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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

(APRIL 2005)

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EXECUTIVE SUMMARY

This monthly EM&A report (No.28) 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 30 April 2005.

Construction Progress

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

- *Watermain works in Area 4*
- *Dismantling of Road D1 bridge deck falsework*
- *Construction works at pumping station no.1 and no.2*
- *Construction of sewer rising main connected to PS1 at area 7B*
- *Construction of sewer rising main connected to PS2 at area 15*
- *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 (Holiday): 4 Occasions at 3 designated locations*
- *24-hour TSP Monitoring: 5 Occasions at 2 designated locations*
- *1-hour TSP Monitoring: 13 Occasions at 2 designated locations*
- *Weekly-site inspection: 5 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>
<i>ET (weekly site inspection)</i>	<i>02, 09, 16, 23, 30</i>
<i>IEC/POC/ET (Monthly site inspection)</i>	<i>28</i>

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 30 April 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
Area 4	Watermain works
Road D1	Construction of Road D1 Bridge deck falsework
No.1 & No.2	Construction of pump stations
Area 7B	Construction of sewer rising main connected to PS1
Area 15	Construction of sewer rising main connected to PS2
---	General landscape works
---	Installation of irrigation system

Table 3.2 Implementation of Environmental Mitigation Measures

General construction works	<ul style="list-style-type: none"> • Effective water sprays used on the site at potential dust emission sources such as unpaved area; • The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading; • Minimize of exposed soil areas to reduce the potential for increased siltation and contamination of run-off; • Water, hydro-seed or cover the open stockpile and exposed loose soil areas by using clean tarpaulin sheets; • 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; • Remove the sand/rubbish accumulated in the drain/channel regularly; • 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; • Remove the construction waste accumulated inside or outside the site regularly; • Keep good waste management.
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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			
0AM1	HKIB Staff Accommodation					02/04/05	08:50	09:50
						06/04/05	08:30	09:30
						07/04/05	10:10	11:10
						09/04/05	15:03	16:03
						12/04/05	10:30	11:30
						14/04/05	09:30	10:30
						16/04/05	10:20	11:20
						19/04/05	08:32	09:32
						21/04/05	08:30	09:30
						23/04/05	14:10	15:10
						26/04/05	15:10	16:10
						28/04/05	10:00	11:00
						30/04/05	10:40	11:40
AM3	Cheung Shue Tan Village (near the outer building, temple)					02/04/05	10:10	11:10
						06/04/05	10:30	11:30
						07/04/05	08:40	09:40
						09/04/05	10:58	11:58
						12/04/05	13:00	14:00
						14/04/05	10:45	11:45
						16/04/05	13:30	14:30
						19/04/05	17:02	18:02
						21/04/05	13:10	14:10
						23/04/05	09:30	10:30
						26/04/05	10:18	11:18
						28/04/05	16:30	17:30
						30/04/05	13:00	14:00
AM1	HKIB Staff Accommodation	04/04/05	08:05	05/04/05	08:10			
		09/04/05	15:20	10/04/05	14:50			
		15/04/05	13:50	16/04/05	13:52			
		21/04/05	08:34	22/04/05	08:59			
		27/04/05	15:47	28/04/05	15:21			
AM3A	Cheung Shue Tan (in front of Man Kee Store)	04/04/05	08:28	05/04/05	07:35			
		09/04/05	11:10	10/04/05	11:36			
		15/04/05	14:05	16/04/05	13:58			
		21/04/05	13:05	22/04/05	13:06			
		27/04/05	15:27	28/04/05	15:34			

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 0.6m³/min and 1.7m³/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 (Lx). 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	06/04/05	08:40	---	---	03/04/05	09:45	---	---
	12/04/05	10:34	---	---	10/04/05	14:10	---	---
	19/04/05	08:35	---	---	17/04/05	09:45	---	---
	26/04/05	15:12	---	---	24/04/05	14:20	---	---
NM2	06/04/05	09:45	---	---	03/04/05	10:10	---	---
	12/04/05	11:24	---	---	10/04/05	14:45	---	---
	19/04/05	18:20	---	---	17/04/05	10:10	---	---
	26/04/05	18:05	---	---	24/04/05	14:48	---	---
NM3	06/04/05	10:39	---	---	03/04/05	10:40	---	---
	12/04/05	13:05	---	---	10/04/05	15:20	---	---
	19/04/05	17:08	---	---	17/04/05	10:40	---	---
	26/04/05	10:20	---	---	24/04/05	15:15	---	---

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

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

* = 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 and holiday noise monitoring were carried out at monitoring stations, NM1, NM2 and NM3 in this reporting month. No evening-time and night-time noise monitoring were required since no construction works were processed during these periods. 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 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 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 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"> • POC paved the site main haul road with concrete and bituminous materials; • The road surface was wet by the spraying of water regularly by POC. 	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

During the reporting month, weekly site inspections were undertaken at 02, 09, 16, 23, and 30 April 2005 by ET. Monthly joint site inspection at 28 April 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
Construction Noise Permit (General / Prescribed construction works)	GW-RN0039-05	11/0205	10/07/05	<p><u>Group A (For Area B2 or E)</u></p> <ul style="list-style-type: none"> • 1 Poker, vibratory, hand-held (CNP 170) • 1 Concrete pump, lorry mounted (CNP 047) • 1 Concrete lorry mixer (CNP 044) <p><u>Group B (For Area B2 or E):</u></p> <ul style="list-style-type: none"> • 2 Generator, silenced, 75dB(A) at 7m (CNP 102) • 1 Excavator, tracked (CNP 081) • 1 Lorry, with crane <p><u>Group C (For Area B2 or E):</u></p> <ul style="list-style-type: none"> • 1 Generator, silenced, 75dB(A) at 7m (CNP 102) • 1 Drill/Grinder, hand-held (electric) (CNP 065) • 1 Saw, circular, wood (CNP 201) • 2 Water pump, submersible (electric) (CNP 283) • 1 Air Compressor (CNP002) • 1 Bar bender and cutter (electric) (CNP 021) <p><u>Group D (For Area B, C or D):</u></p> <ul style="list-style-type: none"> • 1 Asphalt paver (CNP 004) • 1 Roller, vibratory (CNP 186)

Description	Permit No.	Valid Period		Section
		From	To	
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

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 50m³ 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 ³)	0	Nil
C&D material (Non-inert) (m ³)	0	Nil
General Refuse (m ³)	50	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 and holiday noise levels were recorded at all monitoring stations exceeded the Action and Limit Level in this reporting month. No evening-time and night-time noise monitoring were required since no construction works were processed during these periods.

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	May 2005	June 2005
Noise Monitoring (Day-time)	03, 10, 17, 24, 31	07, 14, 21, 28
1-hour TSP	03, 05, 07, 10, 12, 14, 17, 19, 21, 24, 26, 28, 31	02, 04, 07, 09, 11, 14, 16, 18, 21, 23, 25, 28, 30
24-hour TSP	03, 09, 14, 20, 26	01, 07, 13, 18, 24, 30
Site Inspection	07, 14, 21, 28	04, 11, 18, 25

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.

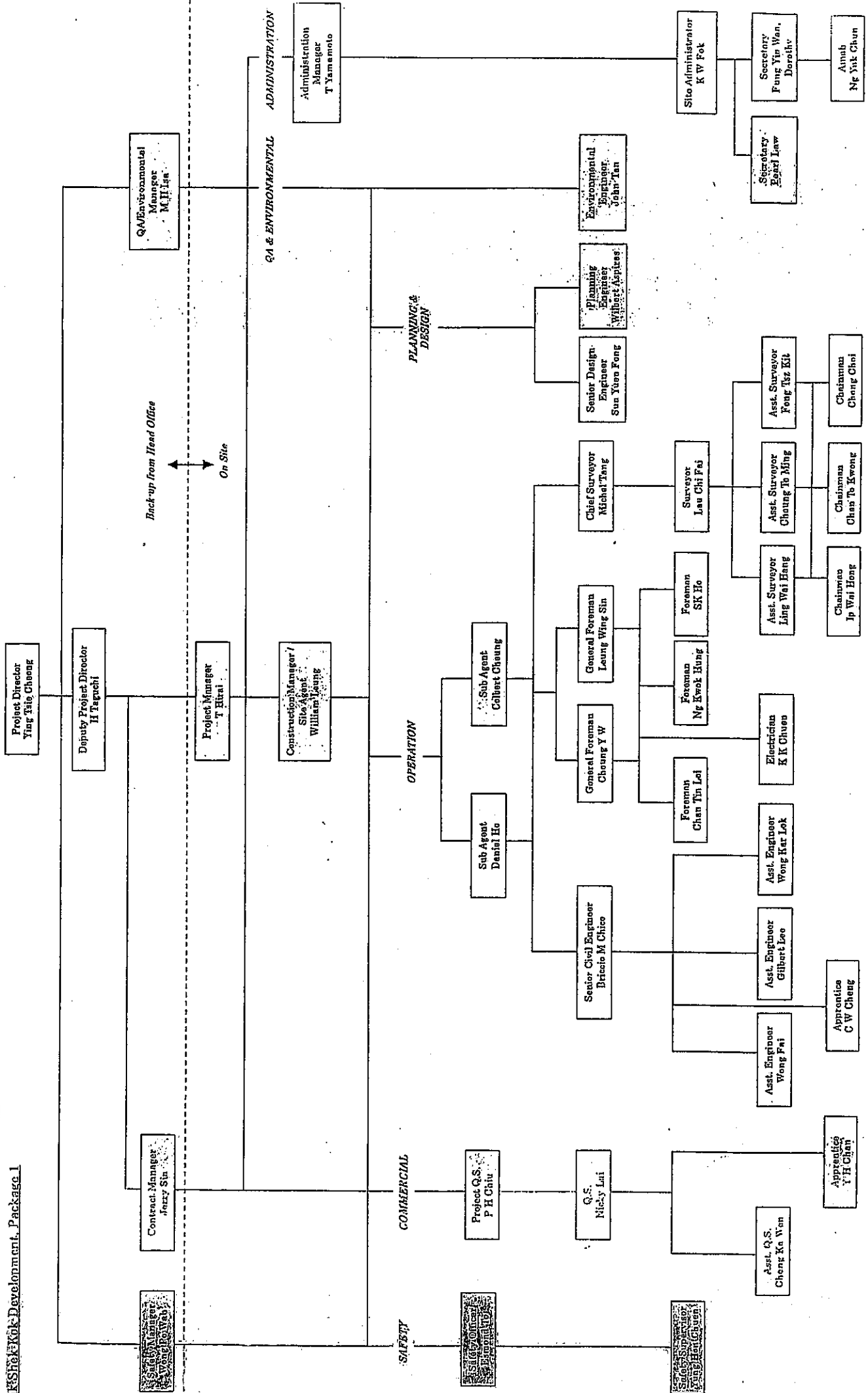
Table 12.2 – Construction Plan in the coming month

Month	Works Planned to be Carried Out
Between May and June 2005	▪ Watermain works in Area 4
	▪ Dismantling of Road D1 bridge deck falsework
	▪ Construction of sewer rising main connected to PS1 at area 7B
	▪ Construction of sewer rising main connected to PS2 at area 15
	▪ Construction works at pumping station no.1 and no.2
	▪ General landscape works
	▪ Installation of irrigation system

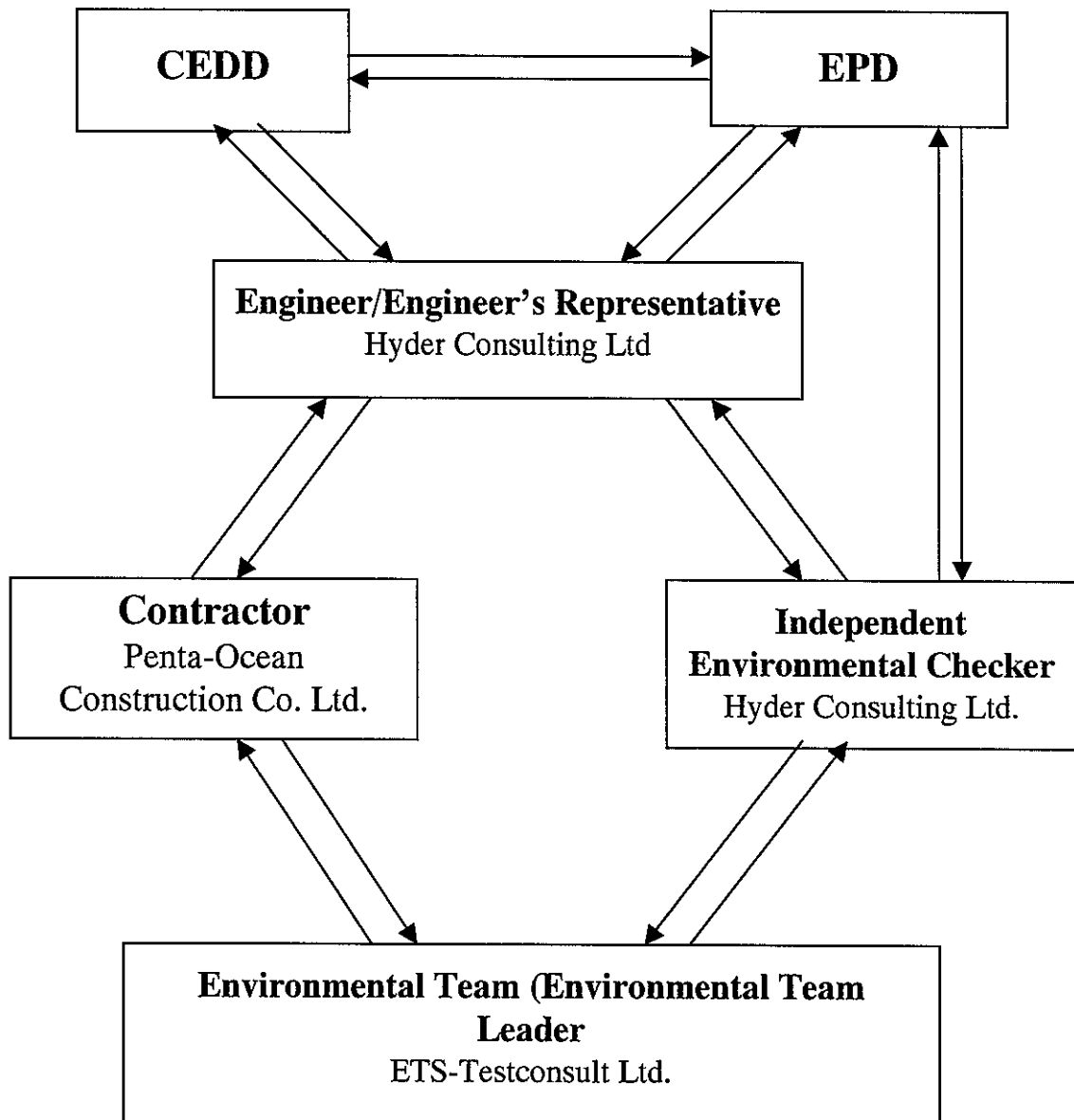


Appendix A

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 : etf@ets-testconsult.com
Fax : 2695 3944 Web site : www.ets-testconsult.com

TEST REPORT

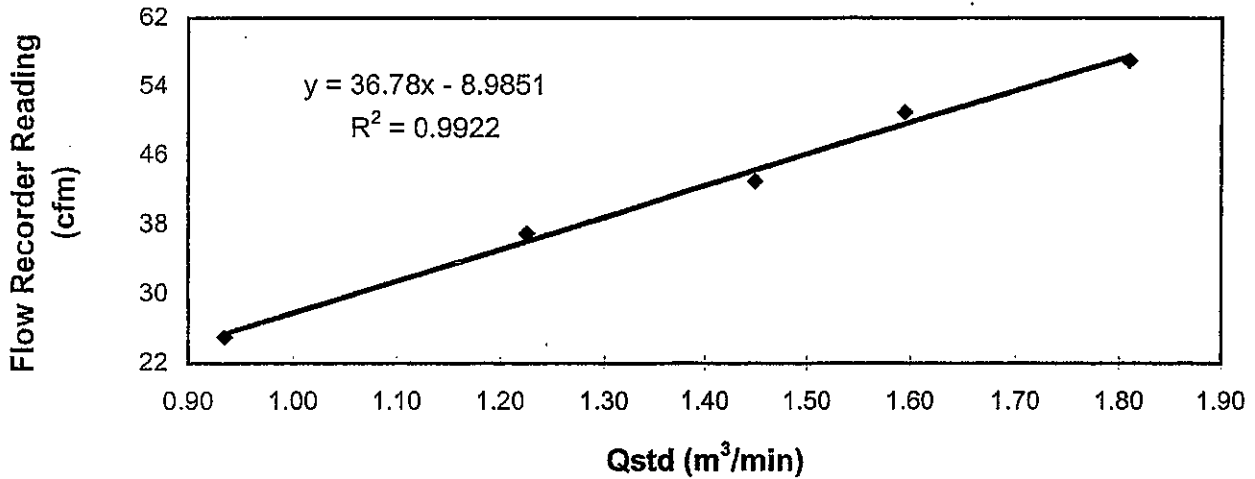
Calibration Report
of
High Volume Air Sampler

Manufacturer : Greasby GMW Date of Calibration : 15 March 2005
Serial No. : 1178 (ET / EA / 003 / 01) Calibration Due Date : 14 May 2005
Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results :


Flow recorder reading (cfm)	57	51	43	37	25
Qstd (Actual flow rate, m ³ /min)	1.81	1.59	1.45	1.23	0.93
Pressure : 763.56 mm Hg	Temp. : 287 K				


Sampler1178 Calibration Curve
Site: Pak Shek Kok Monitoring Station AM1 (24hr.)
Date of Calibration: 15 March 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 : 
Felix Tin
(Technician)

Approved by : 
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

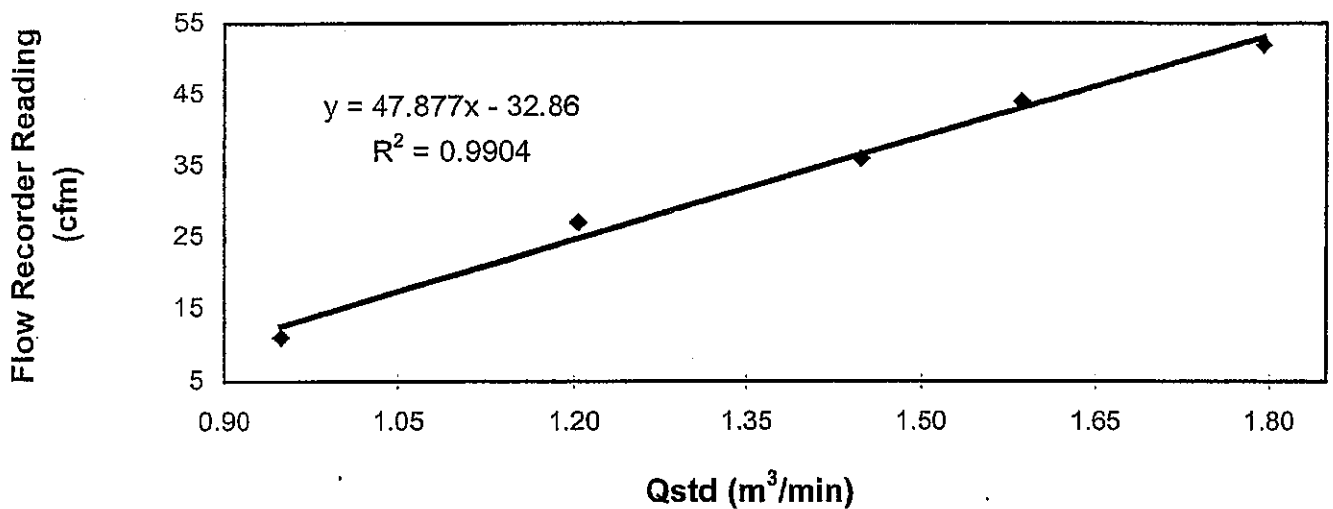
Calibration Report
of
High Volume Air Sampler

Manufacturer : Greasby GMW Date of Calibration : 15 March 2005
Serial No. : 7179 (ET / EA / 003 / 16) Calibration Due Date : 14 May 2005
Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results :


Flow recorder reading (cfm)	52	44	36	27	11
Qstd (Actual flow rate, m ³ /min)	1.79	1.59	1.45	1.20	0.95
Pressure :	763.56 mm Hg			Temp. :	287 K

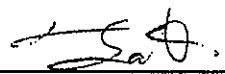
Sampler 7179 Calibration Curve
Site: Pak Shek Kok (AM3A)
Date of Calibration: 15 March 2005



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 : 
Felix Tin
(Technician)

Approved by : 
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	Start Time	Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)	Weather Condition
		Date	Time	Initial	Final		Initial	Final		Initial	Final		
04/04/05	08:05	05/04/05	08:10	8141.77	8165.86	24.09	1.43	1.43	1.43	2.8933	3.1306	115	Sunny
09/04/05	15:20	10/04/05	14:50	8189.60	8213.06	23.46	1.55	1.55	1.55	2.8948	3.0130	54	Cloudy
15/04/05	13:50	16/04/05	13:52	8237.04	8261.08	24.04	1.55	1.55	1.55	2.8836	3.0589	78	Cloudy
21/04/05	08:34	22/04/05	08:59	8285.15	8309.57	24.42	1.49	1.49	1.49	2.9099	3.0770	77	Cloudy
27/04/05	15:47	28/04/05	15:21	8333.53	8357.10	23.57	1.49	1.49	1.49	2.8977	3.0079	52	Cloudy

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

Start Date	Start Time	Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m ³ /min.)		Average (m ³ /min.)	Filter Weight (g)		Conc. (µg/m ³)	Weather Condition
		Date	Time	Initial	Final		Initial	Final		Initial	Final		
04/04/05	08:28	05/04/05	07:35	13476.24	13499.35	23.11	1.21	1.21	1.21	2.8756	3.0478	103	Sunny
09/04/05	11:10	10/04/05	11:36	13523.29	13547.73	24.44	1.23	1.23	1.23	2.8844	2.9769	51	Cloudy
15/04/05	14:06	16/04/05	13:58	13572.07	13595.96	23.89	1.23	1.23	1.23	2.9026	3.0759	98	Cloudy
21/04/05	13:05	22/04/05	13:06	13620.14	16644.16	24.02	1.49	1.49	1.49	2.8990	3.0405	66	Cloudy
27/04/05	15:27	28/04/05	15:34	13668.42	13692.54	24.12	1.49	1.49	1.49	2.9011	2.9749	34	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		
02/04/05	08:50	09:50	114	387	164	Cloudy	
06/04/05	08:30	09:30	83	359	121	Cloudy	
07/04/05	10:10	11:10	115	389	155	Cloudy	
09/04/05	15:03	16:03	96	389	127	Cloudy	
12/04/05	10:30	11:30	84	371	122	Cloudy	
14/04/05	09:30	10:30	105	427	180	Cloudy	
16/04/05	10:20	11:20	106	390	148	Cloudy	
19/04/05	08:32	09:32	89	376	135	Sunny	
21/04/05	08:30	09:30	104	395	149	Cloudy	
23/04/05	14:10	15:10	91	362	127	Cloudy	
26/04/05	15:10	16:10	97	380	186	Cloudy	
28/04/05	10:00	11:00	104	392	165	Cloudy	
30/04/05	10:40	11:40	90	365	173	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		
02/04/05	10:10	11:10	92	340	150	Cloudy	
06/04/05	10:30	11:30	71	309	104	Cloudy	
07/04/05	08:40	09:40	109	362	141	Cloudy	
09/04/05	10:58	11:58	77	336	88	Cloudy	
12/04/05	13:00	14:00	79	312	103	Cloudy	
14/04/05	10:45	11:45	99	372	160	Cloudy	
16/04/05	13:30	14:30	93	349	137	Cloudy	
19/04/05	17:02	18:02	82	351	95	Sunny	
21/04/05	13:10	14:10	75	337	111	Cloudy	
23/04/05	09:30	10:30	87	342	89	Cloudy	
26/04/05	10:18	11:18	84	335	121	Cloudy	
28/04/05	16:30	17:30	90	340	120	Cloudy	
30/04/05	13:00	14:00	70	324	152	Cloudy	

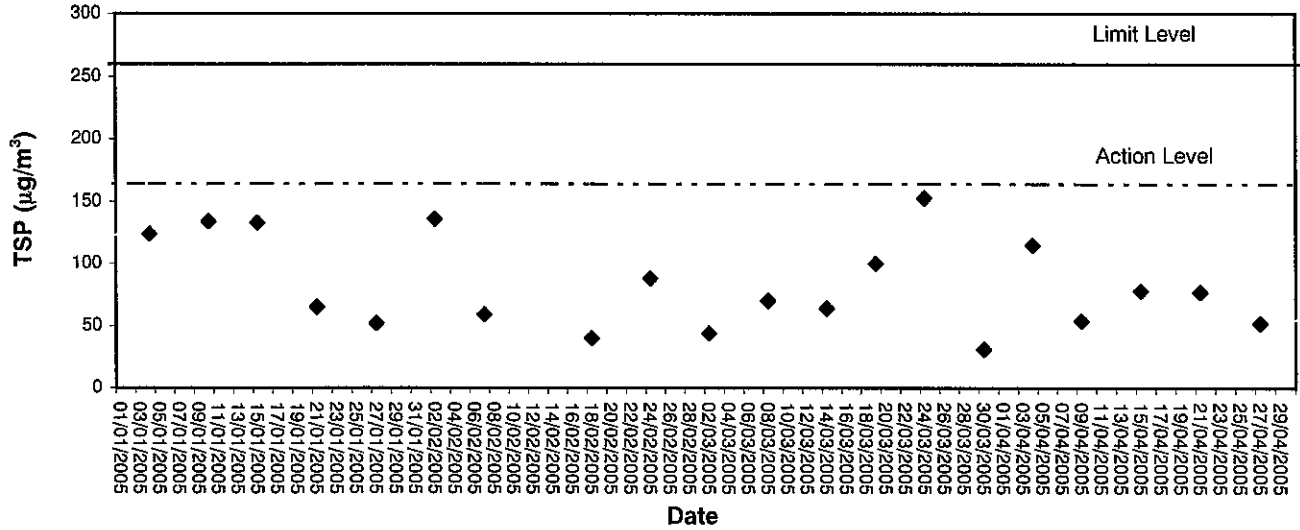


Appendix B3

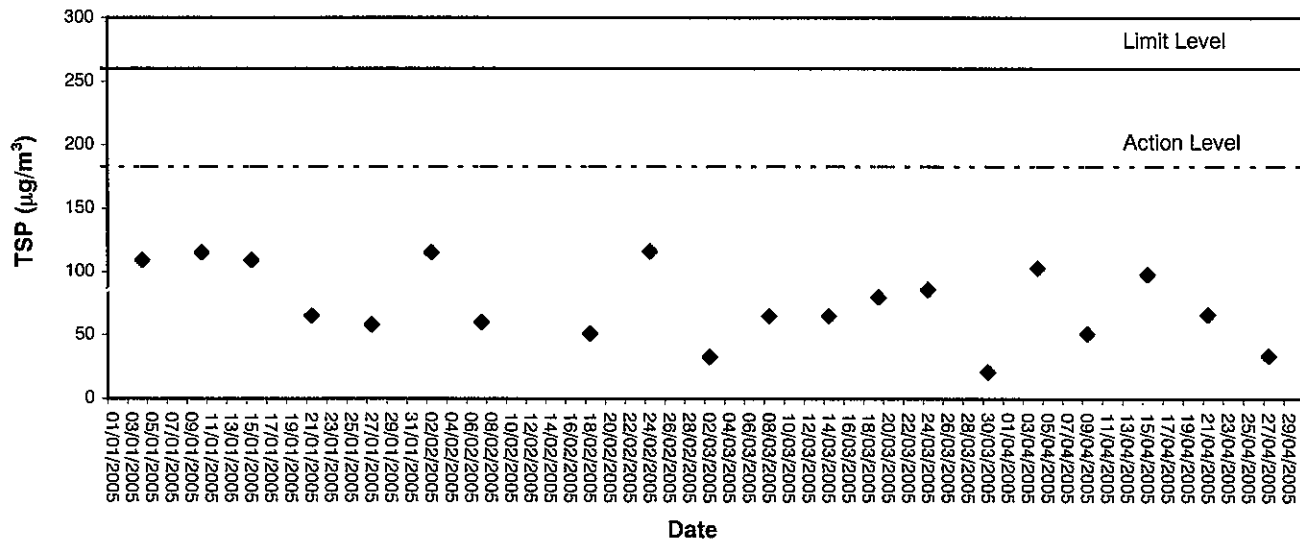
Graphical Plots of Air Quality Monitoring Data



