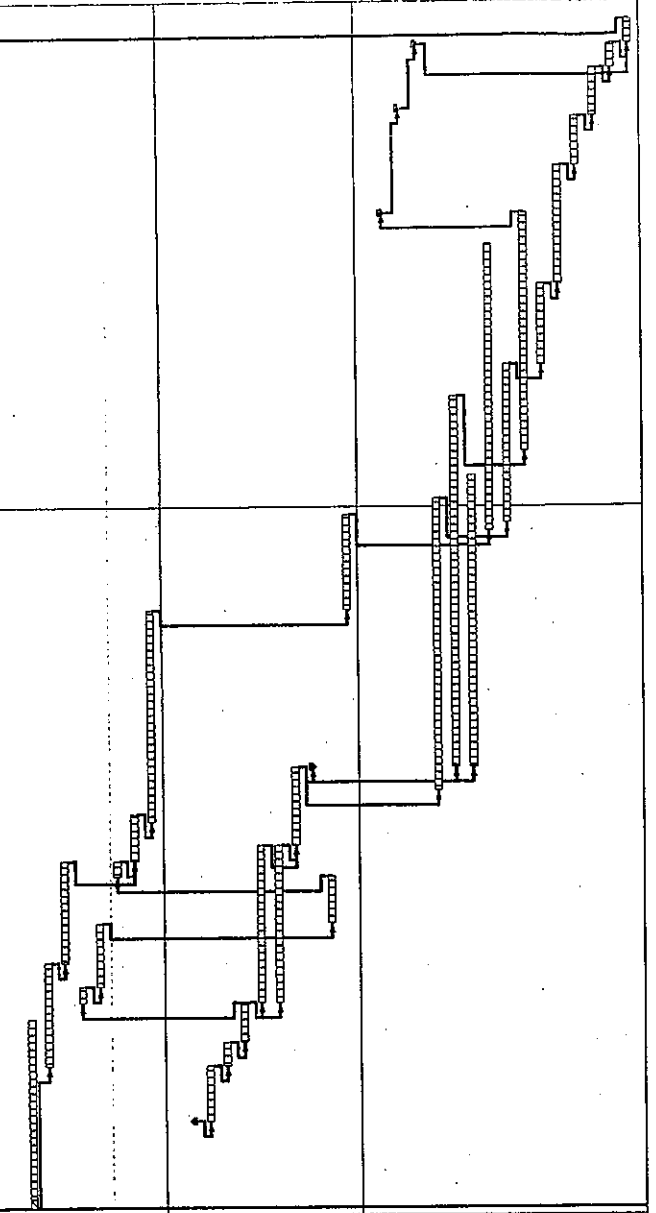
Section 18- Remainder of Landscaping Works

BL-1814A11	Preparation Works remain & CLP related obstructions	35	02DEC04 A	03JAN05	0	5
BL-1814A2	Planting Works, Remainder	43	04JAN05	15FEB05	0	0



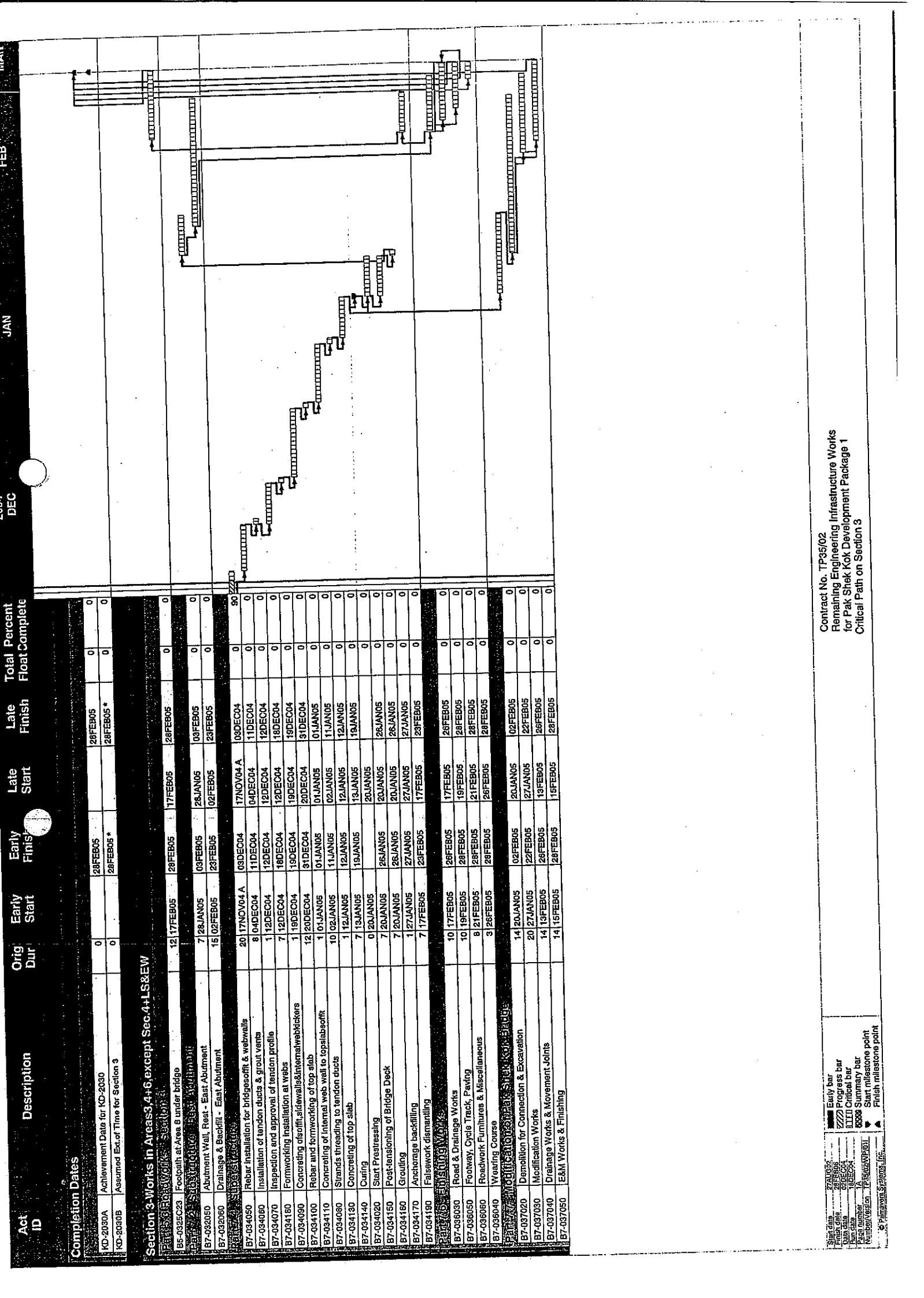
Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete
KS-2120A	Achievement Date for KD-2120	0	30APR05	30APR05	30APR05	30APR05	0
KS-2120B	Assumed Extension of Time for KD-2120	0	30APR05	30APR05	30APR05	30APR05	0

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete
KS-120760	Final Review of Construction Documents	28	02DEC04	02DEC04	02DEC04	02DEC04	0
KS-120770	Final Review of Construction Documents	13	20DEC04	01JAN05	20DEC04	01JAN05	0
KS-120780	Final Review of Construction Documents	13	03JAN05	02JAN05	03JAN05	02JAN05	0
KS-120790	Final Review of Construction Documents	2	20DEC04	20DEC04	20DEC04	20DEC04	0
KS-121020	New Wall Construction @ GLA-5/E	8	30DEC04	06JAN05	30DEC04	06JAN05	0
KS-121030	Steelwork removal @ Switch Room Area	2	15JAN05	15JAN05	15JAN05	15JAN05	0
KS-121040	Sheelagie Extension @ Switch Room Area	20	20JAN05	20JAN05	20JAN05	20JAN05	0
KS-121050	Inspection Gallery & Switchroom construction	20	15FEB05	15FEB05	15FEB05	15FEB05	0
KS-121060	Completion of Prop. Work Item Windows/Louvers/revisions	0	12DEC04	12DEC04	12DEC04	12DEC04	0
KS-121070	Wall Finishing	7	13DEC04	19DEC04	13DEC04	19DEC04	0
KS-121080	Wall Finishing	9	20DEC04	29DEC04	20DEC04	29DEC04	0
KS-121090	Platform Removal @ Loading Bay	5	20DEC04	27DEC04	20DEC04	27DEC04	0
KS-1210970	Neatly tidied Vial cabinet	20	20DEC04	14JAN05	20DEC04	14JAN05	0
KS-1210980	Breakout at G.L.2 (7 days ceiling)	20	20DEC04	14JAN05	20DEC04	14JAN05	0
KS-1210990	Finishing on these Walls	10	17JAN05	26JAN05	17JAN05	26JAN05	0
KS-121099	Handover to EAM Works @ Loading Area	6	07JAN05	07JAN05	07JAN05	07JAN05	0
KS-1210990	Finishing of New Wall @ GLA-5/E	12	18FEB05	27FEB05	18FEB05	27FEB05	0
KS-125040	ES-501 Submission	0	07APR05	07APR05	07APR05	07APR05	0
KS-125070	Escorted FSD Inspection	0	20APR05	20APR05	20APR05	20APR05	0
KS-125170	FSD Fall Inspection	0	28APR05	28APR05	28APR05	28APR05	0
KS-126030	Cable Tray Installation	30	12JAN05	01MAR05	12JAN05	01MAR05	0
KS-126050	Conduit & Trunking	40	27JAN05	14MAR05	27JAN05	14MAR05	0
KS-126070	MVAC	30	27JAN05	04MAR05	27JAN05	04MAR05	0
KS-126100	LV Switchboard and Central Panels	30	26FEB05	02APR05	26FEB05	02APR05	0
KS-126130	Cabling works	20	27FEB05	18MAR05	27FEB05	18MAR05	0
KS-126130	F.S. Services Installation	30	08MAR05	06APR05	08MAR05	06APR05	0
KS-126110	Cable Terminations to Motor Equipments	10	19MAR05	26MAR05	19MAR05	26MAR05	0
KS-126110	Cable Terminations to Other Equipments	13	20MAR05	29MAR05	20MAR05	29MAR05	0
KS-127100	Dredgeless System Functional Testing	6	13APR05	19APR05	13APR05	19APR05	0
KS-127030	SCADA and PLC Works Functional Testing	6	19APR05	24APR05	19APR05	24APR05	0
KS-127170	SCADA & PLC Mapping Test	3	22APR05	27APR05	22APR05	27APR05	0
KS-127010	Commissioning Test	3	29APR05	03MAY05	29APR05	03MAY05	0



Contract No. TP45/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 Critical Path on Section 12

Start  
 Early start  
 Progress bar  
 Critical bar  
 Start milestone point  
 Finish milestone point  
 Finish milestone point



Act ID Description

Orig Dur Early Start Early Finish Late Start Late Finish Total Percent Float Complete

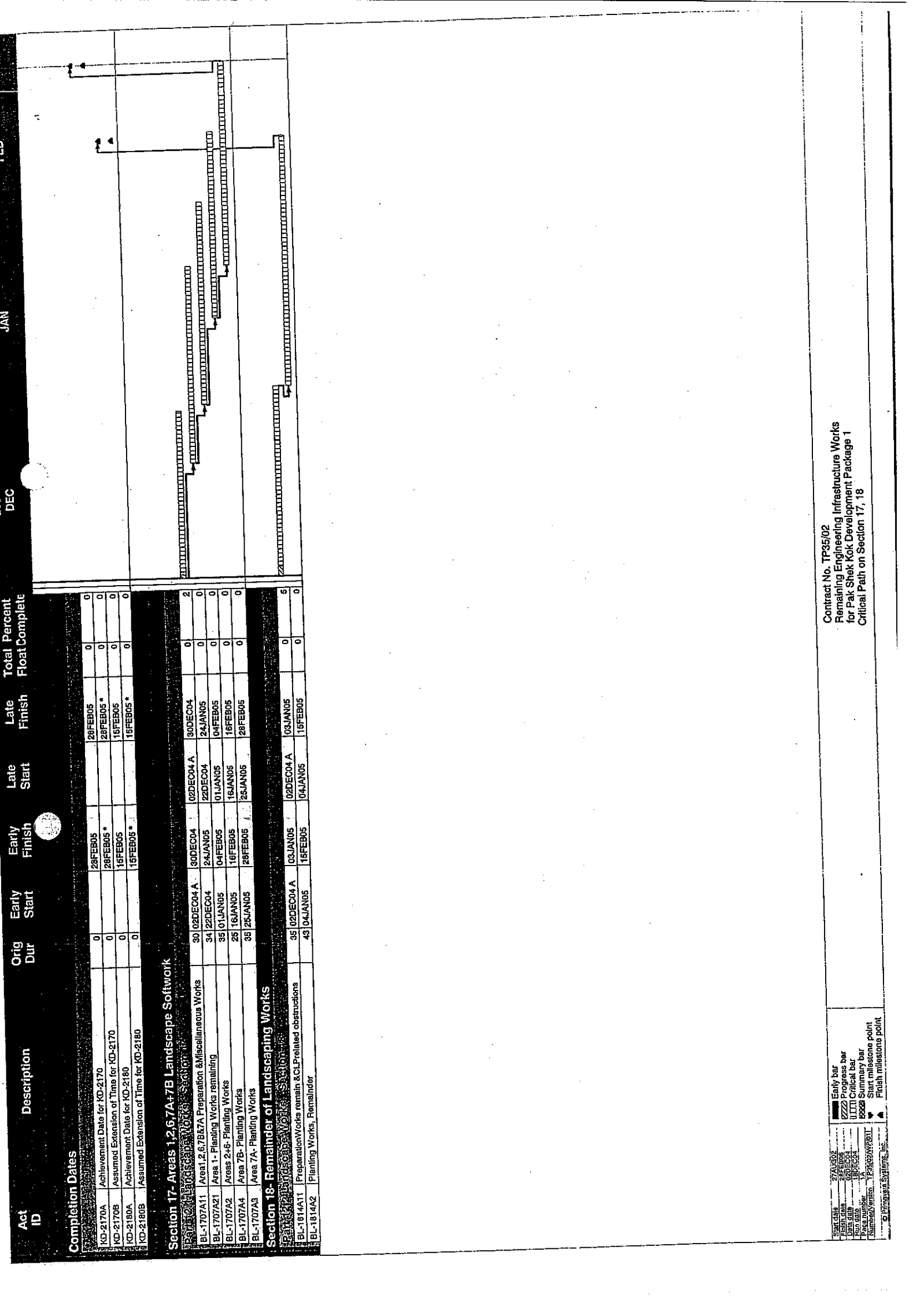
Completion Dates

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent	Float Complete
KD-2030A	Achievement Date for KD-2030	0	28FEB05	28FEB05	28FEB05	28FEB05	0	0
KD-2030B	Assumed Ex. of Time for Section 3	0	28FEB05*	28FEB05*	28FEB05*	28FEB05*	0	0
<b>Section 3-Works in Areas 3,4+5, except Sec.4+LS&amp;EW</b>								
B5-0325C23	Footpath at Area C under bridge	12	17FEB05	28FEB05	17FEB05	28FEB05	0	0
B7-032050	Abutment Wall, Rest - East Abutment	7	28JAN05	03FEB05	28JAN05	03FEB05	0	0
B7-032060	Drainage & Backfill - East Abutment	15	02FEB05	23FEB05	02FEB05	23FEB05	0	0
B7-034050	Rebar installation for bridge deck & webwalls	20	17NOV04 A	09DEC04	17NOV04 A	09DEC04	0	90
B7-034060	Installation of tendon ducts & grout vents	8	04DEC04	11DEC04	04DEC04	11DEC04	0	0
B7-034070	Inspection and approval of tendon profile	1	12DEC04	12DEC04	12DEC04	12DEC04	0	0
B7-034160	Formworking installation at webs	7	12DEC04	18DEC04	12DEC04	18DEC04	0	0
B7-034090	Formworking installation at webs	1	19DEC04	19DEC04	19DEC04	19DEC04	0	0
B7-034110	Concreting of tendon ducts	12	20DEC04	31DEC04	20DEC04	31DEC04	0	0
B7-034130	Rebar and formworking of top slab	10	01JAN05	11JAN05	01JAN05	11JAN05	0	0
B7-034080	Concreting of tendon ducts	1	02JAN05	02JAN05	02JAN05	02JAN05	0	0
B7-034140	Strands threading to tendon ducts	1	12JAN05	12JAN05	12JAN05	12JAN05	0	0
B7-034150	Concreting of top slab	7	13JAN05	19JAN05	13JAN05	19JAN05	0	0
B7-034160	Curing	0	20JAN05	20JAN05	20JAN05	20JAN05	0	0
B7-034170	Start Prestressing	7	20JAN05	26JAN05	20JAN05	26JAN05	0	0
B7-034180	Post-tensioning of Bridge Deck	7	20JAN05	26JAN05	20JAN05	26JAN05	0	0
B7-034190	Grouting	1	27JAN05	27JAN05	27JAN05	27JAN05	0	0
B7-034200	Anchorage backfilling	1	17FEB05	23FEB05	17FEB05	23FEB05	0	0
B7-034210	Falsework dismantling	7	17FEB05	23FEB05	17FEB05	23FEB05	0	0
B7-036030	Road & Drainage Works	10	17FEB05	26FEB05	17FEB05	26FEB05	0	0
B7-036050	Footway, Cycle Track, Paving	10	19FEB05	28FEB05	19FEB05	28FEB05	0	0
B7-036060	Roadwork Furnitures & Miscellaneous	8	21FEB05	28FEB05	21FEB05	28FEB05	0	0
B7-036040	Wearing Course	3	26FEB05	28FEB05	26FEB05	28FEB05	0	0
B7-037020	Demolition for Connection & Excavation	14	20JAN05	02FEB05	20JAN05	02FEB05	0	0
B7-037030	Modification Works	20	27JAN05	22FEB05	27JAN05	22FEB05	0	0
B7-037040	Drainage Works & Movement Joints	14	13FEB05	26FEB05	13FEB05	26FEB05	0	0
B7-037050	E&M Works & Finishing	14	15FEB05	28FEB05	15FEB05	28FEB05	0	0

Contract No. TP95/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 Critical Path on Section 3

Start date 27AUG02  
 Finish date 28FEB06  
 Data date 09DEC04  
 Run date 10DEC04  
 File name/revision TP95/02/WP/011  
 © Primavera Systems, Inc.

Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete	Float Complete
<b>Completion Dates</b>								
KD-2170A	Achievement Date for KD-2170	0	28FEB05	28FEB05	28FEB05	28FEB05	0	0
KD-2170B	Assumed Extension of Time for KD-2170	0	28FEB05 *	28FEB05 *	28FEB05 *	28FEB05 *	0	0
KD-2180A	Achievement Date for KD-2180	0	15FEB05	15FEB05	15FEB05	15FEB05	0	0
KD-2180B	Assumed Extension of Time for KD-2180	0	15FEB05 *	15FEB05 *	15FEB05 *	15FEB05 *	0	0
<b>Section 17- Areas 1, 2, 6, 7A+7B Landscape Softwork</b>								
BL-1707A11	Area 1, 2, 6, 7A+7B Preparation & Miscellaneous Works	30	02DEC04 A	30DEC04	02DEC04 A	30DEC04	0	2
BL-1707A21	Area 1 - Planting Works remaining	34	22DEC04	24JAN05	22DEC04	24JAN05	0	0
BL-1707A2	Area 2-6- Planting Works	35	01JAN05	04FEB05	01JAN05	04FEB05	0	0
BL-1707A4	Area 7B- Planting Works	25	16JAN05	16FEB05	16JAN05	16FEB05	0	0
BL-1707A3	Area 7A- Planting Works	35	25JAN05	28FEB05	25JAN05	28FEB05	0	0
<b>Section 18- Remainder of Landscaping Works</b>								
BL-1814A11	Preparation Works remain & C/P-related obstructions	35	02DEC04 A	03JAN05	02DEC04 A	03JAN05	0	5
BL-1814A2	Planting Works, Remainder	43	04JAN05	15FEB05	04JAN05	15FEB05	0	0

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development, Package 1  
 Critical Path on Section 17, 18

Start date: 27AUG02  
 Finish date: 02DEC04  
 Plan date: 02DEC04  
 Page number: 1A  
 Number/version: TP35/02/1P001

■ Early bar  
 ▨▨▨ Progress bar  
 U LTTT Critical bar  
 ■ Summary bar  
 ■ Start milestone point  
 ▲ Finish milestone point

© Primavera Systems, Inc.

KD-1000	Contract Duration	1282 *	27AUG02 A	28FEB06	27AUG02 A	28FEB06	0	55	
KD-1010	Contract Award & Commencement	0	27AUG02 A		27AUG02 A			100	

**Completion Dates**

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete	Float
KD-2212	Land Strip @ E of SRE Office/N of School Site	0	14NOV02 A		14NOV02 A		100	
KD-2212A	Achievement Date of KD-2212	0	14NOV02 A		14NOV02 A		100	
KD-2080	Section 8- Works in Area 10B	0	06DEC02 A		06DEC02 A		100	
KD-2080A	Achievement Date of KD-2080	0	06DEC02 A		06DEC02 A		100	
KD-2140	Section 14- Work In Area 14	0	07APR03 A		07APR03 A		100	
KD-2140A	Achievement Date of KD-2140	0	07APR03 A		07APR03 A		100	
KD-2213	Land Strip around Housing Site 1	0	15MAY03 A		15MAY03 A		100	
KD-2213A	Achievement Date of KD-2213	0	15MAY03 A		15MAY03 A		100	
KD-2090	Section 9- Works in Area 5	0	23JUL03 A		23JUL03 A		100	
KD-2090B	Assumed Ext. of Time for Section 9- Works in Area 5	0	23JUL03 A		23JUL03 A		100	
KD-2090A	Achievement Date for KD-2090	0	23JUL03 A		23JUL03 A		100	
KD-2070	Sec.7-Area 8A, not Rd. work/Area 10A, not Sec.10&11	0	09AUG03 A		09AUG03 A		100	
KD-2070A	Achievement Date for KD-2070	0	09AUG03 A		09AUG03 A		100	
KD-2211	Land Strip South of Area 8A	0	09AUG03 A		09AUG03 A		100	
KD-2211A	Achievement Date for KD-2211	0	09AUG03 A		09AUG03 A		100	
KD-2110	Sec.11- Area10A Pipe Culvert 10A, Earthwork+Works	0	10NOV03 A		10NOV03 A		100	
KD-2110A	Achievement Date for KD-2110	0	10NOV03 A		10NOV03 A		100	
KD-2214	Land Strip around Housing Sites 2 & 3	0	18NOV03 A		18NOV03 A		100	
KD-2214A	Achievement Date for KD-2214	0	18NOV03 A		18NOV03 A		100	
KD-2010	Section 1- Works in Area 1, except LS & EW	0	09MAR04 A		09MAR04 A		100	
KD-2010A	Achievement Date for KD-2010	0	09MAR04 A		09MAR04 A		100	
KD-2010B	Assumed Extension of Time for Area 1	0	09MAR04 A		09MAR04 A		100	
KD-2100	Sec.10-Area 9A+9B/Area 8A&10A Roadwork, not	0	29MAY04 A		29MAY04 A		100	
KD-2100A	Achievement Date for KD-2100	0	29MAY04 A		29MAY04 A		100	
KD-2100B	Assumed Extension of Time for Section 10	0	29MAY04 A		29MAY04 A		100	
KD-2060	Section 6- Works in Area 7B, except LS & EW	0	31MAY04 A		31MAY04 A		100	
KD-2060A	Achievement Date for KD-2060 (affected by corr. pipe)	0	30APR04 A		30APR04 A		100	
KD-2060B	Assumed Extension of Time for Area 7B	0	31MAY04 A		31MAY04 A		100	
KD-2060C	Subst. Completion of Area 7B not affected by corr. pipe	0	31MAY04 A		31MAY04 A		100	
KD-2050	Section 2- Works Area 2, except LS & EW	0	17MAR04 A		17MAR04 A		100	
KD-2050A	Achievement Date for KD-2050	0	17MAR04 A		17MAR04 A		100	
KD-2050B	Assumed Extension of Time for Area 2	0	17MAR04 A		17MAR04 A		100	
KD-2040	Section 4- Waterworks in Areas 3, 4 & 6	0	01DEC04 *		17MAR04 A		0	
KD-2040A	Achievement Date for KD-2040	0	23DEC04 *		28MAY04 *		-189d	
KD-2040B	Assumed Extension of Time for KD-2040	0	23DEC04 *		23DEC04 *		0	
KD-2150	Section 15- Waterworks in Area 15	0	01DEC04 *		14JUL04 *		0	
KD-2150A	Achievement Date for KD-2150	0	04DEC04 A		04DEC04 A		-140d	
KD-2150B	Assumed Extension of Time for KD-2150	0	04DEC04 A		04DEC04 A		0	
KD-2150B10	Achievement Date for KD-2150 (not affected by VO/073)	0	04DEC04 A		04DEC04 A		100	
KD-2050	Section 5- Work in Area 7A, except P. Sin. 1, LS&EW	0	01DEC04 *		16SEP04 *		0	
KD-2050A	Achievement Date for KD-2050	0	16OCT04 A		16OCT04 A		-76d	
KD-2050B	Assumed Ext. of Time for Section 5	0	16OCT04 A		16OCT04 A		100	
KD-2030	Section 3- Works in Areas 3,4+6, except Sec 4+LS&EW	0	04FEB05 *		04FEB05 *		0	
KD-2030A	Achievement Date for KD-2030	0	28FEB05		28FEB05		0	
KD-2030B	Assumed Ext. of Time for Section 3	0	28FEB05 *		28FEB05 *		0	

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point

Start date: 27AUG02  
 Finish date: 28FEB06  
 Data date: 02DEC04  
 Run date: 17AUG04  
 Page number: 1A  
 Number/Version: P-35/02/MP/01  
 S. Primavera Systems, Inc.

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WAJ	WL
07JUL04	No.10 Revision G1	WAJ	WL
04OCT04	No.11 Revision H	WAJ	WL
17DEC04	No.12 Revision I	WAJ	WL

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete	2004			Checked	Approved					
									SEP	OCT	NOV			DEC	JAN	FEB	MAR	APR
Section 12- Works of Sewage Pumping Station No.1	Achievement Date for KD-2120	0	18NOV04*	0			-13d	0						01JUN04	Revision G	WJ		
Section 13- Works of Sewage Pumping Station No.2	Achievement Date for KD-2130	0	30APR05	0			-15d	0						07JUL04	Revision G1	WJ		
Section 16- Remainder of Works, except LS+EW	Achievement Date for KD-2160	0	01DEC04*	0			-38d	0						04OCT04	Revision H	WJ		
Section 17-Areas 1,2,6,7A+7B Landscaping Softwork	Achievement Date for KD-2170	0	07JAN05*	0				0						17DEC04	Revision I	WJ		
Section 18- Remainder of Landscaping Softworks	Achievement Date for KD-2180	0	01DEC04*	0			-38d	0										
Section 19- Areas 1,2,6,7A+7B	Achievement Date for KD-2190	0	28FEB06*	0				0										
Section 20- Remainder of Establishment Works	Achievement Date for KD-2200	0	15FEB06*	0				0										
Section 20- Remainder of Establishment Works	Achievement Date for KD-2200	0	15FEB06*	0				0										
<b>+ Phased Possession of Site</b>																		
		318	27AUG02 A	24SEP03 A	27AUG02 A	24SEP03 A		100										
<b>+ Utilities Milestone Dates</b>																		
		22	01DEC04	23DEC04	01DEC04	23DEC04		0										
<b>+ Submission &amp; Approval</b>																		
		563	27AUG02 A	26JUL04 A	27AUG02 A	26JUL04 A		100										
<b>+ Preliminaries &amp; Procurement</b>																		
		676	27AUG02 A	13DEC04	27AUG02 A	11APR05	102d	100										
<b>+ Cycle Track Traffic Management</b>																		
		522	14SEP02 A	26JUN04 A	14SEP02 A	26JUN04 A		100										
<b>+ Temporary Traffic Arrangement</b>																		
		555	28AUG02 A	05MAR04 A	28AUG02 A	05MAR04 A		100										
<b>+ Temporary Diversion of Exi. Utilities &amp; Drainage</b>																		
		455	26NOV02 A	24FEB04 A	26NOV02 A	24FEB04 A		100										
<b>Part 1: Preliminaries</b>																		
B1-0101D1	Erect Contractor's Temporary Site Offices	21	27AUG02 A	16SEP02 A	27AUG02 A	16SEP02 A		100										
B1-0101H0	Third Party Insurance	1	27AUG02 A	27AUG02 A	27AUG02 A	27AUG02 A		100										
B1-0102G1	Install computer facilities for Engineer Initial	2	27AUG02 A	28AUG02 A	27AUG02 A	28AUG02 A		100										
B1-0103D1	Provide Mobile Phones, 4nr	7	27AUG02 A	02SEP02 A	27AUG02 A	02SEP02 A		100										
B1-0103L0	Take over ex.W.Washing Facilities at Zone A	1	27AUG02 A	27AUG02 A	27AUG02 A	27AUG02 A		100										
B1-0107C0	Prepare & Submit Waste Management Plan	7	27AUG02 A	02SEP02 A	27AUG02 A	02SEP02 A		100										
B1-0108L6	Maintain W.Washing Facilities, Existing @Zone A	773	28AUG02 A	28MAR03 A	28AUG02 A	28MAR03 A		100										
B1-0101D2	Servicing Contractor's Temp. Site Offices	100	03SEP02 A	18DEC02 A	03SEP02 A	18DEC02 A		100										
B1-0108E0	Record Photographs	14	03SEP02 A	16SEP02 A	03SEP02 A	16SEP02 A		100										

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WJ	WL
07JUL04	No.10 Revision G1	WJ	WL
04OCT04	No.11 Revision H	WJ	WL
17DEC04	No.12 Revision I	WJ	WL

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REVISED WORKS PROGRAMME 1**

Start date	27 AUG02
Finish date	28 FEB06
Data date	03 DEC04
Run date	29 DEC04
Page number	2
Drawn by	TS/2024/EV201
Checked by	TS/2024/EV201
Scale	As shown
Author	Engineering Systems, Inc.

Act ID	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete	Description	2004	2005	2006
B1-0103E1	1020	03SEP02 A	305	03SEP02 A	28FEB06	280d	81	Operator/ maintain Mobile Phones, 4nr	Operator/ maintain Mobile Phones, 4nr		
B1-0107D0	1080	03SEP02 A	06AUG05	03SEP02 A	28FEB06	206d	77	Update Waste Management Plan	Update Waste Management Plan		
B1-0107E0	1080	03SEP02 A	06AUG05	03SEP02 A	28FEB06	206d	77	Implement & Monitor Waste Management Plan	Implement & Monitor Waste Management Plan		
B1-0102A0	5	05SEP02 A	09SEP02 A	05SEP02 A	09SEP02 A	100	100	Provide 4-wheel drive vehicle, 2 nr			
B1-0102B0	1001	05SEP02 A	30MAY05	05SEP02 A	20NOV05	174d	82	Operate & maintain 4-wheel drive vehicle, 2 nr	Operate & maintain 4-wheel drive vehicle, 2 nr		
B1-0108B01	30	05SEP02 A	15OCT02 A	05SEP02 A	15OCT02 A	100	100	Site Clearance-Zones A,B2,C,D,E,F,J,L,N2,Q&S1			
B1-0101F1	14	10SEP02 A	23SEP02 A	10SEP02 A	23SEP02 A	100	100	Provide measures-Traffic flow maint. S1/ZoneF,B2			
B1-0101F3	14	10SEP02 A	23SEP02 A	10SEP02 A	23SEP02 A	100	100	Provide measures- Traffic flow maint. S5/ Zone F			
B1-0101G0	1140	10SEP02 A	28OCT05	10SEP02 A	28FEB06	123d	71	Maintain/remove measures for traffic flow			
B1-0103H3	15	26SEP02 A	10OCT02 A	26SEP02 A	10OCT02 A	100	100	Construct W.Washing Facilities, WB3 at Zone N2			
B1-0108E02	2	27SEP02 A	28SEP02 A	27SEP02 A	28SEP02 A	100	100	Site Clearance- Zones R & S1			
B1-0102D0	900	01OCT02 A	19MAY05	01OCT02 A	12AUG05	146d	88	Progress Photographs, 30nr	Progress Photographs, 30nr		
B1-0106J0	180	05OCT02 A	17OCT02 A	05OCT02 A	17OCT02 A	100	100	Provide Baseline Air Monitoring			
B1-0108B15	1080	05OCT02 A	15MAY04	05OCT02 A	15MAY04	100	100	General Site Clearance			
B1-0101E4	2	09OCT02 A	10OCT02 A	09OCT02 A	10OCT02 A	100	100	T/O measures-Traffic flow maintenance, Zone S1			
B1-0106N0	1118	09OCT02 A	02DEC04 A	09OCT02 A	02DEC04 A	100	100	Maintain Noise Monitoring	Maintain Noise Monitoring		
B1-0103J3	700	11OCT02 A	30APR04 A	11OCT02 A	30APR04 A	100	100	Maintain W.Washing Facilities, WB3 at Zone N2			
B1-0108K0	1104	16OCT02 A	02DEC04 A	16OCT02 A	02DEC04 A	100	100	Maintain Air Monitoring	Maintain Air Monitoring		
B1-0106M0	60	01NOV02 A	28NOV02 A	01NOV02 A	28NOV02 A	100	100	Provide Baseline Noise Monitoring			
B1-0101D4	60	14NOV02 A	01DEC02 A	14NOV02 A	01DEC02 A	100	100	Erect Contractor's Site Accommodation			
B1-0101A0	21	14NOV02 A	14NOV02 A	14NOV02 A	14NOV02 A	100	100	Erect Engineer's Site Accommodation			
B1-0104E0	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100	100	Concrete Paving to Engineer's Site Accommodation			
B1-0108C1	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100	100	Erect Temporary Gate, 6mWx1.8mH at Zone A			
B1-0103C2	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100	100	Erect Temporary Gate, 6mWx1.8mH at Zone Q			
B1-0103C3	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100	100	Erect Temporary Gate, 6mWx1.8mH at SRE Office			
B1-0103D2	7	26NOV02 A	02DEC02 A	26NOV02 A	02DEC02 A	100	100	Provide Mobile Phones, 3nr			
B1-0107K0	1	26NOV02 A	26NOV02 A	26NOV02 A	26NOV02 A	100	100	Take over Ex-Cyclist/Ped.Bridge at Zone H			
B1-0108B03	2	26NOV02 A	27NOV02 A	26NOV02 A	27NOV02 A	100	100	Site Clearance- Zone B1			
B1-0107L0	392	27NOV02 A	07JUN04 A	27NOV02 A	07JUN04 A	100	100	Maintain Ex-Cyclist/Ped. Bridge at Zone H	100	100	100
B1-0103E2	1020	08DEC02 A	20SEP04 A	08DEC02 A	20SEP04 A	100	100	Operator/ maintain Mobile Phones, 3nr	Operator/ maintain Mobile Phones, 3nr		
B1-0101D3	1045	16DEC02 A	20SEP04 A	16DEC02 A	20SEP04 A	100	100	Demolish Contractor's Temp. Site Offices			
B1-0101D5	1037	25DEC02 A	20SEP04 A	25DEC02 A	20SEP04 A	100	100	Service Contractor's Site Accommodation			
B1-0101B0	14	26DEC02 A	26SEP03 A	26DEC02 A	26SEP03 A	100	100	Service Engineer's Site Accommodation			
B1-0101E1	45	30DEC02 A	25JAN03 A	30DEC02 A	25JAN03 A	100	100	T/O measures-Traffic flow maintenance, Rest			
B1-0102C2	14	26DEC02 A	27DEC02 A	26DEC02 A	27DEC02 A	100	100	T/O measures-Traffic flow maintenance, Zone P			
B1-0101F7	14	15JAN03 A	21JAN03 A	15JAN03 A	21JAN03 A	100	100	Install computer facilities for Engineer			
B1-0101E2	24	24JAN03 A	25JAN03 A	24JAN03 A	25JAN03 A	100	100	Provide measures- Traffic flow maint. S16/Zone P			
B1-0101F2	14	27JAN03 A	01APR03 A	27JAN03 A	01APR03 A	100	100	T/O measures-Traffic flow maintenance, Zone G			
B1-0101F4	14	27JAN03 A	08APR03 A	27JAN03 A	08APR03 A	100	100	Provide measures- Traffic flow maint. S16/Zone G			
B1-0108B06	5	07MAR03 A	26APR03 A	07MAR03 A	26APR03 A	100	100	Site Clearance- Zone S3 & J Rest			
B1-0108B04	5	20MAR03 A	30APR03 A	20MAR03 A	30APR03 A	100	100	Site Clearance- Zone P			
B1-0108B05	3	20MAR03 A	30MAR03 A	20MAR03 A	30MAR03 A	100	100	Site Clearance- Zone G			
B1-0101E5	2	27MAR03 A	28MAR03 A	27MAR03 A	28MAR03 A	100	100	T/O measures-Traffic flow maintenance, Zone S3			
B1-0103K6	15	28MAR03 A	14APR03 A	28MAR03 A	14APR03 A	100	100	Remove W.Washing Facilities, Existing @ Zone A			
B1-0101F5	6	05APR03 A	11APR03 A	05APR03 A	11APR03 A	100	100	Provide measures- Traffic flow maint. S16/ZoneS3			
B1-0108B07	15	07APR03 A	27APR03 A	07APR03 A	27APR03 A	100	100	Site Clearance- Zones N1 & T			
B1-0103J5	30	11APR03 A	26APR03 A	11APR03 A	26APR03 A	100	100	Construct W.Washing Facilities, WB5 at Zone A			
B1-0103B3	21	26APR03 A	23MAY03 A	26APR03 A	23MAY03 A	100	100	Erect Barricade at Zone L			
B1-0103J5	480	28APR03 A	31MAY04 A	28APR03 A	31MAY04 A	100	100	Erect Signboard, 1nr at SRE Site Office			
B1-0103K5	15	29APR03 A	09MAY03 A	29APR03 A	09MAY03 A	100	100	Maintain W.Washing Facilities, WB5 at Zone A			
B1-0107H0	1	20MAY03 A	20MAY03 A	20MAY03 A	20MAY03 A	100	100	Remove W.Washing Facilities, WB5 at Zone A			
B1-0107I0	320	21MAY03 A	26JUN04 A	21MAY03 A	26JUN04 A	100	100	Take over Ex-Cyclist/Pedestrian Bridge@N.RoundA			
B1-0107J0	320	21MAY03 A	26JUN04 A	21MAY03 A	26JUN04 A	100	100	Maintain Ex-Cyclist/Pedestrian Bridge@N.RoundA			

