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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

(DECEMBER 2004)

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Reporting period: 01 to 31 December 2004 *Report No.: ENA40998*

INDEPENDENT ENVIRONMENTAL CHECKER

CHECK CERTIFICATE

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Independent Environmental Checker

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EXECUTIVE SUMMARY

This monthly EM&A report (No.24) 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 31 December 2004.

Construction Progress

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

- *Drainage works in Zone P and Area 15*
- *Watermain installation work*
- *Sewage works*
- *Roadworks*
- *Construction of pumping station no.1 and no.2*
- *Construction of Road D1 Bridge*
- *General landscape works*
- *Construction of footpath and cycle track*

Environmental Monitoring Progress

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

- *Noise Monitoring (Day-time): 4 Occasions at 3 designated locations*
- *Noise Monitoring (Evening-time): 4 Occasions at 3 designated locations*
- *Noise Monitoring (Holiday): 4 Occasions at 3 designated locations*
- *24-hour TSP Monitoring: 5 Occasions at 2 designated locations*
- *1-hour TSP Monitoring: 14 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:

Concerned Parties	*Dates of Audit / Inspection*
ET (weekly site inspection)	*04, 11, 18, 23, 30*
IEC/POC/ET (Monthly site inspection)	*22*

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 form 01 to 31 December 2004.

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

2.3 Construction Programme

Details of construction programme (from November 2004 to January 2005) 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*
---	*Roadworks*
---	*Sewage works*
Zone P and Area 15	*Drainage Works*
Road D1	*Construction of Road D1 Bridge*
No.1 & No.2	*Construction of pump stations*
---	*Construction of footpath and cycle track*
---	*Watermain installation work*
---	*General landscape works*

Table 3.2 Implementation of Environmental Mitigation Measures

General construction works	• *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.*

4.0 AIR QUALITY MONITORING

4.1 Monitoring Requirement

1-hour and 24-hour TSP monitoring were required to 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

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

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

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

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

Air quality Monitoring stations	*Locations*
AM1	*HKIB Staff Accommodation (on ground floor near the entrance facing south-east) for 1-hr TSP monitoring*
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*

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

Table 4.4 Monitoring Schedule for the air quality monitoring stations

Air quality monitoring stations	*Location*	*Monitoring Period*						
		24-hr TSP				*1-hr TSP*		
		Start		*Finish*		*Date*	*Start*	*Finish*
		Date	*Time*	*Date*	*Time*			
AM1	*HKIB Staff Accommodation*	---				02/12/04	14:30	15:30
						04/12/04	13:50	14:50
						07/12/04	10:00	11:00
						09/12/04	14:20	15:20
						11/12/04	09:00	10:00
						14/12/04	08:20	09:20
						16/12/04	08:25	09:25
						18/12/04	09:00	10:00
						21/12/04	13:00	14:00
						22/12/04	15:55	16:55
						23/12/04	09:46	10:46
						28/12/04	15:08	16:08
						29/12/04	08:20	09:20
						30/12/04	10:56	11:56
AM3	*Cheung Shue Tan Village (near the outer building, temple)*	---				02/12/04	16:00	17:00
						04/12/04	15:06	16:06
						07/12/04	13:00	14:00
						09/12/04	13:00	14:00
						11/12/04	14:00	15:00
						14/12/04	16:40	17:40
						16/12/04	09:32	10:32
						18/12/04	14:15	15:15
						21/12/04	14:45	15:45
						22/12/04	17:12	18:12
						23/12/04	08:35	09:35
						28/12/04	16:59	17:59
						29/12/04	09:32	10:32
						30/12/04	16:02	17:02
AM1	*HKIB Staff Accommodation*	*06/12/04*	*10:05*	*07/12/04*	*05:00*	---		
		11/12/04	*09:02*	*12/12/04*	*08:57*			
		17/12/04	*09:38*	*18/12/04*	*09:35*			
		23/12/04	*08:55*	*24/12/04*	*08:54*			
		29/12/04	*09:28*	*30/12/04*	*09:25*			
AM3A	*Cheung Shue Tan (in front of Man Kee Store)*	*06/12/04*	*10:22*	*07/12/04*	*10:02*	---		
		11/12/04	*14:10*	*12/12/04*	*14:18*			
		17/12/04	*09:57*	*18/12/04*	*10:02*			
		23/12/04	*08:35*	*24/12/04*	*08:27*			
		29/12/04	*09:14*	*30/12/04*	*09:19*			

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 recoded.
- Before weighting, all filters were equilibrated in a desiccator for 24 hour with the temperature of 25°C ± 3°C and the relative humidity (RH) <50% ±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 (μg/m³)*		*1-hr TSP (μg/m³)*	
	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-14 Sound Level Meter*
Calibrator	*Quest QC-20 Acoustic 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 Leq, L10 and L90 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 $L_{eq(5\text{-}min)}$);*
- *One set of measurements between 1900-2300 hours (3 consecutive $L_{eq(5\text{-}min)}$)*;*
- *One set of measurements between 2300-0700 hours of next day (3 consecutive $L_{eq(5\text{-}min)}$)*;*
- *One set of measurements between 0700-1900 hours on holidays (3 consecutive $L_{eq(5\text{-}min)}$)*.*

(*): 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	*07/12/04*	*10:02*	*07/12/04*	*19:15*	*05/12/04*	*14:16*	---	---
	14/12/04	*08:28*	*14/12/04*	*20:07*	*12/12/04*	*15:00*	---	---
	21/12/04	*13:02*	*21/12/04*	*19:00*	*19/12/04*	*09:45*	---	---
	28/12/04	*15:12*	*28/12/04*	*19:06*	*26/12/04*	*14:50*	---	---
NM2	*07/12/04*	*11:10*	*07/12/04*	*19:40*	*05/12/04*	*14:45*	---	---
	14/12/04	*09:32*	*14/12/04*	*19:32*	*12/12/04*	*15:35*	---	---
	21/12/04	*14:12*	*21/12/04*	*19:25*	*19/12/04*	*10:10*	---	---
	28/12/04	*16:18*	*28/12/04*	*19:32*	*26/12/04*	*15:22*	---	---
NM3	*07/12/04*	*13:02*	*07/12/04*	*20:10*	*05/12/04*	*15:12*	---	---
	14/12/04	*16:45*	*14/12/04*	*19:00*	*12/12/04*	*16:13*	---	---
	21/12/04	*14:48*	*21/12/04*	*19:55*	*19/12/04*	*10:30*	---	---
	28/12/04	*17:05*	*28/12/04*	*19:59*	*26/12/04*	*15:55*	---	---

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*		
Night-time	*2300-0700 hrs of next day*		*55 dB(A) ***

* = *Reduce to 70 dB(A) for schools and 65 dB(A) during school examination periods.*
** = *Area Sensitivity Rating (ASR) C is selected from the "Technical Memorandum on Noise from Construction Work Other Than Percussive Piling".*

5.7 Event-Action Plans

Please refer to the Appendix E for details.

5.8 Results

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

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

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

6.0 WASTEWATER MONITORING

6.1 According to the Discharge of Industrial Trade Effluent Licence (Licence No.: 2946), POC is required to carry out wastewater monitoring of suspended solids quarterly at all effluent discharge points within the site.

6.2 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.

6.3 POC appointed ALS Technichem HK P/L (ALS) to sampling one wastewater sample at the effluent discharge point at 14 October 2004. The collected sample will be transport to the Laboratory of ALS for analysis. The Laboratory of ALS is HOKLAS accredited and the test method used for suspended solids analysis is also HOKLAS accredited in accordance with the 2540D of Standard Methods for the Examination of Water and Wastewater (APHA 19th edition). The result of suspended solids content of the wastewater sample was found below 30mg/L and within the discharge limit of the Discharge Licence. The test report for this monitoring was attached in Appendix J.

6.4 Since the effluent discharge licence required to carry out wastewater monitoring of suspended solids quarterly at all effluent discharge points within the site, the next wastewater monitoring should be at January 2005.

7.0 ENVIRONMENTAL NON-CONFORMANCE

7.1 Summary of air quality, noise and wastewater monitoring

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

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

The suspended solids results of wastewater samples from discharge points were found within the discharge limit during monitoring period.

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.*	• *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

Weekly site inspections were carried out by the ET. Four site inspections were undertaken in this reporting month (04, 11, 18, 23 and 30 December 2004). Monthly joint site inspection at 22 December 2004 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 December 2004 are summarized in Table 8.2.

Table 8.1 Summary of environmental licensing and permit status

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

Description	Permit No.	Valid Period		Section
		From	To	
Construction Noise Permit (General / Prescribed construction works)	GW-RN0440-04	15/0904	10/02/05	Group A (For Area B2 or E) • 1 Poker, vibratory, hand-held (CNP 170) • 1 Concrete pump, lorry mounted (CNP 047) • 2 Concrete lorry mixer (CNP 044) Group B (For Area B2 or E) • 1 Poker, vibratory, hand-held (CNP 170) • 2 Concrete lorry mixer (CNP 044) • 1 Crane, mobile (diesel) (CNP 048) Group C (For Area B2 or E): • 2 Generator, silenced, 75dB(A) at 7m (CNP 102) • 1 Excavator, tracked (CNP 081) • 1 Lorry, with crane Group D (For Area B2 or E): • 1 Drill rig Group E (For Area B2 or E): • 2 Generator, silenced, 75dB(A) at 7m (CNP 102) • 2 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) Group F (For Area B, C or D): • 1 Asphalt paver (CNP 004) • 1 Roller, vibratory (CNP 186) • 1 Excavator, tracked (CNP 081) Group G (For Area F): • 1 Excavator, tracked (CNP 081)

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 silty 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)	*40*	*Disposed at NENT Landfills*
Chemical Waste (L)	*0*	*Nil*

10.0 IMPLEMENTATION STATUS

10.1 Implementation Status of Environmental Mitigation Measures

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

Air Quality

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

Noise

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

Water Quality

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

Waste Management

POC has been implementing most mitigation measures on waste management.

10.2 Implementation Status of Event and Action Plan

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

10.3 Implementation Status of Environmental Complaint Handling

No complaints had been received during this monitoring month.

11.0 CONCLUSION

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

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

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

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	*January 2005*	*February 2005*
Noise Monitoring (Day-time)	*04, 11, 18, 25*	*01, 08, 15, 22*
Noise Monitoring (Evening-time)	*04, 11, 18, 25*	*01, 08, 15, 22*
Noise Monitoring (Holiday)	*02, 09, 16, 23, 30*	*06, 13, 20, 27*
1-hour TSP	*04, 06, 08, 11, 13, 15, 18, 20, 22, 25, 27, 29*	*01, 03, 05, 08, 10, 12, 15, 17, 19, 22, 24, 26*
24-hour TSP	*04, 10, 15, 21, 27*	*02, 08, 14, 19, 25*
Site Inspection	*08, 15, 22, 29*	*05, 12, 19, 26*

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 January and February 2005	▪ *Drainageworks in Zone P and Area 15*
	▪ *Watermain installation works*
	▪ *Sewage works*
	▪ *Roadworks*
	▪ *Construction of Road D1 Bridge*
	▪ *Construction of pumping station no.1 and no.2*
	▪ *General landscape works*
	▪ *Construction of footpath and cycle track*

Appendix A

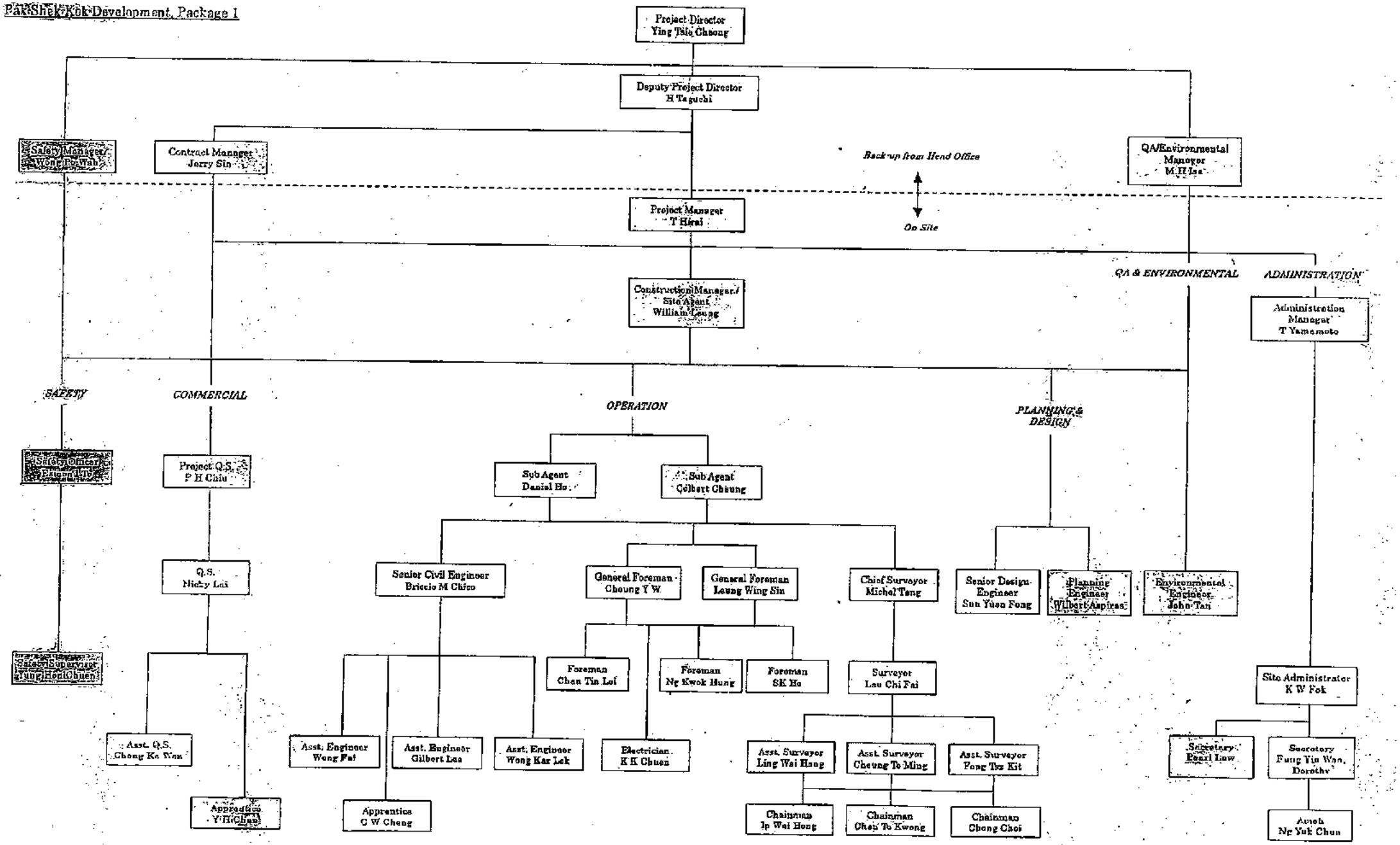
Organization Chart and Lines of Communication

Contract No. TP/35/02
Remaining Engineering Infrastructure Works for
Pak Shek Kok Development, Package 1

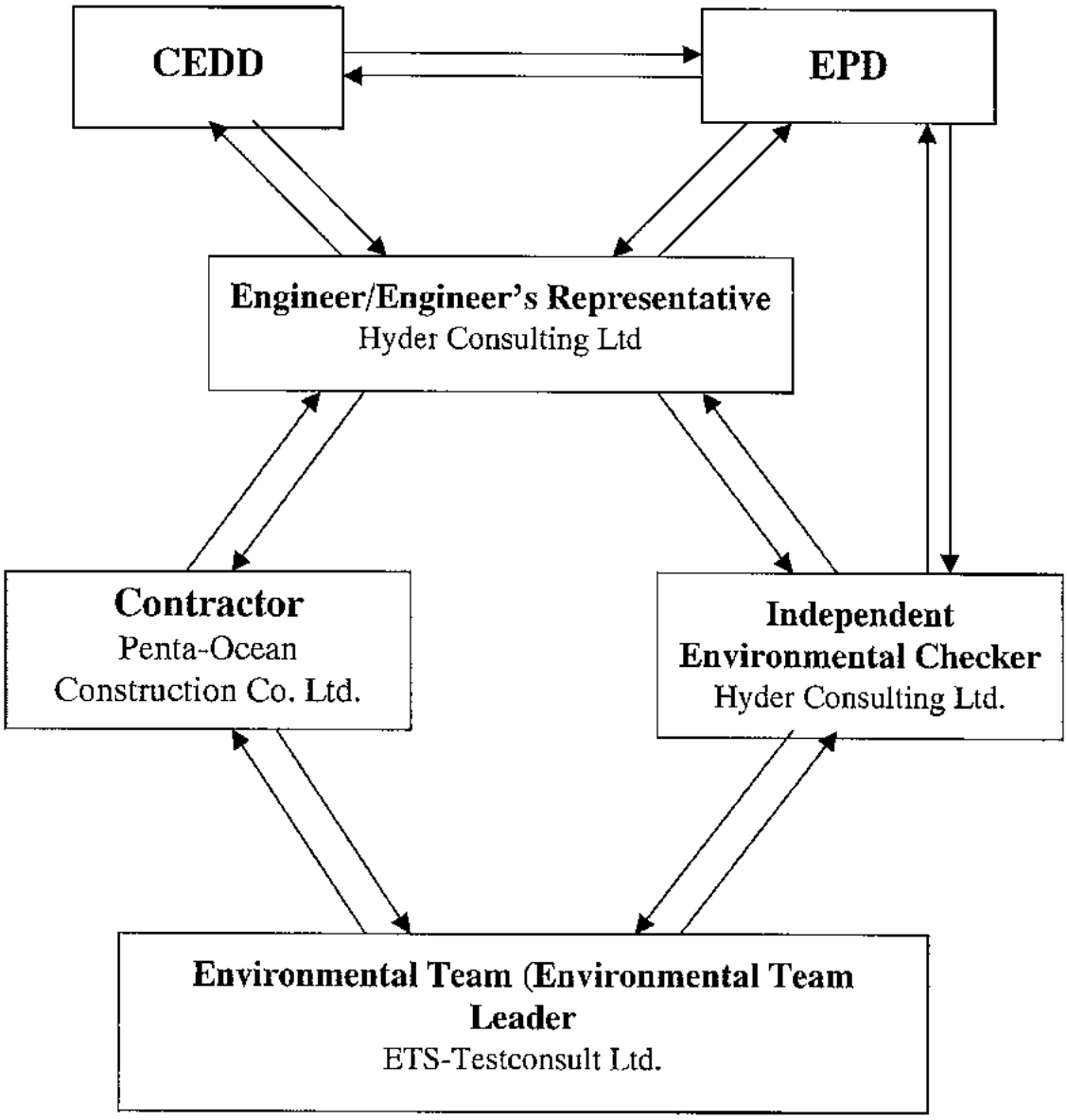
Project Site Organization Chart

Rev. K

Date : 03-Aug-04



Lines of Communication



Appendix B1

Calibration Certificates for Air Quality Monitoring Equipments

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED
8/F., Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong
Tel : 2695 8318 E-mail : etl@ets-testconsult.com
Fax : 2695 3944 Web site : www.ets-testconsult.com