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

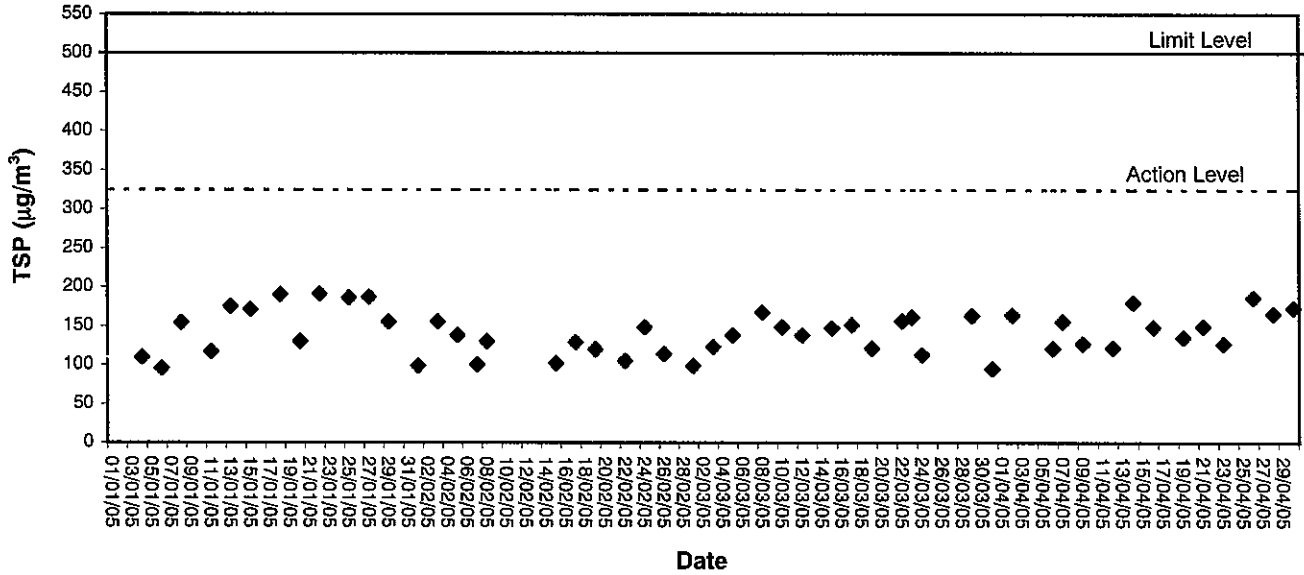


24-hour TSP level at AM3A (Cheung Shue Tan in front of Man Kee Store)

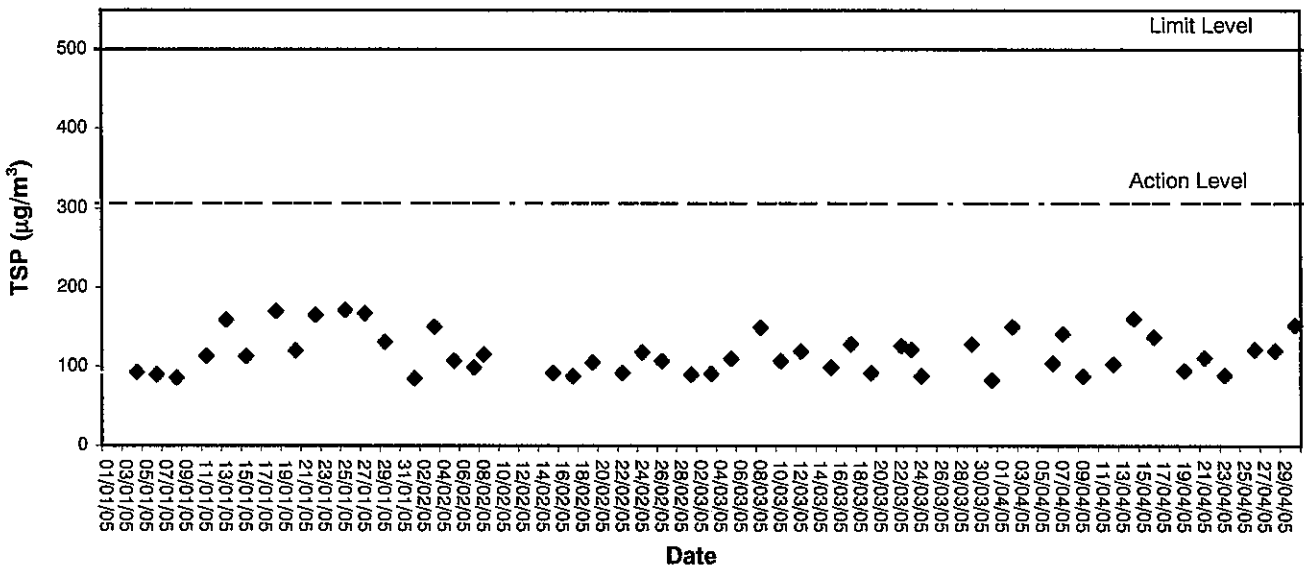




1-hour TSP level at AM1, HKIB Staff Accommodation



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. 44393

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. : Q41524

Date of receipt : 23-Sep-04

Item Tested

Description : Precision Integrating Sound Level Meter

Manufacturer : Rion

Model : NL-31

Serial No. : 00110024

Test Conditions

Date of Test : 28-Sep-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 : 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).

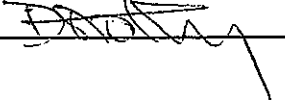
Test equipment used:


<u>Equipment No.</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S017	S30857	8-Apr-05	PRC-NIM
S024	S41431	22-May-05	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: 28-Sep-04

This Certificate is issued by:
Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.
Tel: 2425 8801 Fax: 2425 8646



Calibration Certificate

Certificate No. 44393

Page 2 of 3 Pages

Results :

1. SPL Accuracy

UUT Setting			UUT Reading (dB)	Correction (dB)
Level Range (dB)	Weight	Response		
20 - 100	L _A	Fast	94.0	+ 0.2
		Slow		+ 0.3
	L _C	Fast		+ 0.2
	L _p	Fast		+ 0.2
		Fast		+ 0.2
30 - 120	L _A	Fast	94.0	+ 0.3
		Slow		+ 0.3
	L _C	Fast		+ 0.3
	L _p	Fast		+ 0.2
		Fast		+ 0.2
30 - 120	L _A	Fast	114.0	+ 0.4
		Slow		+ 0.4
	L _C	Fast		+ 0.4
	L _p	Fast		+ 0.4
		Fast		+ 0.3

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. 44393

Page 3 of 3 Pages

3. Frequency Weighting

A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	- 39.6	- 39.4 dB, ± 1.5 dB
63 Hz	- 26.2	- 26.2 dB, ± 1.5 dB
125 Hz	- 16.3	- 16.1 dB, ± 1 dB
250 Hz	- 8.8	- 8.6 dB, ± 1 dB
500 Hz	- 3.3	- 3.2 dB, ± 1 dB
1 kHz	0.0 (Ref.)	0 dB, ± 1 dB
2 kHz	+ 1.2	+ 1.2 dB, ± 1 dB
5 kHz	+ 1.1	+ 1.0 dB, ± 1 dB
8 kHz	- 1.2	- 1.1 dB, + 1.5 dB ~ - 3 dB
16 kHz	- 6.7	- 6.6 dB, + 3 dB ~ ∞

Uncertainty : ± 0.1 dB

4. Time Averaging

Applied Burst duty Factor	UUT Reading (dB)	Correction (dB)	IEC 804 Type 1 Spec.
continuous	40.0	--	--
1/10	40.0	0.0	± 0.5 dB
1/10 ²	39.9	+ 0.1	
1/10 ³	39.9	+ 0.1	± 1.0 dB
1/10 ⁴	39.9	+ 0.1	

Uncertainty : ± 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 : 990 hPa.

----- END -----



Hong Kong Calibration Ltd.

香港校正有限公司

Calibration Certificate

Certificate No. 42531

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. : Q40790

Date of receipt : 27-May-04

Item Tested

Description : Acoustic Calibrator

Manufacturer : Castle

Model : GA607

Serial No. : 038641

Test Conditions

Date of Test : 28-May-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 : F06, F20, Z02.

Test Results

All results were within the manufacturer's, IEC 942 Class 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>
S014	30961	1-Jun-04	PRC-NIM
S024	S41431	22-May-05	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: 28-May-04

This Certificate is issued by:

Hong Kong Calibration Ltd.

Unit 8B, 24/F., Well Fung Industrial Centre, No. 58-76, Ta Chuen Ping Street, Kwai Chung, NT, Hong Kong.

Tel: 2425 8801 Fax: 2425 8646

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Calibration Certificate

Certificate No. 42531

Page 2 of 2 Pages

Results :

1. Level Accuracy (at 1 kHz)

UUT Setting (dB)	Measured Value (dB)	IEC 942 Class 1 Spec.
94	93.8	± 0.3 dB

Uncertainty : ± 0.2 dB

2. Frequency Accuracy

UUT Nominal Value (kHz)	Measured Value (kHz)	IEC 942 Class 1 Spec.
1	1.006	± 2 %

Uncertainty : $\pm 3.6 \times 10^{-6}$

3. **Level Stability** : 0.0 dB
IEC 942 Class 1 Spec. : ± 0.1 dB
Uncertainty : ± 0.01 dB
4. **Total Harmonic Distortion** : < 1.7 %
IEC 942 Class 1 Spec. : < 3 %
Uncertainty : ± 2.3 % of rdg.

Remark : 1. UUT : Unit-Under-Test

2. The above measured values are the mean of 3 measurements.
3. The uncertainty claimed is for a confidence probability of not less than 95%.
4. Atmospheric Pressure : 992 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 _{eq} (30)	L10	L90		
06/04/05	08:40	60.2	61.5	55.9	1.4	Cloudy
12/04/05	10:34	58.8	61.1	55.6	1.4	Cloudy
19/04/05	08:35	58.2	60.5	56.7	0.8	Sunny
26/04/05	15:12	58.5	61.2	54.9	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 _{eq} (30)	L10	L90		
06/04/05	09:45	57.9	59.8	54.2	1.2	Cloudy
12/04/05	11:24	57.4	58.2	53.3	1.2	Cloudy
19/04/05	18:20	55.1	57.3	52.5	0.4	Sunny
26/04/05	18:05	55.2	57.8	52.3	0.5	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 _{eq} (30)	L10	L90		
06/04/05	10:39	55.3	56.7	50.0	1.0	Cloudy
12/04/05	13:05	56.6	58.3	50.1	0.9	Cloudy
19/04/05	17:08	52.8	55.0	49.7	0.8	Sunny
26/04/05	10:20	53.8	56.0	49.8	0.5	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 _{eq} (5)			L10			L90				
03/04/05	09:45	57.6	58.0	58.3	59.8	60.1	60.4	55.2	55.4	55.7	0.8	Cloudy
10/04/05	14:10	60.1	58.1	57.3	61.9	60.3	59.2	53.1	52.6	52.4	1.3	Cloudy
17/04/05	09:45	57.9	57.5	57.0	59.8	59.6	59.2	54.3	54.2	54.0	0.7	Cloudy
24/04/05	14:20	60.2	60.5	60.8	63.4	63.9	64.1	57.2	57.4	57.9	0.7	Sunny

Monitoring Location: NM2 (CUHK Residence No.10)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L _{eq} (5)			L10			L90				
03/04/05	10:10	54.7	55.0	54.8	57.0	57.5	56.9	52.6	52.9	52.4	0.5	Cloudy
10/04/05	14:45	57.8	56.3	57.1	59.6	58.2	59.4	51.7	52.0	51.5	1.2	Cloudy
17/04/05	10:10	54.7	55.0	54.9	57.0	57.4	57.3	52.3	52.7	52.5	0.4	Cloudy
24/04/05	14:48	55.7	56.0	55.1	58.7	59.4	58.3	52.2	52.6	51.5	0.5	Sunny

Monitoring Location: NM3 (Cheung Shue Tan Village)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		L _{eq} (5)			L10			L90				
03/04/05	10:40	52.7	53.0	53.2	55.0	55.4	55.6	49.8	50.2	50.5	0.8	Cloudy
10/04/05	15:20	55.4	57.1	56.0	57.2	59.0	58.3	50.6	51.4	50.9	0.8	Cloudy
17/04/05	10:40	53.4	53.2	53.0	55.8	55.6	55.1	49.7	49.5	49.3	0.4	Cloudy
24/04/05	15:15	52.1	51.4	51.0	54.9	54.3	53.7	48.6	48.2	47.4	0.7	Sunny



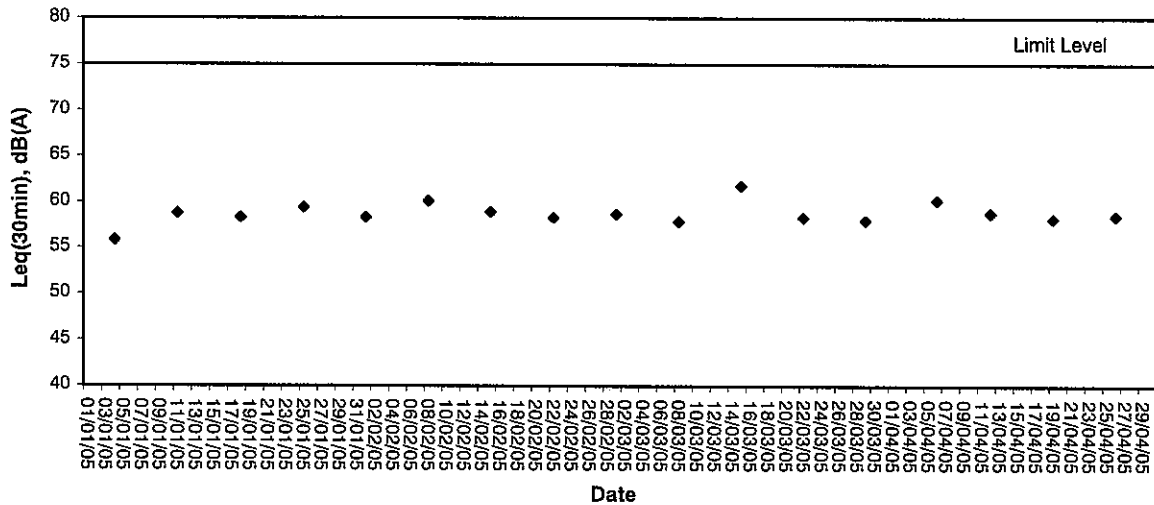
Appendix C3

Graphical Plots of Noise Monitoring Data

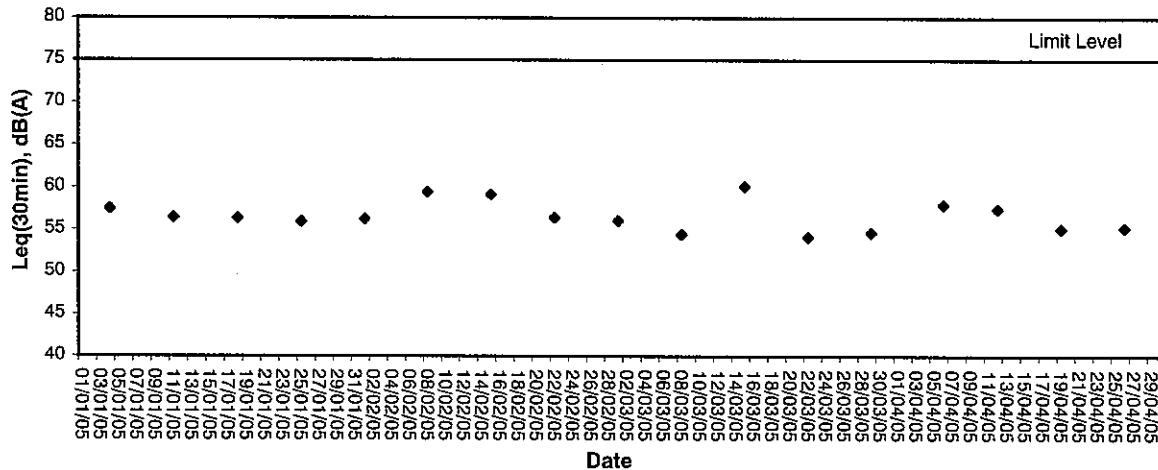


Noise Monitoring (Day-time)

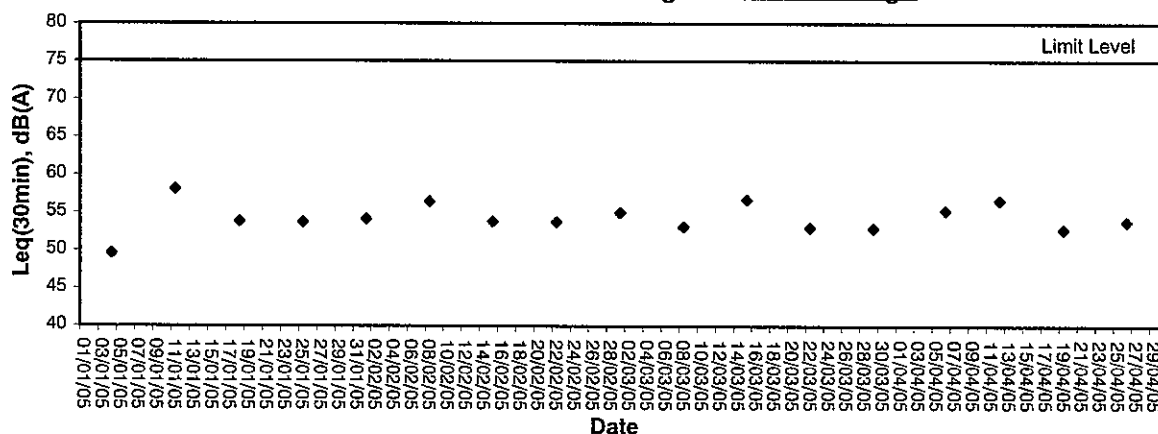
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10



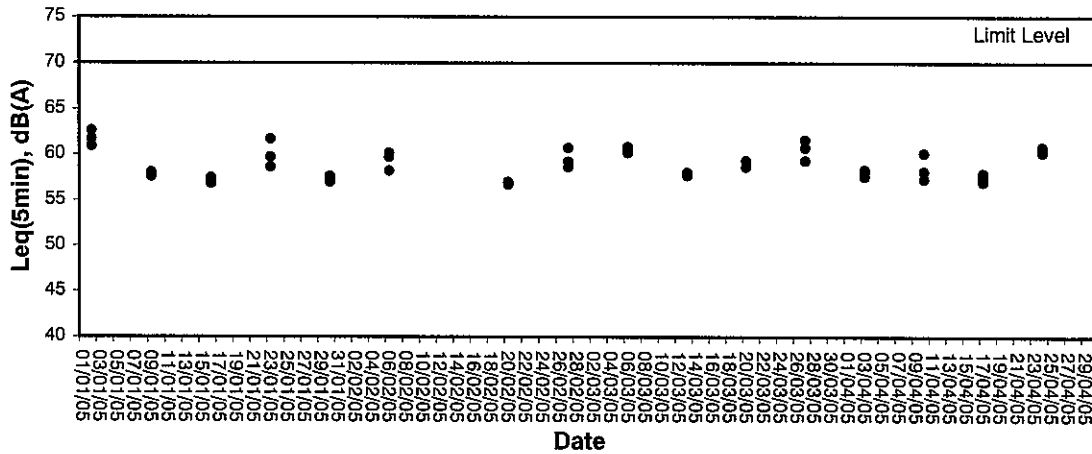
Noise level at NM3, Cheung Shue Tan Village



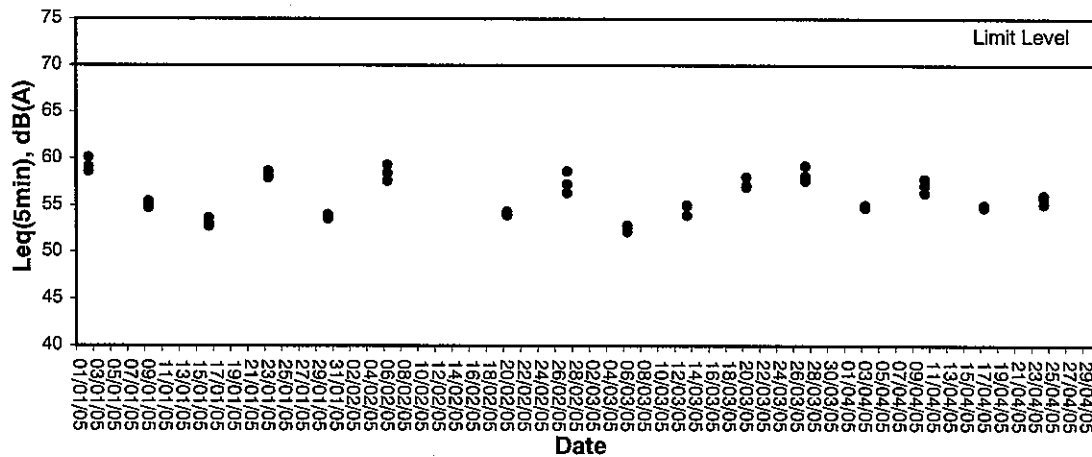


Noise Monitoring (Holiday)

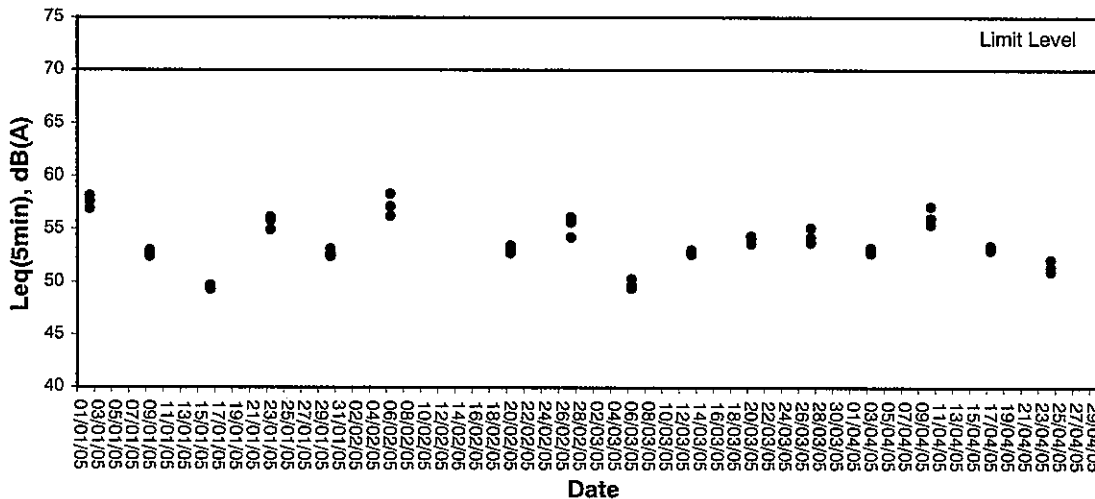
Noise level at NM1, HKIB Staff Accommodation



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)
01/04/05	Trace	18.4	17.1	91	E	<5
02/04/05	0.2	23.1	18.0	81	N	<5
03/04/05	-	25.1	19.1	72	NE	<5
04/04/05	-	22.6	19.1	70	E	<5
05/04/05	-	21.6	18.9	76	E	<5
06/04/05	-	24.8	19.6	83	NE	<5
07/04/05	-	26.9	20.9	86	NE	<5
08/04/05	0.4	26.4	22.6	87	SE	<5
09/04/05	-	28.2	24.2	84	S	<5
10/04/05	-	27.4	24.5	86	S	<5
11/04/05	Trace	28.4	24.3	83	SE	<5
12/04/05	4.1	24.6	17.3	90	NE	<5
13/04/05	15.7	17.3	14.6	91	N	<5
14/04/05	0.3	22.9	17.0	75	NE	<5
15/04/05	0.3	22.8	19.5	79	NE	<5
16/04/05	1.4	22.1	19.8	85	E	<5
17/04/05	Trace	23.1	20.0	80	E	<5
18/04/05	-	26.3	21.0	80	NE	<5
19/04/05	-	27.5	21.9	79	E	<5
20/04/05	-	29.2	22.6	77	E	<5
21/04/05	-	26.3	22.9	84	NE	<5
22/04/05	-	28.8	22.9	81	E	<5
23/04/05	-	28.7	24.0	83	E	<5
24/04/05	-	27.2	23.8	87	E	<5
25/04/05	3.5	25.5	23.7	91	E	<5
26/04/05	Trace	25.1	22.7	89	E	<5
27/04/05	3.1	22.9	21.2	92	NE	<5
28/04/05	0.2	28.2	22.2	85	NE	<5
29/04/05	2.4	28.8	25.9	83	S	<5
30/04/05	0.7	29.2	26.3	82	S	<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	ACTION			
	ET Leader	IC(E)	ER	CNOTRACTOR
Action Level 1. Exceedance of one sample 2. Exceedance for two consecutive samples	1. Identify source 2. Inform IC(E) and ER 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 1. Identify source 2. Inform IC(E) and ER 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with IC(E) and Contractor on remedial actions required 6. If exceedance continuous, arrange meeting with IC(E) and ER 7. If exceedance stops, cease additional monitoring	1. Check monitoring data submitted by ET 2. Check Contractor's working method. 1. Checking monitoring data submitted by ET 2. Check Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervisor implementation of remedial measures	1. Notify Contractor 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	1. Rectify any unacceptable practice 2. Amend working methods if possible 1. Submit proposals for remedial action to IC(E) within 3 working days of notification 2. Implement the agreed proposals 3. Amend proposal if possible
Limit Level 1. Exceedance of one sample 2. Exceedance for two or more consecutive samples	1. Identify source 2. Inform ER and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results 1. Notify IC(E), ER, Contractor and EPD 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 6. Arrange meeting with IC(E) and ER to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER to discuss the remedial action to taken 8. If exceedance stops, cease additional monitoring	1. Check monitoring data submitted by ET 2. Check Contractor's working method. 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposal remedial measures 5. Supervisor implementation of remedial measures 1. Discuss amongst ER, ET, and Contractor on potential remedial actions 2. Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly 3. Supervise the implementation of remedial measures	1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. In consultation with the IC(E), agreed measures to be implemented 4. Ensure remedial measures properly implemented 5. If exceedance continues, consider what portion of this work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance 2. Submit proposal for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Amend proposal if appropriate 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if possible still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.