Revision	Date	Checked	Approved
No.9 Revision G	01JUN04	WAJ	WL
No.10 Revision G1	07JUL04	WAJ	WL
No.11 Revision H	04OCT04	WAJ	WL
No.12 Revision I	17DEC04	WAJ	WL

Contract No. TP-95/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Start date: 27AUG02  
 Finish date: 28FEB06  
 Issue date: 16DEC04  
 Page number: 3A  
 Number/Revision: TP-95/02/WP/011  
 © Primavera Systems, Inc.  
 Legend:  
 ■ Early bar  
 ■ Progress bar  
 ■ Critical bar  
 ■ Summary bar  
 ■ Start milestone point  
 ■ Finish milestone point



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete																																
B1-0103AC	Erect Hearing Wall, Culvert C10 & S.P. Phase 1 Site	25	26MAY03 A	19JUN03 A	26MAY03 A	19JUN03 A	100																																	
B1-0108B09	Site Clearance - Zone H	6	28MAY03 A	02JUN03 A	28MAY03 A	02JUN03 A	100																																	
B1-0103B2	Erect Signboards, Int at Zone Q	21	19JUN03 A	17SEP03 A	19JUN03 A	17SEP03 A	100																																	
B1-0108B10	Site Clearance - Zone S2	3	25JUL03 A	25JUL03 A	25JUL03 A	25JUL03 A	100																																	
B1-0101F6	Provide measures - Traffic flow maint. S16/Zone H	14	26JUL03 A	08AUG03 A	26JUL03 A	08AUG03 A	100																																	
B1-0103I2	Construct W.Washing Facilities, WB2 at Zone Q	15	26JUL03 A	09AUG03 A	26JUL03 A	09AUG03 A	100																																	
B1-0103I4	Construct W.Washing Facilities, WB4 at Zone L	15	26JUL03 A	28JUL03 A	14AUG03 A	14AUG03 A	100																																	
B1-0103J2	Maintain W.Washing Facilities, WB2 at Zone Q	424	10AUG03 A	31MAR04 A	10AUG03 A	31MAR04 A	100																																	
B1-0103K2	Remove W.Washing Facilities, WB2 at Zone Q	15	11AUG03 A	11AUG03 A	11AUG03 A	11AUG03 A	100																																	
B1-0103L4	Maintain W.Washing Facilities, WB4 at Zone L	424	15AUG03 A	22NOV04 A	15AUG03 A	22NOV04 A	100																																	
B1-0108B11	Site Clearance - Zone M	2	26AUG03 A	29SEP03 A	26AUG03 A	29SEP03 A	100																																	
B1-0108B08	Site Clearance - Zone B3	2	10SEP03 A	20NOV03 A	10SEP03 A	20NOV03 A	100																																	
B1-0108B13	Site Clearance - Zone N3	5	15OCT03 A	28NOV03 A	15OCT03 A	28NOV03 A	100																																	
B1-0108B12	Site Clearance - Zone K	3	10DEC03 A	12DEC03 A	10DEC03 A	12DEC03 A	100																																	
B1-0103B1	Erect Signboards, Int at Zone A	21	16DEC03 A	25DEC03 A	16DEC03 A	25DEC03 A	100																																	
B1-0107J20	Temporary Cyclist at Zone H	5	02MAR04 A	02MAR04 A	02MAR04 A	02MAR04 A	100																																	
B1-0103K3	Remove W.Washing Facilities, WB3 at Zone N2	15	26MAY04 A	09JUN04 A	26MAY04 A	09JUN04 A	100																																	
B1-0107M10	Preparation Works for Zone H Cycle tr. demolition	7	01JUN04 A	07JUN04 A	01JUN04 A	07JUN04 A	100																																	
B1-0107N0	Remove Ex-Cyclist/Ped. Bridge at Zone H	14	08JUN04 A	21JUN04 A	08JUN04 A	21JUN04 A	100																																	
B1-0107J30	Preparation Works prior to diversion	12	11JUN04 A	11JUN04 A	11JUN04 A	11JUN04 A	100																																	
B1-0107L60	Removal of existing cycle track along 7A	100	25JUN04 A	04JUL04 A	25JUN04 A	04JUL04 A	100																																	
B1-0107J0	Remove Ex-Cyclist/Pedestrian Bridge@N.RoundA	45	28JUN04 A	16SEP04 A	28JUN04 A	16SEP04 A	100																																	
B1-0107L50	Roadworks Handover of Section 1, 2 & 6	0	26AUG04 A	26AUG04 A	26AUG04 A	26AUG04 A	100																																	
B1-0101B10	Service Engineer's Site Accommodation remaining	35	20SEP04 A	24OCT04 A	20SEP04 A	24OCT04 A	100																																	
B1-0101D15	Service Engineer's Site Accommodation remaining	131	20SEP04 A	30JAN05	20SEP04 A	29JAN05	364d																																	
B1-0103E12	Operate/maintain Mobile Phones, 3nr remaining	181	20SEP04 A	30JAN05	20SEP04 A	28FEB05	394d																																	
B1-0103K4	Remove W.Washing Facilities, WB4 at Zone L	15	22NOV04 A	22NOV04 A	22NOV04 A	22NOV04 A	100																																	
B1-0101C0	Hand over Engineer's Site Accommodation	30	02DEC04 A	31DEC04 A	30JAN05	28FEB05	424d																																	
B1-0106K10	Maintain Air Monitoring remaining	152	02DEC04 A	29APR05	02DEC04 A	21FEB05	299d																																	
B1-0106N10	Maintain Noise Monitoring remaining	150	02DEC04 A	23APR05	02DEC04 A	28FEB05	311d																																	
B1-0108Z0	Reinstatement at end of Contract	35	02DEC04 A	05JAN05	04DEC04 A	07JAN05	2d																																	
B1-0101D6	Demolish Contractor's Site Accommodation	30	31JAN05	01MAR05	30JAN05	28FEB05	364d																																	
B1-0106G0	Remove Noise Monitoring Measures	7	17APR05	23APR05	17APR05	28FEB05	311d																																	
B1-0106L0	Remove Air Monitoring Measures	7	30APR05	06MAY05	22FEB05	28FEB05	299d																																	
<b>+Part 1.2 Preliminaries - Site Accom. (HY/98/02)</b>																																								
		179	02JAN03 A	25JUN03 A	02JAN03 A	29JUN03 A	100																																	
<b>+Section 1- Works in Area 1, except LS &amp; EIW</b>																																								
		522	04OCT02 A	26JUL04 A	04OCT02 A	26JUL04 A	100																																	
<b>+Section 2- Works in Area 2, except LS &amp; EIW</b>																																								
		699	08NOV02 A	02DEC04 A	08NOV02 A	02DEC04 A	100																																	
<b>Section 3- Works in Areas 3, 4 &amp; 6, except Sec. 4+LS&amp;EW</b>																																								
<b>Part 2.2 Site Accom. Section</b>																																								
B2-0300B0	Site Clearance - Section 3, Areas 3, 4 & 6	75	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100																																	
B2-0302A0	Remove disused UPVC duct	60	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100																																	
B2-0302B0	Remove disused concrete pipe	30	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100																																	
<b>Part 3.0 Earthworks Section</b>																																								
B3-0300C0	Earthworks - Section 3, Areas 3, 4 & 6	278	21OCT02 A	02AUG03 A	21OCT02 A	02AUG03 A	100																																	
B3-0309F1	S2, Preloading Mound Formation, Zone G&J, Phase 4Ba	5	10OCT02 A	05NOV02 A	21OCT02 A	05NOV02 A	100																																	
B3-0309F1A	S2, Preloading Mound Formation, Zone G&J, Phase 4Bb	4	05DEC02 A	15JUL03 A	05DEC02 A	15JUL03 A	100																																	
B3-0309F2	S5, Preloading Mound Formation, Zone G, Phase 9A	7	05DEC02 A	31JUL03 A	05DEC02 A	31JUL03 A	100																																	
B3-0309G1	S2, Temp. RE Wall, Zone G, Phase 4B	7	28JAN03 A	15JUL03 A	28JAN03 A	15JUL03 A	100																																	
B3-0308C0	Subsurface Settlement Marker, 2nr	3	27FEB03 A	01MAR03 A	27FEB03 A	01MAR03 A	100																																	
<table border="1"> <thead> <tr> <th>Start date</th> <th>27AUG02</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>Finish date</td> <td>28FEB06</td> <td>WAJ</td> <td>WAJ</td> </tr> <tr> <td>Data date</td> <td>02DEC04</td> <td>WAJ</td> <td>WAJ</td> </tr> <tr> <td>Run date</td> <td>19DEC04</td> <td>WAJ</td> <td>WAJ</td> </tr> <tr> <td>Page number</td> <td>0003 Summary bar</td> <td>WAJ</td> <td>WAJ</td> </tr> <tr> <td>Number/Revision</td> <td>75/02/02/01</td> <td>WAJ</td> <td>WAJ</td> </tr> <tr> <td></td> <td>Start milestone point</td> <td>WAJ</td> <td>WAJ</td> </tr> <tr> <td></td> <td>Finish milestone point</td> <td>WAJ</td> <td>WAJ</td> </tr> </tbody> </table>									Start date	27AUG02	Checked	Approved	Finish date	28FEB06	WAJ	WAJ	Data date	02DEC04	WAJ	WAJ	Run date	19DEC04	WAJ	WAJ	Page number	0003 Summary bar	WAJ	WAJ	Number/Revision	75/02/02/01	WAJ	WAJ		Start milestone point	WAJ	WAJ		Finish milestone point	WAJ	WAJ
Start date	27AUG02	Checked	Approved																																					
Finish date	28FEB06	WAJ	WAJ																																					
Data date	02DEC04	WAJ	WAJ																																					
Run date	19DEC04	WAJ	WAJ																																					
Page number	0003 Summary bar	WAJ	WAJ																																					
Number/Revision	75/02/02/01	WAJ	WAJ																																					
	Start milestone point	WAJ	WAJ																																					
	Finish milestone point	WAJ	WAJ																																					
<p>Contract No. TP35/02          Remaining Engineering Infrastructure Works          for Pak Shek Kok Development Package 1  <b>REVISED WORKS PROGRAMME I</b></p>																																								

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete	2004	2005	2006
B5-0308B0	Establish rigs for G.I.	2	27FEB03 A	303 A	27FEB03 A	28FEB03 A	100				
B3-0308E0	Moving rigs, 2hr	8	01MAR03 A	08MAR03 A	01MAR03 A	08MAR03 A	100				
B3-0308F0	Ground Investigation, 2hr	8	01MAR03 A	08MAR03 A	01MAR03 A	08MAR03 A	100				
B3-0308A0	Vibrating wire piezometer, 3hr	18	04MAR03 A	21MAR03 A	04MAR03 A	21MAR03 A	100				
B3-0308B0	Fieldwork Reports	8	05MAR03 A	05MAR03 A	05MAR03 A	12MAR03 A	100				
B3-0308B0	Surface Settlement Marker, 2hr	3	26JUL03 A	02AUG03 A	26JUL03 A	02AUG03 A	100				
B3-0308B0	Earthworks - Sec.3, Areas 3, 4, & 6, after surcharge	502 *	16SEP03 A	13FEB05	16SEP03 A	18FEB05	87				
B3-030915	S2, Temp. REWall&Mound	7	16SEP03 A	26SEP03 A	16SEP03 A	26SEP03 A	100				
B3-030911	S2, Temp. REWall & Mound Removal,	9	03NOV03 A	10DEC03 A	03NOV03 A	10DEC03 A	100				
B3-030912	S5, Mound Removal, ZoneG, Phase 9A	7	20DEC03 A	23DEC03 A	20DEC03 A	23DEC03 A	100				
B3-0308M2	Deposition & Compaction, D1/Ch.780-920	10	28JAN05	13FEB05	02FEB05	18FEB05	5d				
<b>Section 3 - Utilities</b>											
B4-030001	Drainage & Sewerage - Section 3, Areas 3, 4, 6	457 *	01SEP03 A	08DEC04	01SEP03 A	08DEC04	0				
B4-0317C1	Clay pipe, L2/Ch.100-200	45	01SEP03 A	23DEC03 A	01SEP03 A	23DEC03 A	100				
B4-0317D1	P/c pipe, L2/Ch.100-200 (1st Phase)	20	23DEC03 A	11JAN04 A	23DEC03 A	11JAN04 A	100				
B4-0317D21	P/c pipe, L2/Ch.100-200 remaining	20	04FEB04 A	16MAY04 A	04FEB04 A	15MAY04 A	100				
B4-0317D11	P/c pipe, S504 connecting to 5 Cell Culvert	28	11FEB04 A	03MAR04 A	11FEB04 A	03MAR04 A	100				
B4-0317D31	P/c pipe, L2/Ch.100-200 Gully works west bound	7	30NOV04 A	08DEC04	30NOV04 A	08DEC04	0				
B4-0317C2	Clay pipe, D1/Ch.780-920	95	01SEP03 A	23DEC03 A	01SEP03 A	23DEC03 A	100				
B4-0317D2	P/c pipe, D1/Ch.780-920	25	16FEB04 A	19FEB04 A	16FEB04 A	19FEB04 A	100				
B4-0317D12	P/c pipe, D1/Ch.780-920 remaining	14	01SEP04 A	09SEP04 A	01SEP04 A	09SEP04 A	100				
B4-0317C4	Clay pipe, at Open Channel, F605-F609	70	27OCT03 A	06MAY04 A	27OCT03 A	06MAY04 A	100				
B4-0317C3	Clay pipe, F603-F606	50	28NOV03 A	08MAR04 A	28NOV03 A	08MAR04 A	100				
B4-0317C12	Clay Pipe, F602-F603	52	19DEC03 A	21FEB04 A	19DEC03 A	21FEB04 A	100				
B4-0317D32	Sewer Rising Main	28	23JUN04 A	29JUN04 A	23JUN04 A	29JUN04 A	100				
B4-030000	Outfall and Catchpit construction under KCRC	59	12JUL04 A	09SEP04 A	12JUL04 A	09SEP04 A	100				
B4-0321C0	Open Channel - Excavation Half Phase	320 *	17JUL03 A	08JUN04 A	17JUL03 A	08JUN04 A	100				
B4-0323B0	Open Channel - Formworks Half Phase	40	19AUG03 A	08SEP03 A	19AUG03 A	08SEP03 A	100				
B4-0324C0	Open Channel - Joint/filler/sealant, waterstop/HPhase	40	15SEP03 A	15SEP03 A	15SEP03 A	15SEP03 A	100				
B4-0324A0	Open Channel - Concrete Half Phase	40	12NOV03 A	12NOV03 A	12NOV03 A	12NOV03 A	100				
B4-0321C10	Open Channel - Excavation Full Phase	35	01MAR04 A	10MAR04 A	01MAR04 A	10MAR04 A	100				
B4-0323B10	Open Channel - Formworks Full Phase(Lower Part)	35	05MAR04 A	31MAR04 A	05MAR04 A	31MAR04 A	100				
B4-0324C10	Open Chan.-Jr. filler/sealant, waterstop/HPhase(LP)	35	06MAR04 A	31MAR04 A	06MAR04 A	31MAR04 A	100				
B4-0324A10	Open Channel - Concrete Full Phase(Lower Part)	35	08MAR04 A	31MAR04 A	08MAR04 A	31MAR04 A	100				
B4-0324A20	Open Channel - Backfilling Works Upper Portion	10	03MAY04 A	21MAY04 A	03MAY04 A	21MAY04 A	100				
B4-0324A30	Open Channel - Upper portion wing wall	25	22MAY04 A	08JUN04 A	22MAY04 A	08JUN04 A	100				
<b>Section 3 - Utilities</b>											
UT-030000	Utilities by Others, Section 3, Areas 3, 4, 6	328 *	01MAR04 A	22JAN05	01MAR04 A	29JAN05	7d				
UT-0300P11	Powers(CLP), cross road@L2Ch.120	9	08NOV04 A	16NOV04 A	08NOV04 A	16NOV04 A	100				
UT-0300P21	Powers(CLP), cross road@L2Ch.200	3	27NOV04 A	29NOV04 A	27NOV04 A	29NOV04 A	100				
UT-0300P1	Powers(11kV), L2/Ch.100-200	15	08DEC04	23DEC04	08DEC04	23DEC04	0				
UT-0300P2	Powers(132kV & 11kV), D1/Ch.780-920	28	01MAR04 A	08MAR04 A	01MAR04 A	08MAR04 A	100				
UT-0300T2A	PCCW, D1/Ch.780-920	25	08MAR04 A	09MAR04 A	08MAR04 A	09MAR04 A	100				
UT-0300T2B	HGC - New World, D1/Ch.780-920	35	08MAR04 A	09MAR04 A	08MAR04 A	09MAR04 A	100				
UT-0300G2	Gas Mains, D1/Ch.780-920	28	10MAR04 A	11MAR04 A	10MAR04 A	11MAR04 A	100				
UT-0300T1D	Gas Mains at Area 6 under bridge	15	13SEP04 A	20SEP04 A	13SEP04 A	20SEP04 A	100				
UT-0300G4	Gas Mains at Area 3	20	03JAN05	22JAN05	10JAN05	29JAN05	7d				
UT-0300G4B	Gas Main at Area 4 beside Open Channel	35	03MAY04 A	06MAY04 A	03MAY04 A	06MAY04 A	100				
UT-0300G4C	Gas Main at Area 4 remaining	10	24DEC04	02JAN05	26DEC04	04JAN05	2d				
<b>Section 3 - Roadworks</b>											
B5-030000	Roadworks - Section 3, Areas 3, 4, 6	228 *	08JUL04 A	28FEB05	09JUL04 A	28FEB05	0				
B5-0325C43	Flailing beside Open Channel	29	08JUL04 A	07AUG04 A	08JUL04 A	07AUG04 A	100				
B5-0325C13	Footpath, Area 4 beside Open Channel	30	09AUG04 A	20SEP04 A	09AUG04 A	20SEP04 A	100				
<b>Section 3 - Roadworks</b>											
Start date	27AUG05	Finish date	28FEB05	Start date	27AUG05	Finish date	28FEB05	Start date	27AUG05	Finish date	28FEB05
Early bar	████	Progress bar	████	Early bar	████	Progress bar	████	Early bar	████	Progress bar	████
Critical bar	████	Critical bar	████	Critical bar	████	Critical bar	████	Critical bar	████	Critical bar	████
Summary bar	████	Summary bar	████	Summary bar	████	Summary bar	████	Summary bar	████	Summary bar	████
Start milestone point	▲	Finish milestone point	▲	Start milestone point	▲	Finish milestone point	▲	Start milestone point	▲	Finish milestone point	▲
© Primavera Systems, Inc.											