TEST REPORT

Calibration Report of High Volume Air Sampler

Manufacturer : Greasby GMW Date of Calibration : 18 November 2004

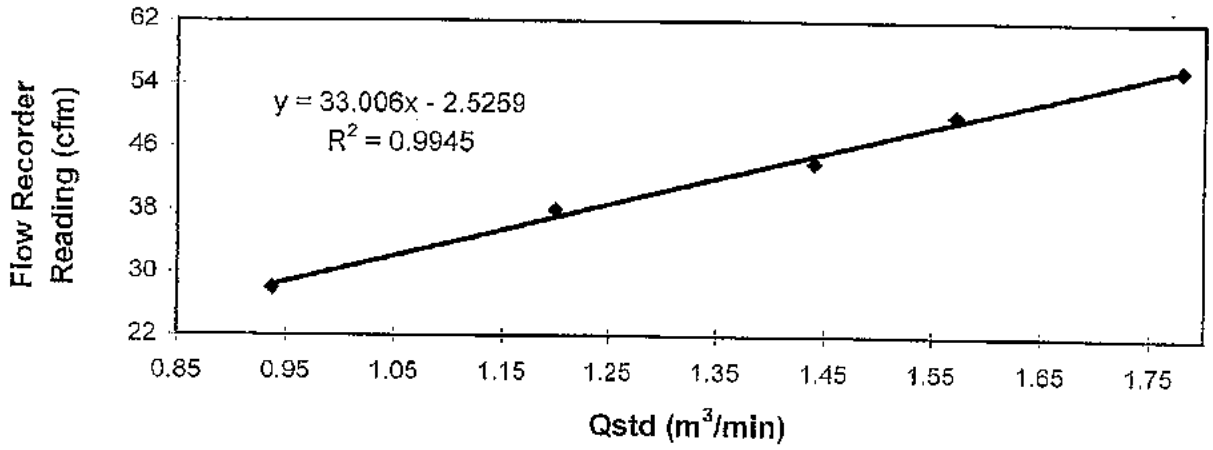
Serial No. : 1178 (EA/003/01) Calibration Due Date : 17 January 2005

Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results :

Flow recorder reading (cfm)	56	50	44	38	28
Qstd (Actual flow rate, m^3/min)	1.78	1.57	1.44	1.20	0.94
Pressure : 765.44 mm Hg		Temp. : 295 K			

Sampler1178 Calibration Curve
Site: Pak Shek Kok Monitoring Station AM1 (24hr.)
Date of Calibration: 18 November 2004



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

Approved by : Linda Law (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 : eti@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 : 18 November 2004

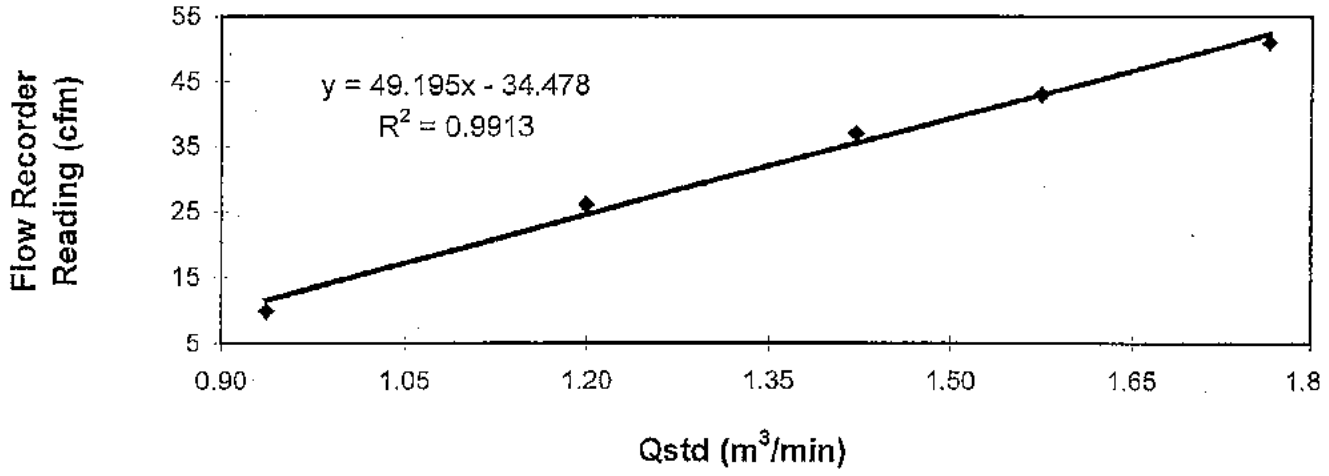
Serial No. : 7179 (EA / 003 / 16) — Calibration Due Date : 17 January 2005

Method : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

Results :

Flow recorder reading (cfm)	51	43	37	26	10
Qstd (Actual flow rate, m^3/min)	1.76	1.57	1.42	1.20	0.94
Pressure : 765.44 mm Hg		Temp. : 295 K			

Sampler 7179 Calibration Curve
Site: Pak Shek Kok (AM3A)
Date of Calibration: 18 November 2004



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 deeme acceptable */ ~~unacceptable~~ * for use.

Calibrated by : _____
H. T. Chow
(Asst. Environmental Officer)

Approved by : Linda Law
Linda Law
(Environmental Officer)

Appendix B2

Air Quality Monitoring Results

Summary of 24-hr TSP Monitoring Results

Monitoring Station : AM1
Location : HKIB Staff Accommodation

Start		Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m^3/min.)		Average (m^3/min.)	Filter Weight (g)		Conc. ($\mu g/m^3$)	Weather Condition
Date	Time	Date	Time	Initial	Final		Initial	Final		Initial	Final		
06/12/04	10:05	07/12/04	05:00	7190.86	7209.78	18.92 *	1.05	1.05	1.05	2.8805	3.0503	142	Sunny
11/12/04	09:02	12/12/04	08:57	7233.73	7257.65	23.92	1.05	1.05	1.05	2.8870	3.0100	82	Sunny
17/12/04	09:38	18/12/04	09:35	7281.81	7305.76	23.95	1.11	1.11	1.11	2.8886	3.0327	90	Sunny
23/12/04	08:55	24/12/04	08:54	7329.72	7353.70	23.98	1.11	1.11	1.11	2.8926	3.0252	83	Cloudy
29/12/04	09:28	30/12/04	09:25	7377.59	7401.54	23.95	1.11	1.11	1.11	2.8948	3.0276	83	Cloudy

Remark (*): The monitoring period was less than 24 hours due the power supply failure.

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

Start		Finish		Elapse Time		Sampling Time (hrs)	Flow Rate (m^3/min.)		Average (m^3/min.)	Filter Weight (g)		Conc. ($\mu g/m^3$)	Weather Condition
Date	Time	Date	Time	Initial	Final		Initial	Final		Initial	Final		
06/12/04	10:22	07/12/04	10:02	12508.79	12532.45	23.66	1.19	1.19	1.19	2.8803	3.0567	104	Sunny
11/12/04	14:10	12/12/04	14:18	12556.67	12580.80	24.13	1.19	1.19	1.19	2.9013	2.9953	55	Sunny
17/12/04	09:57	18/12/04	10:02	12604.91	12628.99	24.08	1.21	1.21	1.21	2.8912	3.0546	93	Sunny
23/12/04	08:35	24/12/04	08:27	12653.35	12677.22	23.87	1.21	1.21	1.21	2.8886	3.0006	65	Cloudy
29/12/04	09:14	30/12/04	09:19	12701.43	12725.52	24.09	1.21	1.21	1.21	2.9093	3.0499	80	Cloudy

Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM1
Location : HKIB Staff Accommodation

Date	Monitoring Period		1-hr TSP (μg/m³)			Weather
	Start	Finish	Minimum	Maximum	Average	
02/12/04	14:30	15:30	82	311	123	Sunny
04/12/04	13:50	14:50	59	477	133	Cloudy
07/12/04	10:00	11:00	115	392	210	Sunny
09/12/04	14:20	15:20	86	317	98	Sunny
11/12/04	09:00	10:00	115	380	229	Sunny
14/12/04	08:20	09:20	48	425	139	Sunny
16/12/04	08:25	09:25	50	454	129	Sunny
18/12/04	09:00	10:00	106	359	209	Cloudy
21/12/04	13:00	14:00	60	488	134	Sunny
22/12/04	15:55	16:55	92	358	108	Sunny
23/12/04	09:46	10:46	52	397	130	Sunny
28/12/04	15:08	16:08	40	405	115	Cloudy
29/12/04	08:20	09:20	37	475	104	Cloudy
30/12/04	10:56	11:56	98	372	195	Cloudy

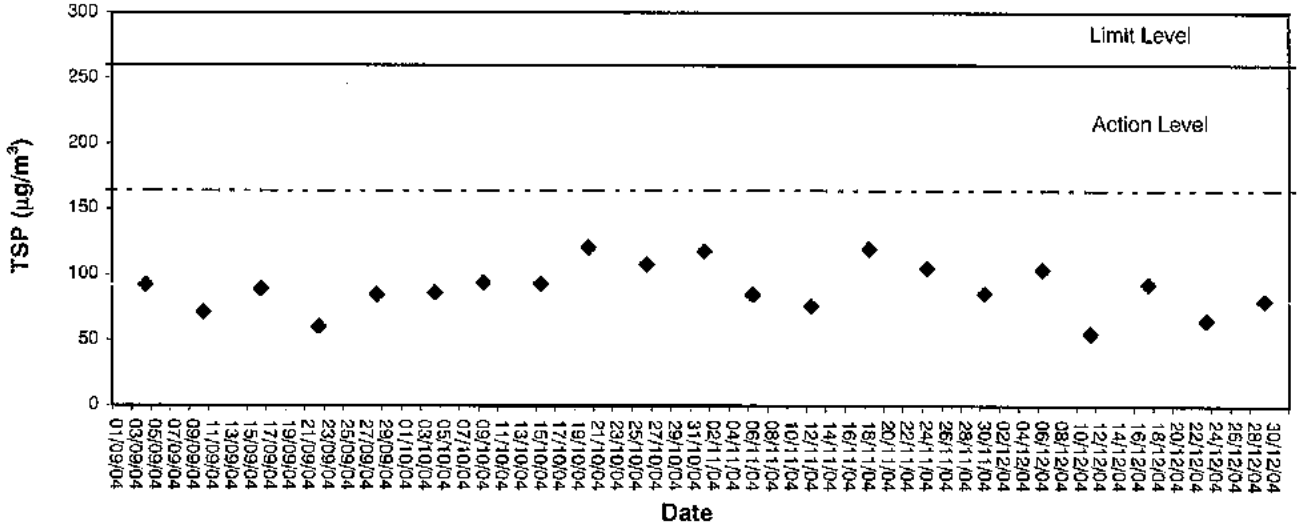
Monitoring Station : AM3
Location : Cheung Shue Tan Village (near the outer building, a temple)

Date	Monitoring Period		1-hr TSP (μg/m³)			Weather
	Start	Finish	Minimum	Maximum	Average	
02/12/04	16:00	17:00	77	298	100	Sunny
04/12/04	15:06	16:06	42	305	106	Cloudy
07/12/04	13:00	14:00	89	345	195	Sunny
09/12/04	13:00	14:00	71	296	89	Sunny
11/12/04	14:00	15:00	98	366	218	Sunny
14/12/04	16:40	17:40	43	379	110	Sunny
16/12/04	09:32	10:32	39	277	101	Sunny
18/12/04	14:15	15:15	97	343	187	Cloudy
21/12/04	14:45	15:45	43	405	107	Sunny
22/12/04	17:12	18:12	80	296	89	Sunny
23/12/04	08:35	09:35	46	303	115	Sunny
28/12/04	16:59	17:59	31	284	87	Cloudy
29/12/04	09:32	10:32	24	352	79	Cloudy
30/12/04	16:02	17:02	87	340	172	Cloudy

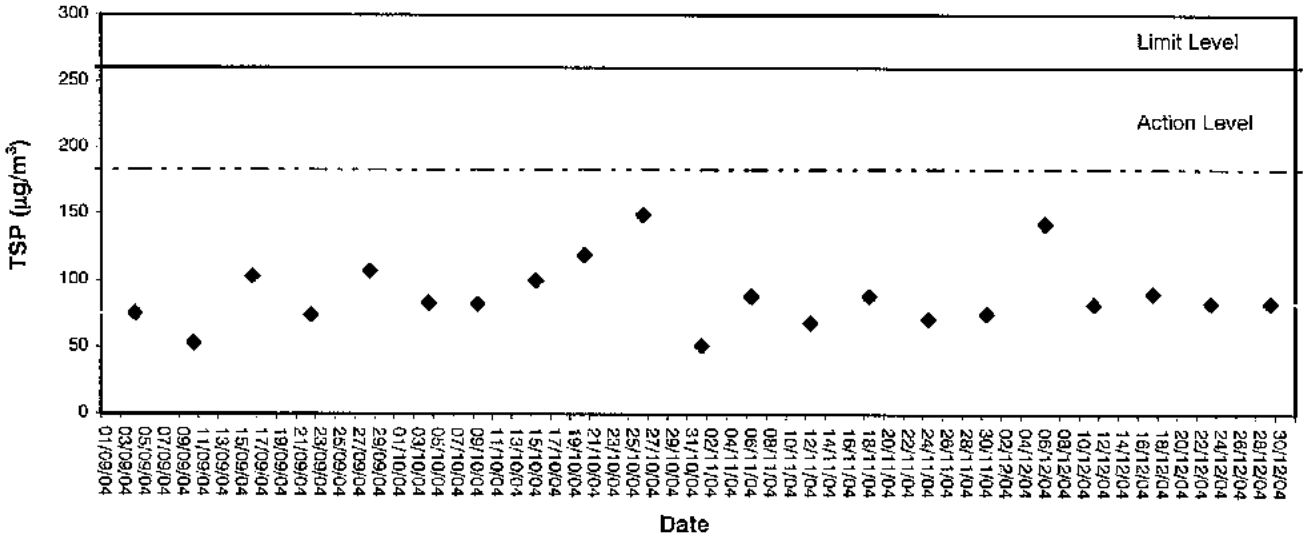
Appendix B3

Graphical Plots of Air Quality Monitoring Data

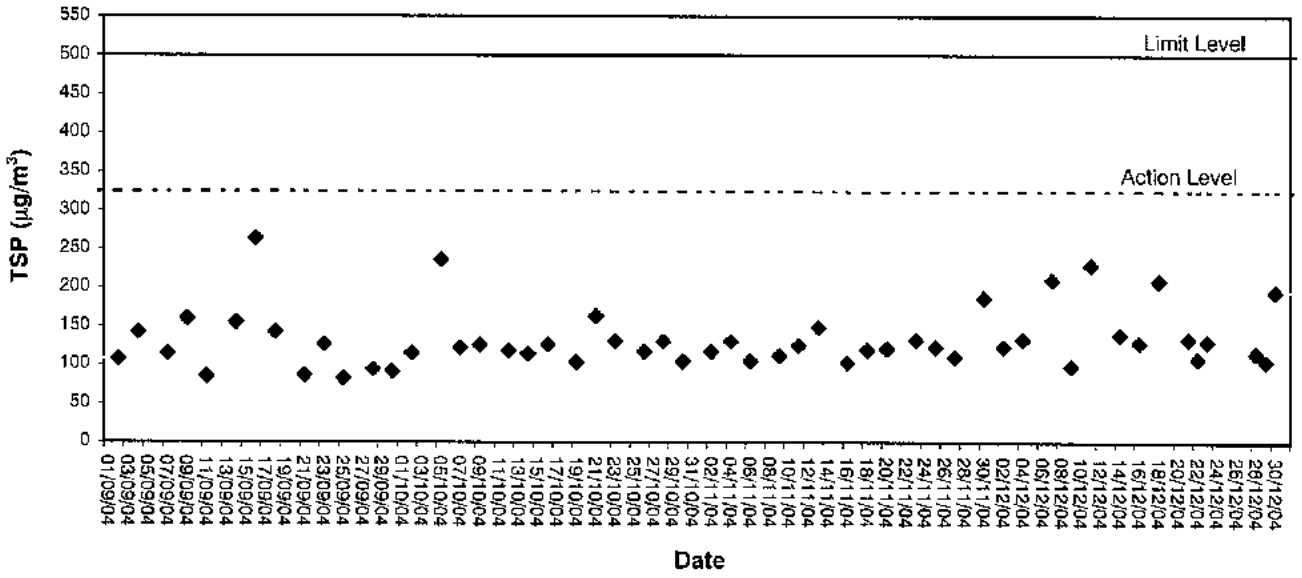
24-hour TSP level at AM1 (HKIB Staff Accommodation)