Event / Action Plan for Construction Noise

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



Appendix F

Construction Programme

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Float Complete	Total Percent Complete
BS-130550	Continue Screen Room to G/L (Walls, Slabs & Beams)	8	15SEP04 A	P04 A	15SEP04 A	22SEP04 A	100	100
BS-130560	Backfilling @ G.L. 4 Wall	2	18SEP04 A	2x5 SEP04 A	18SEP04 A	20SEP04 A	100	100
BS-130570	Construct Footing of Transformer Room	12	21SEP04 A	02OCT04 A	21SEP04 A	02OCT04 A	100	100
BS-130670	Other Walls to G/L (Walls, Beams & Slabs) remaining	20	21SEP04 A	09OCT04 A	21SEP04 A	09OCT04 A	100	100
BS-130680	Construct Transformer Room Structure	13	06OCT04 A	29OCT04 A	06OCT04 A	29OCT04 A	100	100
BS-130830	Walls and Ground Slab Curing Period	7	09OCT04 A	16OCT04 A	09OCT04 A	16OCT04 A	100	100
BS-130840	Walls, Beams & Roof Construction	14	11OCT04 A	05NOV04 A	11OCT04 A	05NOV04 A	100	100
BS-130610	Curing and formworks removal	7	09NOV04 A	20NOV04 A	11OCT04 A	20NOV04 A	100	100
BS-130650	Waterproofing Walls & slab soffit	4	11OCT04 A	21OCT04 A	11OCT04 A	21OCT04 A	100	100
BS-130660	Water Tightness Test of Group A Screen Room	18	25OCT04 A	02DEC04 A	25OCT04 A	02DEC04 A	100	100
BS-130680	Water Tightness Test of Group B Screen Room	18	06NOV04 A	04DEC04 A	08NOV04 A	02DEC04 A	17d	84
BS-131020	Preparation works for Wet Well Watertightness	12	05DEC04	16DEC04	03JAN05	02JAN05	17d	0
BS-131000	Water Tightness Test of Group A Wet Well	18	17DEC04	03JAN05	03JAN05	14FEB05	17d	0
BS-131010	Water Tightness Test of Group B Wet Well	18	10JAN05	21JAN05	21JAN05	14FEB05	17d	0
BS-130760	Staircase Construction & Platform @ Dry Well	25	28NOV04 A	20DEC04	28NOV04 A	20DEC04	22d	24
BS-130770	Construct Internal Wall @ Screen Room A	7	02DEC04	08DEC04	15MAR05	21MAR05	96d	0
BS-130780	Construct Internal Wall @ Screen Room B	6	05DEC04	10DEC04	16MAR05	21MAR05	94d	0
BS-130740	Buffer Wall & Platform Construction @ Wet Well A	7	04JAN05	10JAN05	15FEB05	21FEB05	35d	0
BS-130750	Buffer Wall & Platform Construction @ Wet Well B	7	22JAN05	28JAN05	15FEB05	21FEB05	17d	0
BS-130810	Rising Main Chamber Construction	39	15NOV04 A	24DEC04	15NOV04 A	01MAR05	90d	42
BS-130790	Inlet Chamber Construction	22	09DEC04 A	22DEC04	03DEC04 A	02APR05	94d	7
BS-130850	Backfilling Works to platform level	20	22JAN05	17FEB05	17FEB05	08MAR05	19d	0
BS-130690	DSD Inspection for Building Works	0	25JAN05	02MAY05	02MAY05	02MAY05	81d	0
BS-130710	Sheetpile Extraction	15	18FEB05	04MAR05	09MAR05	23MAR05	19d	0
BS-130800	Inlet Chamber connection to PS2	10	03MAR05	12MAR05	06APR05	15APR05	34d	0
BS-130730	General Backfilling around PS2	10	05MAR05	14MAR05	09APR05	15APR05	32d	0
BS-131030	Rising Main Chamber connection to PS2	15	05MAR05	19MAR05	01APR05	15APR05	27d	0
BS-131040	Construct Boundary Wall	15	20MAR05	03APR05	16APR05	30APR05	27d	0
Painting/Finishing Works								
BS-130680	Roof Finishing	30	28NOV04 A	25DEC04	26NOV04 A	25JAN05	31d	20
BS-130620	Finishing Works @ Transformer room	30	03NOV04 A	09DEC04	03NOV04 A	23JAN05	45d	74
BS-130720	E&M works @ Transformer Room	11	10DEC04	20DEC04	24JAN05	03FEB05	45d	0
BS-130900	Ceiling Finishing & Painting	12	01DEC04 A	12DEC04	01DEC04 A	18DEC04	6d	9
BS-130980	Completion of Prep. on Windows/Louvers/Revisions	0	11DEC04 *	11DEC04	11DEC04	11DEC04	0	0
BS-130910	Wall Finishing	7	12DEC04	18DEC04	12DEC04	18DEC04	0	0
BS-130920	Wall painting	3	19DEC04	21DEC04	19DEC04	21DEC04	0	0
BS-130930	Platform Removal @ Loading Bay	14	27DEC04	08JAN05	22DEC04	28DEC04	0	0
BS-130940	Booster/Toliet (Blockwall+Plastering+Tile+Paint)	5	27DEC04	09JAN05	02JAN05	15JAN05	6d	0
BS-130950	Newly added Wall w/cabinet	20	27DEC04	15JAN05	27DEC04	15JAN05	0	0
BS-130960	Brickwall @ G.L. 2(7days curing)	20	27DEC04	15JAN05	15JAN05	15JAN05	0	0
BS-130970	Finishing Works on these walls	10	16JAN05	25JAN05	16JAN05	25JAN05	0	0
BS-130980	Handover to E&M @ Loading Bay Area	5	09DEC04	13DEC04	22MAR05	26MAR05	98d	0
BS-130840	Mass Concrete/Platform construction @Screen RoomA	5	11DEC04	15DEC04	22MAR05	26MAR05	94d	0
BS-130850	Pipe Trench Construction @ Dry Well	15	21DEC04	04JAN05	12JAN05	26JAN05	22d	0
BS-130860	Bamboo platform & Finishing @ Dry Well	2	05JAN05	25JAN05	27JAN05	23FEB05	22d	0
BS-130870	Benching Stair@Wet Well A & Finishing	2	29JAN05	30JAN05	22FEB05	23FEB05	35d	0
BS-130820	External Finishing Works	30	05MAR05	03APR05	01APR05	30APR05	17d	0
Electrical/Mechanical Equipment								
BS-134020	Power Supply Application	0	11DEC03 A	11DEC03 A	11DEC03 A	11DEC03 A	100	100
BS-134110	CLP Inspection of Transformer Room	0	21DEC04	04FEB05	07JUL04 A	04FEB05	36d	0
BS-134010	Electrical WR1 Submission	0	02MAR05	04APR05	04APR05	04APR05	27d	0

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float/Complete
BS-135050	FS 314 Submission	0	20SEP04 A		20SEP04 A		100
BS-135110	WV046 Part I & II Submission	0	20SEP04 A		20SEP04 A		100
BS-136030	Survey of Civil As-built	7	25NOV04 A	30NOV04 A	30NOV04 A		100
BS-135100	Expected availability of power supply	0	02DEC04		11FEB05		116d
BS-134130	CLP's Final Inspection of Transformer Room	0	01DEC04		28APR05		36d
BS-135080	Expected availability of Fresh&Salt water supply	0	19FEB05		04APR05		111d
BS-135170	VAC submission	0	10MAR05		19APR05		31d
BS-136020	CLP Energization	0	14MAR05		04APR05		17d
BS-135180	CLP's Final Inspection for Metering & Power On	0	14MAR05		28APR05		36d
BS-135030	Expected DSD Inspection for Other Works	0	31MAR05		20APR05		17d
BS-135040	Expected WSD Inspection for Sewage Pumpset & VSD	0	01APR05		28APR05		23d
BS-135060	FS 501 Submission	0	04APR05		04APR05		20d
BS-135130	Expected DSD Inspection for Mech. Screen System	0	05APR05		28APR05		17d
BS-135180	WSD's Final Inspection	0	19APR05		28APR05		8d
BS-135140	Expected DSD Inspection for Valves & Pipeworks	0	19APR05		28APR05		8d
BS-135150	Expected DSD Inspection for Deodorizer System	0	20APR05		20APR05		0
BS-135070	Expected FSD Inspection	0	27APR05		27APR05		0
BS-135210	FSD's Final Inspection	114 *	31DEC04	30APR05	28JAN05		0
BS-133000	Pump Station 2- E&M Works	40	26JAN05	13MAR05	26JAN05		0
BS-136040	Conduit & Trunking	30	03MAR05	03MAR05	26MAR05		52d
BS-136060	Lighting & Earthing Installation	35	26JAN05	03MAR05	15MAR05		41d
BS-136080	SCADA and PLC Works	30	26JAN05	03MAR05	26JAN05		0
BS-136090	M/VAC	40	26JAN05	13MAR05	23FEB05		21d
BS-136100	P & D Installation	30	27FEB05	03MAR05	26JAN05		0
BS-136120	Cable Tray Installation	20	27FEB05	18MAR05	18MAR05		0
BS-136070	Cabling Works	30	05MAR05	03APR05	05MAR05		0
BS-136110	F.S. Services Installation	41	14MAR05	23APR05	14MAR05		0
BS-136050	Lighting & Electrical Services	15	29MAR05	28MAR05	19MAR05		0
BS-136130	Cable terminations to Major Equipment	42	31DEC04	18FEB05	12FEB05		36d
BS-136140	Cable terminations to other equipment	20	26JAN05	21FEB05	27MAR05		53d
BS-136010	CLP Installation	16	26JAN05	17FEB05	27MAR05		53d
BS-134050	Sewage Pumpset & VSD	12	26JAN05	08FEB05	30MAR05		29d
BS-134060	Mechanical Screen System	14	26JAN05	15FEB05	09MAR05		53d
BS-134080	Penstock	30	26JAN05	08FEB05	30MAR05		69d
BS-134090	Deodorizer System	40	31JAN05	17MAR05	24FEB05		21d
BS-134100	Lifting Appliance	16	05MAR05	20MAR05	09APR05		35d
BS-134070	LV Switchboard and Control Panels	58 *	04MAR05	30APR05	25APR05		0
BS-134120	Valves & Pipeworks	3	04MAR05	09MAR05	25APR05		52d
BS-137010	PCCW cable laying & wiring works	7	04MAR05	10MAR05	21APR05		48d
BS-137040	Functional Testing	2	14MAR05	15MAR05	22APR05		39d
BS-137050	Lighting & Earthing functional testing	4	16MAR05	19MAR05	24APR05		39d
BS-137130	Fan Functional Test	6	29MAR05	03APR05	13APR05		15d
BS-137180	Cleansing Water Pump Hydraulic Test	15	29MAR05	03APR05	18APR05		6d
BS-137190	Cleansing Water Pump Functional Test	3	29MAR05	03APR05	18APR05		18d
BS-137070	Penstock functional testing	7	29MAR05	04APR05	12APR05		14d
BS-137100	LV Switchboard & Control pa. functional testing	3	04APR05	06APR05	23APR05		21d
BS-137110	Sewage pumpset and VSD functional testing	6	18APR05	18APR05	30APR05		13d
BS-137120	Mech. Screen System functional testing	5	13APR05	17APR05	13APR05		0
BS-137030	F.S. Services functional testing	6	13APR05	18APR05	13APR05		0
BS-137060	Valves & Pipeworks testing	6	13APR05	18APR05	13APR05		0
BS-137080	Lifting Appliance functional testing						
BS-137090	Deodorizer System functional testing						

FS 314 Submission
WV046 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
WV046 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
M/VAC
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

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WJL

Date
01JUN04
07JUL04
04OCT04
17DEC04

Revision
No.9 Revision G
No.10 Revision I
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	Late Start	Late Finish	Total Percent Float Complete
BS-137020	SCADA & PLC Works functional Testing	6	19APR05	24APR05	19APR05	24APR05	0
BS-137150	MCB board functional test	3	24APR05	26APR05	25APR05	27APR05	1d
BS-137160	RCD/ELCB Functional Test	2	24APR05	25APR05	26APR05	27APR05	2d
BS-137170	Lighting Functional & Intensity Test	4	24APR05	27APR05	27APR05	27APR05	0
BS-137140	SCADA & PLC Mapping Test	3	25APR05	27APR05	25APR05	30APR05	0
BS-137000	Commissioning Test	3	28APR05	30APR05	28APR05	30APR05	0
BS-1695B18	Sewerage, L4, F402 to Inlet Chamber	15	18DEC04	30DEC04	27MAR05	10APR05	94d
BS-1622N17	Backfilling Works @ Rd. L4	5	18FEB05	22FEB05	09MAR05	13MAR05	19d
BS-1622N27	Deposition/Compact, L4/Ch.397-437 remaining	4	23FEB05	26FEB05	21MAR05	24MAR05	26d
B4-1689D14	Remaining Gully Works @ Rd. L4	7	23FEB05	01MAR05	14MAR05	20MAR05	19d
B4-1689D3	Trapezoidal Channel, D1/L4 N	14	23FEB05	08MAR05	03APR05	16APR05	39d
B5-1670A7	Roadworks, L4/Ch.314-437	15	27FEB05	19MAR05	11APR05	25APR05	43d
B6-1595D36	Waterworks @ L4 remaining	12	02MAR05	19MAR05	21MAR05	01APR05	19d
B4-1689D4	Trapezoidal Channel, D1/L4 S	14	09MAR05	22MAR05	17APR05	30APR05	39d
UT-1600PS	Road Furnitures/Misc, Rd. L4	5	14MAR05	19MAR05	26APR05	30APR05	43d
B5-1672A7	Cycle Track & Footway, L4/Ch.314-437	4	14MAR05	17MAR05	02APR05	05APR05	19d
Section 15: Waterworks in Area 15							
B6-1595D13	Waterworks - Section 15, Area 15	332 *	03FEB04 A	30DEC04	03FEB04 A	30DEC04	0
B6-1595A40	Trial Pits	4	03FEB04 A	03FEB04 A	03FEB04 A	03FEB04 A	100
B6-1595D4	Waterworks, D1/Ch.1500-1860	90	04FEB04 A	13MAY04 A	04FEB04 A	13MAY04 A	100
B6-1595D12	Replace Existing Watermain, D1/Ch.1200-1270	14	16FEB04 A	09APR04 A	16FEB04 A	09APR04 A	100
B6-1595D31	Replace Existing Watermain, D1/Ch.1100-1200	20	13MAR04 A	12MAR04 A	28FEB04 A	12MAR04 A	100
B6-1595D41	Watermain Connection by WSD, D1/Ch.1020-1360 remaining	32	16MAR04 A	15MAR04 A	13MAR04 A	15MAR04 A	100
B6-1595D22	Watermain Connection by WSD, D1/Ch.1200-1270	32	29APR04 A	29APR04 A	29APR04 A	29APR04 A	100
B6-1595D14	Replace Existing Watermain, D1/Ch.1860-1490	94	25JUL04 A	25JUN04 A	31JUL04 A	31JUL04 A	100
B6-1595D13	Replace Existing Watermain, D1/Ch.1380-1490	22	02JUL04 A	12JUL04 A	02JUL04 A	12JUL04 A	100
B6-1595D1	Waterworks, D1/Ch.920-1020	30	19JUL04 A	01AUG04 A	19JUL04 A	01AUG04 A	100
B6-1595D6	Waterworks, D1/Ch.1860-2180	40	02AUG04 A	07SEP04 A	02AUG04 A	07SEP04 A	100
B6-1595D61	Waterworks, D1/Ch.1020-1360 remaining	35	02AUG04 A	10SEP04 A	02AUG04 A	10SEP04 A	100
B6-1595D11	Replace Existing Watermain, D1/Ch.820-990	15	19AUG04 A	12SEP04 A	19AUG04 A	12SEP04 A	100
B6-1595D24	Watermain Connection by WSD, D1/Ch.1680-1860	15	24AUG04 A	18SEP04 A	24AUG04 A	18SEP04 A	100
B6-1595D86	Waterworks, L4/Ch.317-437	20	07SEP04 A	20SEP04 A	07SEP04 A	20SEP04 A	100
B6-1595D21	Watermain Connection by WSD, D1/Ch.920-990	20	07SEP04 A	08NOV04 A	07SEP04 A	08NOV04 A	100
B6-1595D3	Waterworks, D1/Ch.1360-1500	15	13SEP04 A	21SEP04 A	13SEP04 A	21SEP04 A	100
B6-1595D86	Waterworks D1/Ch.1860-2180 rem. continuation	12	21SEP04 A	06OCT04 A	21SEP04 A	06OCT04 A	100
B6-1595D76	Waterworks D1/Ch.1860-2180 end portion	14	07OCT04 A	16OCT04 A	07OCT04 A	16OCT04 A	100
B6-1595D23	Watermain Connection by WSD, D1/Ch.1380-1490	15	27NOV04 A	04DEC04	27NOV04 A	30DEC04	26d
B6-1595D56	Waterworks D1/Ch.1860-2180 Testing	18	01DEC04 A	18DEC04	01DEC04 A	18DEC04	0
B6-1595D66	Watermain Connection by WSD, D1/Ch.2180	12	18DEC04	30DEC04	18DEC04	30DEC04	0
Section 16: Remainder of Works, except LS+EW							
B2-160000	Site Clearance - Section 16, Remainder	242 *	25APR03 A	22DEC03 A	25APR03 A	22DEC03 A	100
B2-1604A0	Remove disused UPVC duct	350	25APR03 A	19DEC03 A	25APR03 A	19DEC03 A	100
B2-1604B0	Remove disused concrete pipe	150	20NOV03 A	22DEC03 A	20NOV03 A	22DEC03 A	100
B3-1620L1	Earthworks - Section 16, Remainder	304 *	30SEP02 A	07AUG03 A	30SEP02 A	07AUG03 A	100
B3-1622L3	Zone E, Excavate ex-mound #1, at SRE site office	6	30SEP02 A	10OCT02 A	30SEP02 A	10OCT02 A	100
B3-1622L3	Zone C, Excavate ex-mound #2, at site office	10	07OCT02 A	25OCT02 A	07OCT02 A	25OCT02 A	100

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

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

Early bar
 Progress bar
 Critical bar
 Summary bar
 Start milestone point
 Finish milestone point
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2004 2003 2002 2001 2000 SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
B4-1689B14	Drainage, D1, S0061-S0074 remaining	60	26DEC03 A	2904 A	26DEC03 A	29FEB04 A	100
B4-1691B4	Sewerage Rising Mains, D1, Ch1500-F47	30	14FEB04 A	27MAR04 A	14FEB04 A	27MAR04 A	100
B4-1689B11	Sewerage, D1, F034-F038	72	25JUL03 A	20MAR04 A	20MAR04 A	20MAR04 A	100
B4-1689B11	Drainage, D1, S0043-S0051	90	19OCT03 A	29MAR04 A	19OCT03 A	29MAR04 A	100
B4-1689B11	Drainage, D1, F031-F034	32	06JAN04 A	04MAR04 A	06JAN04 A	04MAR04 A	100
B4-1689B11	Drainage, D1, S0038-S0043	50	07FEB04 A	24MAR04 A	07FEB04 A	24MAR04 A	100
B4-1689B21	Sewerage, D1, (Ch. 1020-1360)F034-F038 remaining	52	28MAY04 A	05JUL04 A	28MAY04 A	05JUL04 A	100
B4-1689B21	Drainage, D1, S0043-S0056 remaining	55	23JUN04 A	22SEP04 A	23JUN04 A	22SEP04 A	100
B4-1689B21	Drainage, D1, S0074-S0076 preliminary works	35	03NOV03 A	05NOV03 A	03NOV03 A	05NOV03 A	100
B4-1689B15	Drainage, D1, S0074-S0076 remaining	37	03JAN04 A	28JAN04 A	03JAN04 A	28JAN04 A	100
B4-1689B5	Sewerage, D1, F051-F052	35	23MAR04 A	20APR04 A	23MAR04 A	20APR04 A	100
B4-1689B8	Sewerage, L4, F043-F042	25	18JUL03 A	10NOV03 A	18JUL03 A	10NOV03 A	100
B4-1689B8	Drainage, L4, S402-S406 Pipe Laying Works	80	22SEP03 A	31OCT03 A	22SEP03 A	31OCT03 A	100
B4-1689B7	Drainage, L4, S405-S401	14	01NOV03 A	23APR04 A	01NOV03 A	23APR04 A	100
B4-1689B7	Sewerage, L4, F042-F043	14	26NOV03 A	17DEC03 A	26NOV03 A	17DEC03 A	100
B4-1689B17	Drainage, L4, S406-S407	45	02JAN04 A	30MAR04 A	02JAN04 A	30MAR04 A	100
B4-1689B27	Drainage, L4, S406-S404	35	02JAN04 A	30MAR04 A	02JAN04 A	30MAR04 A	100
B4-1689B8A	Drainage, L4, S402-S406 remaining	36	15JAN04 A	26MAY04 A	15JAN04 A	26MAY04 A	100
B4-1691B7	Sewerage Rising Mains, L4, +F045-F046	20	05MAR04 A	26MAY04 A	05MAR04 A	26MAY04 A	100
B4-1691B8	Sewerage Rising Mains, L4, F044-F045	30	10MAY04 A	26MAY04 A	10MAY04 A	26MAY04 A	100
B4-1689B28	Sewerage Rising mains, L4 remaining	45	28MAY04 A	16JUL04 A	28MAY04 A	16JUL04 A	100
B4-1689B38	Drainage, L4 remaining	35	28JUN04 A	26SEP04 A	28JUN04 A	26SEP04 A	100
B4-1689B3	Drainage, D1, S0038-S0061	70	10NOV03 A	30DEC03 A	10NOV03 A	30DEC03 A	100
B4-1689B3	Sewerage, D1, F040-F042	35	18NOV03 A	22DEC03 A	18NOV03 A	22DEC03 A	100
B4-1691B3	Sewerage Rising Mains, D1, F046-Ch1500	25	16MAR04 A	30MAR04 A	16MAR04 A	30MAR04 A	100
B4-1689B13	Sewerage, D1, F040-F042 remaining	25	23JUN04 A	15JUL04 A	23JUN04 A	15JUL04 A	100
B4-1689B13	Drainage, D1, S0056-S0061 remaining	50	16JUL04 A	13SEP04 A	16JUL04 A	13SEP04 A	100
B4-1691B23	Sewer Rising Main Testing	45	16AUG04 A	20OCT04 A	16AUG04 A	20OCT04 A	100
B4-1078B15	Sewerage Rising Mains, D1, F046-Ch1500/remaining	71	21OCT04 A	02FEB04 A	21OCT04 A	02FEB04 A	100
B4-1078B15	Preparation Works for 2.5m Trapezoidal Channel	60	02APR04 A	02APR04 A	02APR04 A	02APR04 A	100
B4-1078B25	Fabrication Works and Delivery of 2.5m Trap, Ch.	55	20APR04 A	27APR04 A	20APR04 A	27APR04 A	100
B4-1078B35	Installation and Construction of 2.5m Trap, Ch.	60	28APR04 A	16AUG04 A	28APR04 A	16AUG04 A	100
B4-1689C5	Trapezoidal Channel, NE of H Site 1	30	19AUG03 A	01NOV03 A	19AUG03 A	01NOV03 A	100
B4-1689C3	Trapezoidal Channel, Area 14	14	01NOV03 A	01NOV03 A	01NOV03 A	01NOV03 A	100
B4-1689D9	Trapezoidal Channel, L5 South	100	08MAR04 A	25MAR04 A	08MAR04 A	25MAR04 A	100
B4-1689D1	Trapezoidal Channel, D1 at area of Mound S5	50	17MAR04 A	30MAR04 A	17MAR04 A	30MAR04 A	100
B4-1689C2	Trapezoidal Channel, NE of School Site	25	02APR04 A	20APR04 A	02APR04 A	20APR04 A	100
B4-1689C6	Trapezoidal Channel, Zone T	60	25MAY04 A	26JUL04 A	25MAY04 A	26JUL04 A	100
B4-1689B7	Sewerage, F58 to existing (remaining)	15	07SEP04 A	02OCT04 A	07SEP04 A	02OCT04 A	100
B4-1689B96	Drainage, D1/Ch.1860-2180 gully works remaining	20	08SEP04 A	19SEP04 A	08SEP04 A	19SEP04 A	100
B4-1689D6	Trapezoidal Channel, D1, L4 to Culvert C10	50	08SEP04 A	30SEP04 A	08SEP04 A	30SEP04 A	100
B4-1689B97	Drainage, D1/Ch.1860-2180 gullyworks to existing	15	21SEP04 A	16OCT04 A	21SEP04 A	16OCT04 A	100
B6-1595D46	Drain Pipe laying	14	07OCT04 A	15SEP04 A	07OCT04 A	15SEP04 A	75
B4-1689D2	Trapezoidal Channel, D1 at S0049 to Area 9B bound	30	10NOV04 A	09DEC04 A	10NOV04 A	07JAN05	294
B4-1689C8	Trapezoidal Channel, at H Site 3	40	19NOV04 A	11DEC04 A	19NOV04 A	07JAN05	274
B6-1609A0	Waterworks, NE of H.Site 1, Promenade	60	28APR03 A	30JUN03 A	28APR03 A	30JUN03 A	100
B6-1607A0	Trial Pits	14	26JUN03 A	09JUL03 A	26JUN03 A	09JUL03 A	100
Section 16 - Utilities							
UT-160000	Utilities - Section 16, Remainder	459	* 20SEP03 A	29DEC04 A	20SEP03 A	29DEC04 A	0
UT-160001A	PCCW, D1/Ch.920-1020	28	08MAR04 A	15MAR04 A	08MAR04 A	15MAR04 A	100
UT-160001B	HGC-New World, D1/Ch.920-1020	30	08MAR04 A	17MAR04 A	08MAR04 A	17MAR04 A	100

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

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

Site data: 27AUG02
 Finish date: 29FEB04
 Start date: 02DEC04
 Run date: 18DEC04
 Page number: 17
 Number of pages: 17
 Revision: TP950201/2001
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Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float Complete	Total Percent Complete
BT-1401C0	Update Safety Plan	810	31AUG02 A	02L...04 A	31AUG02 A	02DEC04 A	100	100
BT-1401G0	Arrange & Attend Weekly Safety Walk	805	03SEP02 A	02DEC04 A	03SEP02 A	02DEC04 A	100	100
BT-1401H0	Provide Safety Training	810	10SEP02 A	02DEC04 A	10SEP02 A	02DEC04 A	100	100
BT-1401E0	Attend Site Safety Committee & Mgmt Committee	810	26OCT02 A	02DEC04 A	26OCT02 A	02DEC04 A	100	100
BT-1401K0	Participate in safety promotional campaign	694	28NOV02 A	02DEC04 A	28NOV02 A	02DEC04 A	100	100
BT-1401K10	Site Safety Remaining Works	150	02DEC04 A	29APR05	02DEC04 A	30APR05	1d	1

Update Safety Plan
 Arrange & Attend Weekly Safety Walk
 Provide Safety Training
 Attend Site Safety Committee & Mgmt Committee
 Participate in safety promotional campaign
 Site Safety Remaining Works

Start date: 27AUG02
 Finish date: 26FEB05
 Data date: 02DEC04
 Run date: 18DEC04
 Page number: 2/4
 Number/revision: TP-35/02/01/01
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■ 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
 REVISED WORKS PROGRAMME I

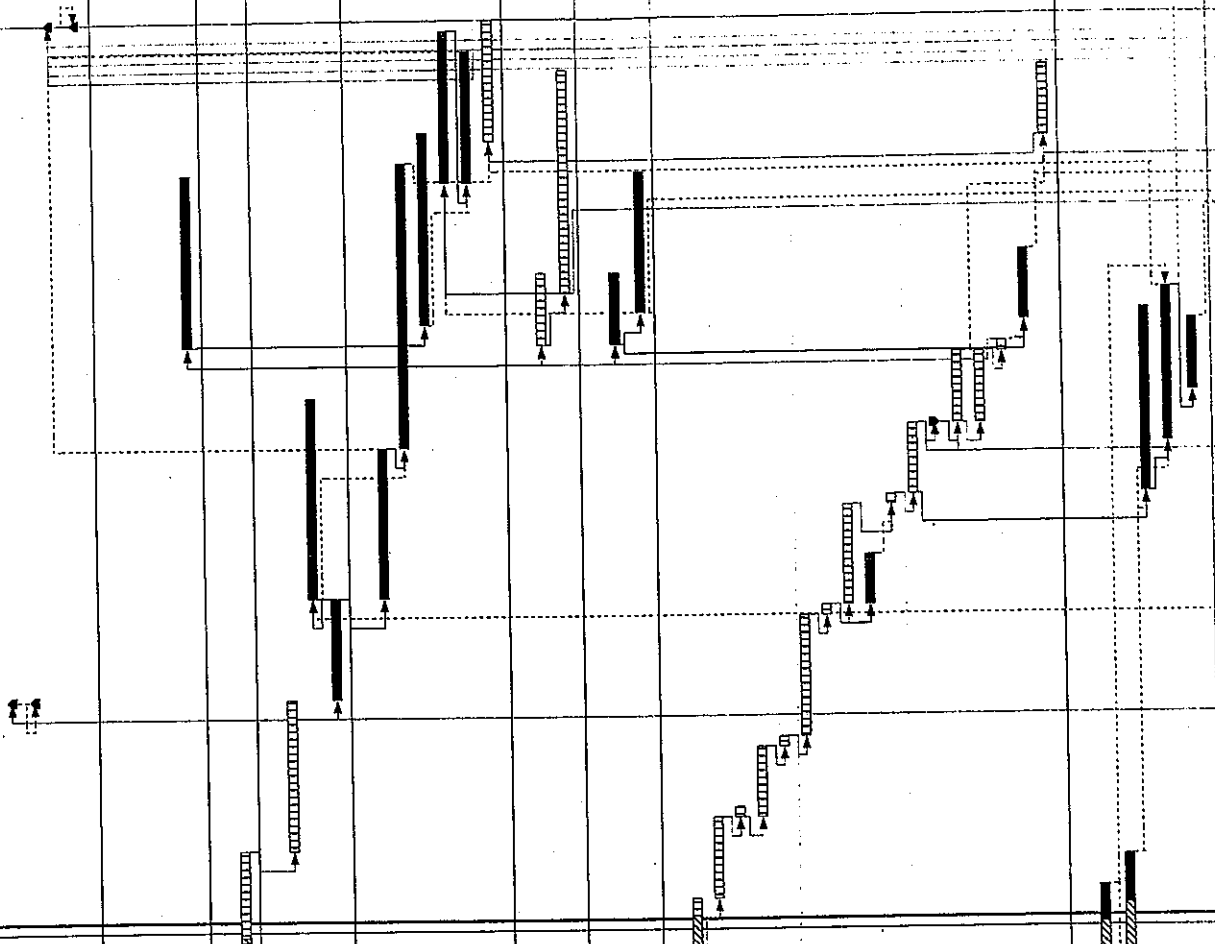
Revision	Date	Checked	Approved
No.9 Revision G	01JUN04	WAJ	WL
No.10 Revision G1	07JUL04	WAJ	WL
No.11 Revision H	04OCT04	WAJ	WL
No.12 Revision I	17DEC04	WAJ	WL