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Checked	Approved
W/A	W/L
W/A	W/L
W/A	W/L
W/A	W/L

Revision	Date
No.9 Revision G	01JUN04
No.10 Revision G1	07JUL04
No.11 Revision H	04OCT04
No.12 Revision I	17DEC04

Utilities by Others, Section 3, Areas 3, 4, 6  
 Z Powers(CLP), cross road@L2Ch.120  
 P Powers(CLP), cross road@L2Ch.200  
 P Powers(11kV), L2/Ch.100-200  
 Z Gas Mains at Area 3  
 Z Gas Mains at Area 6 under bridge  
 Gas Mains at Area 4 remaining  
 Gas Main at Area 4 remaining  
 Roadworks - Section 3, Areas 3, 4, 6  
 Roadworks - Section 3, Areas 3, 4, 6  
 Footpath, Area 4 beside Open Channel

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete	Notes
B5-0325053	Footpath beside Open channel remaining	22	20SEP04	30SEP04	20SEP04	30SEP04	100	Je Open channel remaining
B5-0325053	Footpath at Area 4 remaining	15	03JAN05	19JAN05	05JAN05	19JAN05	2d	Footpath, Area 4
B5-0325053	Footpath, Area 3	21	18JAN05	17FEB05	20JAN05	16FEB05	2d	Footpath, Area 3
B5-0325052	Roadworks, D1/Ch.780-920	12	30JAN05	17FEB05	17FEB05	04FEB05	5d	Roadworks, D1/Ch.780-920
B5-0325052	Cycle track & Footpath, D1/Ch.780-920	15	13FEB05	27FEB05	16FEB05	02MAR05	3d	Cycle track & Footpath, D1/Ch.780-920
B5-0325052	Roadworks Furnitures & Miscellaneous	13	13FEB05	25FEB05	16FEB05	28FEB05	3d	Roadworks Furnitures & Miscellaneous
B5-0325052	Footpath at Area 6 under bridge	12	17FEB05	28FEB05	17FEB05	28FEB05	0	Footpath at Area 6 under bridge
<b>Part 2 - Piling</b>								
B7-030000	Road D1 Bridge Piling	549	03JAN03	20JUL04	03JAN03	20JUL04	100	Bridge Piling
B7-031010	Ground Investigation, 20 nos.	40	03JAN03	24JUN03	03JAN03	24JUN03	100	
B7-031030	Drainage Diversion affecting piling works	4	26JUN03	24APR04	24APR04	24APR04	100	piling works
B7-031040	Prepar. & Watermain laying affecting piling works	75	28AUG03	17JAN04	28AUG03	17JAN04	100	
B7-031020	Install Bored Piles, 2300cda, 10x	110	21OCT03	10MAR04	21OCT03	10MAR04	100	
B7-031025	Pile Testing	90	17JAN04	19APR04	17JAN04	19APR04	100	
B7-031050	Watermain Connection by WSD East abutment	30	09FEB04	24APR04	09FEB04	24APR04	100	WSD East abutment
B7-031070	Watermain diversion affecting west abutment	15	24APR04	28APR04	24APR04	28APR04	100	ing west abutment
B7-031035	Remedial works on AE1-1 bored pile	15	27APR04	11MAY04	27APR04	11MAY04	100	1 bored pile
B7-031045	Install Bored Piles, remaining AW1-4	20	29APR04	02JUN04	29APR04	02JUN04	100	remaining AW1-4
B7-031060	Watermain connection by WSD west abutment	32	26MAY04	12JUL04	26MAY04	12JUL04	100	connection by WSD west abutment
B7-031065	Install Bored Piles, remaining AW1-5	20	03JUN04	15JUN04	03JUN04	15JUN04	100	st, remaining AW1-5
B7-031055	Pile Testing, remaining 2 nos.	19	23JUN04	20JUL04	23JUN04	20JUL04	100	ing, remaining 2 nos.
<b>Part 3 - Road D1 Bridge East Abutment</b>								
B7-032000	Road D1 Bridge East Abutment	281	12MAY04	23FEB05	12MAY04	23FEB05	0	Road D1 Bridge East Abutment
B7-032010	Excavation East Abutment	27	12MAY04	19JUN04	12MAY04	19JUN04	100	Abutment
B7-032030	Abutment Cap East Abutment	25	17JUN04	20JUL04	17JUN04	20JUL04	100	Cap East Abutment
B7-032050	Watermain diversion pedestal works	9	21JUL04	29JUL04	21JUL04	29JUL04	100	main diversion pedestal works
B7-032040	Abutment Wall, Lower - East Abutment	21	30JUL04	25AUG04	30JUL04	25AUG04	100	Abutment Wall, Lower - East Abutment
B7-032080	Watermain diversion @ East Abutment	7	28AUG04	18SEP04	28AUG04	18SEP04	100	Watermain diversion @ East Abutment
B7-032100	East abutment wing wall construction	5	04SEP04	04SEP04	04SEP04	04SEP04	100	East abutment wing wall construction
B7-032120	Abutment Wall lower to existing	24	06SEP04	01NOV04	06SEP04	01NOV04	100	Abutment Wall lower to existing
B7-032070	Bearing East Abutment	15	10SEP04	11SEP04	10SEP04	11SEP04	100	Bearing East Abutment
B7-032130	Watermain Testing at East Abutment	15	20SEP04	14OCT04	20SEP04	14OCT04	100	Watermain Testing at East Abutment
B7-032110	WSD connection of diverted watermain	15	15OCT04	18OCT04	15OCT04	18OCT04	100	WSD connection of diverted watermain
B7-032050	Abutment Wall, Rest - East Abutment	7	28JAN05	03FEB05	28JAN05	03FEB05	0	Abutment Wall, Rest - East Abutment
B7-032060	Drainage & Backfill - East Abutment	15	02FEB05	23FEB05	02FEB05	23FEB05	0	Drainage & Backfill - East Abutment
<b>Part 4 - Road D1 Bridge West Abutment</b>								
B7-033000	Road D1 Bridge West Abutment	201	21JUL04	13FEB05	21JUL04	18FEB05	5d	Road D1 Bridge West Abutment
B7-033010	Excavation West Abutment	27	21JUL04	23AUG04	21JUL04	23AUG04	100	Excavation West Abutment
B7-033030	Abutment Cap West Abutment	25	24AUG04	13SEP04	24AUG04	13SEP04	100	Abutment Cap West Abutment
B7-033040	Abutment Wall, Lower - West Abutment	18	14SEP04	28SEP04	14SEP04	28SEP04	100	Abutment Wall, Lower - West Abutment
B7-033070	Bearing West Abutment	7	13OCT04	16OCT04	13OCT04	16OCT04	100	Bearing West Abutment
B7-033050	Abutment Wall, Rest - West Abutment	7	28JAN05	02FEB05	28JAN05	15FEB05	5d	Abutment Wall, Rest - West Abutment
B7-033060	Drainage & Backfill - West Abutment	7	31JAN05	13FEB05	05FEB05	18FEB05	5d	Drainage & Backfill - West Abutment
<b>Part 5 - Road D1 Bridge Superstructure</b>								
B7-034000	Road D1 Bridge Superstructure	229	03JUL04	23FEB05	03JUL04	23FEB05	0	Road D1 Bridge Superstructure
B7-034040	Working Platform Construction	24	03JUL04	22NOV04	03JUL04	22NOV04	100	Working Platform Construction
B7-034010	Start of Decking Works	0	17NOV04	17NOV04	17NOV04	03DEC04	0	Start of Decking Works
B7-034050	Rebar installation for bridgesoffit & webwalls	20	17NOV04	03DEC04	17NOV04	03DEC04	0	Rebar installation for bridgesoffit & webwalls
B7-034060	Installation of tendon ducts & grout vents	8	04DEC04	11DEC04	04DEC04	11DEC04	0	Installation of tendon ducts & grout vents
B7-034070	Inspection and approval of tendon profile	1	12DEC04	12DEC04	12DEC04	12DEC04	0	Inspection and approval of tendon profile
B7-034190	Formworking installation at webs	7	12DEC04	18DEC04	12DEC04	18DEC04	0	Formworking installation at webs
B7-034090	Concreting ofsoffit,sidewalls&internalwebwallbeclckers	1	19DEC04	19DEC04	19DEC04	19DEC04	0	Concreting ofsoffit,sidewalls&internalwebwallbeclckers
B7-034100	Rebar and formworking of top slab	12	20DEC04	19DEC04	20DEC04	31DEC04	0	Rebar and formworking of top slab
B7-034110	Concreting of internal web wall to topslabsoffit	1	01JAN05	01JAN05	01JAN05	01JAN05	0	Concreting of internal web wall to topslabsoffit

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME 1

27AUG02  
 28FEB06  
 03DEC04  
 19DEC04  
 03DEC04  
 19DEC04  
 19DEC04  
 20DEC04  
 01JAN05

Early bar  
 Progress bar  
 Critical bar  
 Summary bar  
 Start milestone point  
 Finish milestone point

27AUG02  
 01JUN04  
 07JUL04  
 04OCT04  
 17DEC04

Revision  
 No.9 Revision G  
 No.10 Revision G1  
 No.11 Revision H  
 No.12 Revision I

Checked  
 WAJ  
 WAJ  
 WAJ  
 WAJ

Approved  
 WL  
 WL  
 WL  
 WL

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete	2004 SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR	2005 JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR	2006 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR
B7-034080	Strands threading to tendon ducts	10	02JAN05	05	02JAN05	11JAN05	0	0			
B7-034120	Misc. rebar fixing and formworking for top slab	5	02JAN05	06JAN05	07JAN05	11JAN05	5d	0			
B7-034130	Concreting of top slab	1	12JAN05	12JAN05	12JAN05	12JAN05	0	0			
B7-034140	Curing	7	13JAN05	19JAN05	13JAN05	19JAN05	0	0			
B7-034020	Start Prestressing	0	20JAN05	20JAN05	20JAN05	26JAN05	0	0			
B7-034150	Post-tensioning of Bridge Deck	7	20JAN05	26JAN05	20JAN05	26JAN05	0	0			
B7-034160	GROUTING	7	20JAN05	26JAN05	20JAN05	26JAN05	0	0			
B7-034170	Anchorage backfilling	1	27JAN05	27JAN05	27JAN05	27JAN05	0	0			
B7-034030	Movement Joint	7	30JAN05	05FEB05	05FEB05	18FEB05	6d	0			
B7-034180	Falsework dismantling	7	17FEB05	23FEB05	17FEB05	23FEB05	0	0			
<b>Retaining Walls</b>											
B7-035000	Road D1 Bridge Retaining Walls	92*	02NOV04	01FEB05	02NOV04	16FEB05	8d	33			
B7-035030	Retaining Wall No. 2	25	02NOV04	04DEC04	02NOV04	12JAN05	39d	89			
B7-035020	Retaining Wall No. 1	25	18NOV04	07DEC04	18NOV04	20JAN05	44d	76			
B7-035040	Retaining Wall No. 3	18	13JAN05	30JAN05	14FEB05	21JAN05	8d	0			
B7-035050	Drainage & Backfill	15	18JAN05	01FEB05	16FEB05	16FEB05	8d	0			
B7-035080	Movement Joint	7	23JAN05	28JAN05	01FEB05	14FEB05	9d	0			
<b>Road Finishing Works</b>											
B7-036000	Road D1 Bridge Finishing Works	12*	17FEB05	28FEB05	17FEB05	28FEB05	0	0			
B7-036030	Road & Drainage Works	10	17FEB05	28FEB05	17FEB05	28FEB05	0	0			
B7-036050	Footway, Cycle Track, Paving	10	19FEB05	28FEB05	19FEB05	28FEB05	0	0			
B7-036060	Roadwork Furnitures & Miscellaneous	8	21FEB05	28FEB05	21FEB05	28FEB05	0	0			
B7-036040	Wearing Course	3	28FEB05	28FEB05	28FEB05	28FEB05	0	0			
<b>Modification of PSK Bridge</b>											
B7-037000	Modification of PSK Bridge	33*	20JAN05	28FEB05	20JAN05	28FEB05	0	0			
B7-037020	Demolition for Connection & Excavation	14	20JAN05	02FEB05	20JAN05	02FEB05	0	0			
B7-037030	Modification Works	20	27JAN05	22FEB05	27JAN05	22FEB05	0	0			
B7-037040	Drainage Works & Movement Joints	14	13FEB05	28FEB05	13FEB05	28FEB05	0	0			
B7-037050	E&M Works & Finishing	14	15FEB05	28FEB05	15FEB05	28FEB05	0	0			
<b>Section 4- Waterworks in Areas 3, 4, &amp; 6</b>											
<b>Waterworks - Section 4, Areas 3 &amp; 4</b>											
B6-040000	Waterworks - Section 4, Areas 3 & 4	563*	02JUN03	23DEC04	02JUN03	23DEC04	0	96			
B6-0424A0	Trial Pits	14	02JUN03	02JUN03	02JUN03	02JUN03	0	100			
B6-0425H0	Watermain Across YauKing Lane @ Area 4 chamber	25	25SEP03	02DEC03	25SEP03	02DEC03	0	100			
B6-0425H20	Preparation works for pipe laying across YKL	62	03DEC03	08FEB04	08DEC03	08FEB04	0	100			
B6-0424C4	Waterworks, under footpath at Area 4 beside OC	35	07APR04	17APR04	07APR04	17APR04	0	100			
B6-0424C5	Hyder's redesign phase at Area 4	30	18APR04	15MAY04	18APR04	15MAY04	0	100			
B6-0424C6	Preparation works for watermain	10	18MAY04	02JUN04	18MAY04	02JUN04	0	100			
B6-0425H10	Watermain Across YauKing Lane at Area 4 remaining	5	03JUN04	04AUG04	03JUN04	04AUG04	0	100			
B6-0425H30	Procure, & Manufacturing of new fittings for VO/288	48	03JUN04	20JUL04	03JUN04	20JUL04	0	100			
B6-0424C17	Delivery of fittings	55	21JUL04	07AUG04	21JUL04	07AUG04	0	100			
B6-0424C7	Waterworks under footpath at Area 4 remaining	25	18SEP04	28OCT04	18SEP04	28OCT04	0	100			
B6-0424C18	Reprocurement of Stolen Fittings	30	22SEP04	25OCT04	22SEP04	25OCT04	0	100			
B6-0424C3	Waterworks under footpath at Area 3	20	05OCT04	04DEC04	05OCT04	04DEC04	0	85			
B6-0424C23	Washoutpit & remaining works	19	05DEC04	23DEC04	05DEC04	23DEC04	0	0			
<b>Waterworks - Section 4, Area 6</b>											
B6-040060	Waterworks - Section 4, Area 6	497*	09JUL03	24NOV04	09JUL03	24NOV04	0	100			
B6-041000	Trial Pits	14	08JUL03	12JUL03	08JUL03	12JUL03	0	100			
B6-0417C12	Replace Existing Watermain, D1/Ch.870-920	25	03NOV03	15JAN04	03NOV03	15JAN04	0	100			
B6-0417C22	Realigned Existing Watermain Connection by WSD	32	03FEB04	23FEB04	03FEB04	23FEB04	0	100			
B6-0417C1	Waterworks, L2/Ch.100-200	26	05MAR04	02MAY04	05MAR04	02MAY04	0	100			
B6-0417C2	Waterworks, D1/Ch.780-920 phase 1	28	06MAY04	17JUL04	06MAY04	17JUL04	0	100			
B6-0417C3	Waterworks, D1/Ch.780-920 phase 2	7	13NOV04	24NOV04	13NOV04	24NOV04	0	100			

Start date	27AUG02	Checked / Approved	W/J
Finish date	28FEB05	W/J	W/L
Date	02DEC04	No.9 Revision	G
Run date	18DEC04	No.10 Revision	G
Page number	7	No.11 Revision	H
Number/Version	7-25/02/01/01	No.12 Revision	W/L
C. F. Primavera Systems, Inc.			