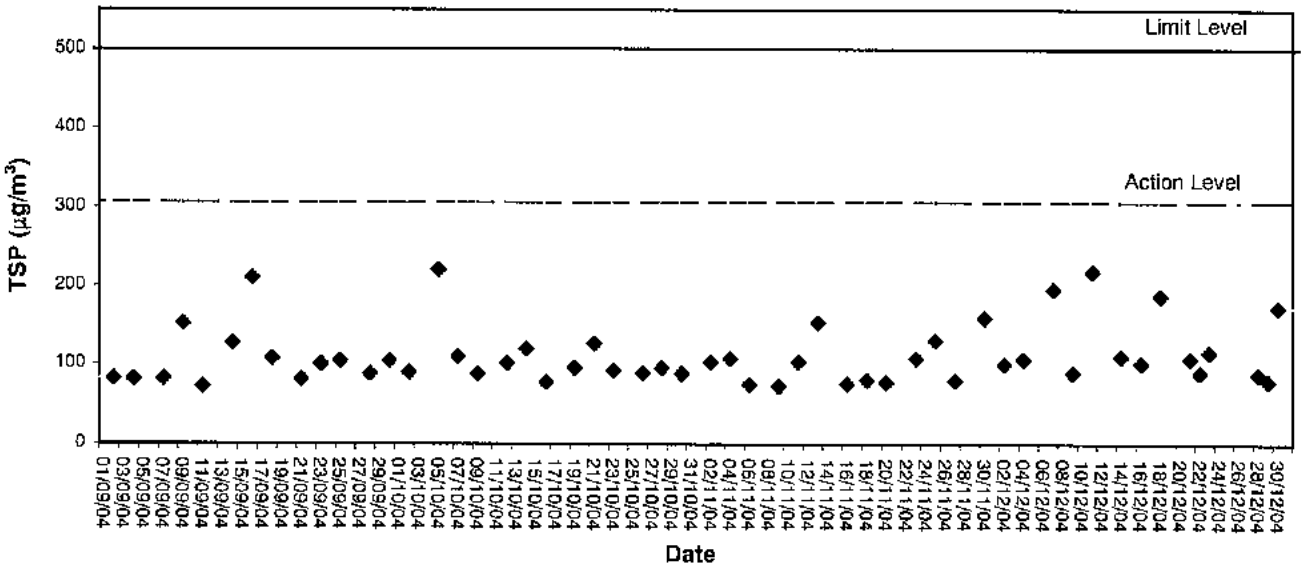
24-hour TSP level at AM3A (Cheung Shue Tan in front of Man Kee Store)



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

Hong Kong Calibration Ltd.
香港校正有限公司

Calibration Certificate

Certificate No. 41649

Customer : ETS-Testconsult Limited

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

Order No. : Q40536 **Date of receipt :** 6-Apr-04

Item Tested

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

Manufacturer : Rion

Model : NC-73 **Serial No. :** 10644871

Test Conditions

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

Ambient Temperature : (22.5 ± 2.5)°C **Relative Humidity :** (50 ± 20) %

Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : F21, Z02.

Test Results

All results were within the manufacturer's specification.

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

Test equipment used:

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

The test equipment used for calibration are traceable to national standards/International System of Units (SI).

The test results apply to the above Unit-Under-Test only

Calibrated by : _____

Approved by : _____

Alan Chu - Manager

Date: 16-Apr-04

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 8601 Fax: 2425 8646

Calibration Certificate

Results :

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

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	- 0.8 dB	± 1 dB

Uncertainty : ± 0.2 dB

2. **Frequency Accuracy**

UUT Nominal Value	Measured Value	Mfr's Spec.
1 kHz	0.986 kHz	± 2 %

Uncertainty : ± 0.1 %

3. **Level Stability** : 0.0 dB
   Uncertainty : ± 0.01 dB

4. **Total Harmonic Distortion** : < 0.2 %
   Mfr's Spec. : < 3 %
   Uncertainty : ± 2.3 % of reading

Remark : 1. UUT : Unit-Under-Test
2. The uncertainty claimed is for a confidence probability of not less than 95%.
3. Atmospheric Pressure : 995 hPa
4. The above measured values are the mean of 3 measurement.

---------- END ----------

Hong Kong Calibration Ltd.
香港校正有限公司

Calibration Certificate

Certificate No. 41648 Page 1 of 3 Pages

Customer : ETS-Testconsult Limited

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

Order No. : Q40536 **Date of receipt :** 6-Apr-04

Item Tested

Description : Precision Integrating Sound Level Meter

Manufacturer : Rion

Model : NL-31 **Serial No. :** 00531142

Test Conditions

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

Ambient Temperature : (22.5 ± 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:

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

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

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

Calibrated by : _____

Approved by : _____
Alan Chu - Manager

Date: 16-Apr-04

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

Results :

1. SPL Accuracy

UUT Setting			UUT Reading (dB)	Correction (dB)
Level Range (dB)	Weight	Response		
20 – 100	L_A	Fast	94.0	+ 0.1
		Slow		+ 0.1
	L_C	Fast		+ 0.1
	Lp	Fast		0.0
30 – 120	L_A	Fast	94.0	+ 0.1
		Slow		+ 0.1
	L_C	Fast		+ 0.1
	Lp	Fast		0.0
30 – 120	L_A	Fast	114.0	0.0
		Slow		0.0
	L_C	Fast		0.0
	Lp	Fast		0.0

IEC 651 Type 1 Spec. : ± 0.7 dB
Uncertainty : ± 0.2 dB

2. **Level Stability** : 0.0 dB
IEC 651 Type 1 Spec. : ± 0.3 dB
Uncertainty : ± 0.01 dB

Calibration Certificate

3. Frequency Weighting

A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	- 39.5	- 39.4 dB, ± 1.5 dB
63 Hz	- 26.3	- 26.2 dB, ± 1.5 dB
125 Hz	- 16.2	- 16.1 dB, ± 1 dB
250 Hz	- 8.7	- 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	+ 1.3	+ 1.2 dB, ± 1 dB
5 kHz	+ 1.1	+ 1.0 dB ,± 1 dB
8 kHz	- 1.1	- 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	36.9	--	--
1/10	36.7	+ 0.2	± 0.5 dB
$1/10^2$	36.7	+ 0.2	
$1/10^3$	36.7	+ 0.2	± 1.0 dB
$1/10^4$	36.7	+ 0.2	

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 : 995 hPa.

---------- END ----------

Appendix C2

Noise Monitoring Results

Day-time Noise Monitoring

Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		L_{eq}(30)	L10	L90		
07/12/04	10:02	57.8	55.8	53.9	0.8	Sunny
14/12/04	08:28	58.1	63.2	55.2	1.5	Sunny
21/12/04	13:02	62.8	65.9	53.8	0.7	Sunny
28/12/04	15:12	56.1	59.2	52.5	2.2	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		
07/12/04	11:10	55.8	57.9	51.8	0.4	Sunny
14/12/04	09:32	60.1	64.4	53.0	1.6	Sunny
21/12/04	14:12	59.0	61.1	56.2	1.1	Sunny
28/12/04	16:18	58.8	62.5	54.4	1.5	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		
07/12/04	13:02	53.9	53.6	48.3	0.6	Sunny
14/12/04	16:45	51.6	54.7	47.0	1.1	Sunny
21/12/04	14:48	55.2	59.9	47.2	0.7	Sunny
28/12/04	17:05	50.0	52.0	44.4	1.8	Cloudy

Evening-time Noise Monitoring

Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		$L_{eq}(5)$			L10			L90				
07/12/04	19:15	56.9	57.0	56.7	58.4	58.9	58.2	51.7	51.8	50.9	0.7	Fine
14/12/04	20:07	60.9	58.1	57.6	62.2	59.9	59.1	52.0	51.1	50.8	1.2	Fine
21/12/04	19:00	56.2	56.5	55.8	58.9	59.1	58.1	52.1	51.9	51.6	0.7	Fine
28/12/04	19:06	54.6	55.2	54.9	57.3	57.9	56.8	52.4	53.4	53.0	2.1	Cloudy

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				
07/12/04	19:40	54.1	54.0	53.7	56.2	56.1	55.8	49.3	49.1	48.9	0.5	Fine
14/12/04	19:32	59.2	58.3	57.6	60.7	60.1	59.4	50.1	49.8	49.9	1.1	Fine
21/12/04	19:25	54.3	54.5	53.9	56.7	56.9	55.8	49.2	49.4	49.0	0.6	Fine
28/12/04	19:32	53.2	53.9	53.7	54.8	55.7	55.4	51.0	52.2	51.6	2.5	Cloudy

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				
07/12/04	20:10	52.0	52.4	52.6	53.7	54.0	54.2	46.8	47.1	47.3	0.4	Fine
14/12/04	19:00	49.7	51.2	50.2	52.1	53.6	52.9	47.6	47.9	48.0	0.8	Fine
21/12/04	19:55	52.0	51.6	51.3	54.3	53.8	53.6	48.2	48.0	47.9	0.6	Fine
28/12/04	19:59	49.6	49.1	48.8	53.0	51.8	51.1	45.6	46.2	45.0	1.7	Cloudy

Holiday Noise Monitoring

Monitoring Location: NM1 (HKIB Staff Accommodation)

Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		$L_{eq}(5)$			L10			L90				
05/12/04	14:16	60.8	59.7	59.4	62.3	62.0	61.6	55.4	55.1	54.8	1.7	Cloudy
12/12/04	15:00	59.7	58.1	57.6	61.1	60.7	60.1	54.1	53.6	54.4	1.2	Sunny
19/12/04	09:45	57.9	58.0	57.2	59.2	59.7	58.8	52.3	53.1	51.9	0.8	Cloudy
26/12/04	14:50	59.4	58.7	58.3	64.2	63.6	63.2	56.7	56.2	55.8	1.7	Cloudy

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				
05/12/04	14:45	54.5	55.1	54.0	57.4	58.0	57.1	50.2	50.9	49.7	1.1	Cloudy
12/12/04	15:35	57.1	56.7	55.9	59.1	58.6	57.2	53.1	54.0	52.6	1.3	Sunny
19/12/04	10:10	54.0	54.3	54.8	56.2	56.7	57.0	48.9	49.2	49.6	0.6	Cloudy
26/12/04	15:22	57.0	58.4	58.0	61.8	62.9	62.4	55.0	55.9	55.5	2.2	Cloudy

Monitoring Location: NM3 (Cheung Shue Tan Village)

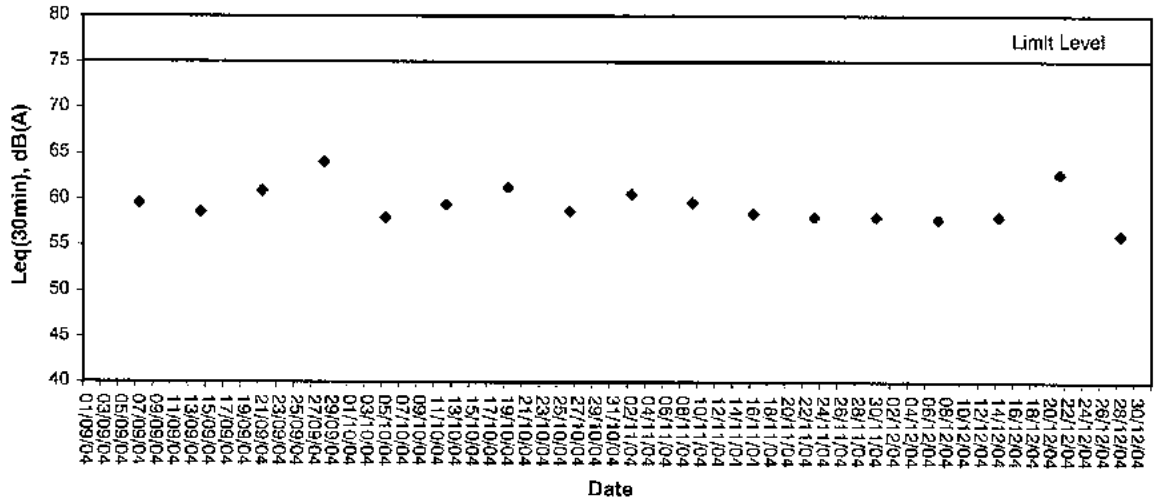
Date	Start Sampling Time	Noise Level dB (A)									Wind Speed (m/s)	Weather Condition
		$L_{eq}(5)$			L10			L90				
05/12/04	15:12	48.2	48.8	49.3	50.1	50.6	51.2	46.9	47.3	47.7	1.9	Cloudy
12/12/04	16:13	56.2	55.3	55.1	57.6	57.1	57.0	49.8	50.2	50.0	1.0	Sunny
19/12/04	10:30	52.1	52.8	51.9	54.7	55.0	53.6	47.2	47.4	47.0	0.6	Cloudy
26/12/04	15:55	48.9	49.2	49.5	52.0	52.6	53.3	46.0	46.4	47.1	1.3	Cloudy

Appendix C3

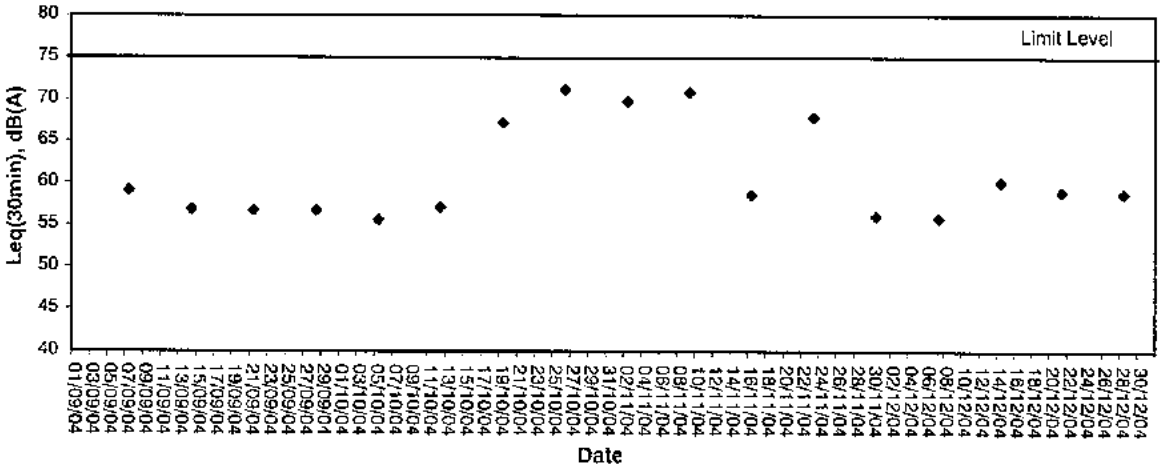
Graphical Plots of Noise Monitoring Data

Noise Monitoring (Day-time)

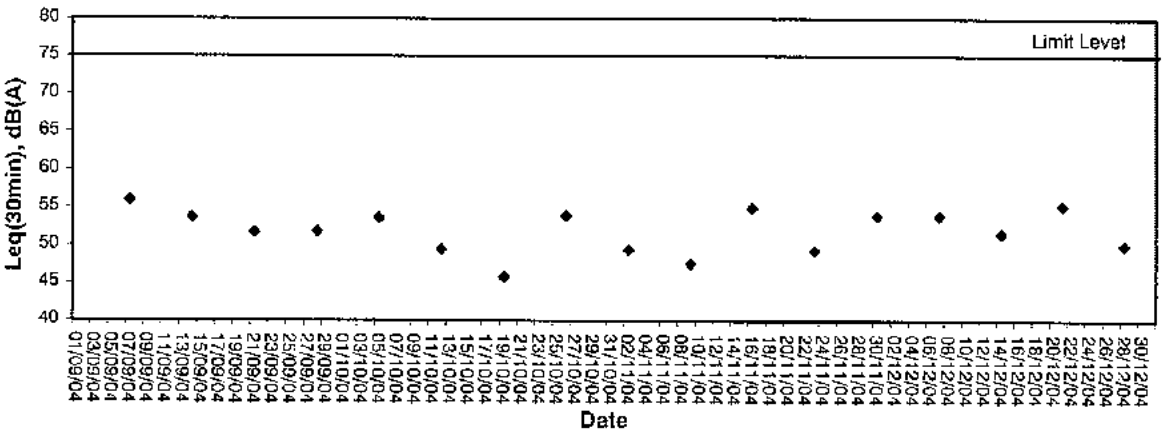
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10