Completion Dates

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float Complete
KD-2040A	Achievement Date for KD-2040	0		23DEC04	0
KD-2040B	Assumed Extension of Time for KD-2040	0		23DEC04*	0
KD-2030A	Achievement Date for KD-2030	0		28FEB05	0
KD-2030B	Assumed Ext. of Time for Section 3	0		28FEB05*	0

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

Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float Complete
B3-0303M2	Deposition & Compaction, D1/Ch.780-920	10	28JAN05	13FEB05	56
B4-0317D31	P/c pipe, L2/Ch.100-200 Gully works west bound	7	30NOV04 A	08DEC04	0
UT-0300P1	Powers (11KV), L2/Ch.100-200	15	09DEC04	23DEC04	0
UT-0300G4	Gas Mains at Area 3	20	03JAN05	22JAN05	74
UT-0300G4C	Gas Mains at Area 4 remaining	10	24DEC04	02JAN05	24
B5-0325C39	Footpath at Area 4 remaining	15	03JAN05	17JAN05	24
B5-0325C3	Footpath, Area 3	21	18JAN05	14FEB05	24
B5-0325C2	Roadworks, D1/Ch.780-920	12	30JAN05	17FEB05	50
B5-0326A2	Cycle track & Footpath, D1/Ch.780-920	15	19FEB05	27FEB05	34
B5-0328C0	Roadworks Furnitures & Miscellaneous	13	19FEB05	25FEB05	34
B5-0325C28	Footpath at Area 8 under bridge	12	17FEB05	28FEB05	0
B7-032050	Abutment Wall, Rest - East Abutment	7	26JAN05	03FEB05	0
B7-032050	Drainage & Backfill - East Abutment	15	02FEB05	23FEB05	0
B7-033050	Abutment Wall, Rest - West Abutment	7	26JAN05	03FEB05	54
B7-033050	Drainage & Backfill - West Abutment	7	31JAN05	13FEB05	54
B7-034050	Rebar installation for bridge soffit & webwalls	20	17NOV04 A	08DEC04	0
B7-034050	Installation of tendon ducts & grout vents	8	04DEC04	11DEC04	0
B7-034070	Inspection and approval of tendon profile	1	12DEC04	12DEC04	0
B7-034180	Formworking installation at webs	7	12DEC04	18DEC04	0
B7-034090	Concreting of soffit, sidewalls & internal webwalls	1	18DEC04	18DEC04	0
B7-034100	Rebar and formworking of top slab	12	20DEC04	31DEC04	0
B7-034110	Concreting of internal web wall to top slab soffit	1	01JAN05	01JAN05	0
B7-034080	Strands threading to tendon ducts	10	02JAN05	11JAN05	0
B7-034120	Misc. rebar fixing and formworking for top slab	5	02JAN05	06JAN05	54
B7-034130	Concreting of top slab	1	12JAN05	12JAN05	0
B7-034140	Curing	7	13JAN05	19JAN05	0
B7-034020	Start Prestressing	0	20JAN05	0	0
B7-034150	Post-tensioning of Bridge Deck	7	20JAN05	26JAN05	0
B7-034160	Grouting	7	20JAN05	26JAN05	0
B7-034170	Anchorage backfilling	1	27JAN05	27JAN05	0
B7-034030	Movement Joint	7	30JAN05	05FEB05	84
B7-034190	Falsework dismantling	7	17FEB05	23FEB05	0
B7-035030	Retaining Wall No. 2	25	02NOV04 A	04DEC04	394
B7-035020	Retaining Wall No. 1	25	18NOV04 A	07DEC04	444
B7-035040	Retaining Wall No. 3	18	18JAN05	30JAN05	84
B7-035050	Drainage & Backfill	15	18JAN05	01FEB05	84
B7-035060	Movement Joint	7	23JAN05	28JAN05	84



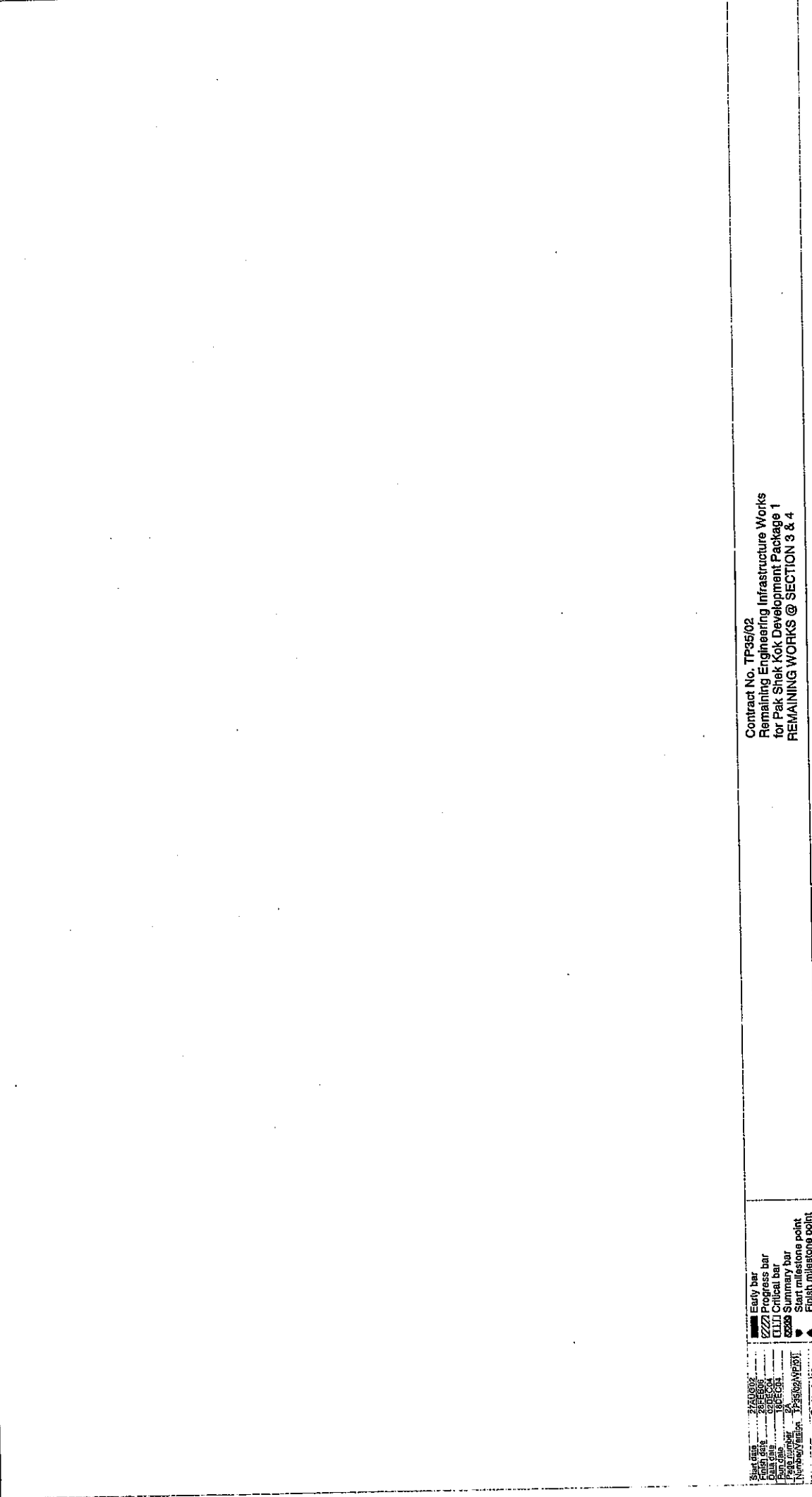
Contract No. TP35/02
Remaining Engineering Infrastructure Works
for Pak Siatek Kok Development Package 1
REMAINING WORKS @ SECTION 3 & 4

Start date: 27/05/02
Finish date: 28FEB05
Data date: 06DEC04
Run date: 14DEC04
Run time: 10:53:02
Run user: Nuryana/Section 3-TP3502/PP01

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

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Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float Complete	NOV	DEC	JAN	FEB	MAR
B7-096030	Road & Drainage Works	10	17FEB05	28FEB05	0					
B7-096050	Footway, Cycle Track, Paving	10	19FEB05	28FEB05	0					
B7-096060	Roadwork, Furnitures & Miscellaneous	8	21FEB05	28FEB05	0					
B7-096040	Wearing Course	3	26FEB05	28FEB05	0					
Section 4: Waterworks in Areas 3, 4, & 6										
B7-037020	Demolition for Connection & Excavation	14	20JAN05	02FEB05	0					
B7-037030	Modification Works	20	27JAN05	22FEB05	0					
B7-037040	Drainage Works & Movement Joints	14	13FEB05	28FEB05	0					
B7-037050	E&M Works & Finishing	14	15FEB05	28FEB05	0					
B6-0424023	Washoutpit & remaining works	19	05DEC04	23DEC04	0					



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

Start date: 27AUG02
 Finish date: 28FEB06
 Data date: 09DEC04
 Run date: 20DEC04
 Network: TP35/02/WP01
 Network/Vision: TP35/02/WP01

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

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Completion Dates

ID	Description	Start	Finish	Percent Complete	Early Start	Early Finish	Total Float
ND-2120A	Achievement Date for ND-2120			0			
ND-2120B	Assumed Extension of Time for ND-2120			0			

Section 12: Works of Sewage Pumping Station No. 1

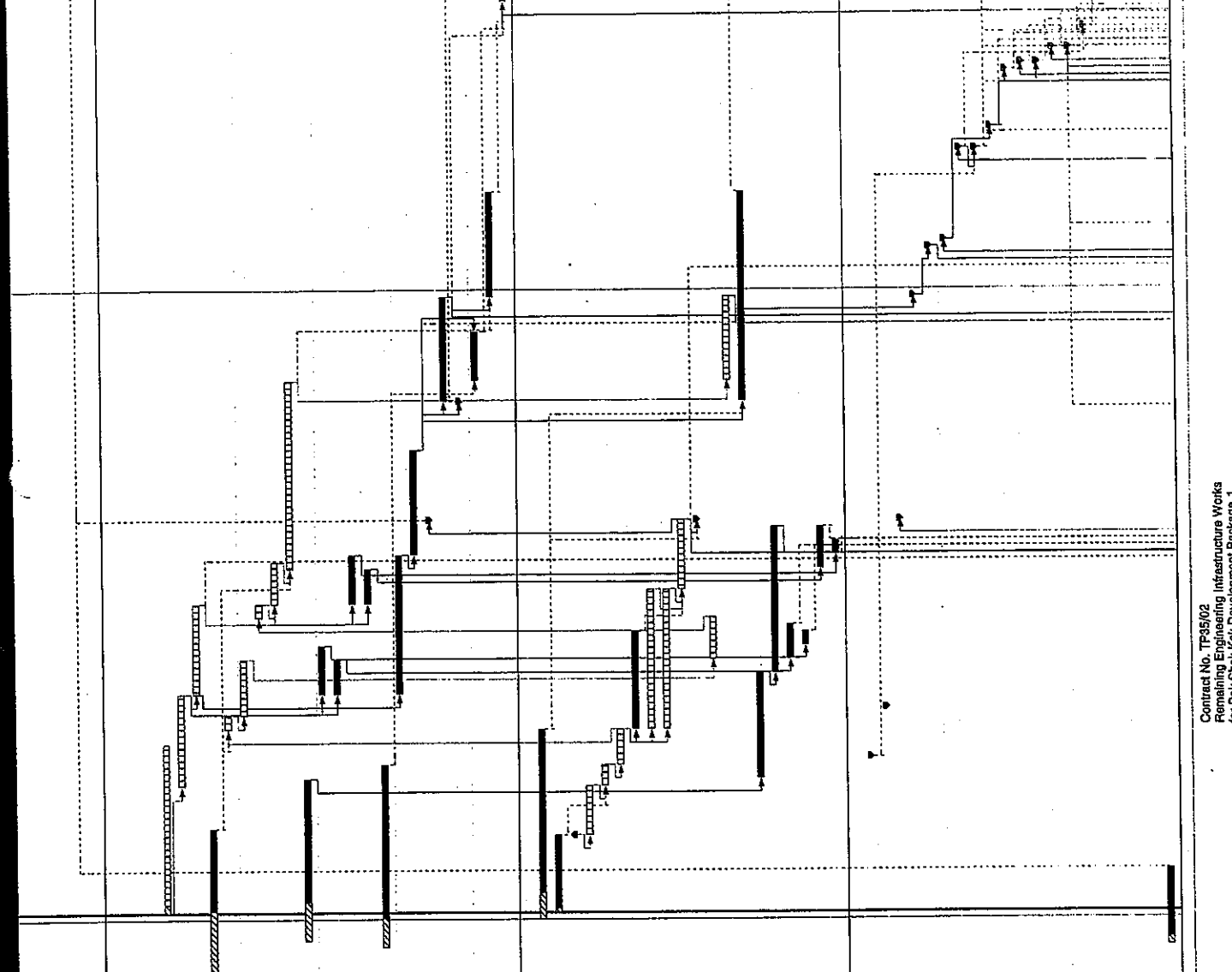
BS-120760	Preliminary Testing and Leaks Repair Works	25/02/2004 A	28/02/04	0			
BS-120760	Water-tightness Test for Group A	13/02/04	01/JAN/05	0			
BS-120660	Water-tightness Test for Group B	13/02/04	14/JAN/05	0			
BS-120770	Start Removal & Backfilling around Dry Well	42/02/04	13/DEC/04	144			
BS-121010	Start Removal & Backfilling around Dry Well @ GL-5/E	2/28/04	29/DEC/04	0			
BS-121020	Start Removal & Backfilling around Dry Well @ GL-5/E	2/28/04	29/DEC/04	0			
BS-121030	New Wall Construction @ GL-4/E	8/02/04	06/JAN/05	0			
BS-121040	Shielding removal @ Switch Room Area	2/13/JAN/05	20/JAN/05	0			
BS-120620	Shielding extraction @ Switch Room	15/JAN/05	18/JAN/05	0			
BS-120770	Staircase & Platform Construction @ Dry Well	20/20/NOV/04	18/FEB/05	248			
BS-120770	Staircase & Platform Construction @ Wet Well A	25/20/NOV/04	30/DEC/04	384			
BS-120780	Construct Internal Wall @ Screen Room A	7/02/JAN/05	08/JAN/05	840			
BS-120680	Buffer Wall & Platform Construction @ Wet Well B	7/15/JAN/05	21/JAN/05	560			
BS-120790	Construct Internal Wall @ Screen Room B	5/15/JAN/05	19/JAN/05	560			
BS-120800	Inlet Chamber Construction	25/27/NOV/04	10/04/05	18			
BS-120710	Backfilling works after Water-tightness Test	20/02/JAN/05	21/JAN/05	56			
BS-120710	Shielding Extraction	15/22/JAN/05	08/FEB/05	56			
BS-120740	Expected DSD Inspection Building Works	0/27/JAN/05	0/27/JAN/05	876			
BS-120810	Backfilling Works around PS to ground Level	15/13/FEB/05	27/FEB/05	56			
BS-120810	Remaining Drainage Works around PS (later to Sect)	0/13/FEB/05	7/17/05	776			
BS-121050	Inlet Chamber connection to PS1	7/18/FEB/05	22/FEB/05	520			
BS-120900	Rising main Chamber Construction	15/28/FEB/05	14/MAR/05	324			
BS-120750	Construct Boundary Wall	15/11/APR/05	25/APR/05	56			

BS-120950	Floor Finishing	30/01/DEC/04	27/DEC/04	500			
BS-120950	Roof Finishing	11/02/DEC/04	12/DEC/04	76			
BS-121000	Completion of Prop. Work on Windows/Louvers etc	0	0	0			
BS-120940	Wall Finishing	7/13/DEC/04	18/DEC/04	0			
BS-120940	Wall Finishing	3/20/DEC/04	22/DEC/04	0			
BS-120950	Platform Removal @ Landing Bay	6/23/DEC/04	27/DEC/04	0			
BS-120960	Structure of Cableway at Landing Bay	14/28/DEC/04	10/JAN/05	84			
BS-120970	Newly added Wall Work	20/28/DEC/04	18/JAN/05	0			
BS-120990	Brickwork at G.L2 (7 days curing)	20/28/DEC/04	18/JAN/05	0			
BS-121000	Frisking on these Walls	10/17/JAN/05	28/JAN/05	0			
BS-120800	Handover to EAM Works @ Landing Area	6/07/JAN/05	12/JAN/05	0			
BS-120500	Finishing Works for Inspection & Switchroom	12/16/FEB/05	27/FEB/05	474			
BS-120620	Pipe Trench Construction @ Dry Well	30/13/FEB/05	14/MAR/05	244			
BS-120640	Bamboo platform & Finishing works @ Dry Well	15/12/DEC/04	04/JAN/05	244			
BS-120850	Mass concrete Platform construction @ Screen Room A	21/05/JAN/05	25/JAN/05	840			
BS-120870	Branching stair @ Wet Well A & finishing	2/08/JAN/05	10/JAN/05	396			
BS-120860	Mass concrete Platform construction @ Screen Room B	5/20/JAN/05	25/JAN/05	484			
BS-120850	Branching stair @ Wet Well B & finishing	2/22/JAN/05	23/JAN/05	284			

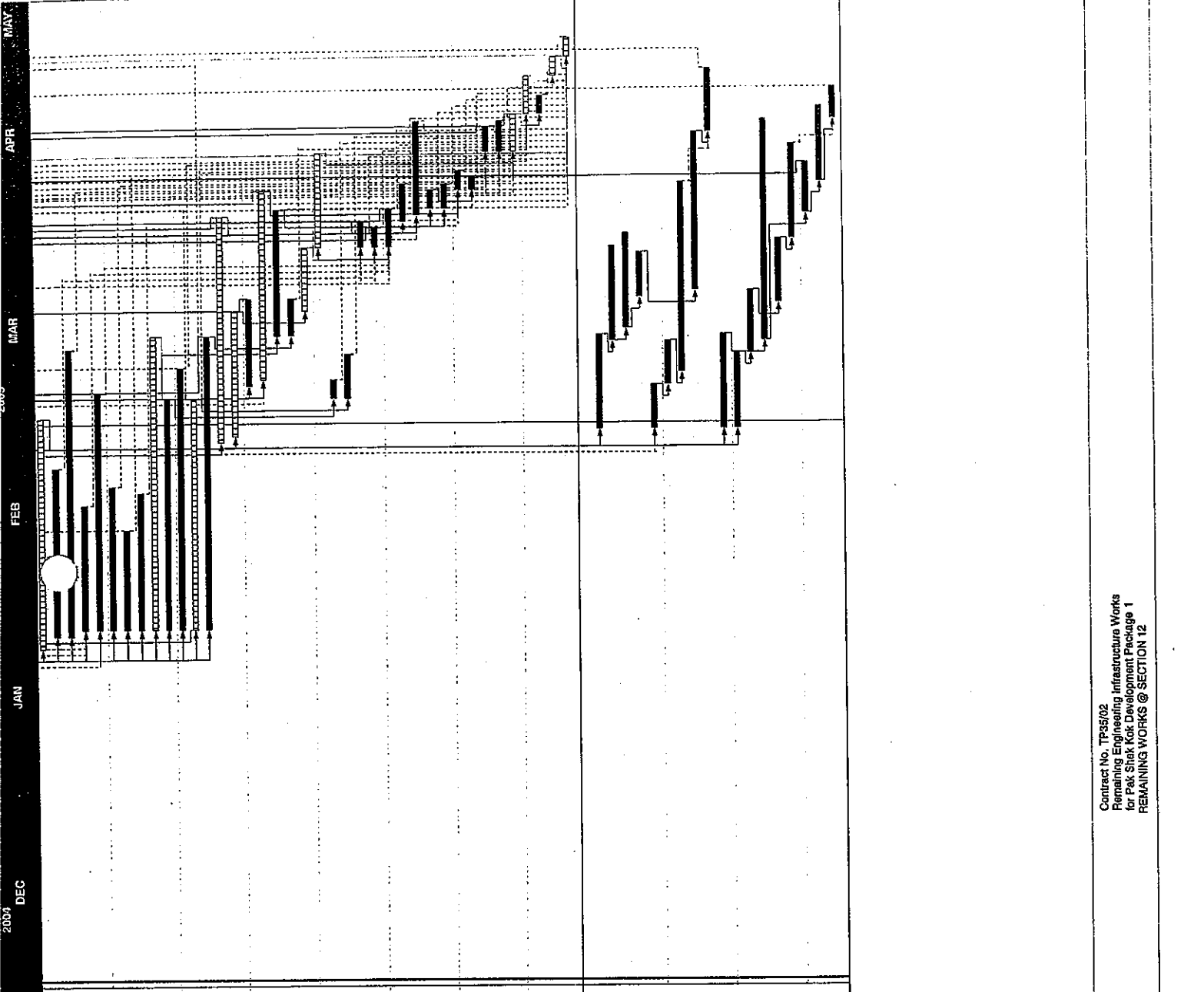
Section 12: Works of Sewage Pumping Station No. 1

BS-125000	Expected availability of power supply	0/24/DEC/04	0/24/DEC/04	840			
BS-125090	Expected availability of fresh water supply	0/31/DEC/04	0/31/DEC/04	0			
BS-125160	VAC submission	0/27/JAN/05	0/27/JAN/05	0			
BS-127200	CLP's inspection for Meter Room	0/28/FEB/05	14/0	140			
BS-127220	CLP's Final inspection of Meter Room	0/07/MAR/05	14/0	224			
BS-125100	Water Certification WWS&P Part IV	0/21/MAR/05	11/0	110			
BS-124010	Electrical WRI Submission	0/21/MAR/05	11/0	110			
BS-127050	CLP Energization	0/24/MAR/05	22/0	224			
BS-125030	Expected DSD inspection for Sewage Pump & VSD	0/02/APR/05	0/02/APR/05	224			
BS-125130	Expected DSD inspection for Finestock	0/02/APR/05	22/0	224			
BS-125100	WSP's Final inspection	0/02/APR/05	22/0	224			
BS-125110	Expected DSD inspection for Attach. Screen Syst	0/04/MAR/05	21/0	210			
BS-125150	Expected DSD inspection for Other Works	0/04/APR/05	21/0	210			
BS-125060	FS 501 Submission	0/07/APR/05	0	0			
BS-125170	Expected DSD inspection for Valves & Pipeworks	0/18/APR/05	9/0	90			
BS-125140	Expected DSD inspection for Decoupling System	0/18/APR/05	8/0	80			
BS-125070	Expected FSD inspection	0/20/APR/05	0	0			
BS-125170	FSD Final inspection	0/29/APR/05	0	0			
BS-126010	Survey of Civil As-built	7/12/NOV/04	07/DEC/04	1376			

Legend:
 ■ Study bar
 ■ Construction bar
 ■ Electrical bar
 ■ Mechanical bar
 ■ Water supply bar
 ■ Sewerage bar
 ■ Start milestone point
 ■ Finish milestone point



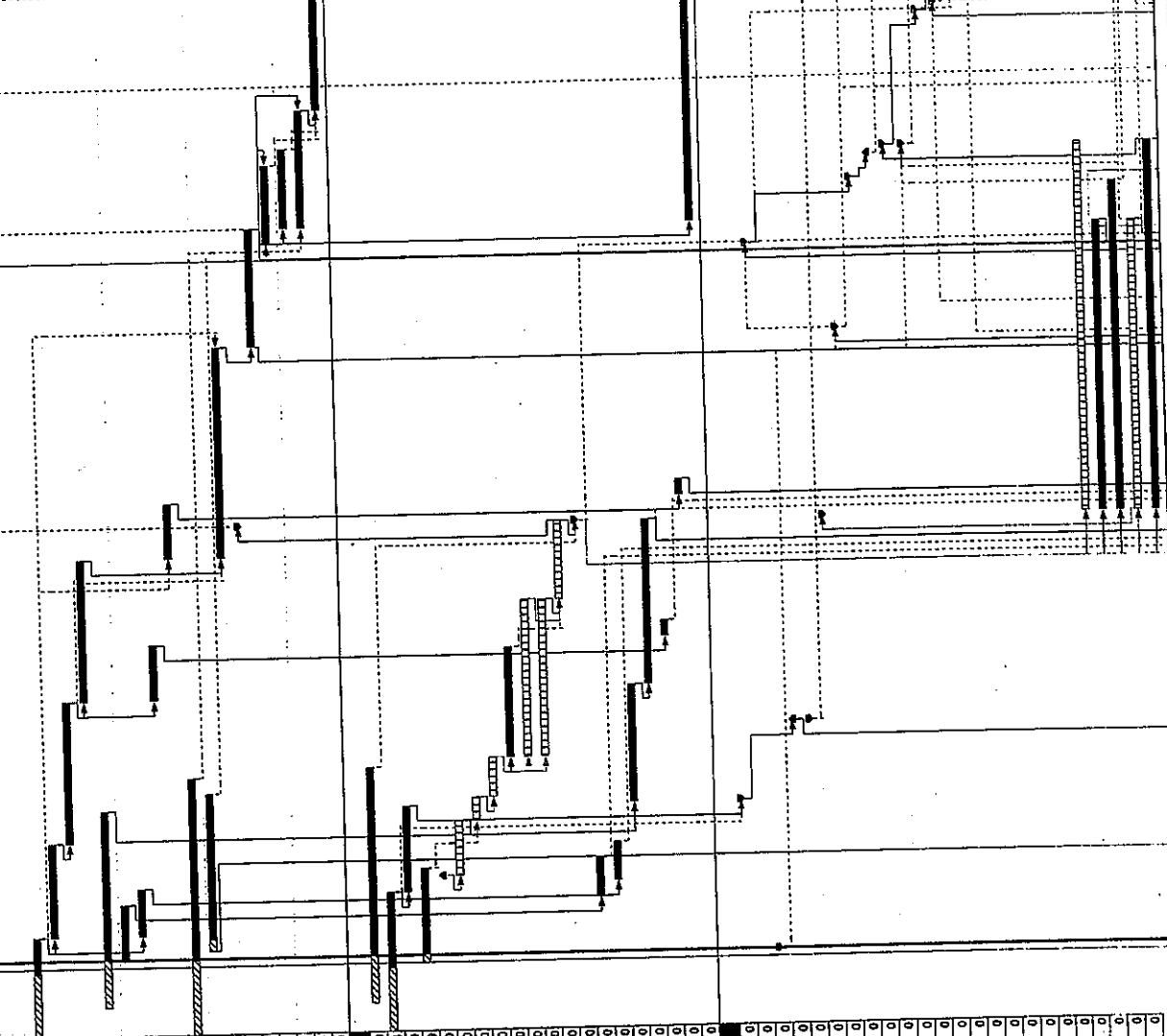
Contract No. TP95/02
 Remaining Engineering Infrastructure Works
 for Pak Shik Kik Development Package 1
 REMAINING WORKS @ SECTION 12



Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float	Percent Complete
BS-126000	Cable Tray Installation	30	24JAN05	01MAR05	0	0
BS-126001	Sump Pump and VSD	20	26JAN05	21FEB05	59d	0
BS-126010	Valves and Pipeworks	40	26JAN05	12MAR05	27d	0
BS-126030	Mechanical Screen System	20	27JAN05	15FEB05	56d	0
BS-126050	Penstock	33	27JAN05	05MAR05	31d	0
BS-126080	Deaerator System	20	27JAN05	16FEB05	44d	0
BS-126090	Lifting Appliances	14	27JAN05	17FEB05	56d	0
BS-126110	PCW cable laying & wiring works	15	27JAN05	17FEB05	66d	0
BS-126020	Conduit & Trunking	30	27JAN05	04MAR05	51d	0
BS-126040	Lighting & Earthing Installation	30	27JAN05	04MAR05	40d	0
BS-126060	SCADA & PLC Works	35	27JAN05	04MAR05	27d	0
BS-126070	AVAC	30	27JAN05	14MAR05	27d	0
BS-126080	P & D Installation	30	28FEB05	02APR05	0	0
BS-126100	LV Switchboard and Control Panels	20	27FEB05	18MAR05	14d	0
BS-126050	Cabling works	14	07MAR05	20MAR05	0	0
BS-127240	CLP's Install Work/Meter/Kiosk and Energization	30	08MAR05	06APR05	0	0
BS-127250	F.S. Services Installation	20	15MAR05	03APR05	20d	0
BS-127260	Cleaning Wastewater Hydraulics & Functional Test	10	18MAR05	28MAR05	39d	0
BS-127270	Cable Terminations to Meter Enclosures	16	28MAR05	12APR05	0	0
BS-127280	Cable Terminations to Other Equipments	3	03MAR05	07MAR05	51d	0
BS-127290	Lighting & Earthing Functional Testing	7	05MAR05	11MAR05	47d	0
BS-127300	Ventilation Fan Functional Testing	4	28MAR05	01APR05	17d	0
BS-127310	Penstock Functional Testing	3	29MAR05	31MAR05	18d	0
BS-127320	Sewage Pumpset & VSD Testing	6	02APR05	07APR05	20d	0
BS-127330	Mechanical Screen System functional testing	16	02APR05	17APR05	1d	0
BS-127340	LV Switchboard and Panels Testing	3	04APR05	06APR05	21d	0
BS-127350	MCB board functional Test	3	07APR05	09APR05	18d	0
BS-127360	Lighting functional & Infinity Test	2	07APR05	08APR05	21d	0
BS-127370	RCDE/LCD functional Test	4	13APR05	16APR05	2d	0
BS-127380	Valves & Pipeworks Testing	5	13APR05	17APR05	10d	0
BS-127390	Deaerator, System functional Testing	6	13APR05	18APR05	0	0
BS-127400	SCADA and PLC Works Functional Testing	3	19APR05	24APR05	6d	0
BS-127410	Penstocking Link At Duct Tightness Test	3	25APR05	27APR05	0	0
BS-127420	SCADA & PLC Mapping Test	3	28APR05	30APR05	0	0
BS-127430	Commissioning Test	15	28FEB05	14MAR05	5d	0
BS-127440	Gas Mains, L2/Ch.100-200	15	14MAR05	28MAR05	5d	0
BS-127450	PCW, L2/Ch.100-200	15	18MAR05	30MAR05	5d	0
BS-127460	HGC-New World, L2/Ch.100-200	7	21MAR05	27MAR05	5d	0
BS-127470	CATV, L2/Ch.100-200	7	28FEB05	08MAR05	13d	0
BS-127480	PLC pipe L2/Ch.100-200 Gully works east bound	7	07MAR05	13MAR05	13d	0
BS-127490	Deposition & Compaction, L2/Ch.100-200	30	09MAR05	07APR05	13d	0
BS-127500	Readworks, L2/Ch.100-200	25	22MAR05	15APR05	5d	0
BS-127510	Cycle track & Footpath, L2/Ch.100-200	10	18APR05	28APR05	5d	0
BS-127520	Readworks Furniture & Miscellaneous @ Rd L2	15	28FEB05	14MAR05	5d	0
BS-127530	PLC pipe, At PSI remaining (SS03-SS07)	12	28FEB05	11MAR05	12d	0
BS-127540	Footpath (N1X) at PSI Sec. 5 part	10	12MAR05	21MAR05	12d	0
BS-127550	PCW at PSI Sec. 5 part	35	14MAR05	17APR05	6d	0
BS-127560	SewerRising Main, At PSI Sec. 5 part	10	20MAR05	28MAR05	12d	0
BS-127570	HGC-New World at PSI Sec. 5 part	15	20MAR05	28MAR05	12d	0
BS-127580	Footpath, At PSI Sec. 5 part	8	03APR05	10APR05	5d	0
BS-127590	Deposit/Compact, At PSI Sec. 5 part	12	08APR05	19APR05	8d	0
BS-127600	Readworks, At PSI Sec. 5 part	5	18APR05	22APR05	8d	0
BS-127610	Furniture & Miscellaneous at PSI Sec. 5 part	5	18APR05	22APR05	8d	0

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

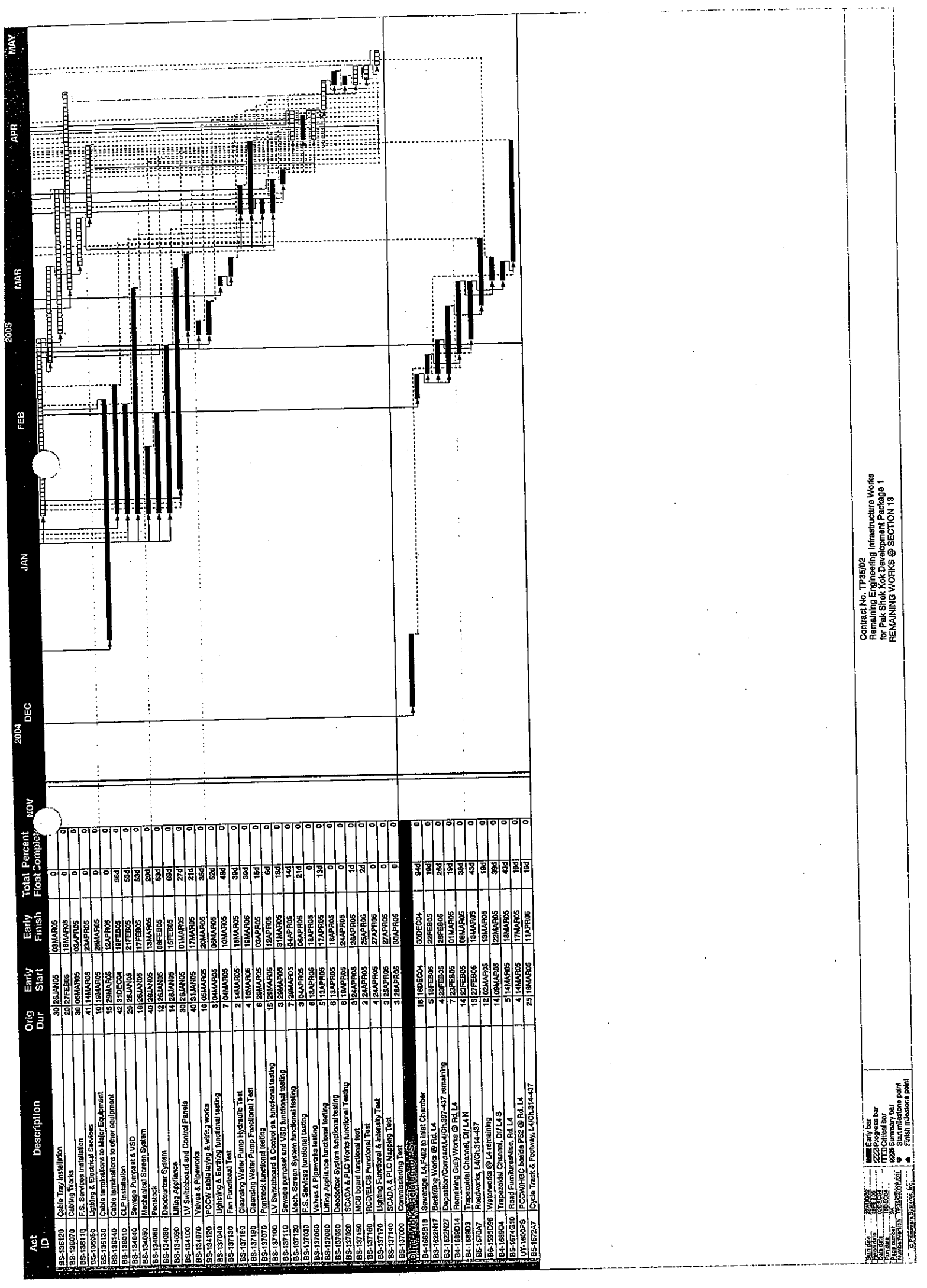
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 Approved by: [Signature]
 Project Manager: [Signature]
 Legend:
 - Early bar
 - 2/2 Progress bar
 - 1/1 Critical bar
 - 2/2 Summary bar
 - Start milestone point
 - Finish milestone point



Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float	Percent Complete
100-21300	Achievement Date for KD-2130			30APR05	0	0
100-21308	Assumed Extension of Time for KD-2130			30APR05*	0	0
Section 13 - Works of Sewage Pumping Station No.2						
BS-13080	Water Tightness Test of Group B Screen Room	18	06NOV04	10DEC04	17d	84
BS-13082	Preparation works for Wet Well Water-tightness	12	09DEC04	18DEC04	11d	0
BS-13100	Water-tightness Test of Group A Wet Well	18	17DEC04	05JAN05	17d	0
BS-13101	Water-tightness Test of Group B Wet Well	18	04JAN05	22JAN05	17d	0
BS-131010	Water-tightness Test of Group A Wet Well	25	26NOV04	20DEC04	22d	24
BS-130760	Structure Construction & Platform @ Dry Well	7	09DEC04	08DEC04	96d	0
BS-130770	Construct Internal Wall @ Screen Room A	6	05DEC04	10DEC04	94d	0
BS-130780	Construct Internal Wall @ Screen Room B	7	04JAN05	10JAN05	35d	0
BS-130740	Buffer Wall & Platform Construction @ Wet Well A	7	24JAN05	28JAN05	17d	0
BS-130750	Buffer Wall & Platform Construction @ Wet Well B	22	03DEC04	24DEC04	96d	42
BS-130810	Rising Main Chamber Construction	20	21JAN05	17FEB05	18d	0
BS-130790	Seat Chamber Construction	6	23JAN05	02FEB05	81d	0
BS-130690	DSD Inspection for Building Works	15	19FEB05	04MAR05	19d	0
BS-130710	Sheetpile Extraction	10	03MAR05	12MAR05	94d	0
BS-130850	Inlet Chamber connection to FSS	10	05MAR05	14MAR05	32d	0
BS-130730	General Backfilling around FSS	18	06MAR05	19MAR05	27d	0
BS-131030	Rising Main Chamber connection to PB	16	20MAR05	03APR05	27d	0
BS-131040	Construct Boundary Wall	20	28NOV04	28DEC04	31d	0
BS-130830	Roof Finishing	30	03NOV04	06DEC04	45d	74
BS-130820	Finishing Works @ Transformer room	11	10DEC04	20DEC04	45d	0
BS-130720	EAM works @ Transformer Room	12	10DEC04	12DEC04	6d	0
BS-130920	Ceiling Finishing & Painting	2	18DEC04	11DEC04*	0	0
BS-130930	Wall Finishing	7	20DEC04	18DEC04	0	0
BS-130910	Wall Finishing	2	18DEC04	21DEC04	0	0
BS-130920	Wall Finishing	5	22DEC04	28DEC04	0	0
BS-130940	Platform Removal @ Loading Bay	14	27DEC04	10JAN05	6d	0
BS-130950	Boastwork/Total Blockwork/Plastering/Tile/Flooring	20	27DEC04	15JAN05	0	0
BS-130960	Newly added Wall cabinet	2	27DEC04	15JAN05	0	0
BS-130970	Blockwork @ G.L. 2766ms c/cwd	10	18JAN05	28JAN05	0	0
BS-130980	Finishing Works on these walls	5	18DEC04	13DEC04	86d	0
BS-130990	Handover to E&M @ Loading Bay Area	5	17DEC04	13DEC04	94d	0
BS-130940	Mass Concrete/Platform construction @ Screen Room A	5	17DEC04	13DEC04	22d	0
BS-130950	Mass Concrete/Platform construction @ Screen Room B	15	21DEC04	05JAN05	22d	0
BS-130960	Flop Trench Construction @ Dry Well	21	05JAN05	12JAN05	35d	0
BS-130980	Bamboo platform & Finishing @ Dry Well	2	11JAN05	12JAN05	17d	0
BS-130990	Benching Slab @ Wet Well A & Finishing	2	23JAN05	30JAN05	17d	0
BS-130970	Benching Slab @ Wet Well B & Finishing	30	05MAR05	03APR05	27d	0
BS-130980	External Finishing Works	3	21DEC04	28DEC04	36d	0
BS-13410	QLP Inspection of Transformer Room	0	02MAR05	27d	0	0
BS-13410	Electrical WPI Submission	0	02DEC04	116d	0	0
BS-135100	Expected availability of power supply	0	30DEC04	36d	0	0
BS-135130	CLP's Final Inspection of Transformer Room	0	01DEC04	111d	0	0
BS-135090	Expected availability of FrigateSat water supply	0	18JAN05	36d	0	0
BS-135170	VAC submission	0	18JAN05	36d	0	0
BS-135090	QLP Submission	0	10MAR05	31d	0	0
BS-135130	CLP's Inspection for Mating & Power On	0	14MAR05	17d	0	0
BS-135200	WY046 Part IV Submission	0	14MAR05	38d	0	0
BS-135180	Expected DSD Inspection for Other Works	0	031MAR05	17d	0	0
BS-135030	Expected WSD Inspection	0	01APR05	23d	0	0
BS-135240	Expected DSD Inspection for Sewage Pumpset & VSD	0	04APR05	20d	0	0
BS-135060	FSS 301 Submission	0	05APR05	17d	0	0
BS-135130	Expected DSD Inspection for Mech. Screen System	0	19APR05	8d	0	0
BS-135180	WSD's Final Inspection	0	19APR05	8d	0	0
BS-135140	Expected DSD Inspection for Valves & Pipeworks	0	20APR05	0	0	0
BS-135150	Expected DSD Inspection for Debottlenecking System	0	20APR05	0	0	0
BS-135070	Expected FSD Inspection	49	26JAN05	13MAR05	0	0
BS-135210	FSD's Final Inspection	30	28JAN05	03MAR05	52d	0
BS-135640	Conduit & Trunking	35	28JAN05	03MAR05	41d	0
BS-135650	Lighting & Earthing Installation	30	28JAN05	03MAR05	41d	0
BS-135660	SCADA and PLC Works	30	28JAN05	03MAR05	41d	0
BS-135690	IVAC	40	28JAN05	13MAR05	21d	0
BS-135700	F & D Installation					

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

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



Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float-Complete
BS-136120	Cable Tray Installation	30	26JAN05	03MAR05	0
BS-136070	Cabling Works	20	27FEB05	18MAR05	0
BS-136110	F.S. Services Installation	30	03MAR05	03APR05	0
BS-136050	Lighting & Electrical Services	41	14MAR05	28APR05	0
BS-136130	Cable terminations to Major Equipment	10	18MAR05	28MAR05	0
BS-136140	Cable terminations to other equipment	15	29APR05	12APR05	0
BS-136070	CLP Installation	42	31DEC04	18FEB05	36d
BS-134040	Swingup Pumpset & VSD	20	28JAN05	21FEB05	53d
BS-134050	Mechanical Screen System	16	28JAN05	17FEB05	53d
BS-134060	Pentcock	10	28JAN05	08FEB05	29d
BS-134080	Deodorizer System	14	28JAN05	16FEB05	68d
BS-134090	Lifting Appliances	30	28JAN05	01MAR05	27d
BS-134100	LV Switchboard and Control Panels	40	31JAN05	17MAR05	21d
BS-134120	PCVY cable laying & wiring works	16	03MAR05	20MAR05	35d
BS-137040	Lighting & Earthing functional testing	3	04MAR05	08MAR05	52d
BS-137130	Fan Functional Test	7	04MAR05	10MAR05	48d
BS-137160	Cleansing Water Pump Hydraulics Test	2	14MAR05	15MAR05	39d
BS-137180	Cleansing Water Pump Functional Test	4	16MAR05	19MAR05	39d
BS-137070	Pentstock functional testing	6	20MAR05	03APR05	16d
BS-137100	LV Switchboard & Control panel functional testing	15	20MAR05	12APR05	6d
BS-137110	Swingup pumpset and VSD functional testing	3	20MAR05	31MAR05	18d
BS-137190	Mech. Screen System functional testing	3	04APR05	06APR05	14d
BS-137090	Valves & Pipeworks testing	5	13APR05	18APR05	21d
BS-137080	Lifting Appliances functional testing	8	13APR05	16APR05	13d
BS-137050	Deodorizer System functional testing	6	19APR05	24APR05	1d
BS-137160	SCADA & PLC Works functional Testing	3	24APR05	25APR05	2d
BS-137150	PCD/PLC Board Functional Test	2	24APR05	27APR05	0
BS-137170	Lighting Functional & Intensity Test	3	25APR05	27APR05	0
BS-137140	SCADA & PLC Mapping Test	3	28APR05	30APR05	0
BS-137000	Commissioning Test	15	16DEC04	30DEC04	94d
BS-136510	Swingup L4, F402 to Inlet Chamber	5	19FEB05	22FEB05	16d
BS-132217	Backfilling Works @ Rd. L4	4	22FEB05	28FEB05	26d
BS-132242	Deposit Compact L4 (Ch. 392-437) remaining	7	22FEB05	01MAR05	19d
BA-1689014	Remaining Gully Works @ Rd. L4	14	22FEB05	08MAR05	39d
BA-1689013	Triaxial Channel, DI/ L4 N	13	27FEB05	13MAR05	43d
BS-1670A7	Roadworks, L4/Ch.314-437	12	02MAR05	13MAR05	19d
BS-1550096	Waterworks @ L4 remaining	14	08MAR05	22MAR05	39d
BA-1689014	Triaxial Channel, Rd L4	5	14MAR05	18MAR05	43d
BS-1674G10	Road Furniture/Signs, Rd L4	4	14MAR05	17MAR05	19d
UT-1600F8	PCOV/HIS inside F52 @ Rd. L4	25	18MAR05	11APR05	16d
BS-1672A7	Cycle Track & Footway, L4/Ch.314-437				

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

Legend:
 ■ Early bar
 ■ ZZZZ Progress bar
 ■ ITTI Critical bar
 ■ Summary bar
 ● Milestone
 ◆ Finish milestone point

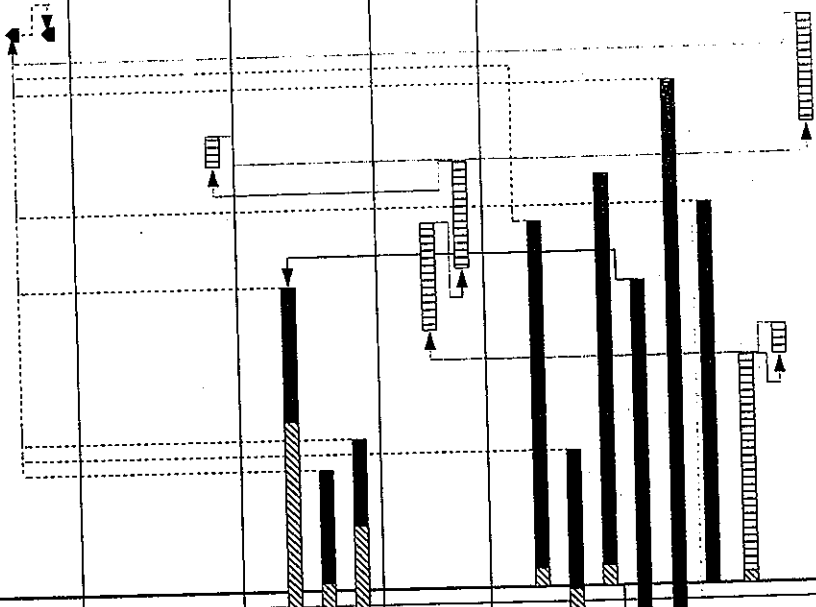
Act ID Description Orig Dur Early Start Early Finish Total Percent Complete Float Complete

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

Part 3.1 Earthworks - Section 16					
B3-1622N9	Deposit/ Compact, N. end, Promenade	2	30DEC04	31DEC04	0
Part 4.1 Drainage & Sewerage - Section 16					
B4-1683B56	U-Channel, D1/1860-2180	45	25SEP04 A	21DEC04	90
B4-1689D2	Trapezoidal Channel, D1 at S0049 to Area 9B bound	30	10NOV04 A	09DEC04	75
B4-1689C8	Trapezoidal Channel, at H Site 3	40	19NOV04 A	11DEC04	75
Section 16 - Utilities					
UT-1600T9A	PCCW, N. end, Promenade	7	19DEC04	25DEC04	0
UT-1600T9B	HGC, N. end, Promenade	7	23DEC04	29DEC04	0
Part 5.1 Roadworks - Section 16					
B5-1672A31	Footpath, D1/Ch. 920-1020 remaining	25	02DEC04 A	25DEC04	5
B5-1672A2	Cycle Track & Footway, D1/Ch. 1020-1360	45	26OCT04 A	10DEC04	80
B5-1670A13	Roadworks, D1/Ch. 1360-1500 remaining	28	02DEC04 A	28DEC04	5
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	45
B5-1672A3	Footpath, D1/Ch. 1360-1500	25	02DEC04	26DEC04	0
B5-1670A66	Diversion Work for Cycle Track @ N. Entrance remaining	16	02DEC04 A	16DEC04	5
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

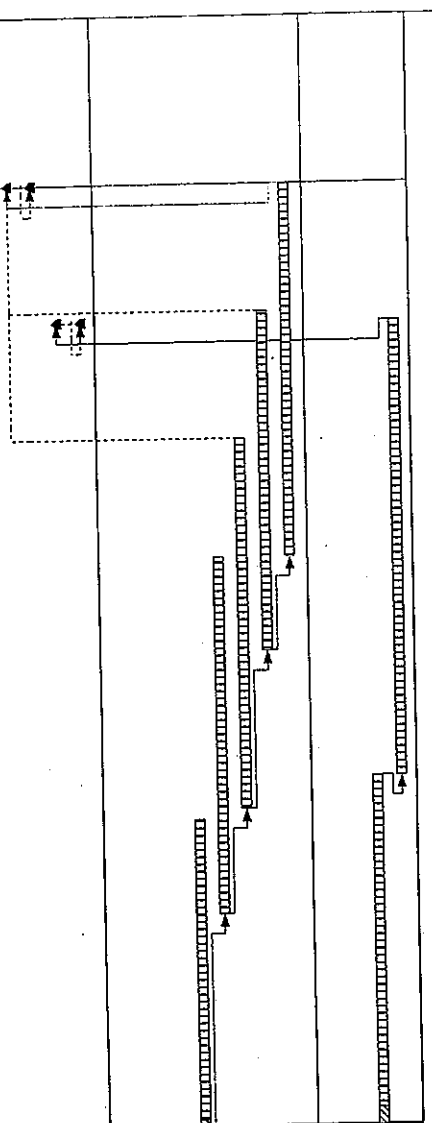


Contract No. TP35/02
Remaining Engineering Infrastructure Works
for Pak Shek Kok Development Package 1
REMAINING WORKS @ SECTION 16

Start date	27AUG02	Early bar
Finish date	28FEB06	Progress bar
Date date	02DEC04	Critical bar
Run date	18DEC04	Summary bar
Page number	1A	Start milestone point
Number/Version	TP35/02/WP/011	Finish milestone point

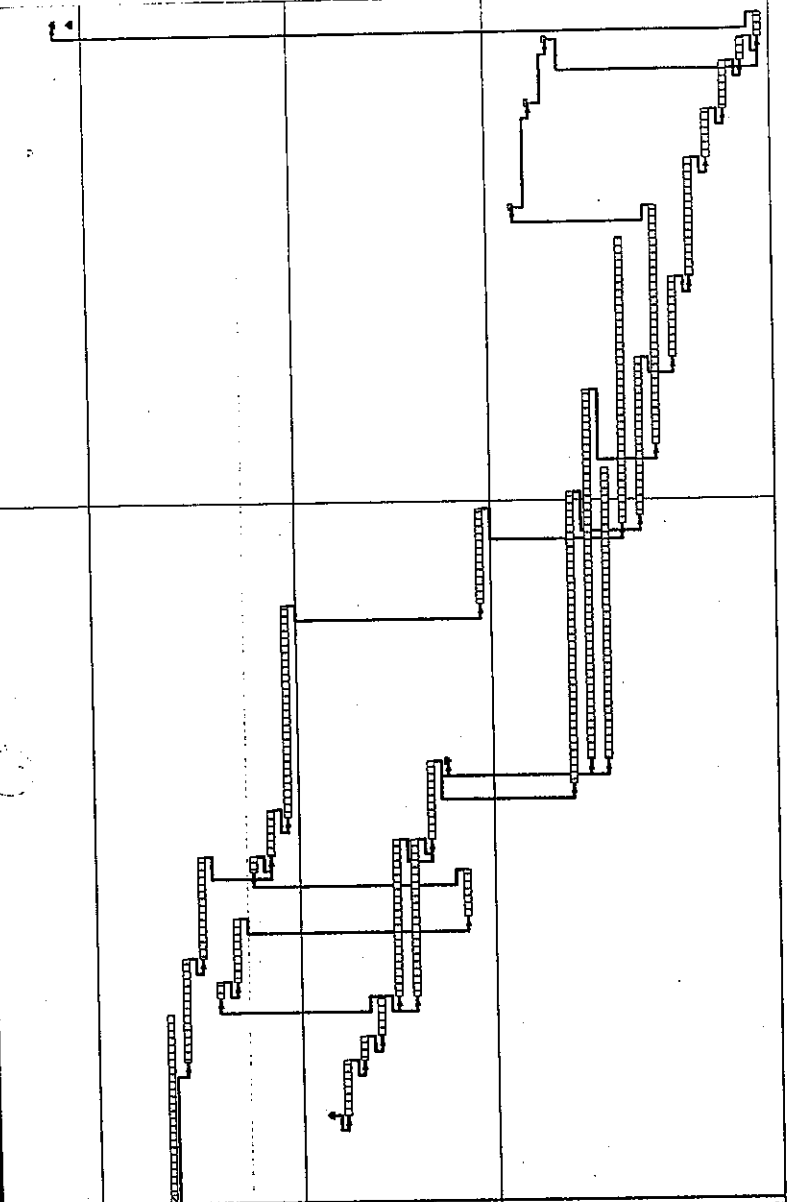
Act ID	Description	Orig Dur	Early Start	Early Finish	Total Percent Float Complete
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Completion Dates					
KD-2170A	Achievement Date for KD-2170	0	28FEB05	0	0
KD-2170B	Assumed Extension of Time for KD-2170	0	28FEB05*	0	0
KD-2180A	Achievement Date for 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-1707A1	Area 1- Planting Works remaining	30	02DEC04 A	30DEC04	0
BL-1707A2	Area 2+6- Planting Works	34	22DEC04	24JAN05	0
BL-1707A4	Area 7B- Planting Works	35	01JAN05	04FEB05	0
BL-1707A3	Area 7A- Planting Works	25	16JAN05	16FEB05	0
Section 18- Remainder of Landscaping Works					
BL-1814A1	Preparation Works remain & CLP related obstructions	35	02DEC04 A	03JAN05	5
BL-1814A2	Planting Works, Remainder	43	04JAN05	15FEB05	0



Contract No. TP35/02
 Remaining Engineering Infrastructure Works
 for Pak Shek Kok Development Package 1
REMAINING WORKS @ SECTION 17 & 18

Start date: 27AUG02
 Finish date: 28FEB05
 Start date: 16DEC04
 Milestone: 1A
 Milestone: 1B
 Milestone: 1C
 Milestone: 1D
 Milestone: 1E
 Milestone: 1F
 Milestone: 1G
 Milestone: 1H
 Milestone: 1I
 Milestone: 1J
 Milestone: 1K
 Milestone: 1L
 Milestone: 1M
 Milestone: 1N
 Milestone: 1O
 Milestone: 1P
 Milestone: 1Q
 Milestone: 1R
 Milestone: 1S
 Milestone: 1T
 Milestone: 1U
 Milestone: 1V
 Milestone: 1W
 Milestone: 1X
 Milestone: 1Y
 Milestone: 1Z