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME 1



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete	2004 SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR	2005																																			
B6-0501A0	Trial Pits	14	24APR04	24APR04	24APR04	24APR04	100																																					
B6-050000	Waterworks - Section 5, Area 7A	202 *	26APR04	13NOV04	13NOV04	13NOV04	100	Waterworks - Section 5, Area 7A																																				
B6-0503A1	Watermains, D1/Ch.540-620	30	26APR04	15MAY04	15MAY04	15MAY04	100																																					
B6-0503A2	Watermains, D1/Ch.620-780	10	16MAY04	20MAY04	20MAY04	20MAY04	100																																					
B6-0503A15	Watermain, D1/Ch.620-780 remaining	15	30AUG04	18SEP04	30AUG04	18SEP04	100	Watermain, D1/Ch.620-780 remaining																																				
B6-0503A5	Replace Existing Watermain, Ch.620-770	18	06SEP04	27SEP04	06SEP04	27SEP04	100	Replace Existing Watermain, Ch.620-770																																				
B6-0503A6	Realign existing watermain connection by WSD	20	28SEP04	30OCT04	28SEP04	30OCT04	100	Realign existing watermain connection by WSD																																				
B6-0503A3	Watermains, AT PS1	25	28OCT04	13NOV04	28OCT04	13NOV04	100	Watermains, AT PS1																																				
UT-050000	Utilities by Others, Section 7, Area 7A	219 *	15APR04	19NOV04	15APR04	19NOV04	100	Utilities by Others, Section 7, Area 7A																																				
UT-0500P1	Powers(11KV), D1/Ch.540-620	19	15APR04	15APR04	15APR04	15APR04	100																																					
UT-0500T1B	HGC-New World, D1/Ch.540-620	18	26APR04	28APR04	26APR04	28APR04	100																																					
UT-0500T1A	PCOW, D1/Ch.540-620	16	27APR04	29APR04	27APR04	29APR04	100																																					
UT-0500P2	Powers(11KV), D1/Ch.620-780 (90% done)	25	26MAY04	02JUN04	26MAY04	02JUN04	100	Ch.620-780 (90% done)																																				
UT-0500T2A	PCOW, D1/Ch.620-780 (90% done)	25	05JUN04	11JUN04	05JUN04	11JUN04	100	Ch.620-780 (90% done)																																				
UT-0500T2B	HGC-New World, D1/Ch.620-780 (80% done)	25	15JUN04	18JUN04	15JUN04	18JUN04	100	D1/Ch.620-780 (80% done)																																				
UT-0500P32	Planned start of work to be constructed by CLP existing cable	0	10AUG04	10AUG04	10AUG04	10AUG04	100	Planned start of work to be constructed by CLP existing cable																																				
UT-0500P22	CLP realignment of existing cable	18	28AUG04	06SEP04	28AUG04	06SEP04	100	CLP realignment of existing cable																																				
UT-0500P12	Powers(11KV), D1/Ch.620-780 remaining	16	28OCT04	13NOV04	28OCT04	13NOV04	100	Powers(11KV), D1/Ch.620-780 remaining																																				
UT-0500T2C	PCOW, D1/Ch.620-780 remaining	12	19NOV04	19NOV04	19NOV04	19NOV04	100	PCOW, D1/Ch.620-780 remaining																																				
UT-0500T2D	HGC-New World, D1/Ch.620-780 remaining	12	15NOV04	19NOV04	15NOV04	19NOV04	100	HGC-New World, D1/Ch.620-780 remaining																																				
<b>Roadworks - Section 5, Area 7A</b>																																												
B5-050000	Roadworks - Section 5, Area 7A	187 *	07JUN04	10DEC04	07JUN04	24DEC04	14d	Roadworks - Section 5, Area 7A																																				
B5-0540F1	Roadworks, D1/Ch.540-620	20	07JUN04	09AUG04	07JUN04	09AUG04	100	Roadworks, D1/Ch.540-620																																				
B5-0541B1	Cycle track & Footpath, D1/Ch.540-620	20	17JUN04	10AUG04	17JUN04	10AUG04	100	Cycle track & Footpath, D1/Ch.540-620																																				
B5-0540F12	Roadworks, D1/Ch.620-780 CLP portion	22	28AUG04	20SEP04	28AUG04	20SEP04	100	Roadworks, D1/Ch.620-780 CLP portion																																				
B5-0540F22	Roadworks, D1/Ch.620-780 CLP portion remaining	19	20SEP04	20SEP04	20SEP04	20SEP04	100	Roadworks, D1/Ch.620-780 CLP portion remaining																																				
B5-0541B12	Cycle track & Footpath, D1/Ch.620-780	20	20SEP04	04OCT04	20SEP04	04OCT04	100	Cycle track & Footpath, D1/Ch.620-780																																				
B5-0540F2	Roadworks, D1/Ch.620-780 remaining	20	28SEP04	16OCT04	28SEP04	16OCT04	100	Roadworks, D1/Ch.620-780 remaining																																				
B5-0541B2	Cycle track & Footpath, D1/Ch.620-780 remaining	30	05OCT04	10DEC04	05OCT04	24DEC04	14d	Cycle track & Footpath, D1/Ch.620-780 remaining																																				
B5-0549E0	Roadworks Furnitures & Miscellaneous	10	15OCT04	05DEC04	15OCT04	05DEC04	0	Roadworks Furnitures & Miscellaneous																																				
<b>-Section 6- Works in Area 7B, except LS &amp; EW</b>																																												
		423	30DEC02	10JUN04	30DEC02	10JUN04	100																																					
<b>-Sec.7-Area 8A,not Roadwork/Area10A,not Sec.10&amp;11</b>																																												
		214	08FEB03	09SEP03	08FEB03	09SEP03	100																																					
<b>-Section 8- Works in Area 10B</b>																																												
		72	26SEP02	10DEC02	26SEP02	10DEC02	100																																					
<b>-Section 9- Works in Area 5</b>																																												
		163	31DEC02	23JUL03	31DEC02	23JUL03	100																																					
<b>+Sec.10-Areas9A+9B/ Areas8+10A Roadwork,not LS+EW</b>																																												
		444	18DEC02	25JUN04	18DEC02	25JUN04	100																																					
<b>+Sec.11-Earthwork&amp;Works of Culvert C10 in Area10A</b>																																												
		483	08OCT02	01JUN04	08OCT02	01JUN04	100																																					
<b>Section 12- Works of Sewage Pumping Station No.1</b>																																												
<b>Pump Station No.1 - Piling &amp; Structural Works</b>																																												
BS-120000	Pump Station No.1 - Piling & Structural Works	850 *	05DEC02	25APR05	05DEC02	30APR05	5d	Pump Station No.1 - Piling & Structural Works																																				
BS-120100	Ground Investigation, 10 nos.	25	05DEC02	22OCT03	05DEC02	22OCT03	100																																					
BS-120200	Install Bored Piles, 1800dia, 2400 bellout, 10nr	100	10NOV03	19FEB04	10NOV03	19FEB04	100																																					
BS-120250	Pile Testing	30	17FEB04	28MAR04	17FEB04	28MAR04	100																																					
BS-120300	Sheetpiling & preboring	55	26FEB04	28MAY04	26FEB04	28MAY04	100																																					
BS-120320	Sheetpiling & Preboring Works remaining	12	26MAY04	06JUN04	26MAY04	06JUN04	100	Preboring Works remaining																																				
<table border="1"> <thead> <tr> <th>Start date</th> <th>27AUG02</th> <th>Early bar</th> <th>Checked</th> <th>Approved</th> </tr> </thead> <tbody> <tr> <td>Finish date</td> <td>28FEB03</td> <td>Progress bar</td> <td>WAJ</td> <td>WL</td> </tr> <tr> <td>Date</td> <td>02DEC03</td> <td>Critical bar</td> <td>WAJ</td> <td>WL</td> </tr> <tr> <td>Run date</td> <td>18DEC03</td> <td>Summary bar</td> <td>WAJ</td> <td>WL</td> </tr> <tr> <td>Page number</td> <td>235/02</td> <td>Start milestone point</td> <td>WAJ</td> <td>WL</td> </tr> <tr> <td>Number of revisions</td> <td>235/02</td> <td>Finish milestone point</td> <td>WAJ</td> <td>WL</td> </tr> <tr> <td colspan="5">© Chiyohara Systems, Inc.</td> </tr> </tbody> </table>										Start date	27AUG02	Early bar	Checked	Approved	Finish date	28FEB03	Progress bar	WAJ	WL	Date	02DEC03	Critical bar	WAJ	WL	Run date	18DEC03	Summary bar	WAJ	WL	Page number	235/02	Start milestone point	WAJ	WL	Number of revisions	235/02	Finish milestone point	WAJ	WL	© Chiyohara Systems, Inc.				
Start date	27AUG02	Early bar	Checked	Approved																																								
Finish date	28FEB03	Progress bar	WAJ	WL																																								
Date	02DEC03	Critical bar	WAJ	WL																																								
Run date	18DEC03	Summary bar	WAJ	WL																																								
Page number	235/02	Start milestone point	WAJ	WL																																								
Number of revisions	235/02	Finish milestone point	WAJ	WL																																								
© Chiyohara Systems, Inc.																																												

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Snek Kok Development Package 1  
 REVISED WORKS PROGRAMME I





Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete	Float Complete	2004	2005	2006
BS-120860	Massconcrete/Platform construction @Screen RoomB	5	20JAN05	23JAN05	18MAR05	23MAR05	0	49d			
BS-120880	Benching stair @ Wet well B & finishing	2	22JAN05	26FEB05	27FEB05	27FEB05	0	28d			
BS-124020	Power Supply Application	0	11DEC09 A				100				
BS-124030	Link Application	0	07JUL04 A				100				
BS-125020	Water Certification WW046 Part I & II	0	20SEP04 A				100				
BS-125050	FS 314 Submission	0	20SEP04 A				100				
BS-125090	Expected availability of power supply	0	24DEC04				94d				
BS-125080	Expected availability of fresh&salt water supply	0	31DEC04				0				
BS-125160	VAC submission	0	27JAN05				0				
BS-127220	CLP's Inspection for Meter Kiosk	0	28FEB05				14d				
BS-127230	CLP's Final Inspection of Meter Kiosk	0	07MAR05				14d				
BS-125100	Water Certification WW046 Part IV	0	08MAR05				22d				
BS-124010	Electrical WR1 Submission	0	21MAR05				11d				
BS-127020	CLP Energization	0	21MAR05				11d				
BS-125030	Expected WSD Inspection	0	24MAR05				22d				
BS-125040	Expected DSD Inspection for Sewage Pump & VSD	0	01APR05				23d				
BS-125130	Expected DSD Inspection for Penstock	0	02APR05				22d				
BS-125180	WSD's Final Inspection	0	02APR05				26d				
BS-125150	Expected DSD Inspection for Mech. Screen Syst.	0	04APR05				21d				
BS-125160	Expected DSD Inspection for Other Works	0	04APR05				21d				
BS-125060	FS 501 Submission	0	07APR05				0				
BS-125140	Expected DSD Inspection for Valves & Pipeworks	0	18APR05				9d				
BS-125140	Expected DSD Inspection for Deodorizer System	0	19APR05				8d				
BS-125070	Expected FSD Inspection	0	20APR05				0				
BS-125170	FSD Final Inspection	0	28APR05				0				
BS-126010	Survey of Civil As-built	7	27NOV04 A	07DEC04	27NOV04 A	30APR05	137d	10			
BS-123000	Pump Station 1 - E&M Works	90	* 24JAN05	30APR05	24JAN05	30APR05	0	0			
BS-126030	Cable Tray Installation	30	24JAN05	01MAR05	24JAN05	01MAR05	0	0			
BS-124040	Sewage Pumpset and VSD	20	26JAN05	21FEB05	27MAR05	15APR05	59d	0			
BS-124070	Valves and Pipeworks	40	26JAN05	12MAR05	28FEB05	14APR05	27d	0			
BS-124050	Mechanical Screen System	20	27JAN05	15FEB05	24MAR05	12APR05	56d	0			
BS-124080	Deodorizer System	33	27JAN05	05MAR05	04MAR05	12APR05	31d	0			
BS-124090	Lifting Appliance	20	27JAN05	18FEB05	19MAR05	22APR05	44d	0			
BS-124110	PCCW cable laying & wiring works	14	27JAN05	11FEB05	07APR05	22APR05	59d	0			
BS-126020	Conduit & Trunking	15	27JAN05	17FEB05	10APR05	24APR05	68d	0			
BS-126040	Lightning & Earthing Installation	40	27JAN05	14MAR05	27JAN05	14MAR05	0	0			
BS-126060	SCADA & PLC Works	30	27JAN05	09MAR05	26MAR05	24APR05	51d	0			
BS-126070	MVAC	35	27JAN05	09MAR05	15MAR05	18APR05	40d	0			
BS-124100	P & D Installation	40	27JAN05	14MAR05	04MAR05	10APR05	27d	0			
BS-126080	LV Switchboard and Control Panels	30	26FEB05	02APR05	26FEB05	02APR05	0	0			
BS-126050	Cabling works	14	27FEB05	18MAR05	27FEB05	18MAR05	0	0			
BS-127240	CLP's Install. WorkforMeterKioskand Energization	20	07MAR05	20MAR05	21MAR05	03APR05	14d	0			
BS-126090	F.S. Services Installation	30	08MAR05	06APR05	08MAR05	06APR05	0	0			
BS-127000	Lighting and Electrical Services	20	15MAR05	03APR05	04APR05	23APR05	20d	0			
BS-127210	Cleansing Waterpump Hydraulic & Functional Test	6	15MAR05	20MAR05	22APR05	27APR05	36d	0			
BS-126100	Cable Terminations to Major Equipments	10	19MAR05	28MAR05	19MAR05	28MAR05	0	0			
BS-128110	Cable Terminations to Other Equipments	15	29MAR05	12APR05	29MAR05	12APR05	0	0			
BS-127000	Functional Testing	57	* 05MAR05	30APR05	04APR05	30APR05	0	0			
BS-127060	Lightning & Earthing functional testing	3	05MAR05	07MAR05	25APR05	27APR05	51d	0			
BS-127140	Ventilation Fan Functional Testing	7	05MAR05	11MAR05	21APR05	27APR05	47d	0			
BS-127080	Penstock Functional Testing	4	29MAR05	01APR05	15APR05	18APR05	17d	0			
BS-127120	Sewage Pumpset & VSD testing	3	29MAR05	31MAR05	16APR05	18APR05	18d	0			
BS-127130	Mechanical Screen System functional testing	6	29MAR05	03APR05	13APR05	18APR05	15d	0			

■ Massconcrete/Platform construction @Screen RoomB  
 ■ Benchling stair @ Wet well B & finishing  
 ■ Water Certification WW046 Part I & II  
 ■ FS 314 Submission  
 ■ Expected availability of power supply  
 ■ Expected availability of fresh&salt water supply  
 ■ VAC submission  
 ■ CLP's Inspection for Meter Kiosk  
 ■ CLP's Final Inspection of Meter Kiosk  
 ■ Water Certification WW046 Part IV  
 ■ Electrical WR1 Submission  
 ■ CLP Energization  
 ■ Expected WSD Inspection  
 ■ Expected DSD Inspection for Sewage Pump & VSD  
 ■ Expected DSD Inspection for Penstock  
 ■ WSD's Final Inspection  
 ■ Expected DSD Inspection for Mech. Screen Syst.  
 ■ Expected DSD Inspection for Other Works  
 ■ FS 501 Submission  
 ■ Expected DSD Inspection for Valves & Pipeworks  
 ■ Expected DSD Inspection for Deodorizer System  
 ■ Expected FSD Inspection  
 ■ FSD Final Inspection  
 ■ Survey of Civil As-built  
 ■ Pump Station 1 - E&M Works  
 ■ Cable Tray Installation  
 ■ Sewage Pumpset and VSD  
 ■ Valves and Pipeworks  
 ■ Mechanical Screen System  
 ■ Penstock  
 ■ Deodorizer System  
 ■ Lifting Appliance  
 ■ PCCW cable laying & wiring works  
 ■ Conduit & Trunking  
 ■ Lightning & Earthing Installation  
 ■ SCADA & PLC Works  
 ■ MVAC  
 ■ P & D Installation  
 ■ LV Switchboard and Control Panels  
 ■ Cabling works  
 ■ CLP's Install. WorkforMeterKioskand Energization  
 ■ F.S. Services Installation  
 ■ Lighting and Electrical Services  
 ■ Cleansing Waterpump Hydraulic & Functional Test  
 ■ Cable Terminations to Major Equipments  
 ■ Cable Terminations to Other Equipments  
 ■ Functional Testing  
 ■ Lightning & Earthing functional testing  
 ■ Ventilation Fan Functional Testing  
 ■ Penstock Functional Testing  
 ■ Sewage Pumpset & VSD testing  
 ■ Mechanical Screen System functional testing

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WJA	WL
07JUL04	No.10 RevisionGT	WJA	WL
04OCT04	No.11 Revision H	WJA	WL
17DEC04	No.12 Revision I	WJA	WL

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
 REVISED WORKS PROGRAMME I

Start date: 27AUG02  
 Finish date: 28FEB06  
 Progress bar: ██████████  
 Critical bar: ██████████  
 Summary bar: ██████████  
 Start milestone point: ●  
 Finish milestone point: ▲  
 Primavera Systems, Inc.



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
BS-127150	Penstock Leakage Rate Test	6	02APR05	07AUG05	22APR05	27APR05	20d
BS-127110	LV Switchboard and Panels Testing	15	03APR05	17APR05	04APR05	16APR05	1d
BS-127160	MCB board functional Test	3	04APR05	06APR05	25APR05	27APR05	21d
BS-127200	Lighting functional & Intensity Test	4	04APR05	07APR05	24APR05	27APR05	20d
BS-127040	FS functional testing	2	07APR05	09APR05	28APR05	29APR05	18d
BS-127190	RCD/ELCD functional Test	4	13APR05	16APR05	15APR05	18APR05	2d
BS-127070	Valves & Pipeworks Testing	5	13APR05	17APR05	23APR05	27APR05	10d
BS-127090	Lifting Appliance testing	6	13APR05	19APR05	13APR05	18APR05	0
BS-127030	Deodorizer System functional Testing	3	19APR05	21APR05	19APR05	24APR05	0
BS-127160	SCADA and PLC Works Functional Testing	3	19APR05	21APR05	25APR05	27APR05	6d
BS-127170	Deodorizing Unit Air Duct Tightness Test	3	25APR05	30APR05	25APR05	27APR05	0
BS-127010	SCADA & PLC Mapping Test	3	28APR05	30APR05	28APR05	30APR05	0
BS-127010	Commissioning Test	3	28APR05	30APR05	28APR05	30APR05	0
UT-0300031	Gas Mains, L2/Ch.100-200	15	28FEB05	14MAR05	05MAR05	19MAR05	5d
UT-030007A	PCCW, L2/Ch.100-200	15	14MAR05	28MAR05	19MAR05	02APR05	5d
UT-030011B	HGC-New World, L2/Ch.100-200	15	16MAR05	30MAR05	21MAR05	04APR05	5d
UT-030007C	CATV, L2/Ch.100-200	7	21MAR05	27MAR05	26MAR05	01APR05	5d
B4-0317D41	P/c pipe, L2/Ch.100-200 Gully works east bound	7	28FEB05	06MAR05	13MAR05	18MAR05	13d
B3-0308M1	Deposition & Compaction, L2/Ch.100-200	30	09MAR05	07APR05	20MAR05	26MAR05	13d
B5-0325C1	Roadworks, L2/Ch.100-200	30	09MAR05	07APR05	22MAR05	20APR05	0
B5-0326A1	Cycle track & Footpath, L2/Ch.100-200	25	22MAR05	15APR05	27MAR05	20APR05	5d
B5-0328C10	Roadworks Furnitures & Miscellaneous @ Rd. L2	10	16APR05	25APR05	21APR05	30APR05	5d
B4-0328F512	P/c pipe, AT PS1 remaining (S303-S017)	15	28FEB05	14MAR05	05MAR05	19MAR05	5d
UT-0500P3	Powers(11kV) at PS1 Sec. 5 part	12	28FEB05	11MAR05	12MAR05	23MAR05	12d
UT-0500T3A	PCCW at PS1 Sec. 5 part	10	12MAR05	21MAR05	24MAR05	02APR05	12d
B4-0335A1	Sewerflising Main, AT PS1 Sec. 5 part	35	14MAR05	17APR05	19MAR05	22APR05	5d
UT-0500T3B	HGC-New World at PS1 Sec. 5 part	10	20MAR05	29MAR05	01APR05	10APR05	12d
B5-0541B3	Footpath, AT PS1 Sec. 5 part	15	30MAR05	18APR05	11APR05	25APR05	12d
B3-0512A30	Deposit/ Compact, AT PS1 Sec. 5 part	8	03APR05	10APR05	08APR05	15APR05	5d
BS-0540F3	Roadworks, AT PS1 Sec. 5 part	12	08APR05	19APR05	16APR05	27APR05	8d
BS-0543E10	Furnitures & Miscellaneous at PS1 Sec. 5 part	5	18APR05	22APR05	26APR05	30APR05	8d