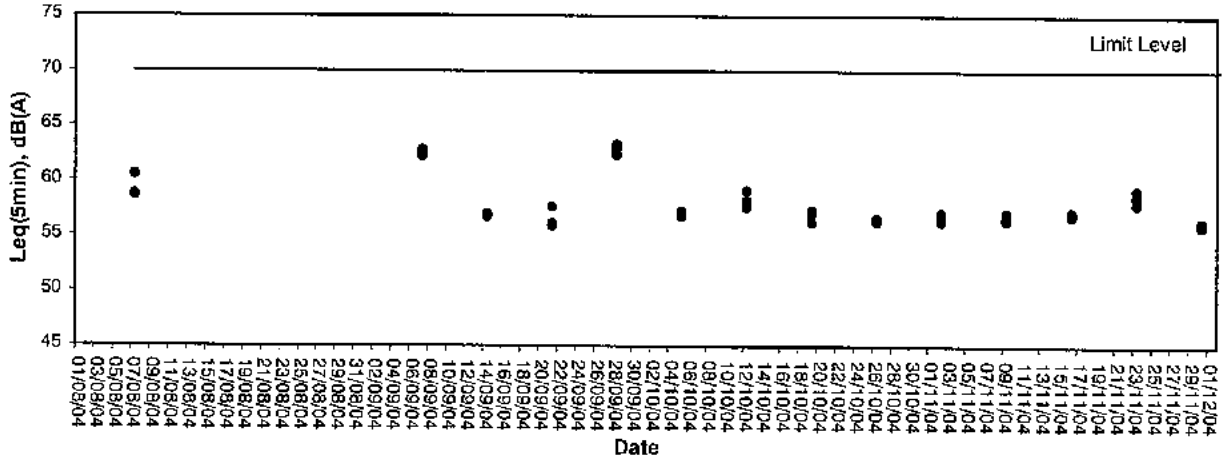


Noise level at NM3, Cheung Shue Tan Village

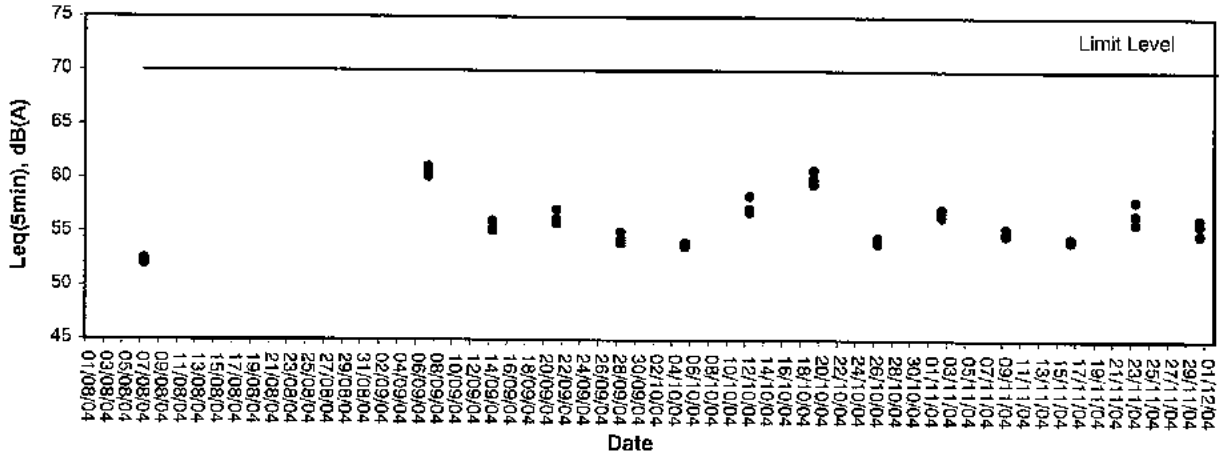


Noise Monitoring (Evening-time)

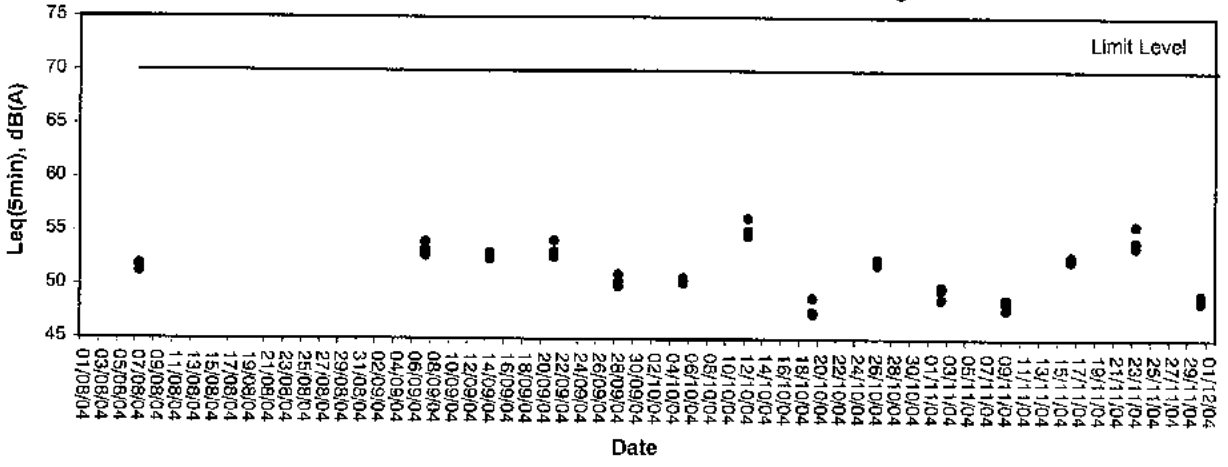
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10

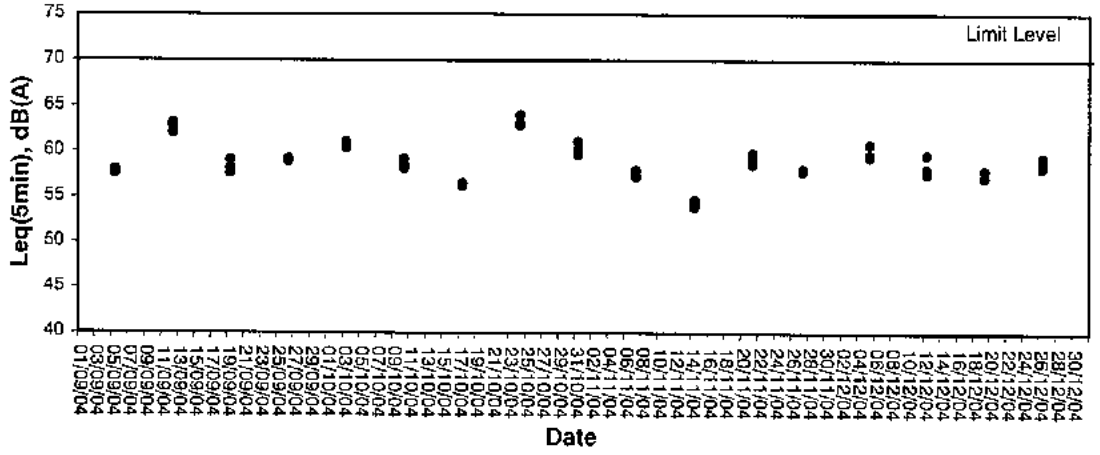


Noise level at NM3, Cheung Shue Tan Village

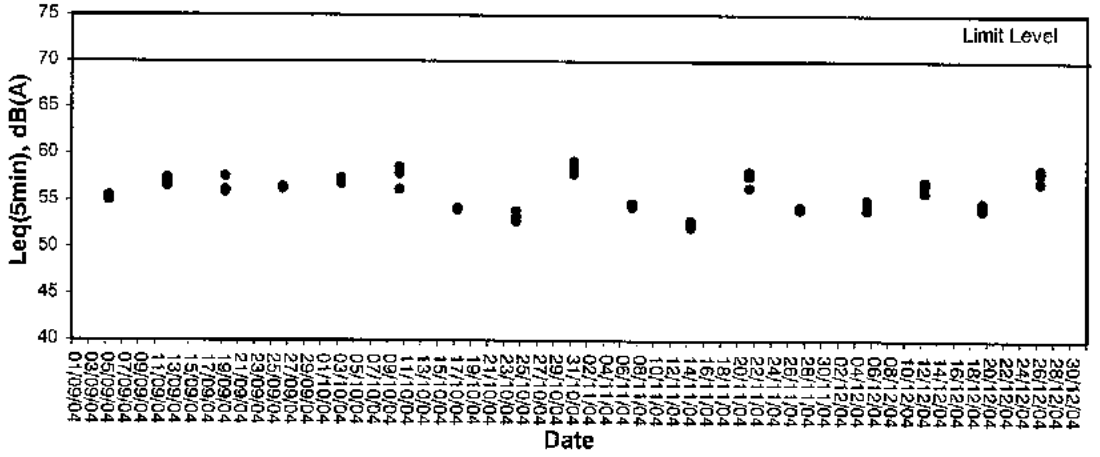


Noise Monitoring (Holiday)

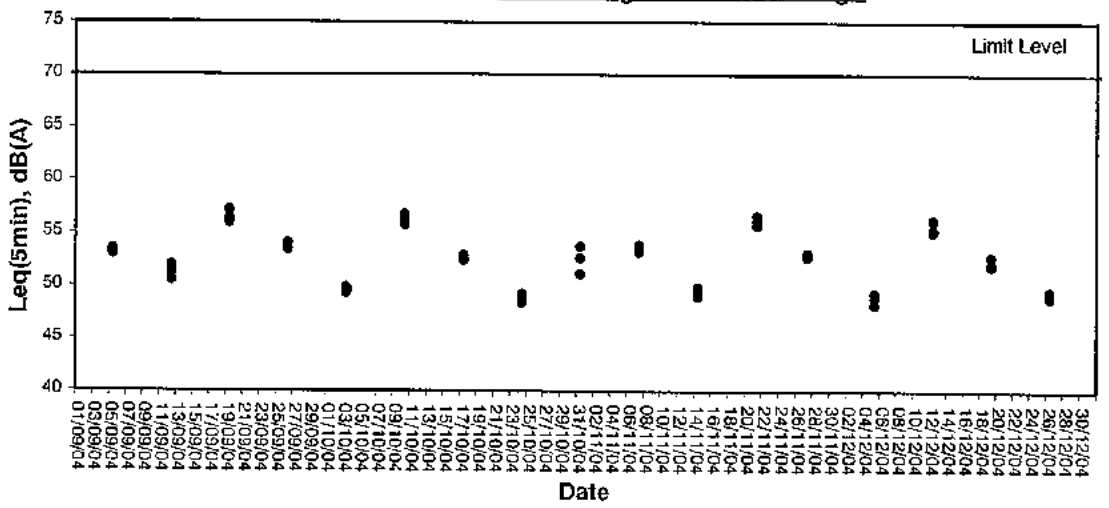
Noise level at NM1, HKIB Staff Accommodation



Noise level at NM2, CUHK Residence No.10



Noise level at NM3, Cheung Shue Tan Village



Appendix D

Weather Condition

Weather Condition

Date	Rainfall (mm)	Max. Temp (°C)	Min. Temp. (°C)	Relative Humidity (%)	Wind Direction	Wind Speed (m/s)
01/12/04	-	23.3	19.9	72	E	<5
02/12/04	-	24.4	20.2	76	NE	<5
03/12/04	-	25.8	20.6	62	N	<5
04/12/04	-	24.6	19.1	53	N	<5
05/12/04	Trace	21.4	17.2	54	N	<5
06/12/04	Trace	20.9	18.1	69	E	<5
07/12/04	-	21.5	18.0	50	N	<5
08/12/04	-	20.5	16.1	55	N	<5
09/12/04	-	20.8	16.7	65	E	<5
10/12/04	-	21.4	17.3	67	E	<5
11/12/04	-	21.3	17.9	73	E	<5
12/12/04	-	23.3	18.0	55	N	<5
13/12/04	-	21.2	17.0	60	E	<5
14/12/04	Trace	20.9	17.3	72	E	<5
15/12/04	-	23.0	18.4	77	NE	<5
16/12/04	-	22.1	18.8	75	E	<5
17/12/04	-	21.8	18.4	77	E	<5
18/12/04	-	22.5	18.6	82	E	<5
19/12/04	-	22.6	19.2	82	E	<5
20/12/04	Trace	22.1	18.7	81	E	<5
21/12/04	-	21.0	19.2	76	E	<5
22/12/04	Trace	21.5	19.4	83	E	<5
23/12/04	-	24.1	19.8	81	NE	<5
24/12/04	Trace	20.6	18.3	78	E	<5
25/12/04	-	20.2	18.1	79	E	<5
26/12/04	Trace	20.9	18.4	78	E	<5
27/12/04	-	21.4	16.9	73	N	<5
28/12/04	-	17.1	9.9	70	N	<5
29/12/04	-	14.9	8.9	71	N	<5
30/12/04	-	16.8	9.3	68	N	<5
31/12/04	-	11.6	8.2	46	N	<5

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

Appendix E

Event-Action Plans

Event / Action Plan for Air Quality

EVENT	ACTION			
	ET Leader	IC(E)	ER	CNOTRACTOR
Action Level				
1. Exceedance of one sample	1. Identify source 2. Inform IC(E) and ER 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily	1. Check monitoring data submitted by ET 2. Check Contractor's working method.	1. Notify Contractor	1. Rectify any unacceptable practice 2. Amend working methods if possible
2. Exceedance for two more consecutive samples	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. Checking monitoring data submitted by ET 2. Check Contactor'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. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	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	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. 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. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Ensure remedial measures properly implemented	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
2. Exceedance for two or more consecutive samples	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. 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. In consultation with the IC(E), agreed with the Contractor on the remedial 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 Contract to stop that portion of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to 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 if abated.

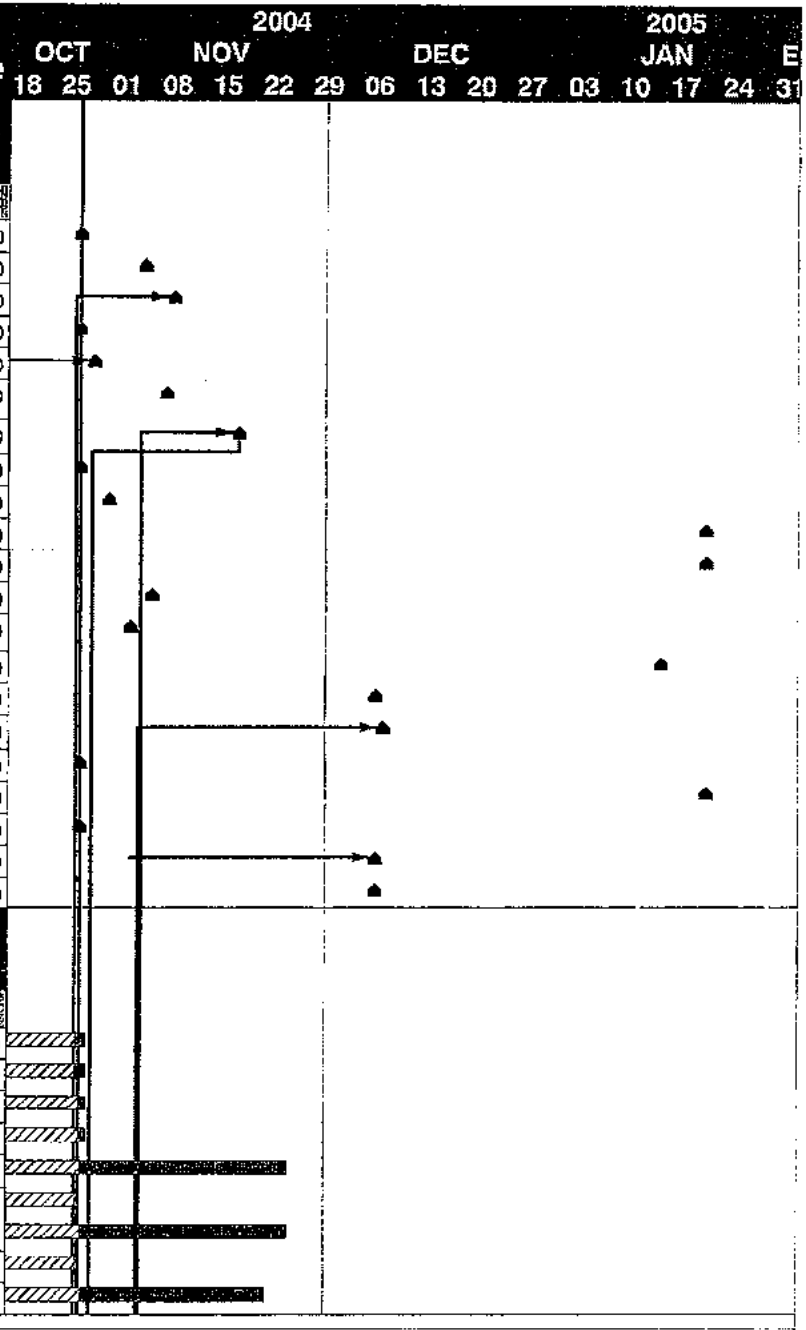
Event / Action Plan for Construction Noise