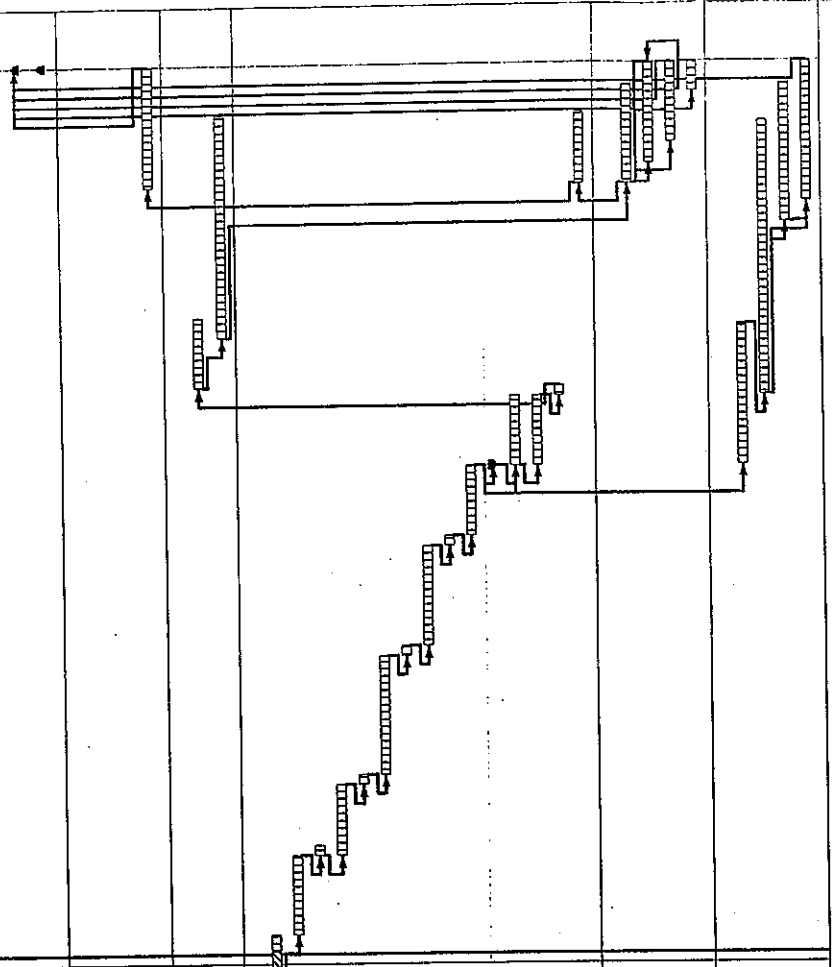


Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent	Float	Complete
10-2120A	Performance Time for 10-2120	0					0	0	0
10-2120B	Assuming Extension of Time for 10-2120	0					0	0	0
Section 12: Works of Sewage Pumping Station No.1									
BS-120760	Preliminary Testing and Leakage Repair Works	25	12DEC04	20DEC04	12DEC04	20DEC04	0	0	0
BS-120770	Waterpressure Test for Group A	13	20DEC04	01JAN05	20DEC04	01JAN05	0	0	0
BS-120780	Waterpressure Test for Group B	13	20JAN05	03JAN05	20DEC04	03JAN05	0	0	0
BS-121010	Scaldding Erection for new Wall @ GL1-5/E	8	20DEC04	20DEC04	20DEC04	20DEC04	0	0	0
BS-121020	New Wall Construction @ GL1-5/E	2	20DEC04	30DEC04	20DEC04	30DEC04	0	0	0
BS-121030	Scaldding removal @ Switch room Area	1	15JAN05	15JAN05	15JAN05	15JAN05	0	0	0
BS-121040	Structure Extraction @ Switch Room Area	6	15JAN05	20JAN05	15JAN05	20JAN05	0	0	0
BS-121050	Installation Gully & Substation construction	20	20JAN05	19FEB05	20JAN05	19FEB05	0	0	0
BS-121060	Completion of Works on Vibration Isolator Foundations	0	12DEC04	12DEC04	12DEC04	12DEC04	0	0	0
BS-121070	Wall Finishing	7	13DEC04	18DEC04	13DEC04	18DEC04	0	0	0
BS-121080	Wall Painting	3	20DEC04	20DEC04	20DEC04	20DEC04	0	0	0
BS-121090	Platform Removal @ Loading Bay	5	20DEC04	27DEC04	20DEC04	27DEC04	0	0	0
BS-121100	Newly added Wall Washnet	20	20DEC04	16JAN05	20DEC04	16JAN05	0	0	0
BS-121110	Excavate at GL1.2 (7 days cutting)	20	20DEC04	16JAN05	20DEC04	16JAN05	0	0	0
BS-121120	Finishing on these Walls	10	17JAN05	26JAN05	17JAN05	26JAN05	0	0	0
BS-121130	Handover to E&H Works @ Loading Area	0	27JAN05	27JAN05	27JAN05	27JAN05	0	0	0
BS-121140	Finishing of New Wall @ GL1-4/E	6	07JAN05	12JAN05	07JAN05	12JAN05	0	0	0
BS-121150	Finishing Works for Machinery & Substation	12	16FEB05	27FEB05	16FEB05	27FEB05	0	0	0
BS-121160	FS S01 Submission	0	07APR05	07APR05	07APR05	07APR05	0	0	0
BS-121170	Expedited FSD Inspection	0	20APR05	20APR05	20APR05	20APR05	0	0	0
BS-121180	FSD Final Inspection	0	20APR05	20APR05	20APR05	20APR05	0	0	0
BS-121190	Cable Tray Installation	40	24JAN05	01MAR05	24JAN05	01MAR05	0	0	0
BS-121200	Cable & Trunking	40	27JAN05	14MAR05	27JAN05	14MAR05	0	0	0
BS-121210	IVAC	30	27JAN05	09APR05	27JAN05	09APR05	0	0	0
BS-121220	LV Switchboard and Control Panels	30	27FEB05	26FEB05	27FEB05	26FEB05	0	0	0
BS-121230	Cabling works	30	27FEB05	18MAR05	27FEB05	18MAR05	0	0	0
BS-121240	F.S. Service Installation	30	28MAR05	08APR05	28MAR05	08APR05	0	0	0
BS-121250	Cable Terminations to Major Equipments	10	19MAR05	28MAR05	19MAR05	28MAR05	0	0	0
BS-121260	Cable Terminations to Other Equipments	15	29MAR05	28MAR05	29MAR05	28MAR05	0	0	0
BS-121270	Depolourer System functional Testing	6	19APR05	19APR05	19APR05	19APR05	0	0	0
BS-121280	SCADA and PLC Works Functional Testing	6	19APR05	19APR05	19APR05	19APR05	0	0	0
BS-121290	SCADA & PLC Mapping Test	3	25APR05	27APR05	25APR05	27APR05	0	0	0
BS-121300	Commissioning Test	3	28APR05	30APR05	28APR05	30APR05	0	0	0

Contract No. TP55/02
 Remaining Engineering Infrastructure Works
 for Pak Steak Kok Development Package 1
 Critical Path on Section 12

Legend:
 Early bar
 Original 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	Float	Complete
0	Achievement Date for KD-2030		28FEB05		28FEB05	0	0		0
0	Assumed Est. of Time for Section 3		28FEB05		28FEB05		0		0
Section 3-Works in Areas 3, 4+6, except Sec. 4+LS&EW									
12	17FEB05	17FEB05	17FEB05		28FEB05	0	0		0
7	28JAN05	03FEB05	03FEB05	28JAN05	03FEB05	0	0		0
15	02FEB05	23FEB05	23FEB05	02FEB05	23FEB05	0	0		0
20	17NOV04 A	03DEC04	03DEC04	17NOV04 A	03DEC04	0	90		0
6	04DEC04	11DEC04	11DEC04	04DEC04	11DEC04	0	0		0
1	12DEC04	12DEC04	12DEC04	12DEC04	12DEC04	0	0		0
7	12DEC04	18DEC04	18DEC04	12DEC04	18DEC04	0	0		0
1	19DEC04	19DEC04	19DEC04	19DEC04	19DEC04	0	0		0
12	20DEC04	31DEC04	31DEC04	20DEC04	31DEC04	0	0		0
1	01JAN05	01JAN05	01JAN05	01JAN05	01JAN05	0	0		0
10	02JAN05	11JAN05	11JAN05	02JAN05	11JAN05	0	0		0
1	12JAN05	12JAN05	12JAN05	12JAN05	12JAN05	0	0		0
7	18JAN05	18JAN05	18JAN05	18JAN05	18JAN05	0	0		0
0	20JAN05	20JAN05	20JAN05	20JAN05	20JAN05	0	0		0
7	20JAN05	26JAN05	26JAN05	20JAN05	26JAN05	0	0		0
7	20JAN05	26JAN05	26JAN05	20JAN05	26JAN05	0	0		0
1	27JAN05	27JAN05	27JAN05	27JAN05	27JAN05	0	0		0
7	17FEB05	23FEB05	23FEB05	17FEB05	23FEB05	0	0		0
Remaining Works									
10	17FEB05	26FEB05	26FEB05	17FEB05	26FEB05	0	0		0
10	19FEB05	28FEB05	28FEB05	19FEB05	28FEB05	0	0		0
8	21FEB05	28FEB05	28FEB05	21FEB05	28FEB05	0	0		0
3	26FEB05	26FEB05	26FEB05	26FEB05	26FEB05	0	0		0
Remaining Works in Areas 3, 4+6									
14	20JAN05	02FEB05	02FEB05	20JAN05	02FEB05	0	0		0
20	27JAN05	23FEB05	23FEB05	27JAN05	23FEB05	0	0		0
14	19FEB05	26FEB05	26FEB05	19FEB05	26FEB05	0	0		0
14	15FEB05	28FEB05	28FEB05	15FEB05	28FEB05	0	0		0



Contract No. TP35/02
 Remaining Engineering Infrastructure Works
 for Pak Shek Kok Development Package 1
 Critical Path on Section 3

Act ID	2030
Act Name	28FEB05
Act Description	02DEC04
Act Start	18DEC04
Act End	18DEC04
Page Number	1
Page Size	1135/892/21
Page Title	28FEB05
Page Content	28FEB05
Page Footer	28FEB05

Early bar
 28FEB05 Progress bar
 18DEC04 Critical bar
 18DEC04 Summary bar
 28FEB05 Start milestone point
 18DEC04 Finish milestone point

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Completion Dates

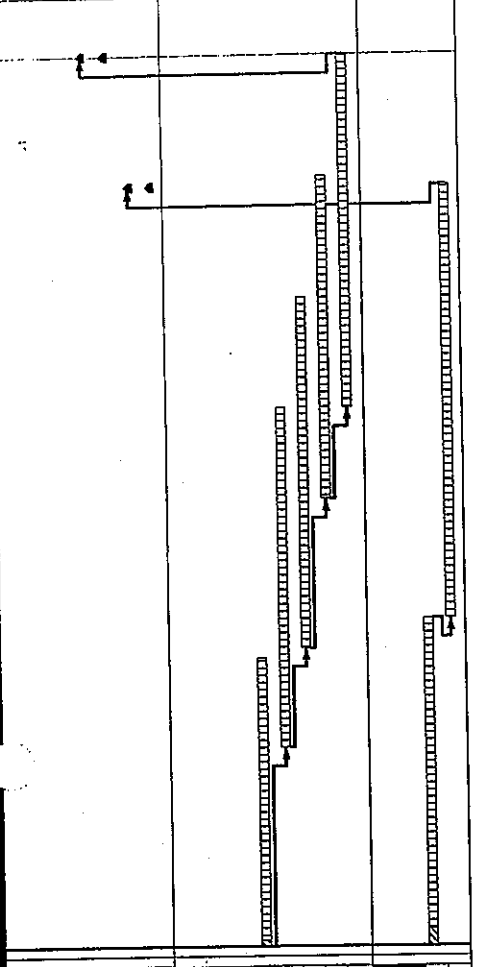
KD-2170A	Achievement Date for KD-2170	0	02DEC04	30DEC04	02DEC04	30DEC04	0	0
KD-2170S	Assumed Extension of Time for KD-2170	0	28FEB05*	28FEB05*	28FEB05*	28FEB05*	0	0
KD-2180A	Achievement Date for KD-2180	0	19FEB05	19FEB05	19FEB05	19FEB05	0	0
KD-2180B	Assumed Extension of Time for KD-2180	0	16FEB05*	16FEB05*	16FEB05*	16FEB05*	0	0

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

BL-1707A1	Area 1, 2, 6, 7A Preparation & Miscellaneous Works	30	02DEC04	30DEC04	02DEC04	30DEC04	0	2
BL-1707A2	Area 1- Planting Works remaining	34	22DEC04	22DEC04	22DEC04	24JAN05	0	0
BL-1707A2	Areas 2+6- Planting Works	35	01JAN05	04FEB05	01JAN05	04FEB05	0	0
BL-1707A4	Area 7B- Planting Works	25	16JAN05	18FEB05	16JAN05	18FEB05	0	0
BL-1707A3	Area 7A- Planting Works	35	25JAN05	28FEB05	25JAN05	28FEB05	0	0

Section 18- Remainder of Landscaping Works

BL-1814A1	Preparation Works remain & CLP related obstructions	35	02DEC04	03JAN05	02DEC04	03JAN05	0	5
BL-1814A2	Planting Works, Remainder	48	04JAN05	16FEB05	04JAN05	16FEB05	0	0



Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
KD-2120	Section 12- Works of Sewage Pumping Station No.1	0	01L 04 *	0	18NOV04 *	0	-13d
KD-2120A	Achievement Date for KD-2120	0	30APR05	0	30APR05	0	0
KD-2120B	Assumed Extension of Time for KD-2120	0	30APR05 *	0	30APR05 *	0	0
KD-2130	Section 13- Works of Sewage Pumping Station No.2	0	01DEC04 *	0	16NOV04 *	0	-15d
KD-2130A	Achievement Date for KD-2130	0	30APR05	0	30APR05	0	0
KD-2130B	Assumed Extension of Time for KD-2130	0	30APR05 *	0	30APR05 *	0	0
KD-2160	Section 16- Remainder of Works, except LS+EW	0	21DEC04 *	0	21DEC04 *	0	0
KD-2160A	Achievement Date for KD-2160	0	07JAN05	0	07JAN05	0	0
KD-2160B	Assumed Extension of Time for KD-2160	0	07JAN05 *	0	07JAN05 *	0	0
KD-2170	Section 17-Areas 1,2,6,7A+7B Landscaping Softwork	0	01DEC04 *	0	24OCT04 *	0	-38d
KD-2170A	Achievement Date for KD-2170	0	28FEB05	0	28FEB05	0	0
KD-2170B	Assumed Extension of Time for KD-2170	0	28FEB05 *	0	28FEB05 *	0	0
KD-2180	Section 18- Remainder of Landscaping Softworks	0	01DEC04 *	0	24OCT04 *	0	-38d
KD-2180A	Achievement Date for KD-2180	0	15FEB05	0	15FEB05	0	0
KD-2180B	Assumed Extension of Time for KD-2180	0	15FEB05 *	0	15FEB05 *	0	0
KD-2009	Completion of the Works	0	24OCT05 *	0	24OCT05 *	0	0
KD-2009A	Achievement Date for KD-2009	0	28FEB06	0	28FEB06	0	0
KD-2009B	Assumed Extension of Time for Completion of Works	0	28FEB06 *	0	28FEB06 *	0	0
KD-2190	Section 19- Areas 1,2,6,7A+7B Establishment Works	0	24OCT05 *	0	24OCT05 *	0	0
KD-2190A	Achievement Date for KD-2190	0	28FEB06	0	28FEB06	0	0
KD-2190B	Assumed Extension of Time for KD-2190	0	28FEB06 *	0	28FEB06 *	0	0
KD-2200	Section 20- Remainder of Establishment Works	0	24OCT05 *	0	24OCT05 *	0	0
KD-2200A	Achievement Date for KD-2200	0	15FEB06	0	15FEB06	0	0
KD-2200B	Assumed Extension of Time for KD-2200	0	15FEB06 *	0	15FEB06 *	0	0
KD-2200A	Achievement Date for KD-2200	0	15FEB06	0	15FEB06	0	0
+ Phased Possession of Site							
		318	27AUG02 A	24SEP03 A	27AUG02 A	24SEP03 A	100
+ Utilities Milestone Dates							
		22	01DEC04	23DEC04	01DEC04	23DEC04	0
+ Submission & Approval							
		563	27AUG02 A	26JUL04 A	27AUG02 A	26JUL04 A	100
+ Preliminaries & Procurement							
		676	27AUG02 A	13DEC04	27AUG02 A	11APR05	102d
+ Cycle Track Traffic Management							
		522	14SEP02 A	26JUN04 A	14SEP02 A	26JUN04 A	100
+ Temporary Traffic Arrangement							
		555	28AUG02 A	05MAR04 A	28AUG02 A	05MAR04 A	100
+ Temporary Diversion of Exi. Utilities & Drainage							
		455	26NOV02 A	24FEB04 A	26NOV02 A	24FEB04 A	100
Part 1.1 Preliminaries							
B1-0101D1	Erect Contractor's Temporary Site Offices	21	27AUG02 A	16SEP02 A	27AUG02 A	16SEP02 A	100
B1-0101I0	Third Party Insurance	1	27AUG02 A	27AUG02 A	27AUG02 A	27AUG02 A	100
B1-0102C1	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
B1-0103J6	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
B1-0102E0	Record Photographs	14	03SEP02 A	16SEP02 A	03SEP02 A	16SEP02 A	100

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

Start date: 27AUG02
 Finish date: 28FEB06
 Data date: 30DEC04
 Run date: 24
 Prep number: 25502AF/011
 Drawn by: Wason
 Checked by: Wason
 Approved by: Wason

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

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

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Complete
B1-0109E1	Operate/ maintain Mobile Phones, 4hr	1020	03SEP02 A	305	03SEP02 A	28FEB06	81
B1-0107D0	Update Waste Management Plan	1080	03SEP02 A	06AUG05	03SEP02 A	28FEB06	77
B1-0107E0	Implement & Monitor Waste Management Plan	1080	03SEP02 A	09AUG05	03SEP02 A	28FEB06	77
B1-0102A0	Provide 4-wheel drive vehicle, 2 nr	5	05SEP02 A	05SEP02 A	05SEP02 A	05SEP02 A	100
B1-0108B01	Operate & maintain 4-wheel drive vehicle, 2 nr	1001	05SEP02 A	30MAY05	05SEP02 A	20NOV05	82
B1-0108B01	Site Clearance-Zones A,B2,C,D,E,F,J,L,N2,Q&S1	30	05SEP02 A	15OCT02 A	05SEP02 A	15OCT02 A	100
B1-0101F1	Provide measures-Traffic flow maint. S1/Zone F,B2	14	10SEP02 A	23SEP02 A	10SEP02 A	23SEP02 A	100
B1-0101F3	Provide measures-Traffic flow maint. S5/ Zone F	14	10SEP02 A	23SEP02 A	10SEP02 A	23SEP02 A	100
B1-0101G0	Maintain/remove measures for traffic flow	1140	10SEP02 A	29OCT05	10SEP02 A	28FEB06	71
B1-0108B02	Construct W.Washing Facilities, WB3 at Zone N2	15	26SEP02 A	10OCT02 A	26SEP02 A	10OCT02 A	100
B1-0108B02	Site Clearance- Zones R & S1	2	27SEP02 A	28SEP02 A	27SEP02 A	28SEP02 A	100
B1-0102D0	Progress Photographs, 30nr	900	01OCT02 A	19MAR05	01OCT02 A	12AUG05	88
B1-0108B15	General Site Clearance	14	02OCT02 A	17OCT02 A	02OCT02 A	17OCT02 A	100
B1-0101E4	T/O measures-Traffic flow maintenance, Zone S1	1080	05OCT02 A	15MAR04	05OCT02 A	15MAR04	100
B1-0108N0	Maintain Noise Monitoring	1118	09OCT02 A	10OCT02 A	09OCT02 A	10OCT02 A	100
B1-0105J3	Maintain W.Washing Facilities, WB3 at Zone N2	700	11OCT02 A	30APR04	11OCT02 A	02DEC04 A	100
B1-0108K0	Maintain Air Monitoring	1104	16OCT02 A	02DEC04 A	16OCT02 A	02DEC04 A	100
B1-0108M0	Provide Baseline Noise Monitoring	14	16OCT02 A	16OCT02 A	16OCT02 A	16OCT02 A	100
B1-0101D4	Erect Contractor's Site Accommodation	60	01NOV02 A	26NOV02 A	01NOV02 A	26NOV02 A	100
B1-0101A0	Erect Engineer's Site Accommodation	60	14NOV02 A	01DEC02 A	14NOV02 A	01DEC02 A	100
B1-0104E0	Concrete Paving to Engineer's Site Accommodation	21	14NOV02 A	14NOV02 A	14NOV02 A	14NOV02 A	100
B1-0103C1	Erect Temporary Gate, 6mWx1.8mH at Zone A	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100
B1-0103C2	Erect Temporary Gate, 6mWx1.8mH at Zone Q	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100
B1-0103C3	Erect Temporary Gate, 6mWx1.8mH at SRE Office	21	26NOV02 A	16DEC02 A	26NOV02 A	16DEC02 A	100
B1-0103D2	Provide Mobile Phones, 3nr	7	26NOV02 A	02DEC02 A	26NOV02 A	02DEC02 A	100
B1-0107K0	Take over Ex.Cyclist/Ped.Bridge at Zone H	1	26NOV02 A	26NOV02 A	26NOV02 A	26NOV02 A	100
B1-0108B03	Site Clearance- Zone B1	2	28NOV02 A	27NOV02 A	28NOV02 A	27NOV02 A	100
B1-0107L0	Maintain Ex.Cyclist/Ped.Bridge at Zone H	392	27NOV02 A	07JUN04	27NOV02 A	07JUN04	100
B1-0109E2	Operate/ maintain Mobile Phones, 3nr	1020	03DEC02 A	20SEP04 A	03DEC02 A	20SEP04 A	100
B1-0101D3	Demolish Contractor's Temp. Site Offices	14	09DEC02 A	11DEC02 A	09DEC02 A	11DEC02 A	100
B1-0101D5	Service Contractor's Site Accommodation	1045	16DEC02 A	20SEP04 A	16DEC02 A	20SEP04 A	100
B1-0101B0	Service Engineer's Site Accommodation	1037	25DEC02 A	20SEP04 A	25DEC02 A	20SEP04 A	100
B1-0101E1	T/O measures-Traffic flow maintenance, Rest	14	26DEC02 A	26SEP03 A	26DEC02 A	26SEP03 A	100
B1-0101E3	T/O measures-Traffic flow maintenance, Zone P	2	26DEC02 A	27DEC02 A	26DEC02 A	27DEC02 A	100
B1-0102C2	Install computer facilities for Engineer	45	30DEC02 A	25JAN03 A	30DEC02 A	25JAN03 A	100
B1-0101F7	Provide measures- Traffic flow maint. S16/Zone P	14	15JAN03 A	21JAN03 A	15JAN03 A	21JAN03 A	100
B1-0101E2	T/O measures-Traffic flow maintenance, Zone G	2	24JAN03 A	24JAN03 A	24JAN03 A	24JAN03 A	100
B1-0101F2	Provide measures- Traffic flow maint. S3/ Zone G	14	27JAN03 A	01APR03 A	27JAN03 A	01APR03 A	100
B1-0101F4	Provide measures- Traffic flow maint. S16/Zone G	14	27JAN03 A	08APR03 A	27JAN03 A	08APR03 A	100
B1-0108B06	Site Clearance, Zone S3 & J Rest	5	07MAR03 A	26APR03 A	07MAR03 A	26APR03 A	100
B1-0108B04	Site Clearance- Zone P	5	20MAR03 A	30APR03 A	20MAR03 A	30APR03 A	100
B1-0108B05	Site Clearance- Zone G	3	20MAR03 A	30MAR03 A	20MAR03 A	30MAR03 A	100
B1-0101E5	T/O measures-Traffic flow maintenance, Zone S3	2	27MAR03 A	28MAR03 A	27MAR03 A	28MAR03 A	100
B1-0103K6	Remove W.Washing Facilities, Existing @ Zone A	15	28MAR03 A	14APR03 A	28MAR03 A	14APR03 A	100
B1-0101F5	Provide measures- Traffic flow maint. S16/ZoneS3	14	29MAR03 A	11APR03 A	29MAR03 A	11APR03 A	100
B1-0108B07	Site Clearance- Zones N1 & T	6	05APR03 A	10APR03 A	05APR03 A	10APR03 A	100
B1-0103L5	Construct W.Washing Facilities, WB5 at Zone A	15	07APR03 A	27APR03 A	07APR03 A	27APR03 A	100
B1-0103AL	Erect Barricade at Zone L	30	11APR03 A	26APR03 A	11APR03 A	26APR03 A	100
B1-0103B3	Erect Signboard, 1nr at SRE Site Office	21	26APR03 A	23MAY03 A	26APR03 A	23MAY03 A	100
B1-0103J5	Maintain W.Washing Facilities, WB5 at Zone A	480	28APR03 A	31MAY04 A	28APR03 A	31MAY04 A	100
B1-0103K5	Remove W.Washing Facilities, WB5 at Zone A	15	29APR03 A	09MAY03 A	29APR03 A	09MAY03 A	100
B1-0107H0	Take over Ex.Cyclist/Pedestrian Bridge@N.RoundA	1	12MAY03 A	20MAY03 A	12MAY03 A	20MAY03 A	100
B1-0107I0	Maintain Ex.Cyclist/Pedestrian Bridge@N.RoundA	320	21MAY03 A	26JUN04 A	21MAY03 A	26JUN04 A	100

Start date: 27AUG02
 Finish date: 28FEB06
 Date due: 15DEC04
 Proc number: 55233
 Number/Version: TP-3502/WP01/3
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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
 REVISED WORKS PROGRAMME I

Checked	Approved
01JUN04	WAJ
07JUL04	WAJ
04OCT04	WAJ
17DEC04	WAJ

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Percent Float Complete
B1-0103AC	Erect Hoarding bet Culvert C10 & S.P. Phase1 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, 1nr 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	29JUL03 A	14AUG03 A	29JUL03 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	18AUG03 A	11AUG03 A	18AUG03 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, 1nr at Zone A	21	16DEC03 A	18DEC03 A	16DEC03 A	18DEC03 A	100
B1-0107J20	Temporary Cycletrack at Zone H	5	02MAR04 A	06MAR04 A	02MAR04 A	06MAR04 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
B1-0107M0	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	25JUN04 A	11JUN04 A	25JUN04 A	100
B1-0107J60	Removal of existing cycle track along 7A	10	25JUN04 A	04JUL04 A	25JUN04 A	04JUL04 A	100
B1-0107J50	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	Servicing Engineer's Site Accommodation remaining	35	20SEP04 A	24OCT04 A	20SEP04 A	24OCT04 A	100
B1-0101D15	Servicing Contractor's Site Accommodation remaining	131	20SEP04 A	30JAN05	20SEP04 A	28JAN06	364d
B1-0103E12	Operate/maintain Mobile Phones, 3nr remaining	131	20SEP04 A	30JAN05	20SEP04 A	28FEB06	364d
B1-0103K4	Remove W.Washing Facilities, WB4 at Zone L	15	22NOV04 A	31DEC04 A	22NOV04 A	22NOV04 A	100
B1-0101C0	Hand over Engineer's Site Accommodation	152	02DEC04 A	29APR05	02DEC04 A	21FEB06	238d
B1-0108K10	Maintain Air Monitoring remaining	150	02DEC04 A	23APR05	02DEC04 A	28FEB06	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	28FEB06	364d
B1-0106G0	Remove Noise Monitoring Measures	7	17APR05	22APR05	22FEB06	28FEB06	311d
B1-0108L0	Remove Air Monitoring Measures	7	30APR05	06MAY05	22FEB06	28FEB06	298d
+Part 1.2 Preliminaries - Site Accom. (HY/99/02)							
		179	02JAN03 A	28JUN03 A	02JAN03 A	29JUN03 A	100
+Section 1- Works in Area 1, except LS & EW							
		532	04OCT02 A	28JUL04 A	04OCT02 A	26JUL04 A	100
+Section 2- Works in Area 2, except LS & EW							
		699	08NOV02 A	02DEC04 A	08NOV02 A	02DEC04 A	100
Section 3- Works in Areas 3, 4, 6, except Sec.4+LS&EW							
		75	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100
		60	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100
		30	02OCT03 A	15DEC03 A	02OCT03 A	15DEC03 A	100
		278	21OCT02 A	02AUG03 A	21OCT02 A	02AUG03 A	100
		5	21OCT02 A	05NOV02 A	21OCT02 A	05NOV02 A	100
		4	05DEC02 A	15JUL03 A	05DEC02 A	15JUL03 A	100
		7	05DEC02 A	31JUL03 A	05DEC02 A	31JUL03 A	100
		7	28JAN03 A	15JUL03 A	28JAN03 A	15JUL03 A	100
		3	27FEB03 A	01MAR03 A	27FEB03 A	01MAR03 A	100