**Section 13- Works of Sewage Pumping Station No.2**

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
BS-130000	Pump Station No.2 - Piling & Structural Works	621	08JUL03	03APR05	08JUL03	30APR05	27d
BS-130100	Ground Investigation, 4 nos.	12	08JUL03	29OCT03	08JUL03	29OCT03	100
BS-130300	Shreepiling	45	22OCT03	11DEC03	22OCT03	11DEC03	100
BS-130200	InstallBoredPiles,2.22dia,2.3bellout,4hrAlt.Des.	70	11JAN04	28MAR04	11JAN04	28MAR04	100
BS-130250	Pile Testing	30	01APR04	28APR04	01APR04	28APR04	100
BS-130380	Ground Investigation, 1 no.	9	29APR04	07MAY04	29APR04	07MAY04	100
BS-130360	InstallBoredPile, 1 no. additional	20	13MAY04	30MAY04	13MAY04	30MAY04	100
BS-130390	Pile Testing Platform Preparation Works	27	31MAY04	05JUL04	31MAY04	05JUL04	100
BS-130420	Mobilization for Excavation & strutting	12	31MAY04	07JUN04	31MAY04	07JUN04	100
BS-130350	Excavation & Strutting	16	08JUN04	16AUG04	08JUN04	16AUG04	100
BS-130370	Pile Testing 1 no. additional	6	06JUL04	10JUL04	06JUL04	10JUL04	100
BS-130400	Construction and concreting of Base Slab	10	17AUG04	02SEP04	17AUG04	02SEP04	100
BS-130410	Base Slab waterproofing	4	02SEP04	06SEP04	02SEP04	06SEP04	100
BS-130500	Construct Walls of Screen Room	8	03SEP04	14SEP04	03SEP04	14SEP04	100
BS-130430	Backfilling and removal of lower layer strut	3	05SEP04	12SEP04	05SEP04	12SEP04	100
BS-130520	Other Walls Construction to +2.5mPD Level	8	05SEP04	24SEP04	05SEP04	24SEP04	100
BS-130500	Wall at G.L.4 to +2.5mPD Level	8	05SEP04	11SEP04	05SEP04	11SEP04	100
BS-130570	Complete Wall @ Grid Line 4 to G/L	2	12SEP04	21SEP04	12SEP04	21SEP04	100
BS-130590	Other Walls to G/L (Walls, Beams & Slabs)	7	12SEP04	20SEP04	12SEP04	20SEP04	100
BS-130550	Waterproofing of Wall @ G.L. 4	4	15SEP04	17SEP04	15SEP04	17SEP04	100

Contract No. TP35/02  
 Remaining Engineering Infrastructure Works  
 for Pak Shek Kok Development Package 1  
**REVISED WORKS PROGRAMME 1**

Start date	27AUG02	Early bar	
Finish date	03SEP05	Progress bar	
Issue date	07JUL04	Critical bar	
Page number	12A	Summary bar	
Number/Version	TP3502/A02/011	Start milestone point	
		Finish milestone point	

Date	Revision	Checked	Approved
01JUN04	No.9 Revision G	WAJ	WL
07JUL04	No.10 Revision G1	WAJ	WL
04OCT04	No.11 Revision H	WAJ	WL
17DEC04	No.12 Revision I	WAJ	WL

Penstock Leakage Rate Test  
 LV Switchboard and Panels Testing  
 MCB board functional Test  
 Lighting functional & Intensity Test  
 FS functional testing  
 RCD/ELCD functional Test  
 Valves & Pipeworks Testing  
 Lifting Appliance testing  
 Deodorizer System functional Testing  
 SCADA and PLC Works Functional Testing  
 Deodorizing Unit Air Duct Tightness Test  
 SCADA & PLC Mapping Test  
 Commissioning Test

Gas Mains, L2/Ch.100-200  
 PCCW, L2/Ch.100-200  
 HGC-New World, L2/Ch.100-200  
 CATV, L2/Ch.100-200  
 P/c pipe, L2/Ch.100-200 Gully works east bound  
 Deposition & Compaction, L2/Ch.100-200  
 Roadworks, L2/Ch.100-200  
 Cycle track & Footpath, L2/Ch.100-200  
 Roadworks Furnitures & Miscellaneous @ Rd. L2  
 P/c pipe, AT PS1 remaining (S303-S017)  
 Powers(11kV) at PS1 Sec. 5 part  
 PCCW at PS1 Sec. 5 part  
 Sewerflising Main, AT PS1 Sec. 5 part  
 HGC-New World at PS1 Sec. 5 part  
 Footpath, AT PS1 Sec. 5 part  
 Deposit/ Compact, AT PS1 Sec. 5 part  
 Roadworks, AT PS1 Sec. 5 part  
 Furnitures & Miscellaneous at PS1 Sec. 5 part

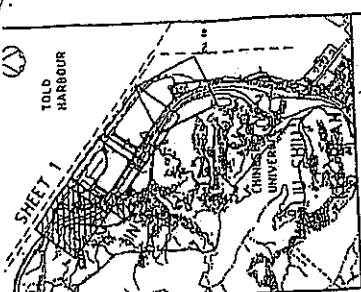
Pump Station No.2 - Piling & Structural Works

Ground Investigation, 4 nos.  
 Shreepiling  
 InstallBoredPiles,2.22dia,2.3bellout,4hrAlt.Des.  
 Pile Testing  
 Ground Investigation, 1 no.  
 InstallBoredPile, 1 no. additional  
 Pile Testing Platform Preparation Works  
 Mobilization for Excavation & strutting  
 Excavation & Strutting  
 Pile Testing 1 no. additional  
 Construction and concreting of Base Slab  
 Base Slab waterproofing  
 Construct Walls of Screen Room  
 Backfilling and removal of lower layer strut  
 Other Walls Construction to +2.5mPD Level  
 Wall at G.L.4 to +2.5mPD Level  
 Complete Wall @ Grid Line 4 to G/L  
 Other Walls to G/L (Walls, Beams & Slabs)  
 Waterproofing of Wall @ G.L. 4



## **Appendix G**

### **Construction Site Area**



**LEGEND :**

— LIMIT OF SITE

- - - - BOUNDARY LINE BETWEEN AREAS

- - - - PROPOSED WHEEL WASHING BAY NO. 1

\* VBI

REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR TENDERS

**OWNER**

THE HONG KONG AND SOUTH SEAS TRADING CO., LIMITED

**DESIGNER**

HYDER CONSULTANTS

11/F, 111, QUEEN'S ROAD EAST, HONG KONG

**DATE**

10/11/02

**PROJECT**

REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK LACK DEVELOPMENT

PACKAGE 1

**PROJECT NO.**

TP 35/02

**CONTRACTOR**

HYDER CONSULTANTS

**AREA OF SITE POSSESSION**

**TENDER DRAWING**

**DATE**

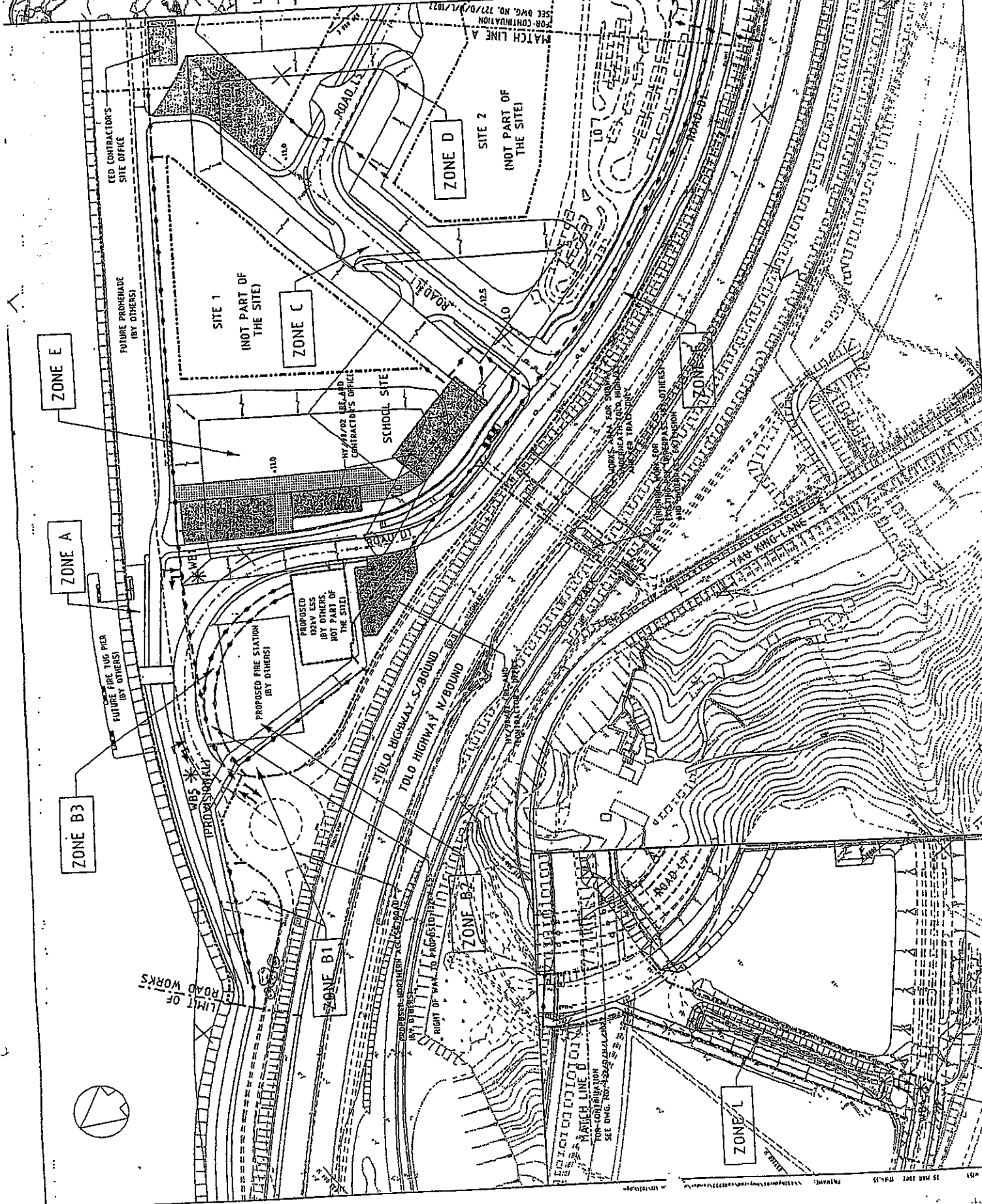
7/10/02

**SCALE**

AS SHOWN

**PROJECT NO.**

TP 35/02



**SHEET 1**

**TOLO HARBOUR**

**CHINESE UNIVERSITY**

**PROPOSED WHEEL WASHING BAY NO. 1**

**LEGEND :**

**REVISIONS**

**OWNER**

**DESIGNER**

**PROJECT**

**PROJECT NO.**

**CONTRACTOR**

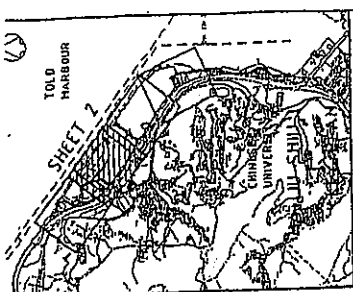
**AREA OF SITE POSSESSION**

**TENDER DRAWING**

**DATE**

**SCALE**

**PROJECT NO.**



NOTES :  
FOR LEGEND, SEE DRAWING NO.  
727/D/H/L/1022.

NO.	DATE	BY	CHKD.	REVISION
1	11/03/04	W. S. CHAN	W. S. CHAN	ISSUED FOR TENDER
2	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 2
3	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 1
4	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 2
5	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 1
6	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 2
7	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 1
8	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 2
9	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 1
10	11/03/04	W. S. CHAN	W. S. CHAN	REVISED TO SHOW THE PROPOSED ACCESS ROAD TO THE STOCKPILE AREA 2

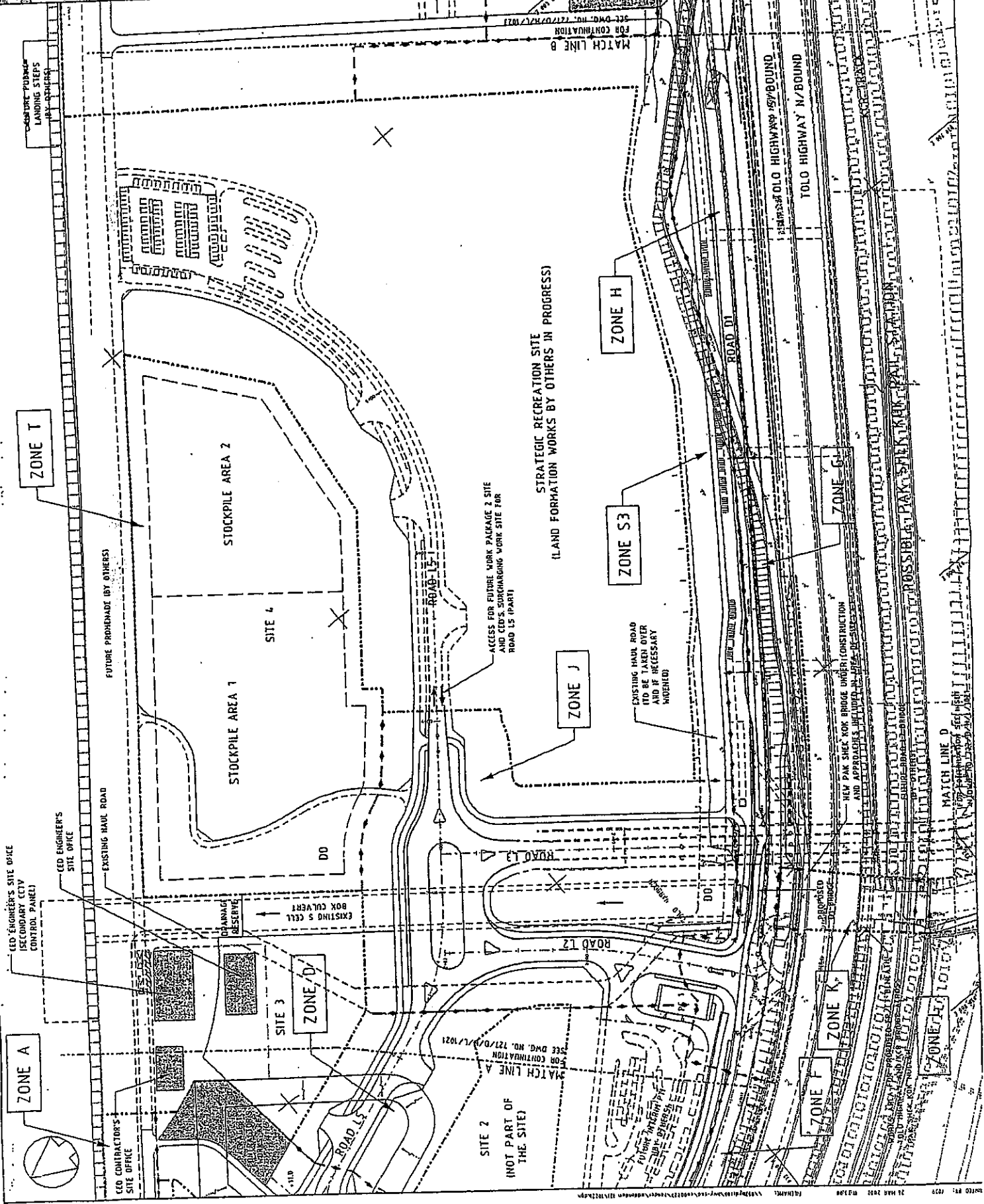
CONTRACT NO. TP 35/02

Hyder  
Consulting

AREA OF SITE -  
POSSESSION

TENDER DRAWING

727/D/H/L/1022



STRATEGIC RECREATION SITE  
(LAND FORMATION WORKS BY OTHERS IN PROGRESS)

ACCESS FOR FUTURE WORK PACKAGE 2 SITE  
AND LEDS SURCHARGING WORK SITE FOR  
ROAD 15 (PART)

EXISTING HAUL ROAD  
(TO BE TAKEN OVER  
AND IF NECESSARY  
WIDENED)

NEW PAK SHEK WOK BRIDGE UNDER CONSTRUCTION  
AND APPROACHES INCLUDING THE PROPOSED  
CHANGE IN BRIDGE DECK LEVEL

LED ENGINEER'S SITE OFFICE  
(SECONDARY CCTV  
CONTROL PANEL)

LED ENGINEER'S SITE OFFICE

FUTURE PROMENADE (BY OTHERS)

EXISTING HAUL ROAD

LED CONTRACTOR'S SITE OFFICE

EXISTING S & CELL  
BOX CULVERT

DRAINAGE RESERVE

SITE 3

ZONE D

SITE 4

DO

ROAD 15

ROAD 14

ROAD 13

ROAD 12

ROAD 16

ROAD 17

ROAD 18

ROAD 19

ROAD 20

ROAD 21

ROAD 22

ROAD 23

ROAD 24

ROAD 25

ROAD 26

ROAD 27

ROAD 28

ROAD 29

ROAD 30

LED CONTRACTOR'S SITE OFFICE

LED ENGINEER'S SITE OFFICE

FUTURE PROMENADE (BY OTHERS)

EXISTING HAUL ROAD

LED CONTRACTOR'S SITE OFFICE

EXISTING S & CELL  
BOX CULVERT

DRAINAGE RESERVE

SITE 3

ZONE D

SITE 4

DO

ROAD 15

ROAD 14

ROAD 13

ROAD 12

ROAD 16

ROAD 17

ROAD 18

ROAD 19

ROAD 20

ROAD 21

ROAD 22

ROAD 23

ROAD 24

ROAD 25

ROAD 26

ROAD 27

ROAD 28

ROAD 29

ROAD 30

LED CONTRACTOR'S SITE OFFICE

LED ENGINEER'S SITE OFFICE

FUTURE PROMENADE (BY OTHERS)

EXISTING HAUL ROAD

LED CONTRACTOR'S SITE OFFICE

EXISTING S & CELL  
BOX CULVERT

DRAINAGE RESERVE

SITE 3

ZONE D

SITE 4

DO

ROAD 15

ROAD 14

ROAD 13

ROAD 12

ROAD 16

ROAD 17

ROAD 18

ROAD 19

ROAD 20

ROAD 21

ROAD 22

ROAD 23

ROAD 24

ROAD 25

ROAD 26

ROAD 27

ROAD 28

ROAD 29

ROAD 30

LED CONTRACTOR'S SITE OFFICE

LED ENGINEER'S SITE OFFICE

FUTURE PROMENADE (BY OTHERS)