EVENT	ACTION			
	ET Leader	IC(E)	ER	CNOTRACTOR
Action Level	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	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	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	1. Submit noise mitigation proposal to IC(E) 2. Implement noise mitigation proposals
Limit Level	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	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 advice the ER accordingly 3. Supervise the implementation of remedial measures	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 protion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated	1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to 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	Percent Complete
Completion Dates					
KD-2040	Section 4- Waterworks in Areas 3, 4 & 6	0		27OCT04 *	0
KD-2040B	Assumed Extension of Time for KD-2040	0		05NOV04 *	0
KD-2040A	Achievement Date for KD-2040	0		09NOV04	0
KD-2150	Section 15- Waterworks in Area 15	0		27OCT04 *	0
KD-2150B10	Achievement Date for KD-2150notaffectedbyVO/073	0		29OCT04	0
KD-2150B	Assumed Extension of Time for KD-2150	0		08NOV04 *	0
KD-2150A	Achievement Date for KD-2150	0		18NOV04	0
KD-2050	Section 5- Work in Area 7A,except P.Stn.1, LS&EW	0		27OCT04 *	0
KD-2050B	Assumed Ext. of Time for Section 5	0		31OCT04 *	0
KD-2030	Section 3- Works in Areas3,4+6,except Sec4+LS&EW	0		21JAN05 *	0
KD-2030B	Approved Ext.of Time for Section 3	0		21JAN05 *	0
KD-2120	Section 12- Works of Sewage Pumping Station No.1	0		06NOV04 *	0
KD-2130	Section 13- Works of Sewage Pumping Station No.2	0		03NOV04 *	0
KD-2130B	Assumed Extension of Time for KD-2130	0		15JAN05 *	0
KD-2160	Section 16- Remainder of Works, except LS+EW	0		07DEC04 *	0
KD-2160A	Achievement Date for KD-2160	0		08DEC04	0
KD-2170	Section 17-Areas1,2,6,7A+7B Landscaping Softwork	0		27OCT04 *	0
KD-2170B	Assumed Extension of Time for KD-2170	0		21JAN05 *	0
KD-2180	Section 18- Remainder of Landscaping Softworks	0		27OCT04 *	0
KD-2180A	Achievement Date for KD-2180	0		07DEC04	0
KD-2180B	Assumed Extension of Time for KD-2180	0		07DEC04 *	0
Preliminaries & Procurement					
B0-205760	PS1-Fabrication&Delivery-Lifting Appliance	92	29MAY04 A	28OCT04	99
B0-205815	PS2-Fabrication&Delivery-Lifting Appliance	84	29MAY04 A	28OCT04	99
B0-205830	PS1-Ordering and Delivery of cables by PCCW	60	26JUL04 A	28OCT04	99
B0-205840	PS2-Ordering and Delivery of cables by PCCW	60	26JUL04 A	28OCT04	99
B0-205780	PS1-Fabrication&DeliveryMech.Scrn.Syst.remaining	67	20SEP04 A	25NOV04	57
B0-205825	PS2-Fabric.&Delivery -Valves&Pipeworks remaining	27	20SEP04 A	27OCT04	99
B0-205835	PS2-Fabric.&DeliveryMech. Scrn.System remaining	67	20SEP04 A	25NOV04	57
B0-205850	PS1-Fabric.&Delivery-Valves&Pipeworks remaining	32	20SEP04 A	27OCT04	99
B0-205860	PS1-Fabric.&Delivery-Deodorizer Syst. remaining	64	20SEP04 A	22NOV04	60



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Page number	1A
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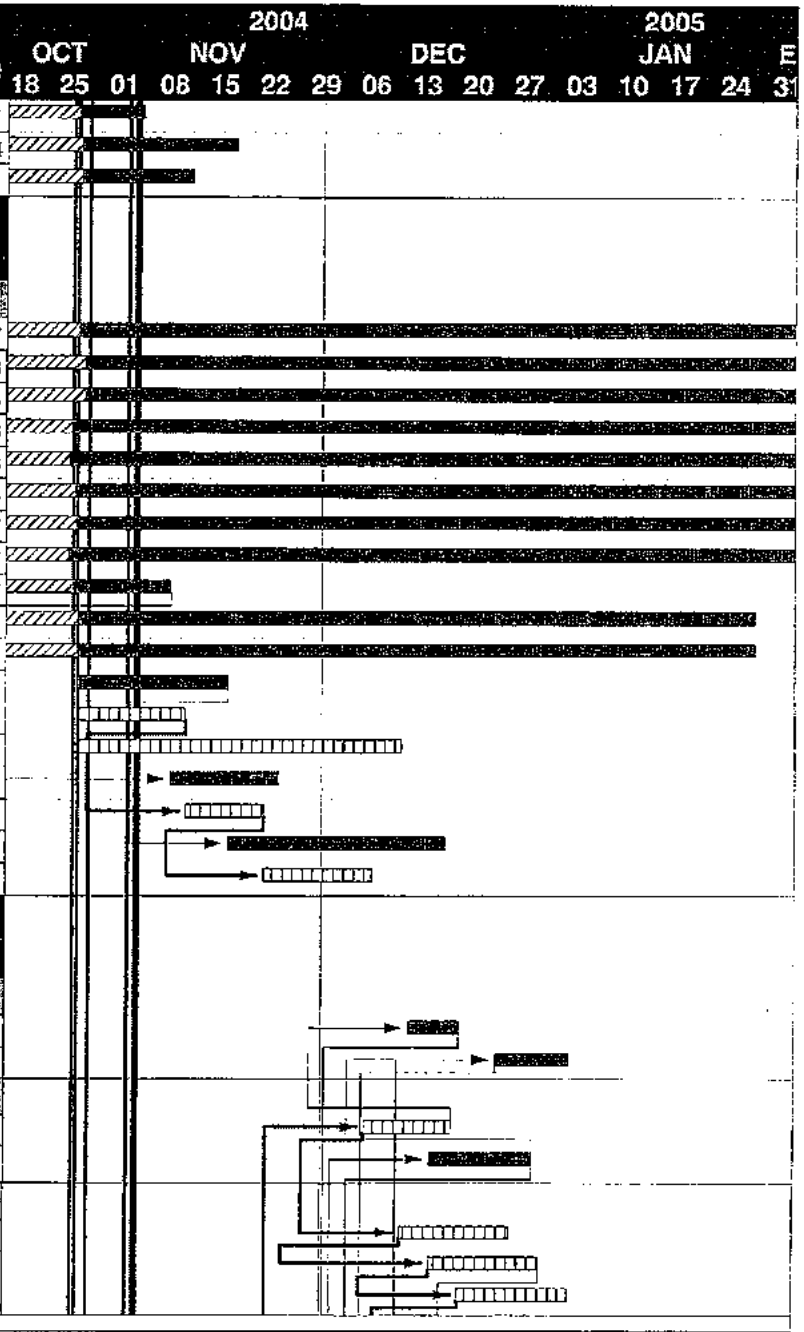
Number/Version	TP35/02/3MON/26
Company name	Penta-Ocean Construction Co. Ltd.

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
3MONTHS ROLLING PROGRAM

Act ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
B0-205870	PS2-Fabric.&Del.-LVSwitchbrd&ContrPan. remaining	47	20SEP04 A	05NOV04	81
B0-205880	PS2-Fabric.&Delivery-Deodorizer Syst. remaining	60	20SEP04 A	18NOV04	64
B0-205890	PS1-Fabric.&Del.-LVSwitchbrd&ContrPan.remaining	54	20SEP04 A	12NOV04	71
Part 1.1 Preliminaries					
B1-0103E1	Operate/ maintain Moble Phones, 4nr	1020	03SEP02 A	19JUN05	77
B1-0107D0	Update Waste Management Plan	1080	03SEP02 A	15AUG05	73
B1-0107E0	Implement & Monitor Waste Management Plan	1080	03SEP02 A	15AUG05	73
B1-0102B0	Operate & maintain 4-wheel drive vehicle, 2 nr	1001	05SEP02 A	04JUN05	78
B1-0101G0	Maintain/remove measures for traffic flow	1140	10SEP02 A	27OCT05	68
B1-0102D0	Progress Photographs, 30nr	900	01OCT02 A	20MAR05	84
B1-0106N0	Maintain Noise Monitoring	1118	09OCT02 A	31OCT05	67
B1-0106K0	Maintain Air Monitoring	1104	16OCT02 A	26OCT05	67
B1-0103J4	Maintain W.Washing Facilities, WB4 at Zone L	424	15AUG03 A	09NOV04	97
B1-0101D15	ServicingContractor'sSiteAccommodation remaining	131	20SEP04 A	28JAN05	29
B1-0103E12	Operate/maintain Mobile Phones, 3nr remaining	131	20SEP04 A	28JAN05	29
B1-0103B4	Erect Signboard, 1nr	21	28OCT04	17NOV04	0
B1-0103I1	Construct W.Washing Facilities, WB1 at Zone E	15	28OCT04	11NOV04	0
B1-0108Z0	Reinstatement at end of Contract	45	28OCT04	11DEC04	0
B1-0103K4	Remove W.Washing Facilities, WB4 at Zone L	15	10NOV04	24NOV04	0
B1-0103J1	Maintain W.Washing Facilities, WB1 at Zone E	11	12NOV04	22NOV04	0
B1-0101C0	Hand over Engineer's Site Accommodation	30	18NOV04	17DEC04	0
B1-0103K1	Remove W.Washing Facilities, WB1 at Zone E	15	23NOV04	07DEC04	0
Section 3-Works in Areas3,4+6,except Sec.4+LS&EW					
Part 3.3 Earthworks - Section 3					
B3-0308M1	Deposition &Compaction, L2/Ch.100-200	7	13DEC04	19DEC04	0
B3-0308M2	Deposition & Compaction, D1/Ch.780-920	10	25DEC04	03JAN05	0
Part 4.3 Drainage & Sewerage - Section 3					
B4-0317D31	P/c pipe, L2/Ch.100-200 Gully works	12	07DEC04	18DEC04	0
B4-0317D12	P/c pipe, D1/Ch.780-920 remaining	14	16DEC04	29DEC04	0
Section 3 - Utilities					
UT-0300G1	Gas Mains, L2/Ch.100-200	15	12DEC04	26DEC04	0
UT-0300P1	Powers(11kV), L2/Ch.100-200	15	16DEC04	30DEC04	0
UT-0300T1A	PCCW, L2/Ch.100-200	15	20DEC04	03JAN05	0



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Early bar
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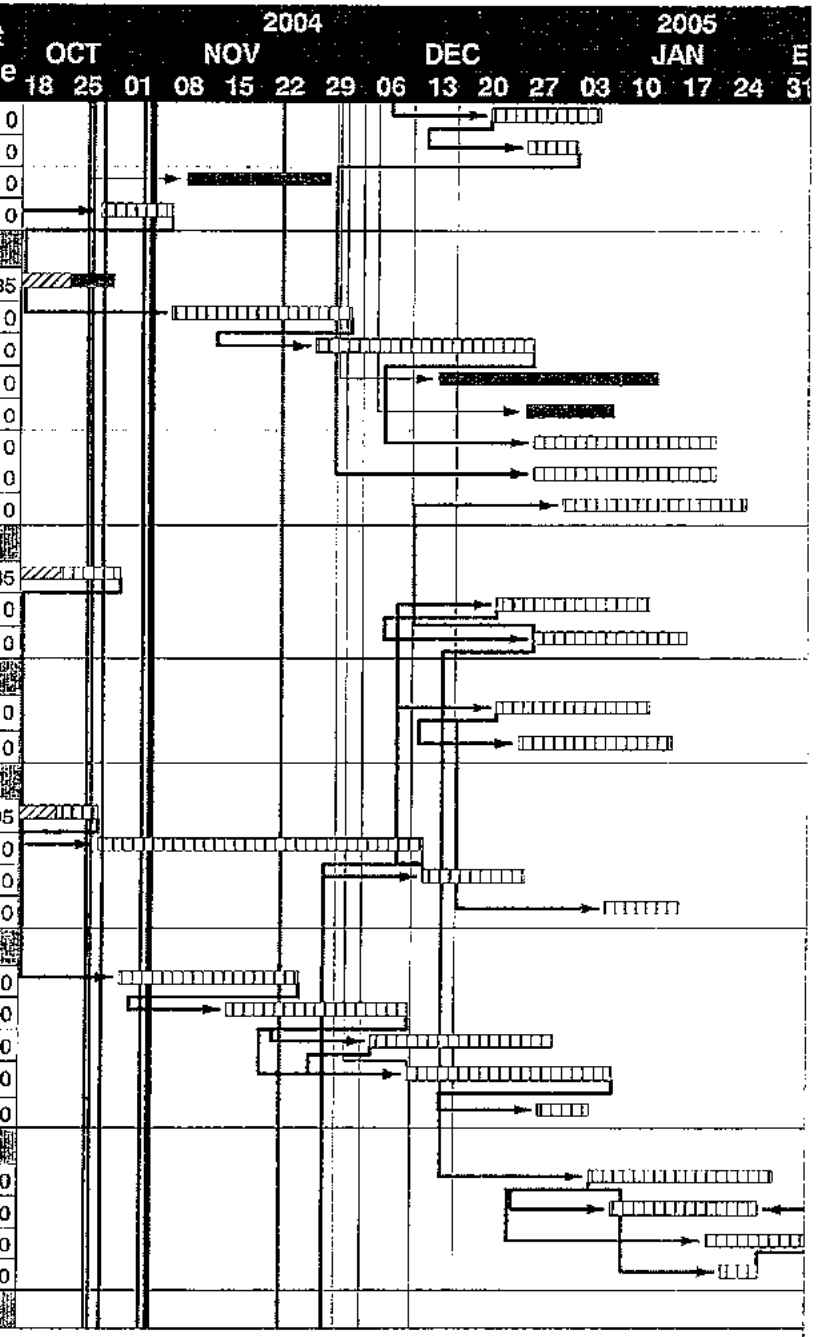
Summary bar
Start milestone point
Finish milestone point

Contract No.TP35/02
Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1
3MONTHS ROLLING PROGRAM

Act ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
UT-0300T1B	HGC-New World, L2/Ch.100-200	15	22DEC04	05JAN05	0
UT-0300T1C	CATV, L2/Ch.100-200	7	27DEC04	02JAN05	0
UT-0300G4	Gas Mains at Area 3	20	10NOV04	29NOV04	0
UT-0300G4C	Gas Main at Area 4 remaining	10	29OCT04	07NOV04	0
Part 5.3 Roadworks - Section 3					
B5-0325C53	Footpath beside Open channel remaining	22	20SEP04 A	30OCT04	85
B5-0325C33	Footpath at Area 4 remaining	25	08NOV04	02DEC04	0
B5-0325C3	Footpath, Area 3	30	28NOV04	27DEC04	0
B5-0325C1	Roadworks, L2/Ch.100-200	30	15DEC04	13JAN05	0
B5-0325C2	Roadworks, D1/Ch.780-920	12	27DEC04	07JAN05	0
B5-0325C23	Footpath at Area 6 under bridge	25	28DEC04	21JAN05	0
B5-0326A1	Cycle track & Footpath, L2/Ch.100-200	25	28DEC04	21JAN05	0
B5-0326A2	Cycle track & Footpath, D1/Ch.780-920	25	01JAN05	25JAN05	0
Part 7.2 - Substructure - East Abutment					
B7-032120	Abutment Wall lower to existing	24	06SEP04 A	31OCT04	85
B7-032050	Abutment Wall, Rest - East Abutment	21	23DEC04	12JAN05	0
B7-032060	Drainage & Backfill - East Abutment	21	28DEC04	17JAN05	0
Part 7.3 - Substructure - West Abutment					
B7-033050	Abutment Wall, Rest - West Abutment	21	23DEC04	12JAN05	0
B7-033060	Drainage & Backfill - West Abutment	21	26DEC04	15JAN05	0
Part 7.4 - Superstructure					
B7-034040	Working Platform Construction	24	03JUL04 A	28OCT04	95
B7-034010	Decking	45	29OCT04	12DEC04	0
B7-034020	Prestressing	14	13DEC04	26DEC04	0
B7-034030	Movement Joint	10	07JAN05	16JAN05	0
Part 7.5 - Retaining Walls					
B7-035030	Retaining Wall No. 2	25	01NOV04	25NOV04	0
B7-035020	Retaining Wall No. 1	25	16NOV04	10DEC04	0
B7-035040	Retaining Wall No. 3	25	06DEC04	30DEC04	0
B7-035050	Drainage & Backfill	28	11DEC04	07JAN05	0
B7-035060	Movement Joint	7	29DEC04	04JAN05	0
Part 7.6 - Finishing Works					
B7-036030	Road & Drainage Works	25	05JAN05	29JAN05	0
B7-036050	Footway, Cycle Track, Paving	20	08JAN05	27JAN05	0
B7-036060	Roadwork Furnitures & Miscellaneous	18	21JAN05	14FEB05	0
B7-036040	Wearing Course	5	23JAN05	27JAN05	0
Part 7.7 - Modification of Pak Shek Kok Bridge					