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

Start date: 27AUG02
 Finish date: 28DEC06
 Issue date: 18DEC04
 Plate number: 4A
 Number/Vision: TP35/02/WP/011
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Legend:
 ■ Early bar
 ■ Progress bar
 ■ Critical bar
 ■ Summary bar
 ■ Start milestone point
 ■ Finish milestone point

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

Checked: WAJ
 Approved: WJL

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
B7-034080	Strands threading to tendon ducts	10	02/JAN/05	05	02/JAN/05	11/JAN/05	0	0
B7-034120	Misc. rebar fixing and formworking for top slab	5	02/JAN/05	06/JAN/05	07/JAN/05	11/JAN/05	5d	0
B7-034130	Concreting of top slab	1	12/JAN/05	12/JAN/05	12/JAN/05	12/JAN/05	0	0
B7-034140	Curing	7	13/JAN/05	19/JAN/05	19/JAN/05	19/JAN/05	0	0
B7-034020	Start Prestressing	0	20/JAN/05	20/JAN/05	20/JAN/05	20/JAN/05	0	0
B7-034150	Post-tensioning of Bridge Deck	7	20/JAN/05	26/JAN/05	26/JAN/05	26/JAN/05	0	0
B7-034160	GROUTING	7	20/JAN/05	26/JAN/05	26/JAN/05	26/JAN/05	0	0
B7-034170	Anchorage backfilling	1	27/JAN/05	27/JAN/05	27/JAN/05	27/JAN/05	0	0
B7-034030	Movement Joint	7	30/JAN/05	05/FEB/05	18/FEB/05	18/FEB/05	6d	0
B7-034190	Falsework dismantling	7	17/FEB/05	23/FEB/05	23/FEB/05	23/FEB/05	0	0
Retaining Walls								
B7-035000	Road D1 Bridge Retaining Walls	92*	02/NOV/04	01/FEB/05	02/NOV/04	16/FEB/05	8d	33
B7-035030	Retaining Wall No. 2	25	02/NOV/04	04/DEC/04	02/NOV/04	12/JAN/05	39d	89
B7-035020	Retaining Wall No. 1	18	19/NOV/04	07/DEC/04	18/NOV/04	20/JAN/05	44d	76
B7-035040	Retaining Wall No. 3	15	19/JAN/05	30/JAN/05	14/FEB/05	21/JAN/05	8d	0
B7-035050	Drainage & Backfill	15	16/JAN/05	01/FEB/05	16/FEB/05	16/FEB/05	8d	0
B7-035060	Movement Joint	7	23/JAN/05	29/JAN/05	01/FEB/05	14/FEB/05	9d	0
Road D1 Bridge Finishing Works								
B7-036000	Road D1 Bridge Finishing Works	12*	17/FEB/05	28/FEB/05	17/FEB/05	28/FEB/05	0	0
B7-036030	Road & Drainage Works	10	17/FEB/05	28/FEB/05	17/FEB/05	26/FEB/05	0	0
B7-036050	Footway, Cycle Track, Paving	10	19/FEB/05	28/FEB/05	28/FEB/05	28/FEB/05	0	0
B7-036090	Roadwork Furnitures & Miscellaneous	8	21/FEB/05	28/FEB/05	21/FEB/05	28/FEB/05	0	0
B7-036040	Wearing Course	3	28/FEB/05	28/FEB/05	28/FEB/05	28/FEB/05	0	0
Modification of PSK Bridge								
B7-037000	Modification of PSK Bridge	33*	20/JAN/05	28/FEB/05	20/JAN/05	28/FEB/05	0	0
B7-037020	Demolition for Connection & Excavation	14	20/JAN/05	02/FEB/05	20/JAN/05	02/FEB/05	0	0
B7-037030	Modification Works	20	27/JAN/05	22/FEB/05	27/JAN/05	22/FEB/05	0	0
B7-037040	Drainage Works & Movement Joints	14	19/FEB/05	28/FEB/05	13/FEB/05	26/FEB/05	0	0
B7-037050	E&M Works & Finishing	14	18/FEB/05	28/FEB/05	15/FEB/05	28/FEB/05	0	0
Section 4- Waterworks in Areas 3, 4, & 6								
Waterworks - Section 4, Areas 3 & 4								
B6-040000	Waterworks - Section 4, Areas 3 & 4	568*	02/JUN/03	23/DEC/04	02/JUN/03	23/DEC/04	0	96
B6-0424A0	Trial Pits	14	02/JUN/03	02/JUN/03	02/JUN/03	02/JUN/03	0	100
B6-0425H0	Watermain Across YauKing Lane @ Area 4 chamber	25	25/SEP/03	20/DEC/03	25/SEP/03	20/DEC/03	0	100
B6-0425H20	Preparation works for pipe laying across YK	62	03/DEC/03	08/FEB/04	03/DEC/03	08/FEB/04	0	100
B6-0429C4	Waterworks, under footpath at Area 4 beside OC	35	07/APR/04	17/APR/04	07/APR/04	17/APR/04	0	100
B6-0424C5	Hyder's redesign, phase at Area 4	30	19/APR/04	15/MAY/04	18/APR/04	15/MAY/04	0	100
B6-0424C6	Preparation works for watermain	10	19/MAY/04	02/JUN/04	19/MAY/04	02/JUN/04	0	100
B6-0425H10	Watermain Across YauKing Lane at Area 4 remaining	5	03/JUN/04	04/AUG/04	03/JUN/04	04/AUG/04	0	100
B6-0425H80	Procure. & Manufacturing of new fittings for VO/288	48	03/JUN/04	20/JUL/04	03/JUN/04	20/JUL/04	0	100
B6-0424C17	Delivery of fittings	55	21/JUL/04	07/AUG/04	21/JUL/04	07/AUG/04	0	100
B6-0424C7	Waterworks under footpath at Area 4 remaining	25	19/SEP/04	28/OCT/04	19/SEP/04	28/OCT/04	0	100
B6-0424C18	Reprocurement of Stolen Fittings	30	23/SEP/04	25/SEP/04	23/SEP/04	25/SEP/04	0	100
B6-0424C3	Waterworks under footpath at Area 3	20	05/OCT/04	04/DEC/04	05/OCT/04	04/DEC/04	0	85
B6-0424C23	Washoutpit & remaining works	19	05/DEC/04	23/DEC/04	05/DEC/04	23/DEC/04	0	0
Waterworks - Section 4, Area 6								
B6-040060	Waterworks - Section 4, Area 6	497*	09/JUL/03	24/NOV/04	09/JUL/03	24/NOV/04	0	100
B6-041000	Trial Pits	14	09/JUL/03	12/JUL/03	09/JUL/03	12/JUL/03	0	100
B6-0417C12	Replace Existing Watermain, D1/Ch.870-920	25	03/NOV/03	15/JAN/04	03/NOV/03	15/JAN/04	0	100
B6-0417C22	Realign Existing Watermain Connection by WSD	32	03/FEB/04	23/FEB/04	03/FEB/04	23/FEB/04	0	100
B6-0417C1	Waterworks, L2/Ch.100-200	26	05/MAR/04	02/MAY/04	05/MAR/04	02/MAY/04	0	100
B6-0417C2	Waterworks, D1/Ch.780-920 phase 1	28	08/MAY/04	17/JUL/04	08/MAY/04	17/JUL/04	0	100
B6-0417C32	Waterworks, D1/Ch.780-920 phase 2	7	13/NOV/04	24/NOV/04	13/NOV/04	24/NOV/04	0	100

Start date	Finish date	Run date	Run date	Run date	Run date	Run date	Run date	Run date
27/JUL/02	28/FEB/05	02/DEC/04	19/DEC/04	19/DEC/04	19/DEC/04	19/DEC/04	19/DEC/04	19/DEC/04
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 Float	Percent Complete
B2-0503A0	Remove disused duct	40	04MAR04 A	25MAR04 A	04MAR04 A	25MAR04 A	100	100

Act ID	Description	Orig Dur	Early Start	Early Finish	Late Start	Late Finish	Total Float	Percent Complete
B3-050000	Earthworks - Section 5, Area 7A	271 *	10OCT02 A	15JUL03 A	10OCT02 A	15JUL03 A	100	100
B3-0512P2	S2, Preloading Mound Formation, Zone C, Phase 2A	12	10OCT02 A	27JAN03 A	10OCT02 A	27JAN03 A	100	100
B3-0512F3	S2, Preloading Mound Formation, Zone C, Phase 3A	24	11OCT02 A	27JAN03 A	11OCT02 A	27JAN03 A	100	100
B3-0512F4	S2, Preloading Mound Formation, Zone H-G, Phase 4A	8	18OCT02 A	26NOV02 A	18OCT02 A	26NOV02 A	100	100
B3-0512F5	S2, Preloading Mound Formation, Zone C, Phase 5	30	20OCT02 A	28NOV02 A	20OCT02 A	28NOV02 A	100	100
B3-0511A4	Vibrating wire piezometer, No. 2P4	6	24OCT02 A	05NOV02 A	24OCT02 A	05NOV02 A	100	100
B3-0511C4	Subsurface Settlement Marker, No. 2M4	3	07NOV02 A	08NOV02 A	07NOV02 A	08NOV02 A	100	100
B3-0511D0	Establish rigs for G.I.	3	12NOV02 A	18NOV02 A	12NOV02 A	18NOV02 A	100	100
B3-0511E0	Moving rigs, 9 nr.	13	14NOV02 A	03DEC02 A	14NOV02 A	03DEC02 A	100	100
B3-0511G1	Ground Investigation, S2-07	5	14NOV02 A	18NOV02 A	14NOV02 A	18NOV02 A	100	100
B3-0511G3	Ground Investigation, S2-09	5	16NOV02 A	26NOV02 A	16NOV02 A	26NOV02 A	100	100
B3-0511G4	Ground Investigation, S2-10	5	18NOV02 A	26NOV02 A	18NOV02 A	26NOV02 A	100	100
B3-0511G2	Ground Investigation, S2-08	16	19NOV02 A	26NOV02 A	19NOV02 A	26NOV02 A	100	100
B3-0511I0	Fieldwork Reports	5	20NOV02 A	26NOV02 A	20NOV02 A	26NOV02 A	100	100
B3-0511G6	Ground Investigation, S2-12	5	23NOV02 A	26NOV02 A	23NOV02 A	26NOV02 A	100	100
B3-0511G9	Ground Investigation, S2-15	3	26NOV02 A	26NOV02 A	26NOV02 A	26NOV02 A	100	100
B3-0511B3	Surface Settlement Marker, No. 2M3	3	26NOV02 A	26NOV02 A	26NOV02 A	26NOV02 A	100	100
B3-0511B4	Surface Settlement Marker, No. 2M4	3	26NOV02 A	26NOV02 A	26NOV02 A	26NOV02 A	100	100
B3-0511C3	Subsurface Settlement Marker, No. 2M3	5	27NOV02 A	02DEC02 A	27NOV02 A	02DEC02 A	100	100
B3-0511G7	Ground Investigation, S2-13	5	29NOV02 A	05DEC02 A	29NOV02 A	05DEC02 A	100	100
B3-0511G5	Ground Investigation, S2-11	5	05DEC02 A	05DEC02 A	05DEC02 A	05DEC02 A	100	100
B3-0511G8	Ground Investigation, S2-14	8	09DEC02 A	15JUL03 A	09DEC02 A	15JUL03 A	100	100
B3-0512H3	S2, Preloading Mound Formation, Zone F, Phase 3B	7	16DEC02 A	27FEB03 A	16DEC02 A	27FEB03 A	100	100
B3-0512H2	S2, Preloading Mound Formation, Zone F, Phase 2B	5	09JAN03 A	28FEB03 A	09JAN03 A	28FEB03 A	100	100
B3-0512G4	S2, Temp. RE Wall, Zone F, Phase 2	4	10JAN03 A	15JUL03 A	10JAN03 A	15JUL03 A	100	100
B3-0512G2	S2, Temp. RE Wall, Zone G, Phase 3	11	17JAN03 A	15JUL03 A	17JAN03 A	15JUL03 A	100	100
B3-0512G3	S2, Temp. RE Wall, Zone F, Phase 3	411 *	21AUG03 A	12OCT04 A	21AUG03 A	12OCT04 A	100	100
B3-050005	Earthworks - Section 5, Area 7A, after surcharge	30	21AUG03 A	26NOV03 A	21AUG03 A	26NOV03 A	100	100
B3-0512I5	S2, Preloading Mound Removal, Zone C, Phase 5	9	05SEP03 A	11SEP03 A	05SEP03 A	11SEP03 A	100	100
B3-0512I4	S2, Preloading Mound Removal, Zone H-G, Phase 4A	17	11SEP03 A	02OCT03 A	11SEP03 A	02OCT03 A	100	100
B3-0512I2	S2, Preloading Mound Removal, Zone F, Phase 2A	7	11SEP03 A	05OCT03 A	11SEP03 A	05OCT03 A	100	100
B3-0512I2	S2, Temp. RE Wall & Mound Removal, Zone C, Phase	24	12SEP03 A	26NOV03 A	12SEP03 A	26NOV03 A	100	100
B3-0512I8	S2, Preloading Mound Removal, Zone C, Phase 3A	8	05NOV03 A	17NOV03 A	05NOV03 A	17NOV03 A	100	100
B3-0512I9	S2, Temp. RE Wall & Mound Removal, Zone C, Phase	15	26MAY04 A	28JUN04 A	26MAY04 A	28JUN04 A	100	100
B3-0511L1	Excavate, D1/Ch.540-620	25	07AUG04 A	20SEP04 A	07AUG04 A	20SEP04 A	100	100
B3-0511L2	Backfilling beside PSI, D1/Ch.720-780	10	28AUG04 A	26AUG04 A	28AUG04 A	26AUG04 A	100	100
B3-0511L2	Deposit/Compact, D1/Ch.620-780	16	20SEP04 A	08OCT04 A	20SEP04 A	08OCT04 A	100	100
B3-0511L2	Backfilling Works beside PSI remaining	10	09OCT04 A	12OCT04 A	09OCT04 A	12OCT04 A	100	100
B3-0511L2	Deposit/Compact, D1/Ch.620-780 remaining	276 *	22NOV03 A	31AUG04 A	22NOV03 A	31AUG04 A	100	100
B4-050000	Drainage & Sewerage - Section 5, Area 7A	35	16FEB04 A	08MAR04 A	16FEB04 A	08MAR04 A	100	100
B4-0530A2	Clay pipe, D1/Ch.620-780 preliminary excavation	45	18FEB04 A	17MAR04 A	18FEB04 A	17MAR04 A	100	100
B4-0530A12	Clay pipe, D1/Ch.620-780 remaining	30	05MAR04 A	02APR04 A	05MAR04 A	02APR04 A	100	100
B4-0530A1	Clay pipe, D1/Ch.540-620	45	09MAR04 A	15MAY04 A	09MAR04 A	15MAY04 A	100	100
B4-0528F3	P/c pipe, At PS1	45	06APR04 A	06APR04 A	06APR04 A	06APR04 A	100	100
B4-0528F1	P/c pipe, D1/Ch.620-780 pipelaying	15	26MAY04 A	31AUG04 A	26MAY04 A	31AUG04 A	100	100
B4-0528F11	P/c pipe, D1/Ch.620-780 Gully works	12	05JUL04 A	16JUL04 A	05JUL04 A	16JUL04 A	100	100
B4-0528F21	Catchpit construction	18	17JUL04 A	24AUG04 A	17JUL04 A	24AUG04 A	100	100
B4-0528F31	Drain pipe construction from existing, to newline							

ZZZZZZ Earthworks - Section 5, Area 7A, after surcharge

Ch.540-620
ZZZ Backfilling beside PSI, D1/Ch.720-780
Deposit/Compact, D1/Ch.620-780
ZZZ Backfilling Works beside PSI remaining
Deposit/Compact, D1/Ch.620-780 remaining

Drainage & Sewerage - Section 5, Area 7A

100 P/c pipe, D1/Ch.620-780 Gully works

100 main pipe construction from existing, to newline

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

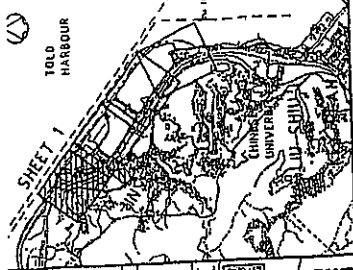
Contract No. TP95/02
 Remaining Engineering Infrastructure Works
 for Pak Shek Kok Development Package 1
 REVISED WORKS PROGRAMME I

Start date	27AUG02	Early bar
Finish date	28FEB06	Progress bar
Date date	02DEC04	Open end
Run date	16DEC04	Critical bar
Page number	14	Summary bar
Number/revision	43/03/01/001	Start milestone point
		Finish milestone point
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Appendix G

Construction Site Area



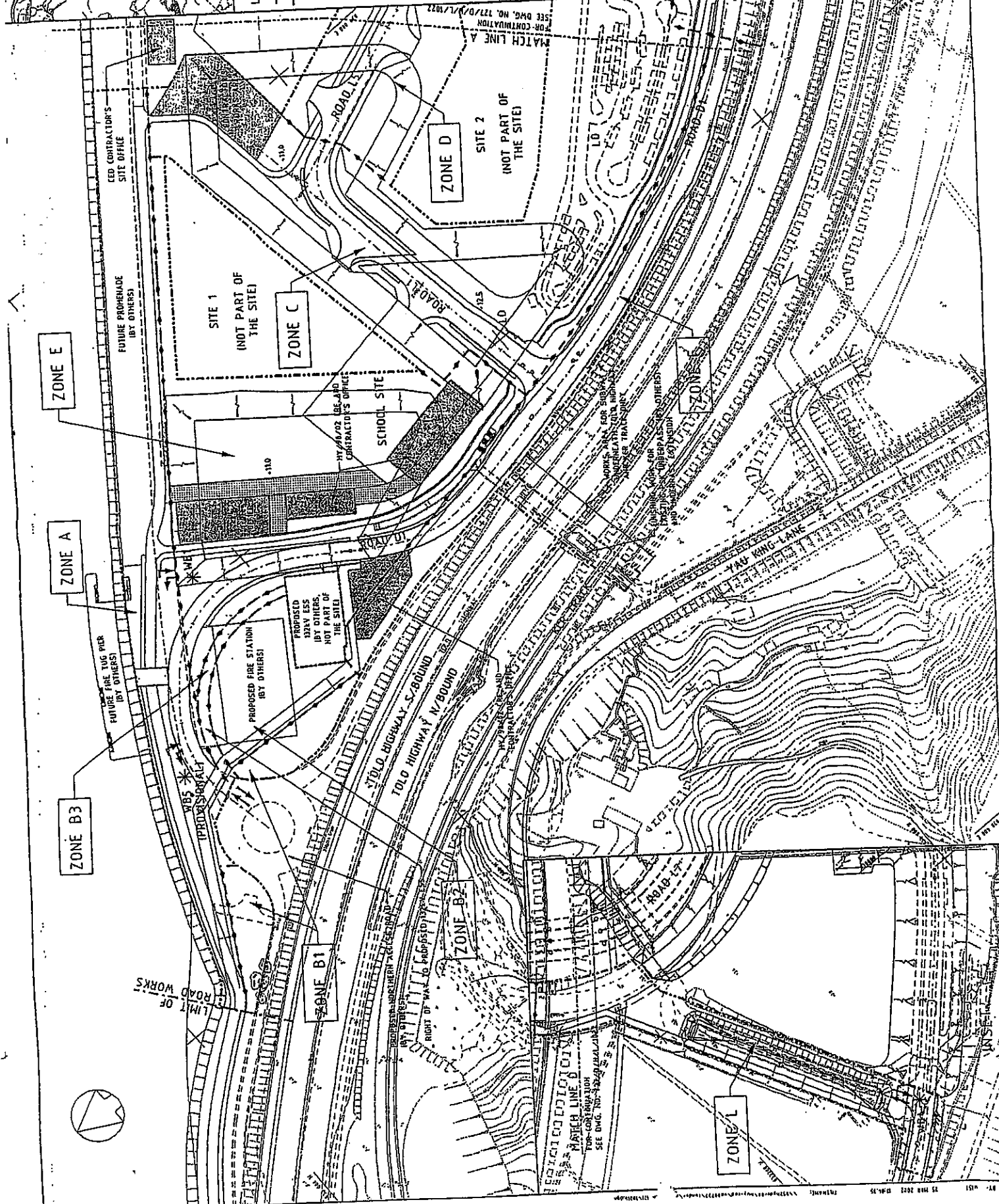
LEGEND :

- LIMIT OF SITE
- - - BOUNDARY LINE BETWEEN AREAS
- * W/B1 PROPOSED WHEEL WASHING BAY NO. 1

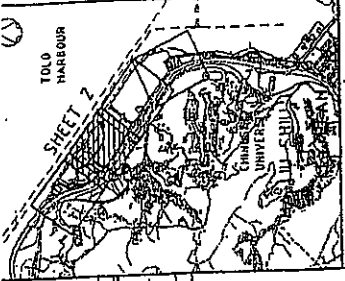
NO.	REVISION	DATE	BY	CHKD.
1	ISSUED FOR TENDER	15 MAR 2021	HYDER	HYDER
2	REVISED TO REFLECT COMMENTS	15 MAR 2021	HYDER	HYDER
3	REVISED TO REFLECT COMMENTS	15 MAR 2021	HYDER	HYDER

CONTRACT NO. TP 35/02
 REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SEEK ROK DEVELOPMENT, PACKAGE 1

Hyder Consulting
 AREA OF SITE - POSSESSION
 TENDER DRAWING
 SHEET 1 OF 1
 727/D/H/L/7021
 1st B



15 MAR 2021 09:41:35



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

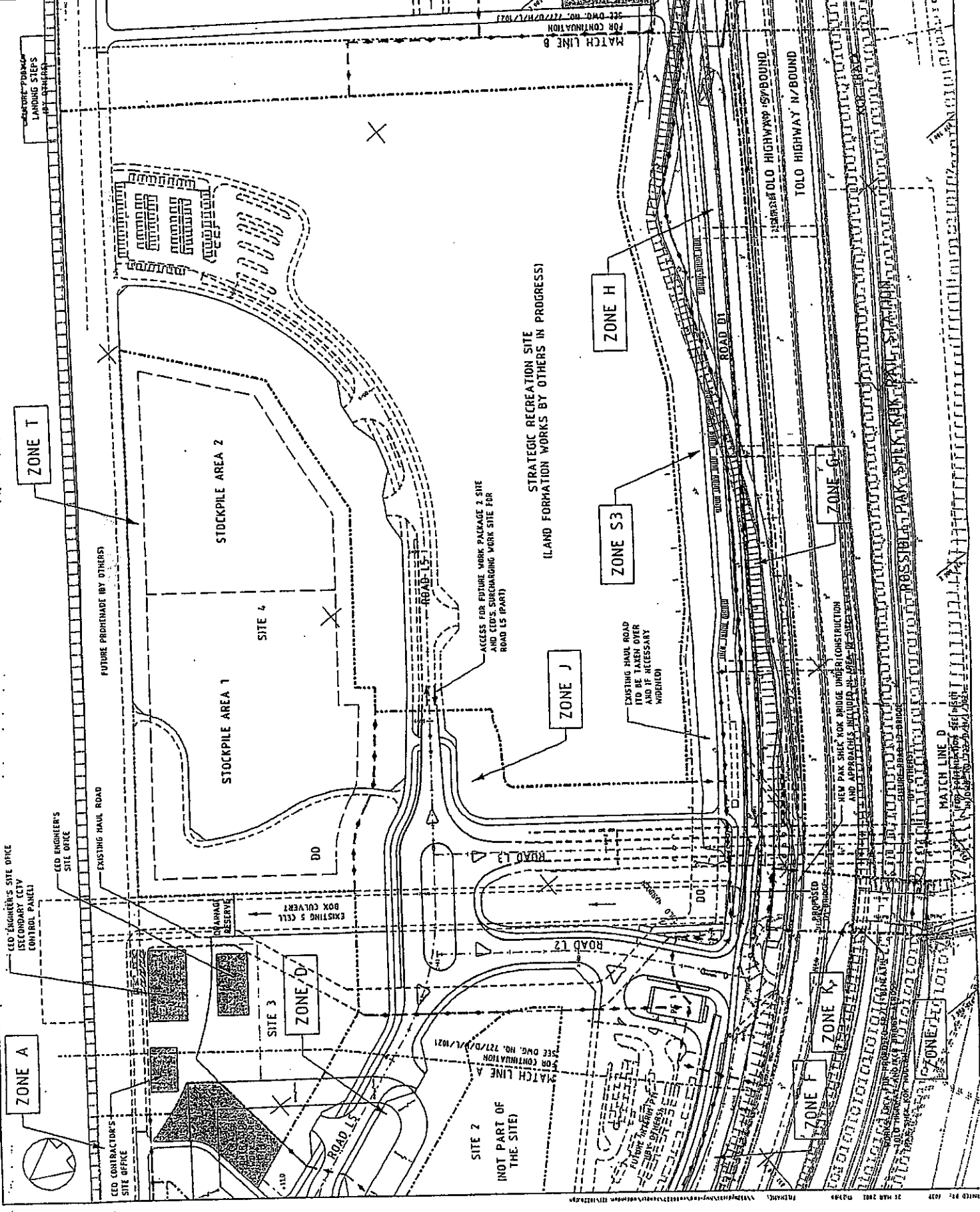
PROJECT NO.	727/D/H/L/1022
DATE	11/11/2000
SCALE	AS SHOWN
PROJECT NAME	REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHICK AOK DEVELOPMENT PACKAGE 1
CLIENT	Terrestrial Development Department R.O.S.
DESIGNER	Hyster Consulting
DATE OF ISSUE	11/11/2000
DATE OF REVISION	
REVISION NO.	
REVISION DESCRIPTION	