EXISTING HAUL ROAD

LED CONTRACTOR'S SITE OFFICE

EXISTING S & CELL  
BOX CULVERT

DRAINAGE RESERVE

SITE 3

ZONE D

SITE 4

DO

ROAD 15

ROAD 14

ROAD 13

ROAD 12

ROAD 16

ROAD 17

ROAD 18

ROAD 19

ROAD 20

ROAD 21

ROAD 22

ROAD 23

ROAD 24

ROAD 25

ROAD 26

ROAD 27

ROAD 28

ROAD 29

ROAD 30

SEE D.M.G. NO. 727/D/H/L/1022  
FOR CONTINUATION

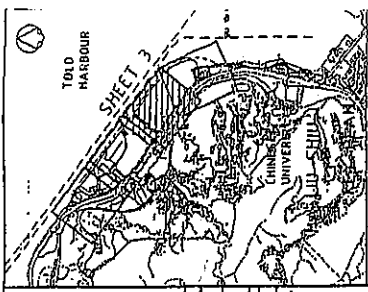
SEE D.M.G. NO. 727/D/H/L/1022  
FOR CONTINUATION

MATCH LINE D

MATCH LINE A

MATCH LINE B

727/D/H/L/1022



NOTES :  
FOR LEGEND, SEE DRAWING NO.  
727/D/H/L/1023

NO.	REVISION	DATE	BY	CHK.	APP.
1	ISSUED FOR TENDER	10/11/2002	HYDER	HYDER	
2	REVISION	10/11/2002	HYDER	HYDER	
3	REVISION	10/11/2002	HYDER	HYDER	
4	REVISION	10/11/2002	HYDER	HYDER	
5	REVISION	10/11/2002	HYDER	HYDER	
6	REVISION	10/11/2002	HYDER	HYDER	
7	REVISION	10/11/2002	HYDER	HYDER	
8	REVISION	10/11/2002	HYDER	HYDER	
9	REVISION	10/11/2002	HYDER	HYDER	
10	REVISION	10/11/2002	HYDER	HYDER	

REMAINING ENGINEERING INFRASTRUCTURE  
WORKS FOR PAK SHER KOD DEVELOPMENT  
PACKAGE 1

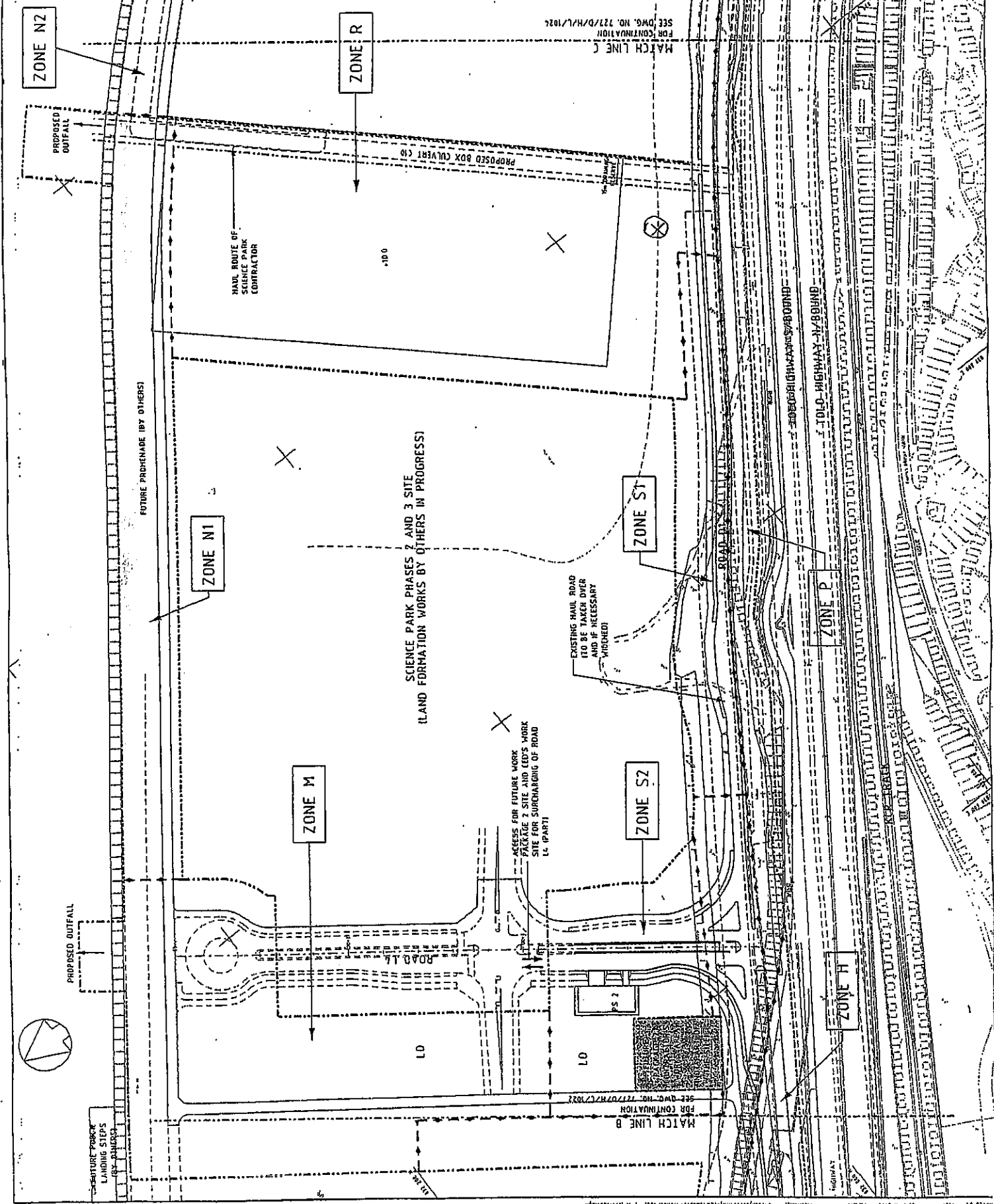
CONTRACT NO. TP 35/02

Hyder  
Consulting

AREA OF SITE -  
POSSESSION

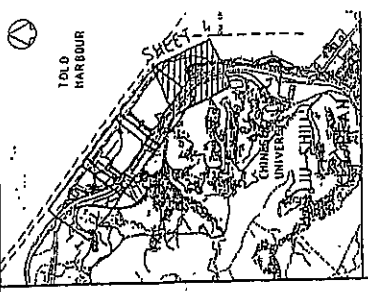
TENDER DRAWING

727/D/H/L/1023



MATCH LINE C  
FOR CONTINUATION  
SEE DWG. NO. 727/D/H/L/1024

MATCH LINE B  
FOR CONTINUATION  
SEE DWG. NO. 727/D/H/L/1022



NOTES :  
 FOR LEGEND, SEE DRAWING NO.  
 727/D/H/L/1024.

REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR TENDER
2	REVISED TO SHOW PROPOSED RAMP WALL
3	REVISED TO SHOW PROPOSED RAMP WALL
4	REVISED TO SHOW PROPOSED RAMP WALL
5	REVISED TO SHOW PROPOSED RAMP WALL
6	REVISED TO SHOW PROPOSED RAMP WALL
7	REVISED TO SHOW PROPOSED RAMP WALL
8	REVISED TO SHOW PROPOSED RAMP WALL
9	REVISED TO SHOW PROPOSED RAMP WALL
10	REVISED TO SHOW PROPOSED RAMP WALL

FORMER DEVELOPMENT DEPARTMENT, S.E. 22  
 1000 UNIVERSITY AVENUE  
 SHERATON HOTEL  
 TORONTO, ONT. M5G 1S5

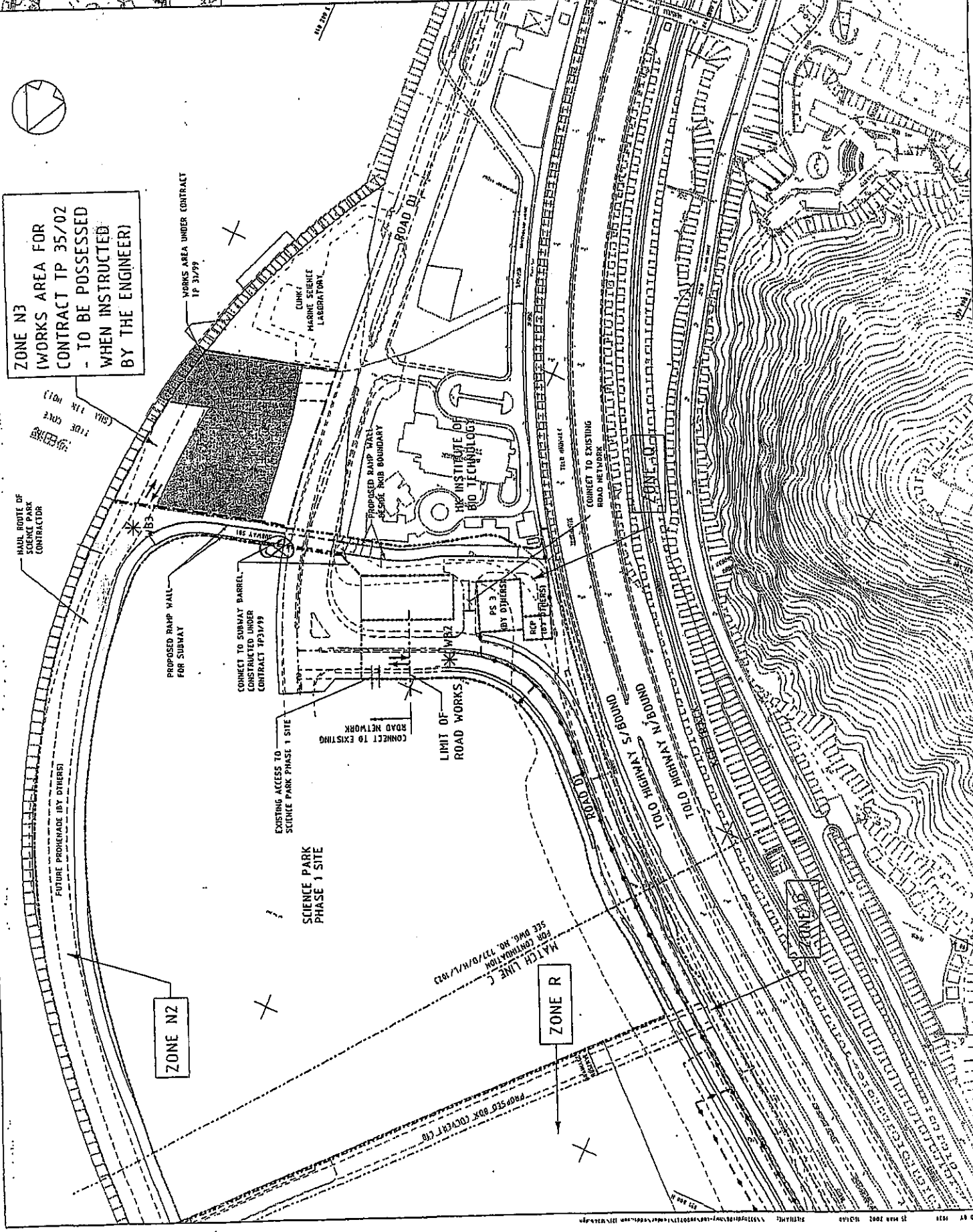
CONTRACT NO. TP 35/02

Hyder  
 Consulting

AREA OF SITE -  
 POSSESSION

TENDER DRAWING  
 SHEET NO. 727/D/H/L/1024

**ZONE N3**  
 (WORKS AREA FOR  
 CONTRACT TP 35/02  
 - TO BE POSSESSED  
 WHEN INSTRUCTED  
 BY THE ENGINEER)



**ZONE N2**

**ZONE R**

MATCH LINE C  
 SEE DRAWING NO. 727/D/H/L/1023

HAUL ROUTE OF  
 SCIENCE PARK  
 CONTRACTOR

PROPOSED RAMP WALL  
 FOR SUBWAY

CONNECT TO SUBWAY BARREL  
 CONSTRUCTED UNDER  
 CONTRACT TP31/99

EXISTING ACCESS TO  
 SCIENCE PARK PHASE 1 SITE

CONNECT TO EXISTING  
 ROAD NETWORK

LIMIT OF  
 ROAD WORKS

CURRY  
 MARINE SCIENCE  
 LABORATORY

PROPOSED RAMP WALL  
 BESIDE ROAD BOUNDARY

THE INSTITUTE OF  
 BIO TECHNOLOGY

PS 3  
 (BY OTHERS)

PS 4  
 (BY OTHERS)

CONNECT TO EXISTING  
 ROAD NETWORK

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND

TOLDO HIGHWAY S BOUND  
 TOLDO HIGHWAY N BOUND



**Appendix H**

**The Summary of Implementation Status  
of  
Mitigation Measures during Weekly Site Inspections**



## The Summary of Implementation status of Mitigation Measures

Aspect	Mitigation Measures	Implementation Status		
		Y	N	N/A
<b>Air</b>	- The height from which fill materials were dropped was controlled to a practical height to minimize the fugitive dust arising from unloading.	√		
	- During transportation by truck, material was loaded to a level higher than the side and tail boards, and should be dampened or covered before transport.	√		
	- All stockpile of aggregate or spoil were enclosed or covered and water applied in dry or windy condition.	√		
	- Effective water sprays were used on the site at potential dust emission sources such as unpaved area.	√		
	- The haul road was either paved or regular watering.	√		
	- Vehicle speed was limited to 20 km/hr.	√		
	- Adequately designed wheel washing facilities including a high pressure water jet were provided at all main entrance of work site.	√		
<b>Noise</b>	- Only well maintained plant was operated on-site and plant should be serviced regularly during the construction works.	√		
	- Machines and plants that were in intermittent use were shut down between work periods or throttled down to a minimum.	√		
	- Plant known to emit noise strongly in one direction, where possible, were orientated so that the noise is directed away from nearby NSRs.	√		
	- Silencers or mufflers on construction equipment were considered.	√		
<b>Water</b>	- Recirculation system was used to reduce SS from the vehicle wheel washing facility.	√		
	- Fuel tanks on site were housed within drainable trays and regularly drained of rainwater.	√		
	- Washing area and road exiting were paved from washing facility.	√		
	- Permanent / Temporary ditches were provided to facilitate run-off discharge into the appropriate watercourses, via a sediment trap/sediment retention basin, prior to discharge.	√		
	- Sedimentation tanks with adequate capacity to settle the sand and silt out were provided.	√		
	- Sedimentation tanks were regularly cleaned and maintained in order to control their efficiency and to prevent the recycled water overflow to drains.	√		
	- All drainage facilities were adequate for the controlled release of storm flows.	√		
	- Exposed soil areas were minimized to reduce the potential for increased siltation and contamination of run-off.	√		
	- All chemical stores were contained (bundled) such that spills are not allowed to gain access to water bodies.	√		
	- Chemical toilets were provided to handle the sewage from the on-site construction workforce.	√		





## The Summary of Implementation status of Mitigation Measures

Aspect	Mitigation Measures	Implementation Status		
		Y	N	N/A
<b>Waste</b>	- Wastes were handle and store in a manner, which ensure that they were held securely without loss or leakage, thereby minimizing the potential for pollution.	√		
	- Authorized or licensed waste hauliers were use to collect the specific category of waste.	√		
	- Wastes were removed in a timely manner.	√		
	- The waste storage areas were maintained and cleaned regularly.	√		
	- Windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed containers were minimized.	√		
	- Waste disposal permits were obtained form the appropriate authorities.	√		
	- Wastes were disposed at licensed sites.	√		
	- Procedures such as a ticketing system were developed to facilitate tracing of loads, particularly for chemical waste, and to ensure that illegal disposal of wastes does not occur.	√		
	- Records of the quantities of wastes generated, recycled and disposal were maintained.	√		
<b>Chemical Waste</b>	- Under the Waste Disposal (Chemical Waste) (General) Regulation, chemical waste producers were registered with EPD.	√		
	- Chemical wastes were transported by a registered chemical waste collector to a facility licensed to receive chemical waste.	√		
	- Containers used for the storage of chemical wastes were:			
	1.Suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;	√		
	2.Enclosed on at least 3 sides;	√		
	3.Have an impermeable floor and bunding, of capacity to accommodate 120% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest;	√		
	4.-Have adequate ventilation;	√		
	5.Covered to prevent rainfall entering (water collected within the bund must be tested and disposal as chemical waste if necessary);	√		
6.Arranged so that incompatible materials are adequately separated.	√			



## **Appendix I**

### **IEC and RE Comments on Monthly EM&A Report**

—

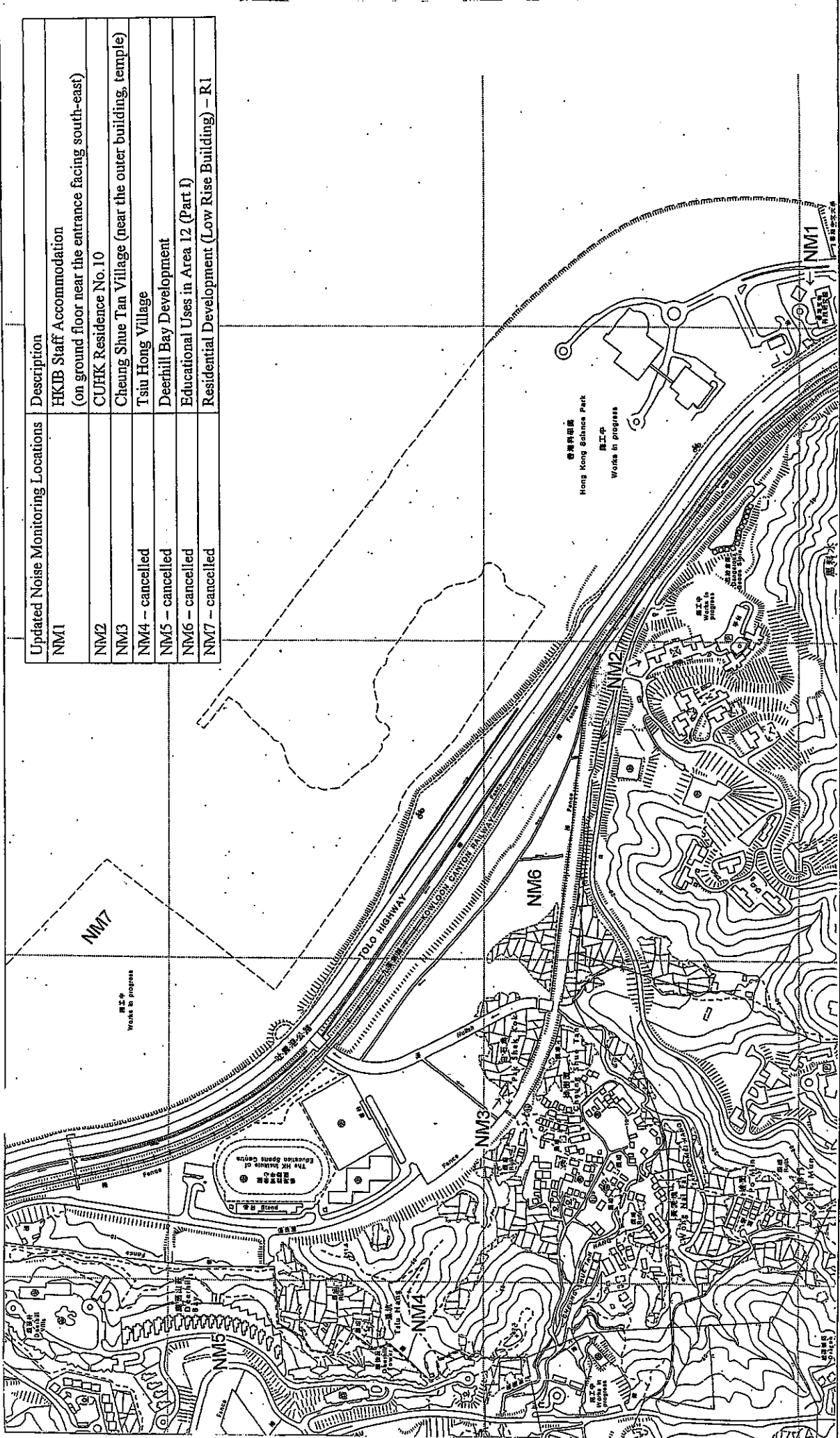
**January 2005**

## IEC and RE Comments on Monthly Environmental Monitoring and Audit Report – January 2005

Item No.	Document Reference	Comment	ET Response
---	---	No RE / IEC Comments on Monthly Environmental Monitoring and Audit Report – January 2005 were received.	No ET responses were required