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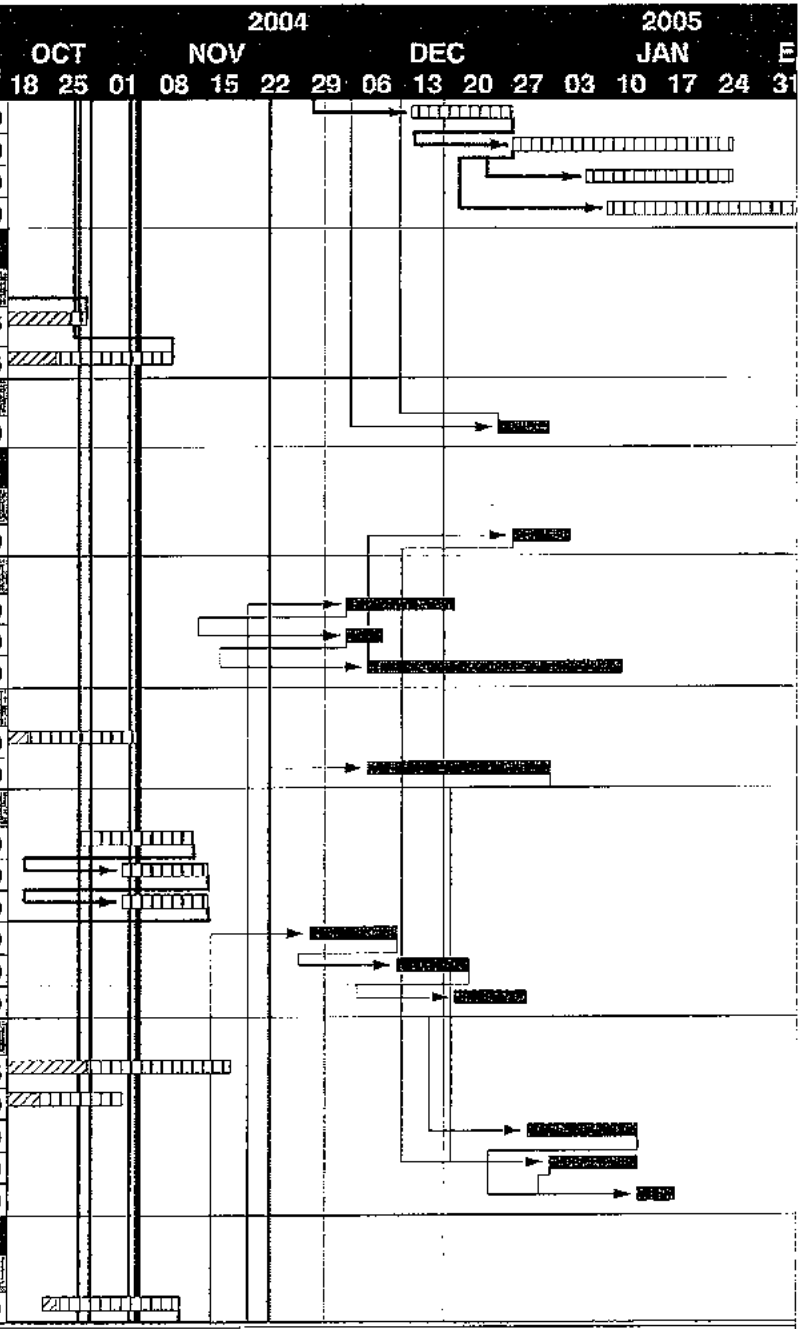
B7-037020	Demolition for Connection & Excavation	14	13DEC04	26DEC04	0
B7-037030	Modification Works	30	27DEC04	25JAN05	0
B7-037040	Drainage Works & Movement Joints	20	06JAN05	25JAN05	0
B7-037050	E&M Works & Finishing	25	09JAN05	09FEB05	0
Section 4- Waterworks in Areas 3, 4, & 6					
Part 6.3 Waterworks - Section 4 except Area 6					
B6-0424C7	Waterworks under footpath at Area 4 remaining	25	13SEP04 A	28OCT04	95
B6-0424C3	Waterworks under footpath at Area 3	20	05OCT04 A	09NOV04	55
Part 6.4 Waterworks - Section 4 in Area 6					
B6-0417C32	Waterworks, D1/Ch.780-920 phase 2	7	25DEC04	31DEC04	0
Section 5-Work in Area 7A,except PumpStn.1,LS&EW					
Part 3.4 Earthworks - Section 5					
B3-0512A30	Deposit/ Compact, At PS1	8	27DEC04	03JAN05	0
Part 4.5 Drainage & Sewerage - Section 5					
B4-0528F12	P/c pipe, At PS1 remaining (S303~S017)	15	04DEC04	18DEC04	0
B4-0530A3	Clay pipe, At PS1	5	04DEC04	08DEC04	0
B4-0535A1	SewerRising Main, At PS1	35	07DEC04	10JAN05	0
Part 6.5 Waterworks - Section 5					
B6-0503A6	Realigned existing watermain connection by WSD	20	28SEP04 A	04NOV04	60
B6-0503A3	Watermains, At PS1	25	07DEC04	31DEC04	0
Section 5 - Utilities					
UT-0500P12	Powers(11kV), D1/Ch.620-780 remaining	16	28OCT04	12NOV04	0
UT-0500T2C	PCCW,D1/Ch.620-780 remaining	12	03NOV04	14NOV04	0
UT-0500T2D	HGC-New World,D1/Ch.620-780 remaining	12	03NOV04	14NOV04	0
UT-0500P3	Powers(11kV) at PS1	12	29NOV04	10DEC04	0
UT-0500T3A	PCCW at PS1	10	11DEC04	20DEC04	0
UT-0500T3B	HGC-New World at PS1	10	19DEC04	28DEC04	0
Part 5.5 Roadworks - Section 5					
B5-0541B2	Cycle track & Footpath, D1/Ch.620-780 remaining	30	05OCT04 A	17NOV04	55
B5-0543E0	Roadworks Furnitures & Miscellaneous	10	15OCT04 A	02NOV04	40
B5-0541B3	Footpath, At PS1	15	29DEC04	12JAN05	0
B5-0540F3	Roadworks, At PS1	12	01JAN05	12JAN05	0
B5-0543E10	Furnitures & Miscellaneous at PS1	5	13JAN05	17JAN05	0
Section 12- Works of Sewage Pumping Station No.1					
Part 11.1 Pumping Station 1 Piling, Struct Work					
BS-120540	Continue Screen room to Roof level	15	23OCT04 A	10NOV04	10



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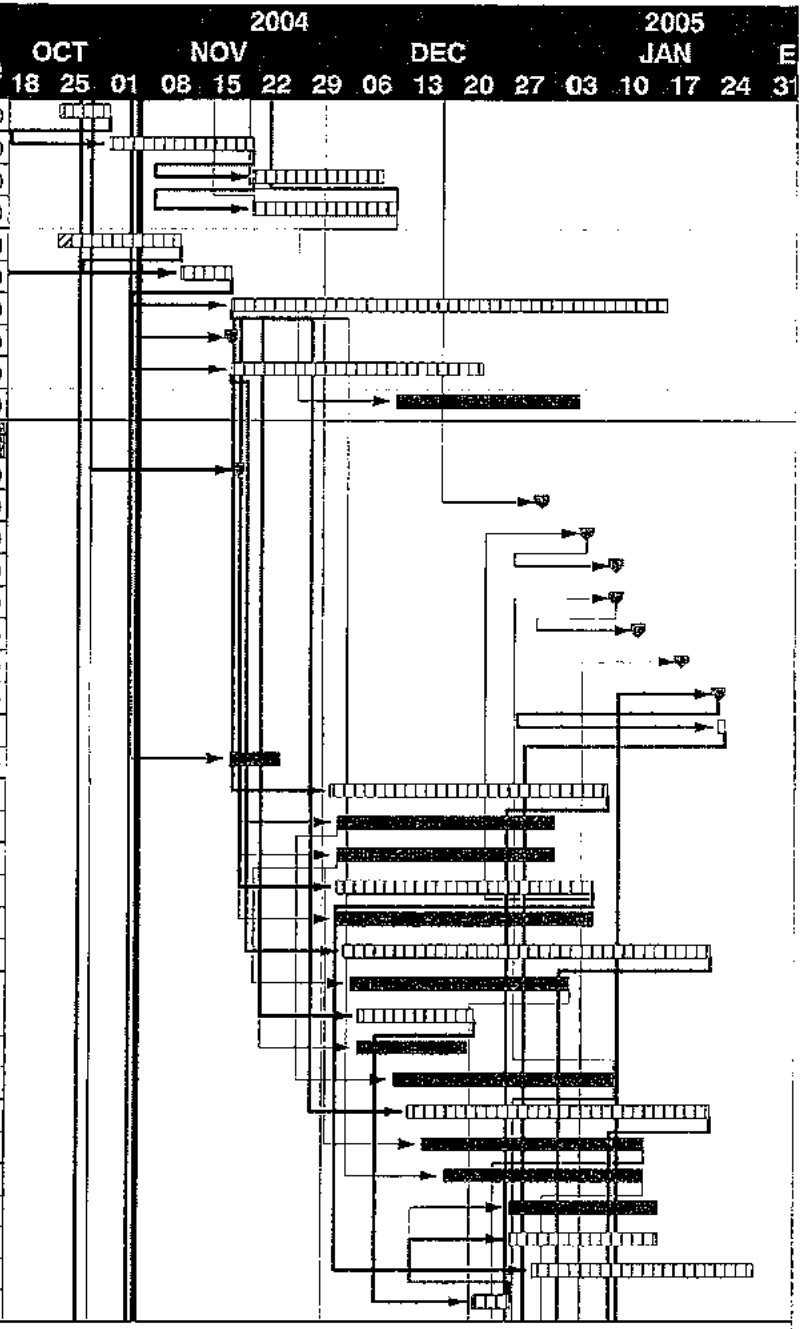
BS-120690	Waterproofing of Walls & Beam,Slab soffit	4	25OCT04 A	31OCT04	10
BS-120720	WatertightnessTest for Group A	18	01NOV04	20NOV04	0
BS-120660	Watertightness Test for Group B	18	21NOV04	08DEC04	0
BS-120700	Drainage & Backfill	20	21NOV04	10DEC04	0
BS-120600	Construct remaining Walls, Cols.,Beams&RoofSlab	15	25OCT04 A	10NOV04	10
BS-120610	Scaffoldingremovalafter7dayscuring(GroundtoRoof)	7	11NOV04	17NOV04	0
BS-120800	Finishing & Furniture above ground structure	60	18NOV04	16JAN05	0
BS-120740	Expected DSD Inspection Building Works	0	18NOV04		0
BS-120810	Finishing & Benching Works belowground chambers	35	18NOV04	22DEC04	0
BS-120730	Sheetpile Extraction	25	11DEC04	04JAN05	0
Part 11.4 Electrical & Mechanical Equipment					
BS-125080	Expected availability of fresh&salt water supply	0	19NOV04		0
BS-125090	Expected availability of power supply	0	31DEC04		0
BS-125100	Water Certification WW046 Part IV	0	06JAN05		0
BS-125030	Expected WSD Inspection	0	10JAN05		0
BS-125060	FS 501 Submission	0	10JAN05		0
BS-125070	Expected FSD Inspection	0	13JAN05		0
BS-125140	Expected DSD Inspection for Deodourizer System	0	19JAN05		0
BS-124010	Electrical WR1 Submission	0	24JAN05		0
BS-127020	CLP Energization	1	24JAN05	24JAN05	0
BS-126010	Survey of Civil As-built	7	18NOV04	24NOV04	0
BS-124100	LV Switchboard and Control Panels	30	02DEC04	08JAN05	0
BS-126020	Electrical Installation-Concealed Conduit	30	03DEC04	01JAN05	0
BS-126030	Electrical Installation	30	03DEC04	01JAN05	0
BS-126060	SCADA & PLC Works	35	03DEC04	06JAN05	0
BS-126080	P & D Installation	35	03DEC04	06JAN05	0
BS-124070	Valves and Pipeworks	40	04DEC04	22JAN05	0
BS-126050	Cabling works	30	05DEC04	03JAN05	0
BS-124090	Lifting Appliance	14	06DEC04	21DEC04	0
BS-124110	PCCW cable laying & wiring works	15	06DEC04	20DEC04	0
BS-126090	F.S. Services Installation	30	11DEC04	09JAN05	0
BS-124060	Penstock	33	13DEC04	22JAN05	0
BS-126040	Lightning & Earthing Installation	30	15DEC04	13JAN05	0
BS-124080	Deodourizer System	20	18DEC04	13JAN05	0
BS-124040	Sewage Pumpset and VSD	20	27DEC04	15JAN05	0
BS-124050	Mechanical Screen System	20	27DEC04	15JAN05	0
BS-126070	MVAC	30	30DEC04	28JAN05	0
BS-127090	Lifting Appliance testing	5	22DEC04	26DEC04	0



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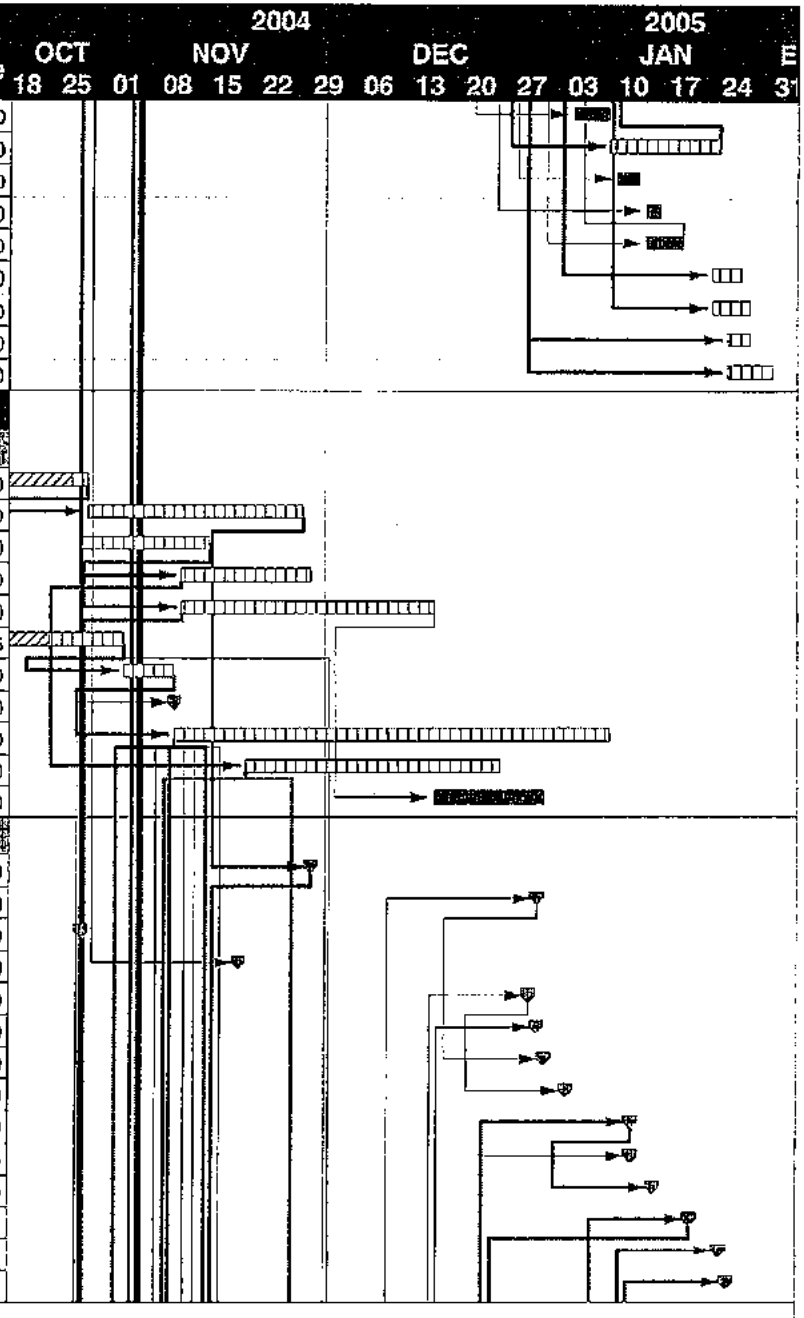
Act ID	Description	Orig Dur	Early Start	Early Finish	Percent Complete
BS-127060	Cabling Works Testing	5	04JAN05	08JAN05	0
BS-127110	LV Swithcboard and Panels Testing	15	09JAN05	23JAN05	0
BS-127040	FS functional testing	3	10JAN05	12JAN05	0
BS-127050	Lightning & Earthing functional testing	2	14JAN05	15JAN05	0
BS-127100	Deodourizer System functional Testing	5	14JAN05	18JAN05	0
BS-127070	Valves & Pipeworks Testing	4	23JAN05	26JAN05	0
BS-127080	Penstock testing	5	23JAN05	27JAN05	0
BS-127120	Sewage Pumpset & VSD testing	3	25JAN05	27JAN05	0
BS-127130	Mechanical Screen System functional testing	6	25JAN05	30JAN05	0
Section 13- Works of Sewage Pumping Station No.2					
Part 11 2 Pumping Station 2 Piling+Struct Work					
BS-130540	Construct Transformer Room Structure	13	06OCT04 A	28OCT04	90
BS-130620	Finishing, E&M Works @ Transformer room	30	29OCT04	27NOV04	0
BS-130660	Water Tightness Test of Group A	18	28OCT04	14NOV04	0
BS-130680	Water Tightness Test of Group B	18	11NOV04	28NOV04	0
BS-130700	Drainage & Backfill	35	11NOV04	15DEC04	0
BS-130640	Walls, Beams & Roof Construction	14	11OCT04 A	02NOV04	55
BS-130610	Curing and formworks removal	7	03NOV04	09NOV04	0
BS-130690	DSD Inspection for Building Works	0	10NOV04		0
BS-130800	Finishing & Furniture for Above-ground Structure	60	10NOV04	08JAN05	0
BS-130720	Finishing&BenchingWorks for Underground Chambers	35	20NOV04	24DEC04	0
BS-130710	Sheetpile Extraction	15	16DEC04	30DEC04	0
Part 11 4 Electrical & Mechanical Equipment					
BS-134110	CLP Inspection of Transformer Room	0	29NOV04		0
BS-134010	Electrical WR1 Submission	0	30DEC04		0
BS-135100	Expected availability of power supply	0	28OCT04		0
BS-135090	Expected availability of Fresh&Salt water supply	0	19NOV04		0
BS-135060	FS 501 Submission	0	29DEC04		0
BS-135150	Expected DSD Inspection for Deodourizer System	0	30DEC04		0
BS-135080	Expected CLP Inspection	0	31DEC04		0
BS-135070	Expected FSD Inspection	0	03JAN05		0
BS-135120	WW046 Part IV Submission	0	12JAN05		0
BS-135160	Expected DSD Inspection for Other Works	0	12JAN05		0
BS-135030	Expected WSD Inspection	0	15JAN05		0
BS-136020	CLP Energization	0	20JAN05		0
BS-135040	Expected DSD Inspection for Sewage Pumpset & VSD	0	24JAN05		0
BS-135140	Expected DSD Inspection for Valves & Pipeworks	0	25JAN05		0