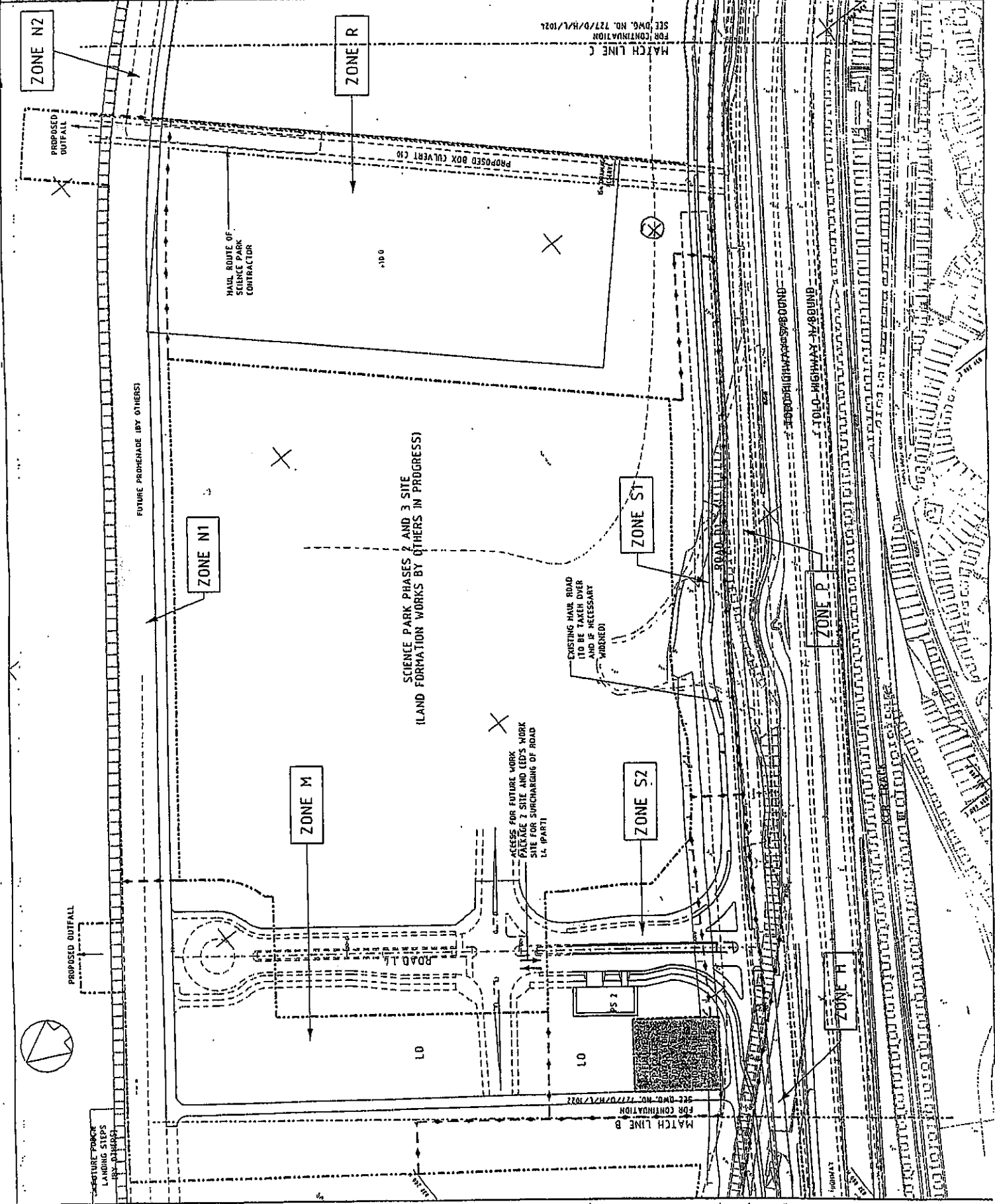
CONTRACT NO. TP 35/02

Hyster Consulting

AREA OF SITE - POSSESSION

TENDER DRAWING
SHEET 2 OF 2
727/D/H/L/1022





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

NO.	REVISION	DATE	BY	CHECKED	SCALE
1	ISSUED FOR TENDER	10/11/2001	HYDER		AS SHOWN
2	REVISION	10/11/2001	HYDER		AS SHOWN
3	REVISION	10/11/2001	HYDER		AS SHOWN

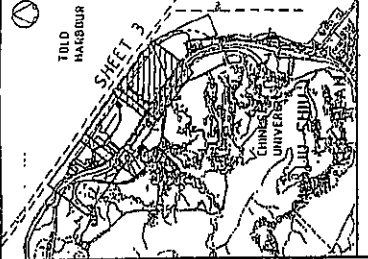
REMAINING ENGINEERING INFRASTRUCTURE
WORKS FOR PAK SHEK KOK DEVELOPMENT
PACKAGE 1

CONTRACT NO. TP 35/02

Hyder
Consulting

AREA OF SITE
POSSESSION

TENDER DRAWING
727/D/H/L/1023



PROPOSED OUTFALL

FUTURE PROMENADE (BY OTHERS)

HAUL ROUTE OF
SCIENCE PARK
CONTRACTOR

SCIENCE PARK PHASES 2 AND 3 SITE
ISLAND FORMATION WORKS BY OTHERS IN PROGRESS

ACCESS FOR FUTURE WORK
GATEWAY 7 SITE AND LED'S WORK
SITE FOR SURCHARGING OF ROAD
L.L. (PART)

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

MATCH LINE C
FOR CONTINUATION
SEE DWG. NO. 727/D/H/L/1023

MATCH LINE B
FOR CONTINUATION
SEE DWG. NO. 727/D/H/L/1023

TOLD-HIGHWAY-N-BOUND

ZONE P

ZONE H

ZONE S1

ZONE S2

ZONE N1

ZONE N2

ZONE R

ZONE M

TOLD
HARBOUR

SHEET 3

CHINESE
UNIVERSITY
OF HONG KONG

SHEET 3 OF

727/D/H/L/1023

10.0 HARBOUR

SHEET 2

NOTES :

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

A	DRAUGHTSMAN	TENDERS AND ASSOCIATED NO. 2	PL
B	DESIGNER	TENDERS AND ASSOCIATED NO. 1	PL
C	CHECKER	DATE	SCALE
D	DATE	BY	SCALE
E	DATE	BY	SCALE

Hyder Consulting

AREA OF SITE - POSSESSION

TENDER DRAWING

727/D/H/L/1024

CONTRACT NO. TP 35/0.

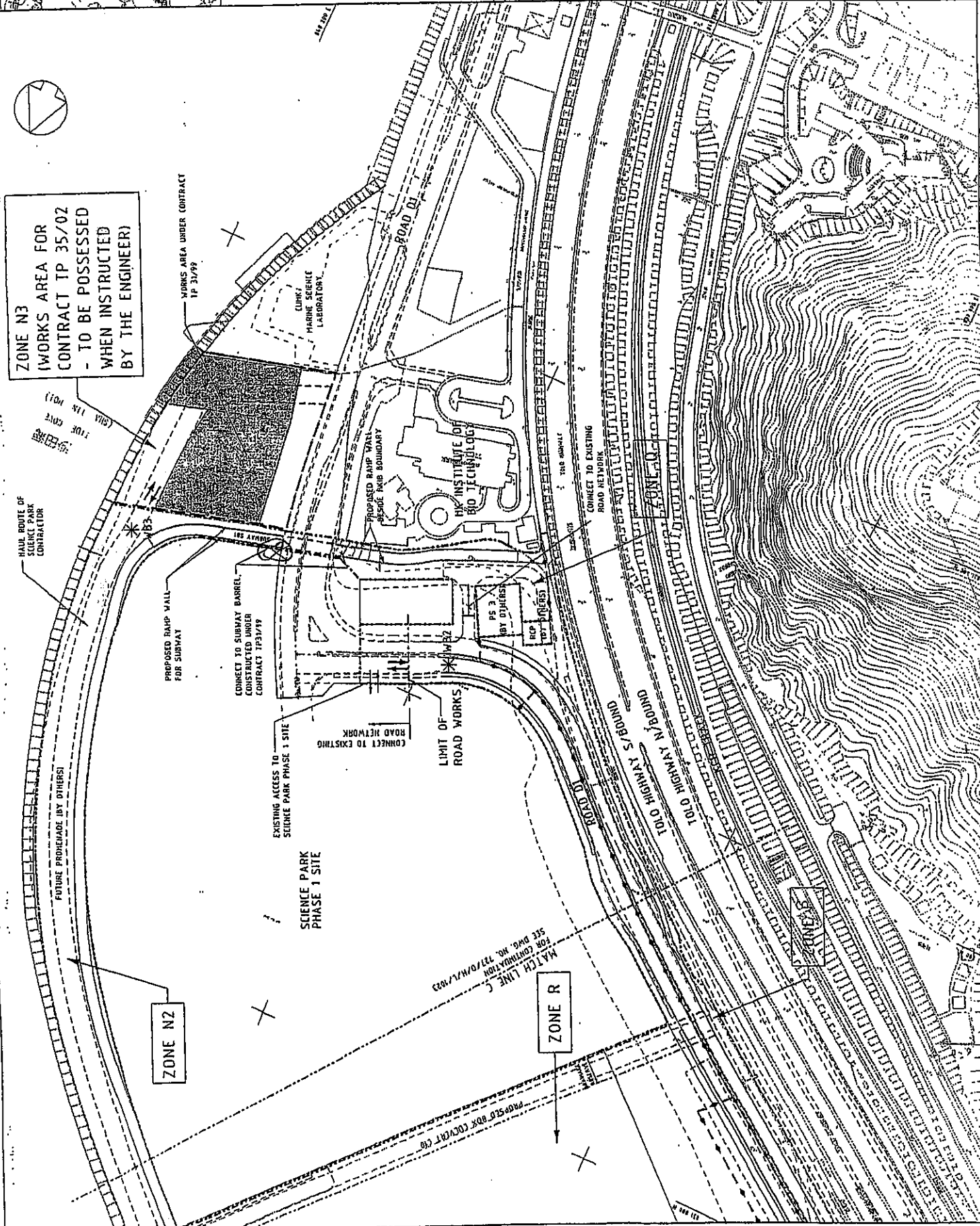
REHABILITATION ENGINEERING INFRASTRUCTURE WORKS FOR PAK SREEK KOK DEVELOPMENT PHASE 1

Territory Development Department, E.B.R.

E

15 MAR 2003 12:46 PM

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





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
Air	- 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.	√		
Noise	- 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.	√		
Water	- 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
Waste	- 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.	√		
Chemical Waste	- 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.	√			



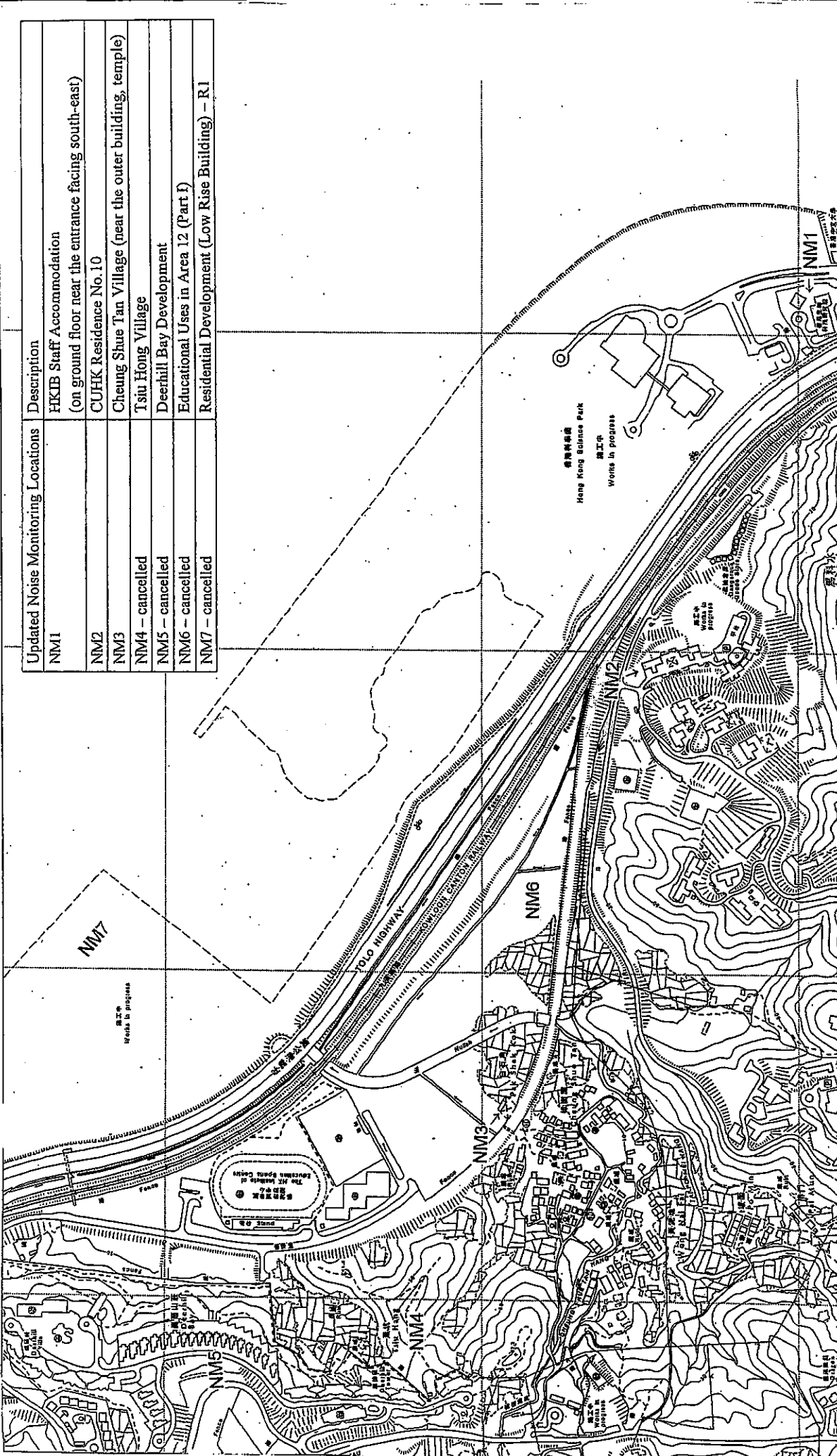
Appendix I
IEC and RE Comments on Monthly EM&A Report
—
March 2005

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

Item No.	Document Reference	Comment	ET Response
---	---	No RE / IEC Comments on Monthly Environmental Monitoring and Audit Report – March 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	Tsu Hong Village
NM5 - cancelled	Deerhill Bay Development
NM6 - cancelled	Educational Uses in Area 12 (Part f)
NM7 - cancelled	Residential Development (Low Rise Building) - R1

Scale : ---

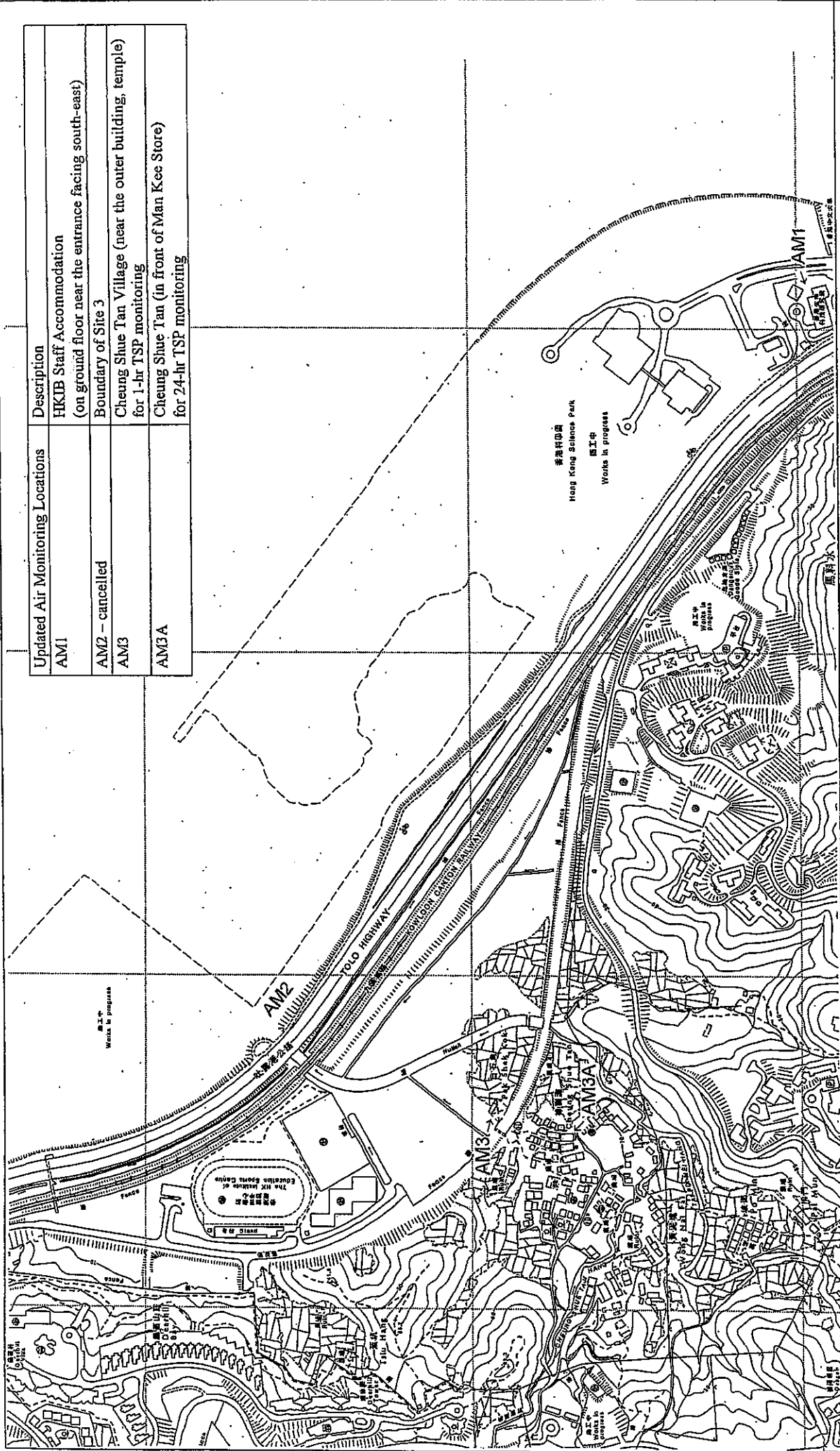
Remaining Engineering Works for Pak Shek Kok Development, Package 1
 Contract No. TP35/02

Revised Date:
 15/11/2002



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 ETS-TESTCONSULT LIMITED

Figure 1 Location of Noise Monitoring Stations



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 : ---

Revised Date:

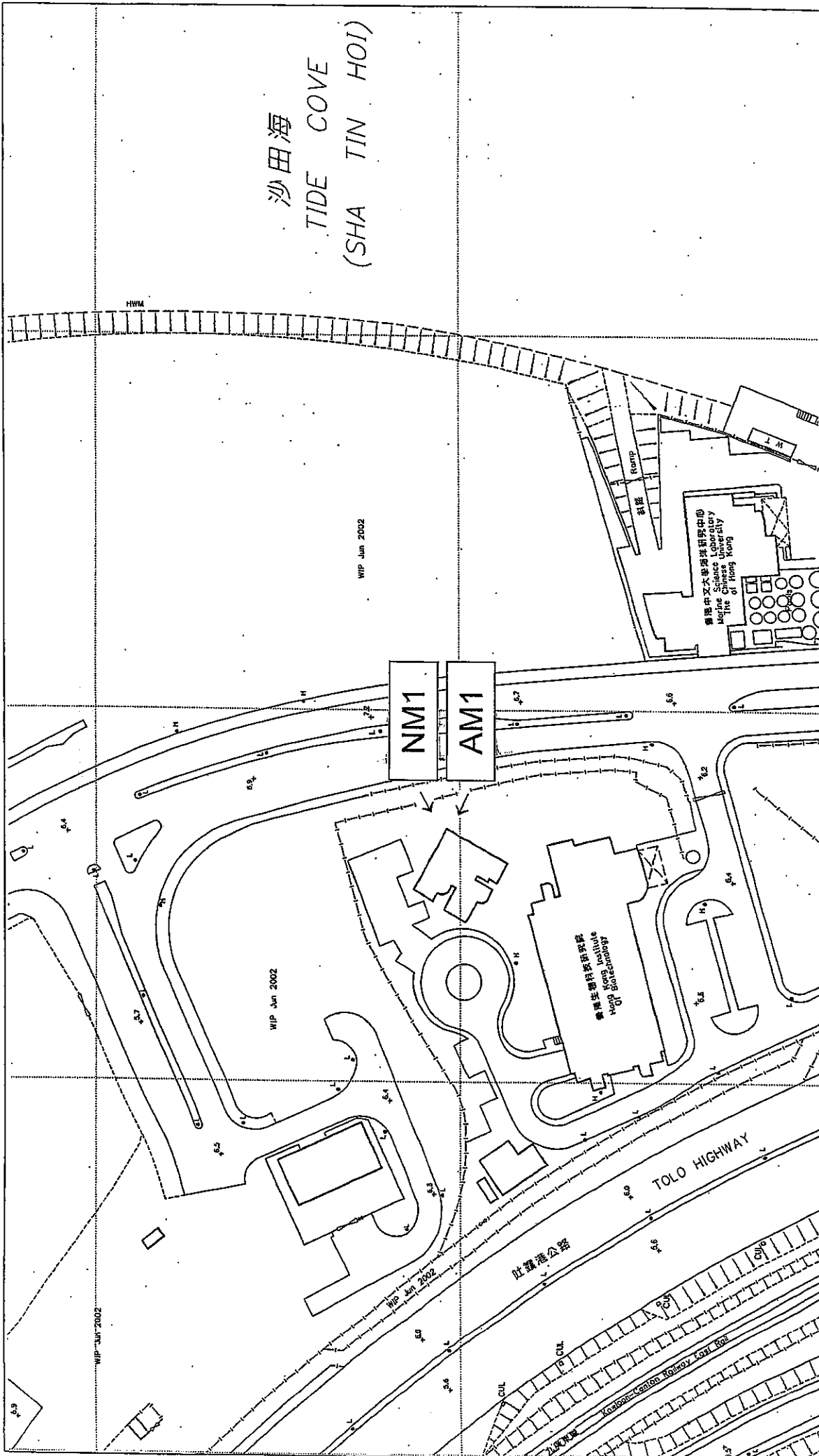
Remaining Engineering Works for Pak Shek Kok Development, Package 1
Contract No. TP35/02

Figure 2 Location of Air Monitoring Stations



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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

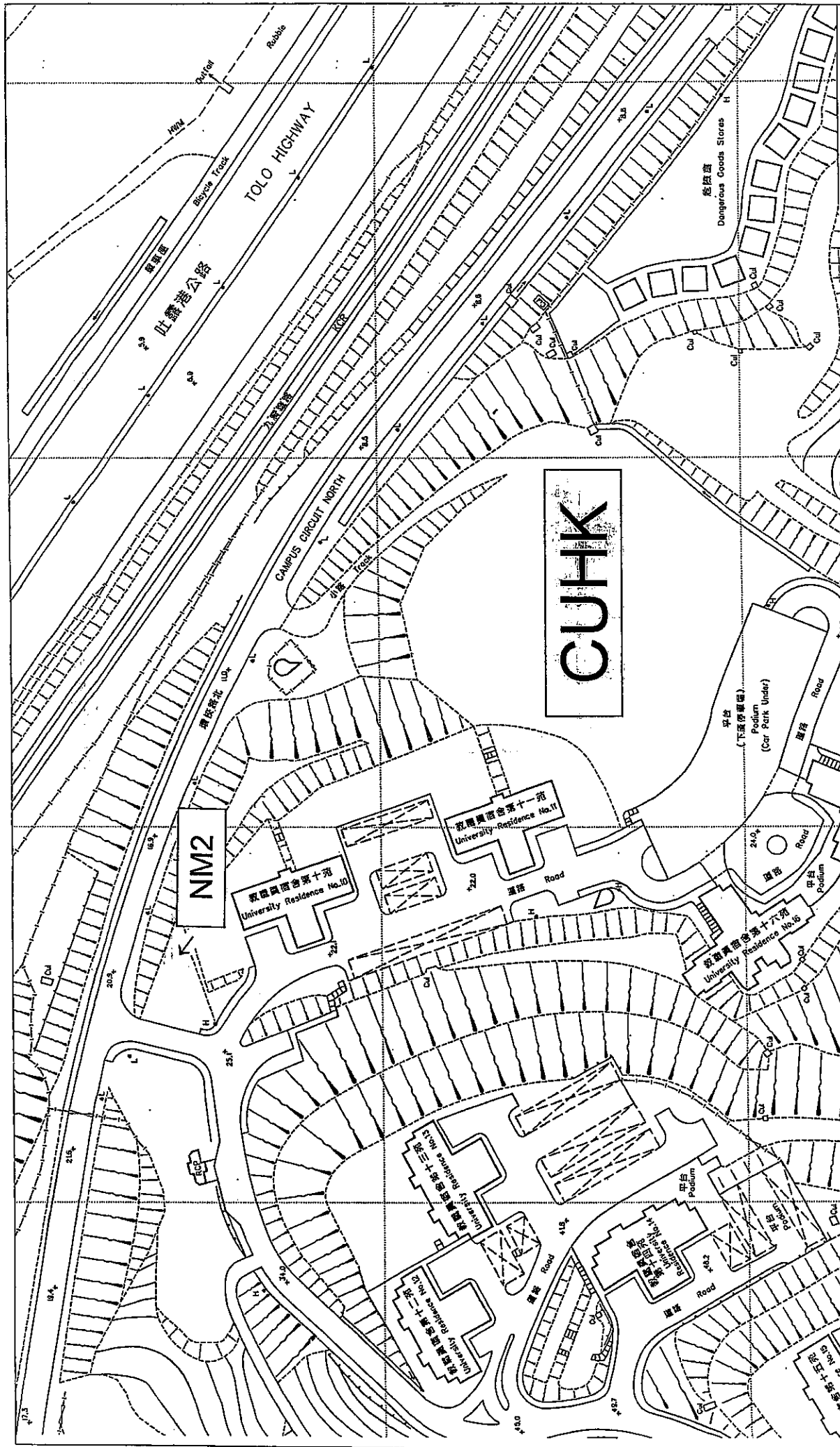
Scale : ---

Revised Date:
 15/11/2002



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沙田海
 TIDE COVE
 (SHA TIN HOI)



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

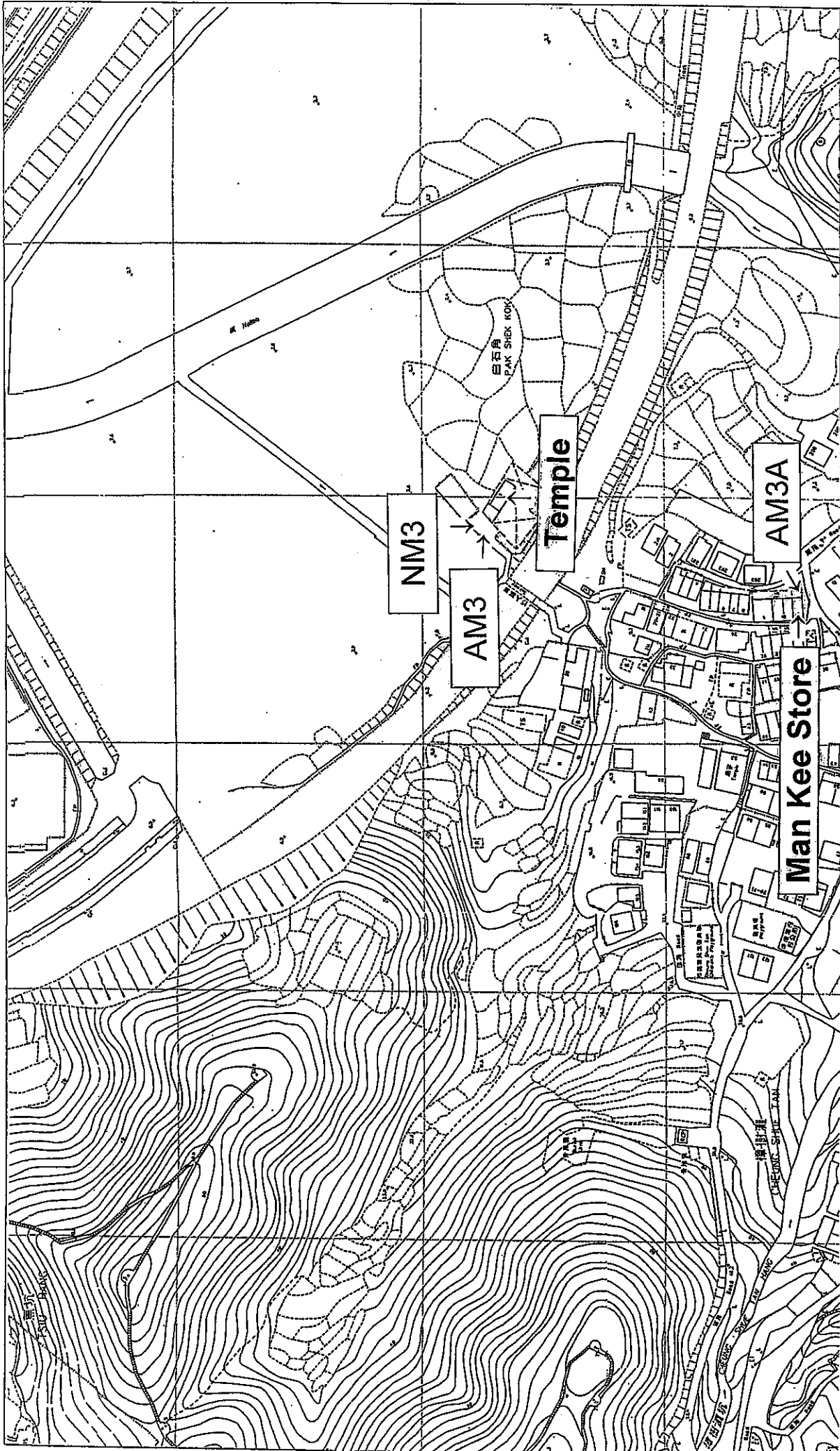
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 Contract No. TP35/02

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

Scale : ---

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 15/11/2002



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