## Figures



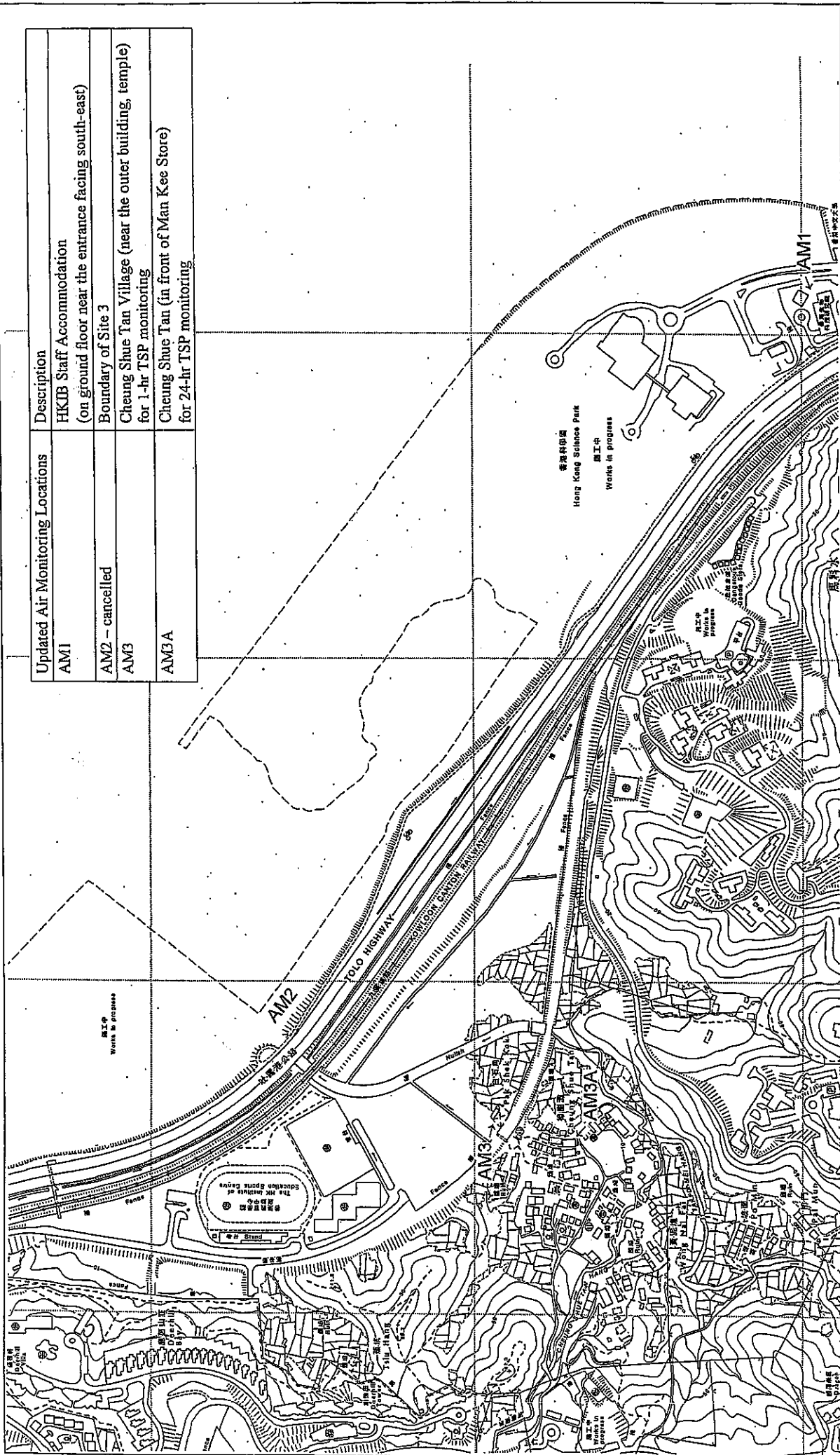
Updated Noise Monitoring Locations	Description
NM1	HKIB Staff Accommodation (on ground floor near the entrance facing south-east)
NM2	CUHK Residence No.10
NM3	Cheung Shue Tan Village (near the outer building, temple)
NM4 – cancelled	Tsin Hong Village
NM5 – cancelled	Deerhill Bay Development
NM6 – cancelled	Educational Uses in Area 12 (Part I)
NM7 – cancelled	Residential Development (Low Rise Building) – R1

Remaining Engineering Works for Pak Shek Kok Development, Package 1  
 Contract No. TP35/02  
 Figure 1 Location of Noise Monitoring Stations

Scale : ---  
 Revised Date: 15/11/2002



專業測試顧問有限公司  
 ETS-TESTCONSULT LIMITED



Updated Air Monitoring Locations	Description
AM1	HKIB Staff Accommodation (on ground floor near the entrance facing south-east)
AM2 - cancelled	Boundary of Site 3
AM3	Cheung Shue Tan Village (near the outer building, temple) for 1-hr TSP monitoring
AM3A	Cheung Shue Tan (in front of Man Kee Store) for 24-hr TSP monitoring

Scale : ----

Remaining Engineering Works for Pak Shek Kok Development, Package 1  
 Contract No. TP35/02

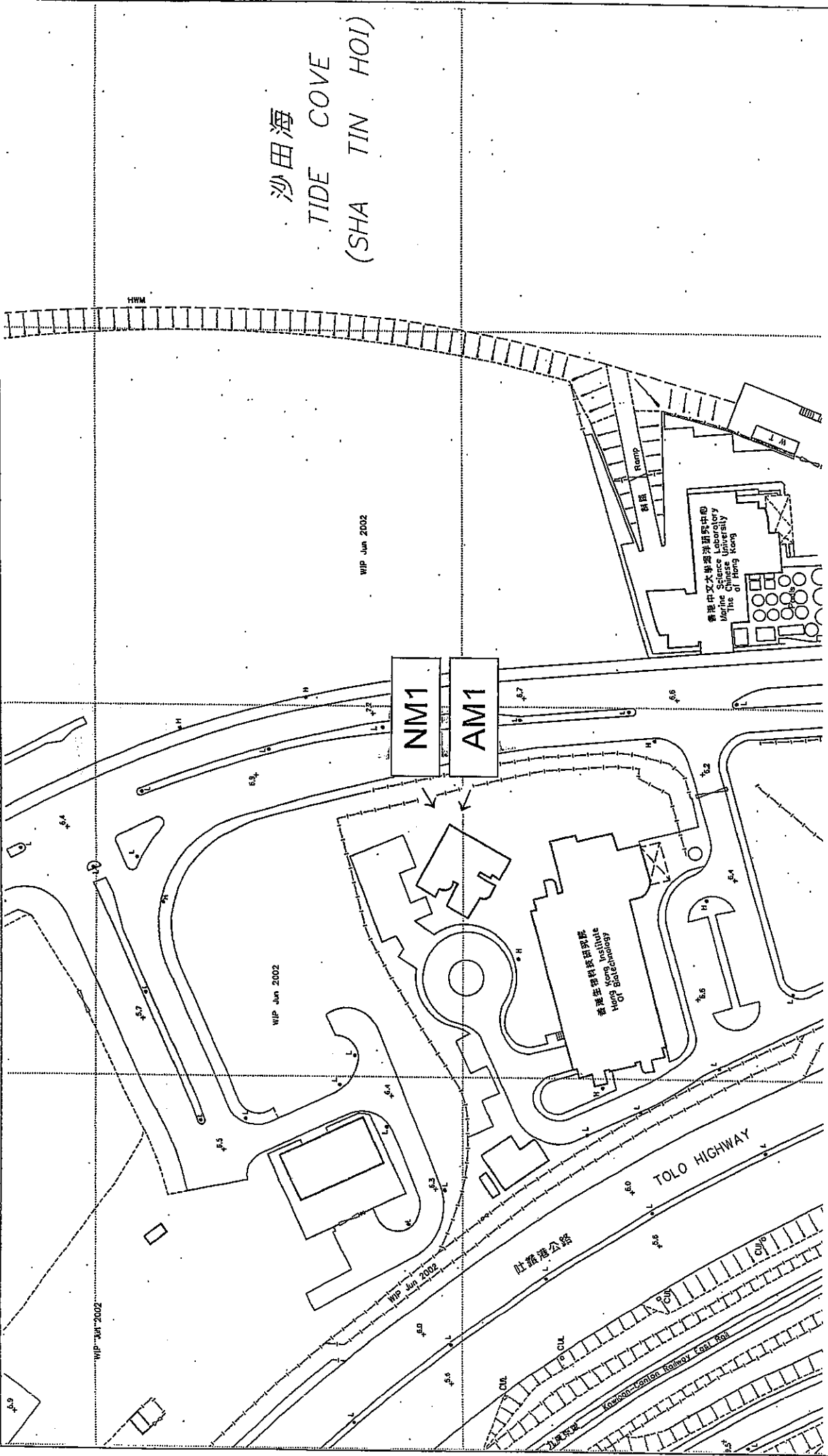
Figure 2 Location of Air Monitoring Stations



東業德動測試顧問有限公司  
 ETS-TESTCONSULT LIMITED

Revised Date:  
 15/11/2002

沙田海  
TIDE COVE  
(SHA TIN HOI)



Scale : ---

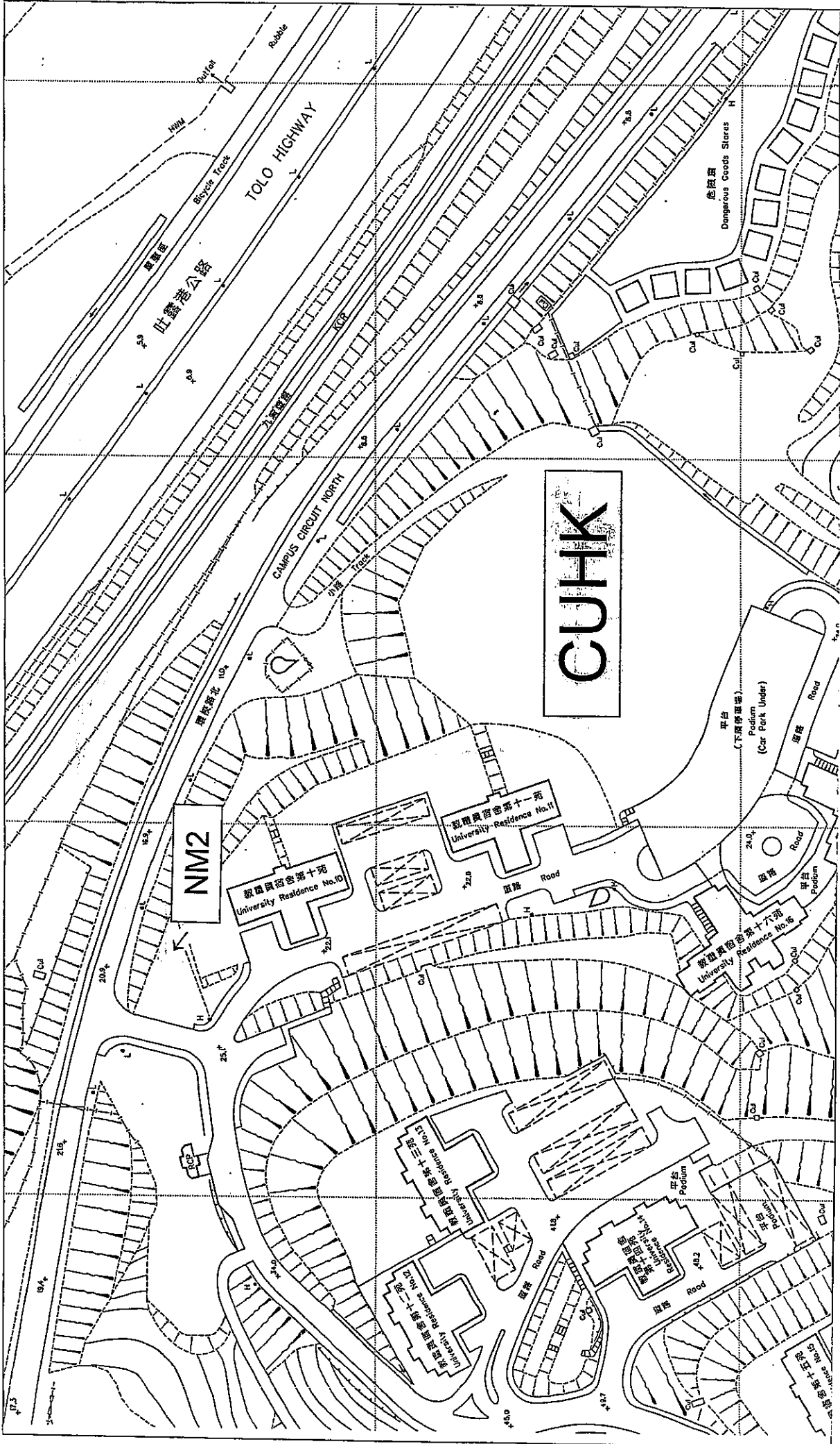
Remaining Engineering Works for Pak Shek Kok Development, Package 1  
Contract No. TP35/02  
Figure 3 Location of Air and Noise Monitoring Stations  
at HKIB Staff Accommodation

Revised Date:

15/11/2002



東業德動測試顧問有限公司  
ETS-TESTCONSULT LIMITED



Scale : ---

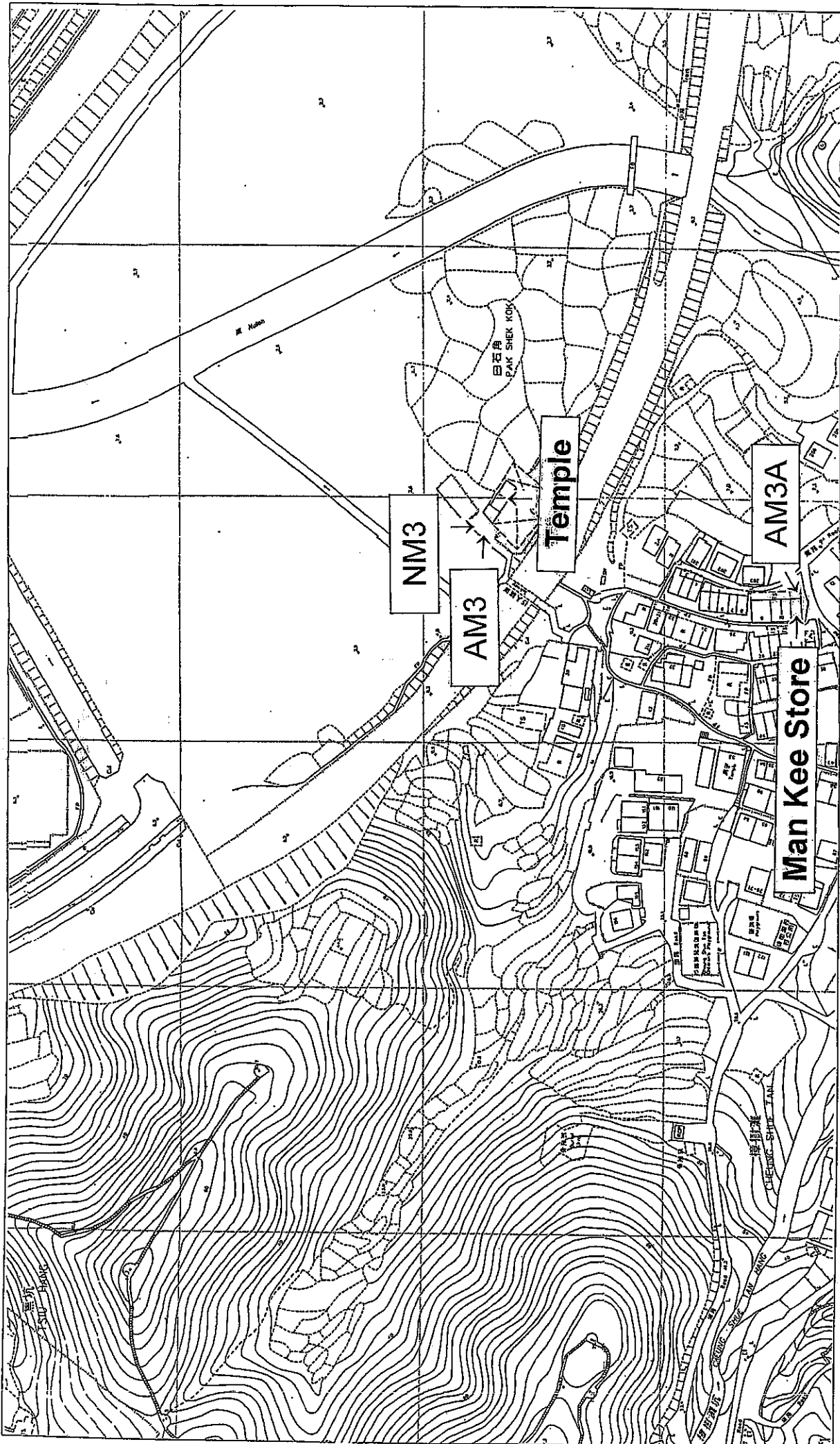
Remaining Engineering Works for Pak Shek Kok Development, Package 1  
 Contract No. TP35/02  
 Figure 4 Location of Noise Monitoring Station at CUHK Residence No.10



東業德動測試顧問有限公司  
 ETS-TESTCONSULT LIMITED

Revised Date:  
 15/11/2002





Scale : ---

Remaining Engineering Works for Pak Shek Kok Development, Package 1  
 Contract No. TP35/02

Figure 5 Location of Air and Noise Monitoring Stations  
 at Cheung Shue Tan Village



東業德勤測試顧問有限公司  
 ETS-TESTCONSULT LIMITED

Revised Date:

15/11/2002