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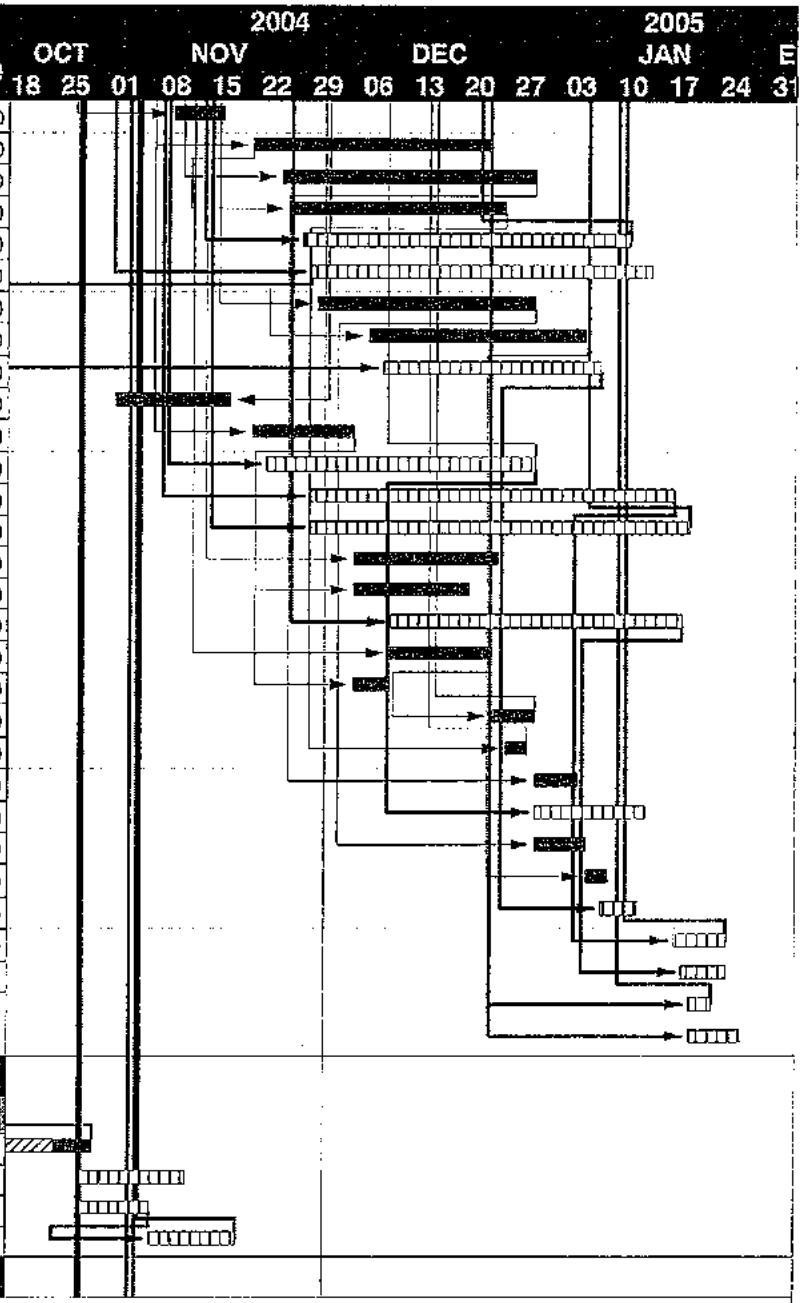
BS-136030	Survey of Civil As-built	7	10NOV04	16NOV04	0
BS-136040	Electrical Installation-Concealed Conduit	33	21NOV04	23DEC04	0
BS-136080	SCADA and PLC Works	35	25NOV04	29DEC04	0
BS-136110	F.S. Services Installation	30	26NOV04	25DEC04	0
BS-136100	P & D Installation	45	28NOV04	11JAN05	0
BS-136050	Electrical Installation	47	29NOV04	14JAN05	0
BS-136090	MVAC	30	30NOV04	29DEC04	0
BS-136060	Lightning & Earthing Installation	30	07DEC04	05JAN05	0
BS-136070	Cabling Works	30	09DEC04	07JAN05	0
BS-134120	PCCW cable laying & wiring works	16	02NOV04	17NOV04	0
BS-134090	Lifting Appliance	14	21NOV04	04DEC04	0
BS-134100	LV Switchboard and Control Panels	30	23NOV04	29DEC04	0
BS-134070	Valves & Pipeworks	40	29NOV04	17JAN05	0
BS-136010	CLP Installation	42	29NOV04	19JAN05	0
BS-134040	Sewage Pumpset & VSD	20	05DEC04	24DEC04	0
BS-134050	Mechanical Screen System	16	05DEC04	20DEC04	0
BS-134060	Penstock	40	10DEC04	18JAN05	0
BS-134080	Deodourizer System	12	10DEC04	23DEC04	0
BS-137080	Lifting Appliance functional testing	5	05DEC04	09DEC04	0
BS-137090	Deodorizer System functional testing	6	24DEC04	29DEC04	0
BS-137030	F.S. Services functional testing	3	26DEC04	28DEC04	0
BS-137020	SCADA & PLC Works functional Testing	6	30DEC04	04JAN05	0
BS-137100	LV Switchboard & Control pa. functional testing	15	30DEC04	13JAN05	0
BS-137130	Fan Functional Test	7	30DEC04	05JAN05	0
BS-137040	Lightning & Earthing functional testing	3	06JAN05	08JAN05	0
BS-137050	Cabling Works Testing	5	08JAN05	12JAN05	0
BS-137060	Valves & Pipeworks testing	7	18JAN05	24JAN05	0
BS-137070	Penstock functional testing	6	19JAN05	24JAN05	0
BS-137110	Sewage pumpset and VSD functional testing	3	20JAN05	22JAN05	0
BS-137120	Mech. Screen System functional testing	7	20JAN05	26JAN05	0
Section 15- Waterworks in Area 15					
Part 6.10 Waterworks - Section 15					
B6-1595D7	Waterworks, L4/Ch.317-437	20	07SEP04 A	29OCT04	90
B6-1595D23	Watermain Connection by WSD, D1/Ch.1380-1490	15	28OCT04	11NOV04	0
B6-1595D56	Waterworks,D1/Ch.1860-2180 Testing	10	28OCT04	06NOV04	0
B6-1595D66	Watermain Connection by WSD, D1/Ch.2180	12	07NOV04	18NOV04	0
Section 16- Remainder of Works, except LS+EW					



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Part 3.11 Earthworks - Section 16					
B3-1622N7	Deposit/ Compact, L4/Ch.397-437	10	25SEP04 A	03NOV04	33
B3-1622N9	Deposit/ Compact, N.end, Promenade	25	19NOV04	13DEC04	0
Part 4.11 Drainage & Sewerage - Section 16					
B4-1683B56	U-Channel, D1/1860~2180	45	25SEP04 A	28NOV04	60
B4-1685B18	Sewerage, L4,F402 to PS2	19	28OCT04	15NOV04	0
B4-1691B13	Sewerage Rising Mains, D1,F046-Ch1500remaining	7	21OCT04 A	02NOV04	20
B4-1689D6	Trapezoidal Channel, D1, L4 to Culvert C10	50	08SEP04 A	21NOV04	50
B4-1689C8	Trapezoidal Channel, at H Site 3	40	28OCT04	06DEC04	0
B4-1689D2	Trapezoidal Channel, D1at S0049 to Area 9B bound	30	28OCT04	26NOV04	0
B4-1689D3	Trapezoidal Channel, D1/ L4 N	14	11NOV04	24NOV04	0
B4-1689D4	Trapezoidal Channel, D1/ L4 S	14	12NOV04	25NOV04	0
B4-1689D5	Trapezoidal Channel, L4	20	18NOV04	07DEC04	0
Section 16 - Utilities					
UT-1600T9A	PCCW, N. end, Promenade	15	31OCT04	14NOV04	0
UT-1600T9B	HGC, N. end, Promenade	12	12NOV04	23NOV04	0
Part 5.10 Roadworks - Section 16					
B5-1670A1	Roadworks, D1/Ch.920-1020	35	01OCT04 A	05NOV04	75
B5-1672A21	Footpath, D1, D1/Ch.920-1020	12	06NOV04	17NOV04	0
B5-1672A2	Cycle Track & Footway, D1/Ch.1020-1360	41	28OCT04	07DEC04	0
B5-1672A4	Footway, D1/Ch.1500-1860	90	15JUL04 A	01NOV04	95
B5-1672A6	Footpath, D1/Ch.1860-2180	45	25SEP04 A	28NOV04	30
B5-1674G0	Road Furnitures&Misc.,D1/Ch920-2180&L4/Ch315-437	60	08OCT04 A	08DEC04	30
B5-1670A7	Roadworks, L4/Ch.314-437	20	28OCT04	16NOV04	0
B5-1672A3	Footpath, D1/Ch.1360-1500	25	30OCT04	23NOV04	0
B5-1672A7	Cycle Track & Footway, L4/Ch.314-437	35	30OCT04	03DEC04	0
B5-1670A46	Diversion Works for Cycle Track at N. Entrance	14	17SEP04 A	30OCT04	80
B5-1670A56	Cycle Track and Footpath, North End	14	24NOV04	07DEC04	0
Section 17- Areas 1,2,6,7A+7B Landscape Softwork					
Part 12.1 Landscape Works - Section 17					
BL-1705A11	Area1-Drain,Duct+Pipewrk&Prepar.Works remaining	26	20SEP04 A	30OCT04	90
BL-1705A12	Area2+6-Drain+Pipewrk&Prep.Works remaining	26	08OCT04 A	03NOV04	75
BL-1705A14	Area7B-Drain,Duct+Pipewrk&Prep.Works remaining	26	11OCT04 A	17NOV04	20
BL-1705A3	Area 7A- Drain,Duct+Pipework & Preparation Works	35	15OCT04 A	26NOV04	15
BL-1707A1	Area 1- Planting Works	45	31OCT04	14DEC04	0
BL-1707A2	Areas 2+6- Planting Works	45	12NOV04	26DEC04	0

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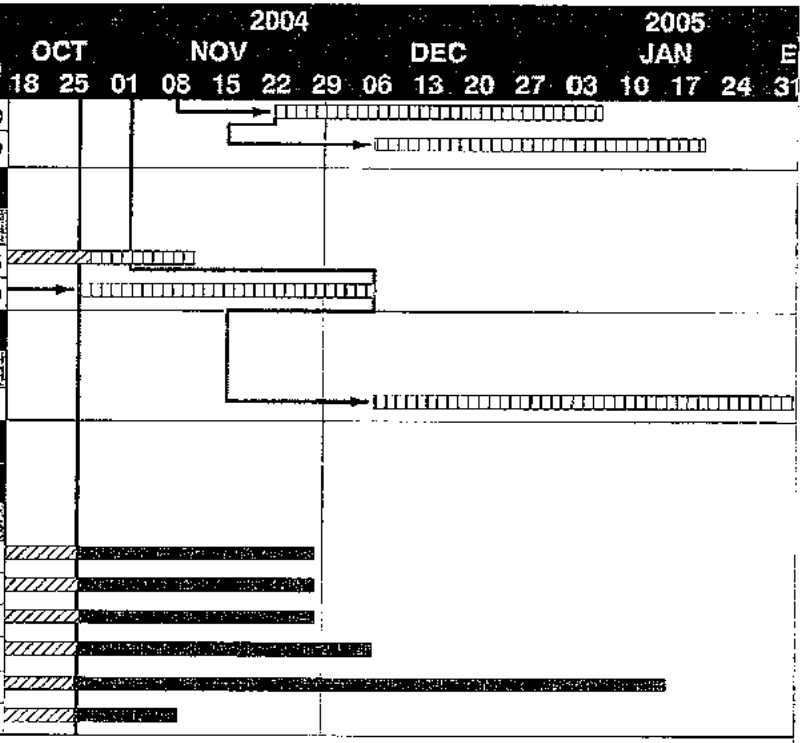
BL-1707A4	Area 7B- Planting Works	45	24NOV04	07JAN05	0
BL-1707A3	Area 7A- Planting Works	45	08DEC04	21JAN05	0
Section 18- Remainder of Landscaping Works					
Part 12.2 Landscape Works - Section 18					
BL-1814A1	Drain,Duct+Pipework & PreparationWork, Remainder	35	12OCT04 A	12NOV04	55
BL-1814A2	Planting Works, Remainder	41	28OCT04	07DEC04	0
Section 20- Remainder of Establishment Works					
Part 12.4 Landscape Works - Section 20					
BL-300001	Establishment Works - Remainder	365	08DEC04	07DEC05	0
Part 14 Site Safety					
BT-1401D0	Provide Safety Officer, 2nr.	810	27AUG02 A	29NOV04	96
BT-1401C0	Update Safety Plan	810	31AUG02 A	29NOV04	96
BT-1401G0	Arrange & Attend Weekly Safety Walk	805	03SEP02 A	29NOV04	96
BT-1401H0	Provide Safety Training	810	10SEP02 A	07DEC04	95
BT-1401E0	Attend Site Safety Committee & Mgmt.Committee	810	26OCT02 A	18JAN05	90
BT-1401K0	Participate in safety promotional campaign	694	28NOV02 A	10NOV04	98



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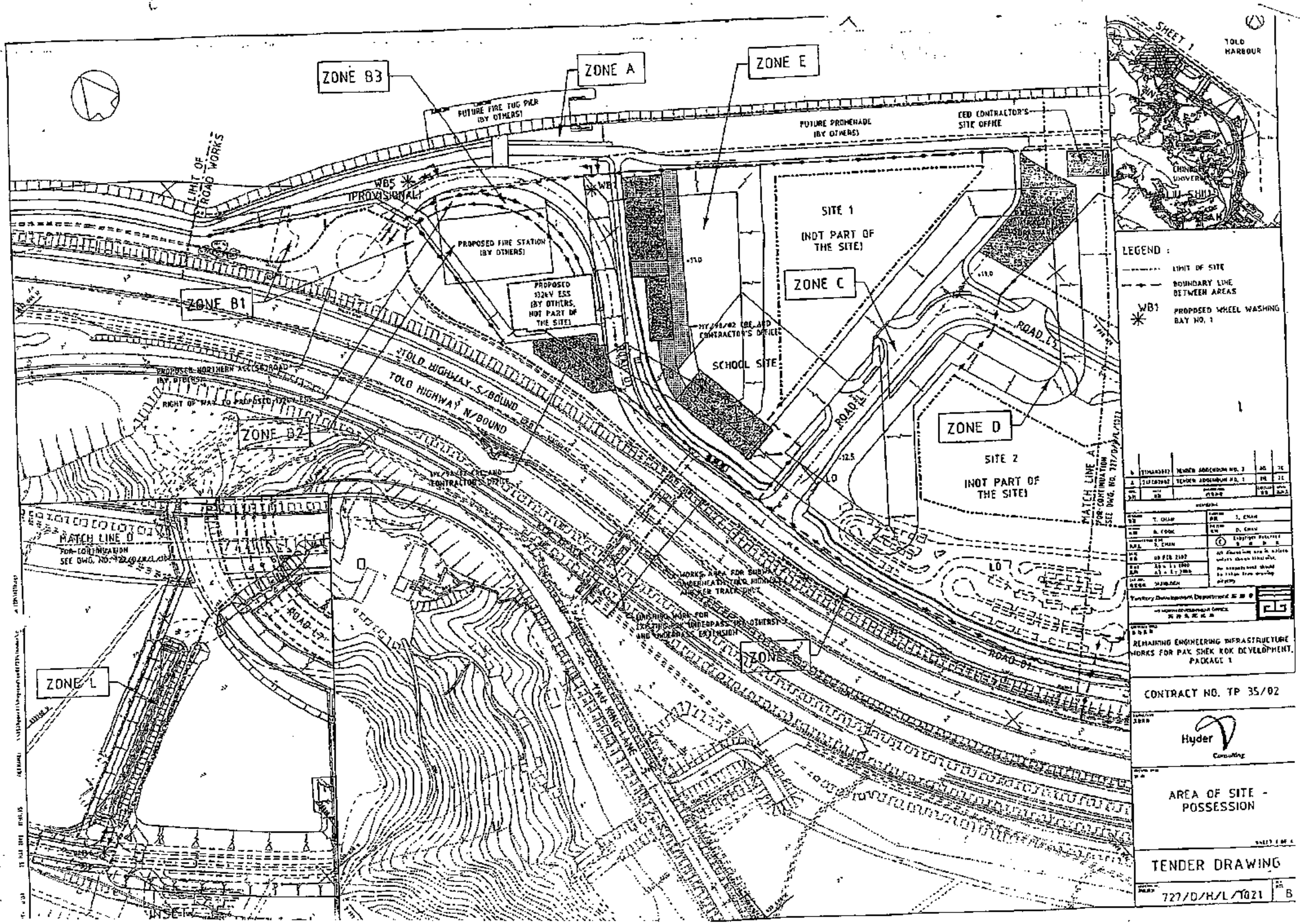
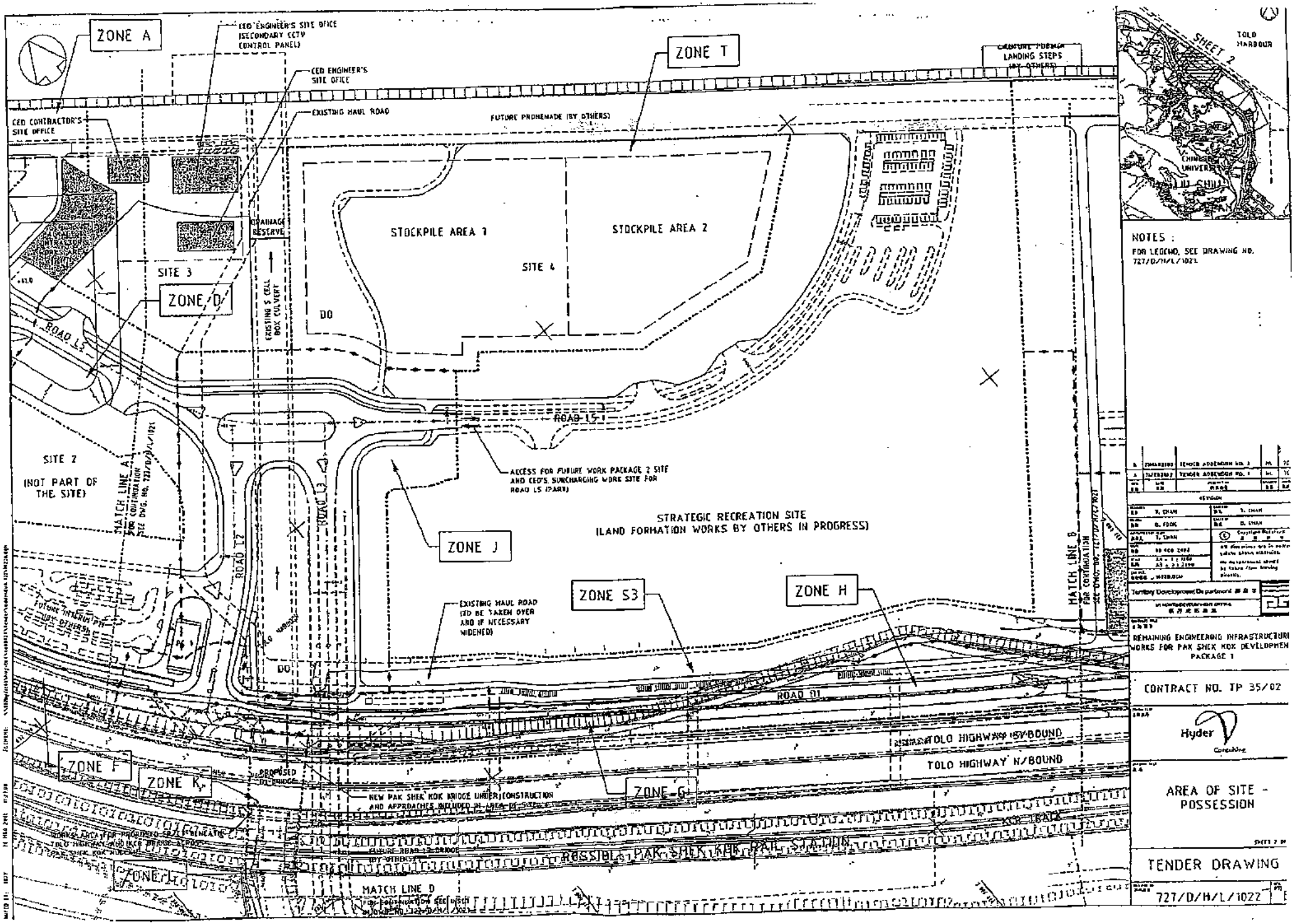
Appendix G

Construction Site Area


ZONE B3
ZONE A
ZONE E
ZONE C
ZONE D
ZONE B1
ZONE B2
ZONE L
FUTURE FIRE TUG PIER (BY OTHERS)
FUTURE PROMENADE (BY OTHERS)
CED CONTRACTOR'S SITE OFFICE
LIMIT OF ROAD WORKS
WB5 (PROVISIONAL)
PROPOSED FIRE STATION (BY OTHERS)
PROPOSED 132kV ESS (BY OTHERS, NOT PART OF THE SITE)
SITE 1 (NOT PART OF THE SITE)
SITE 2 (NOT PART OF THE SITE)
SCHOOL SITE
ROAD L1
ROAD L5
ROAD D1
ROAD L7
TOLO HIGHWAY S/BOUND
TOLO HIGHWAY N/BOUND
YAU KING LANE
MATCH LINE A FOR CONTINUATION SEE DWG. NO. 727/D/H/L/1022
MATCH LINE D FOR CONTINUATION
TOLO HARBOUR
SHEET 1
LEGEND :
LIMIT OF SITE
BOUNDARY LINE BETWEEN AREAS
WB1 PROPOSED WHEEL WASHING BAY NO. 1
TENDER ADDENDUM NO. 2
TENDER ADDENDUM NO. 1
Territory Development Department
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/1021
B



NOTES :

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

REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT PACKAGE 1

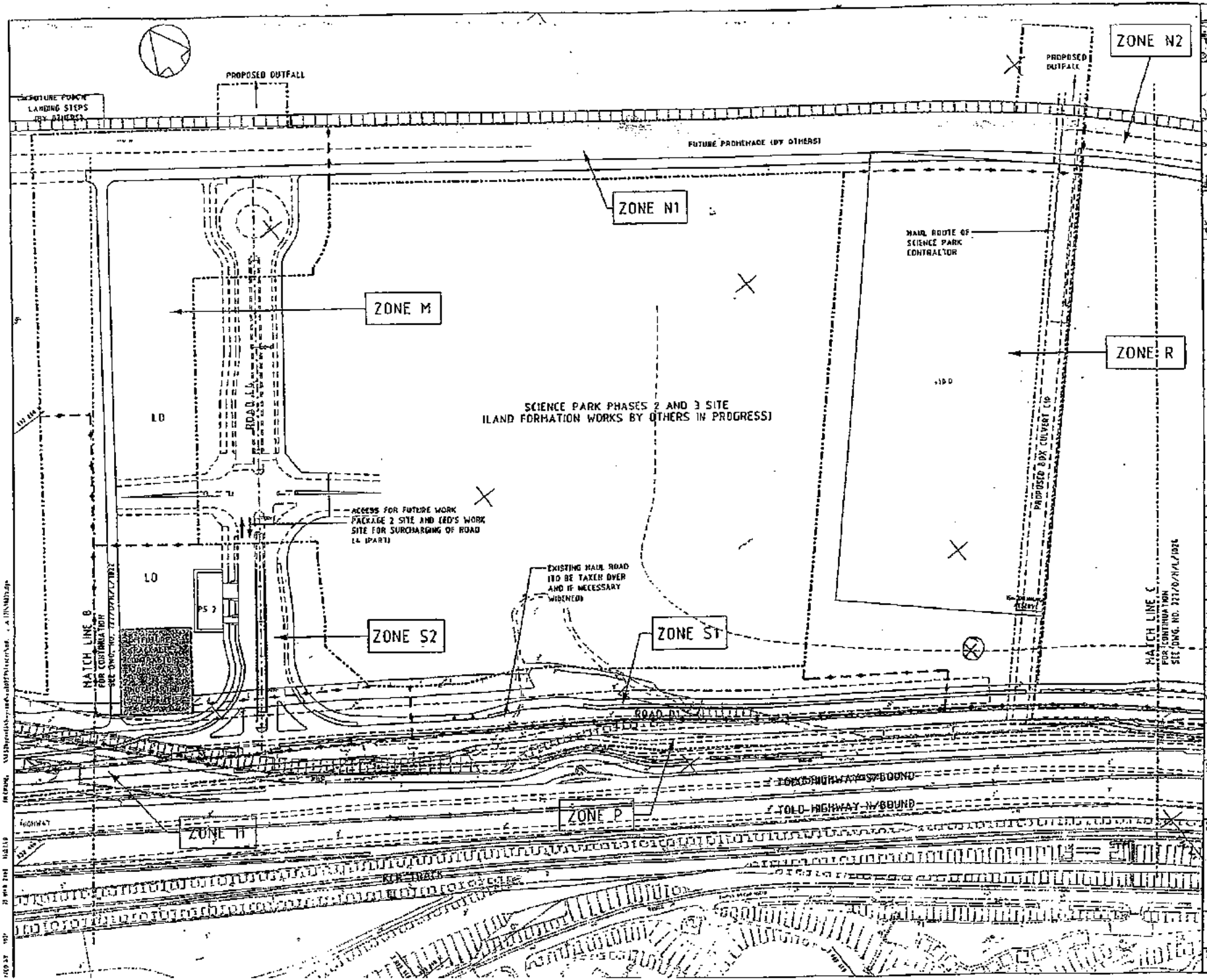
CONTRACT NO. TP 35/02

Hyder Consulting

AREA OF SITE - POSSESSION

TENDER DRAWING

727/D/H/L/1022



NOTES :

FOR LEGEND, SEE DRAWING NO. 727/D/H/L/1021.

B	27/11/03	TENDER ADDENDUM NO. 2		
A	24/10/03	TENDER ADDENDUM NO. 1		

REMAINING ENGINEERING INFRASTRUCTURE WORKS FOR PAK SHEK KOK DEVELOPMENT PACKAGE 1

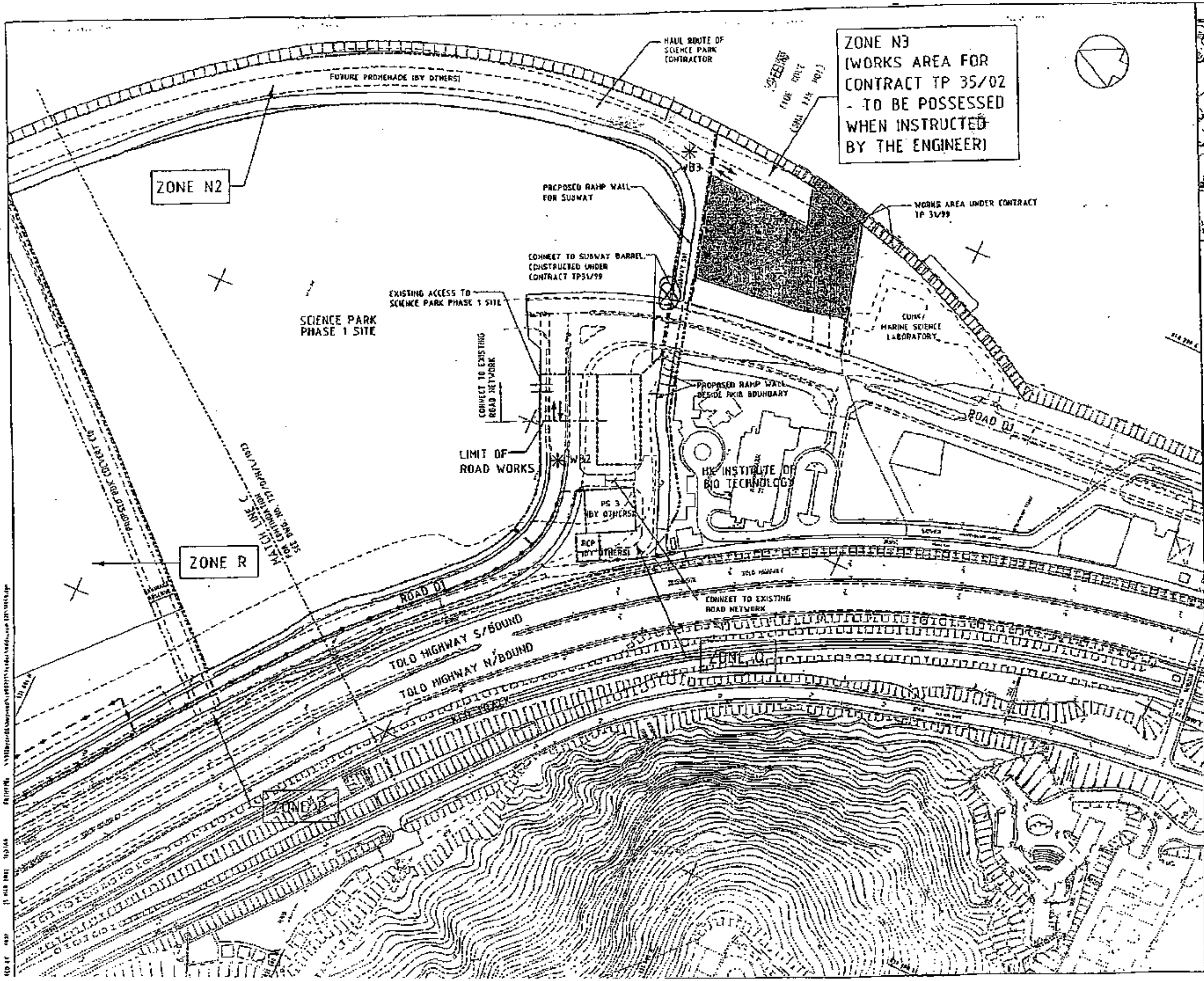
CONTRACT NO. TP 35/02

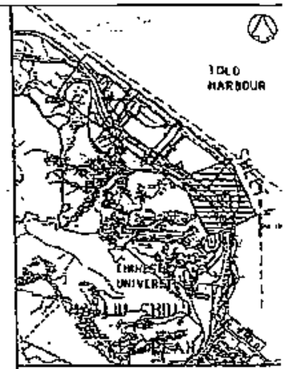
Hyder Consulting

AREA OF SITE - POSSESSION

TENDER DRAWING

727/D/H/L/1023 B





NOTES :

FOR LEGEND, SEE DRAWING NO. 727/D/H/L/1021.

Territory Development Department

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/1024

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 form 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 on 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 facilities 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 (bunded) such that spills are not slowed 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
–
November 2004

IEC and RE Comments on Monthly Environmental Monitoring and Audit Report – November 2004

Item No.	Document Reference	Comment	ET Response
---	---	No RE / IEC Comments on Monthly Environmental Monitoring and Audit Report – July 2004 were received.	No ET responses were required

Appendix J

Wastewater Monitoring
–
Test Report of Wastewater Samples from Discharge Points

ALS Environmental

PENTA-OCEAN CONST. CO LTD

Attention: MR JOHN TAM
YourOrder:
SampleType: WASTE WATER
Project: PSK

Page-no: 1
HONG KONG
Batch-no: 31077
Sub-batch: 0
No-samples: 1
Received: 14/10/04
Checked:

Method	Analysis description	Units	LOR	PSK-PS1
				14/10/04
EA-002	pH Value @ 25°C		0.1	8.2
EA-025	Suspended Solids (SS)	mg/L	2	16
EP-026	Chemical Oxygen Demand	mg/L	2	16

Samples were picked up from client by ALS Technichem (HK) staff in a chilled condition. Sample analysed and reported on an as received basis. The completion date of analysis is 21 October, 2004.

ALS TECHNICHEM HK P/L

HONG KONG
Phone: (852) 2610 1044
Fax: (852) 2610 2021

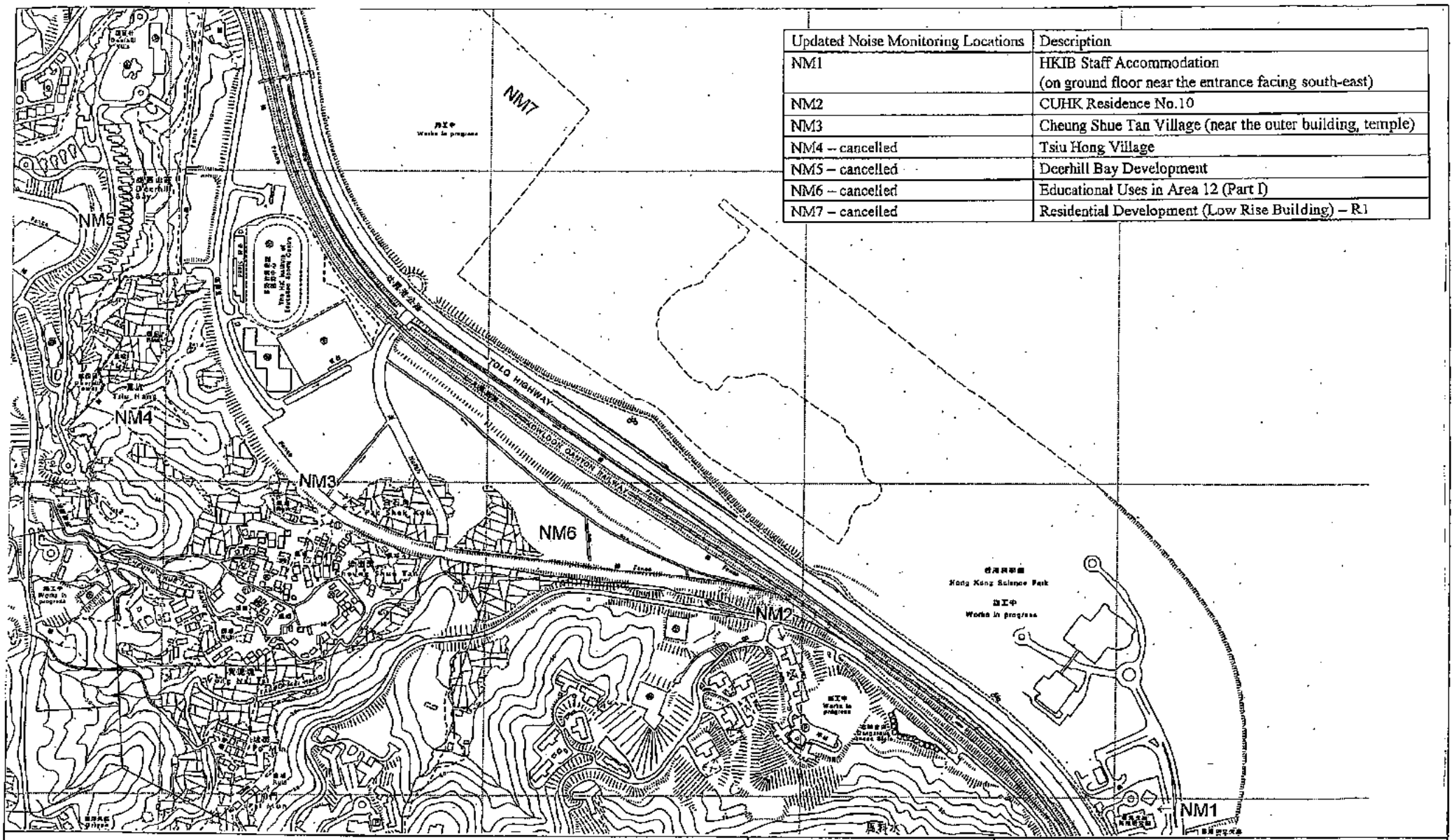
BRISBANE
Phone: (61) 7-3243 7222
Fax: (61) 7-3243 7218

SYDNEY
Phone: (61) 2-8784 8555
Fax: (61) 2-8784 8500

MELBOURNE
Phone: (61) 3-9538 4444
Fax: (61) 3-9538 4400

NEWCASTLE
Phone: (61) 2-4968 9433
Fax: (61) 2-4968 9349

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	Tsiu Hong Village
NM5 – cancelled	Deerhill Bay Development
NM6 – cancelled	Educational Uses in Area 12 (Part I)
NM7 – cancelled	Residential Development (Low Rise Building) – R1

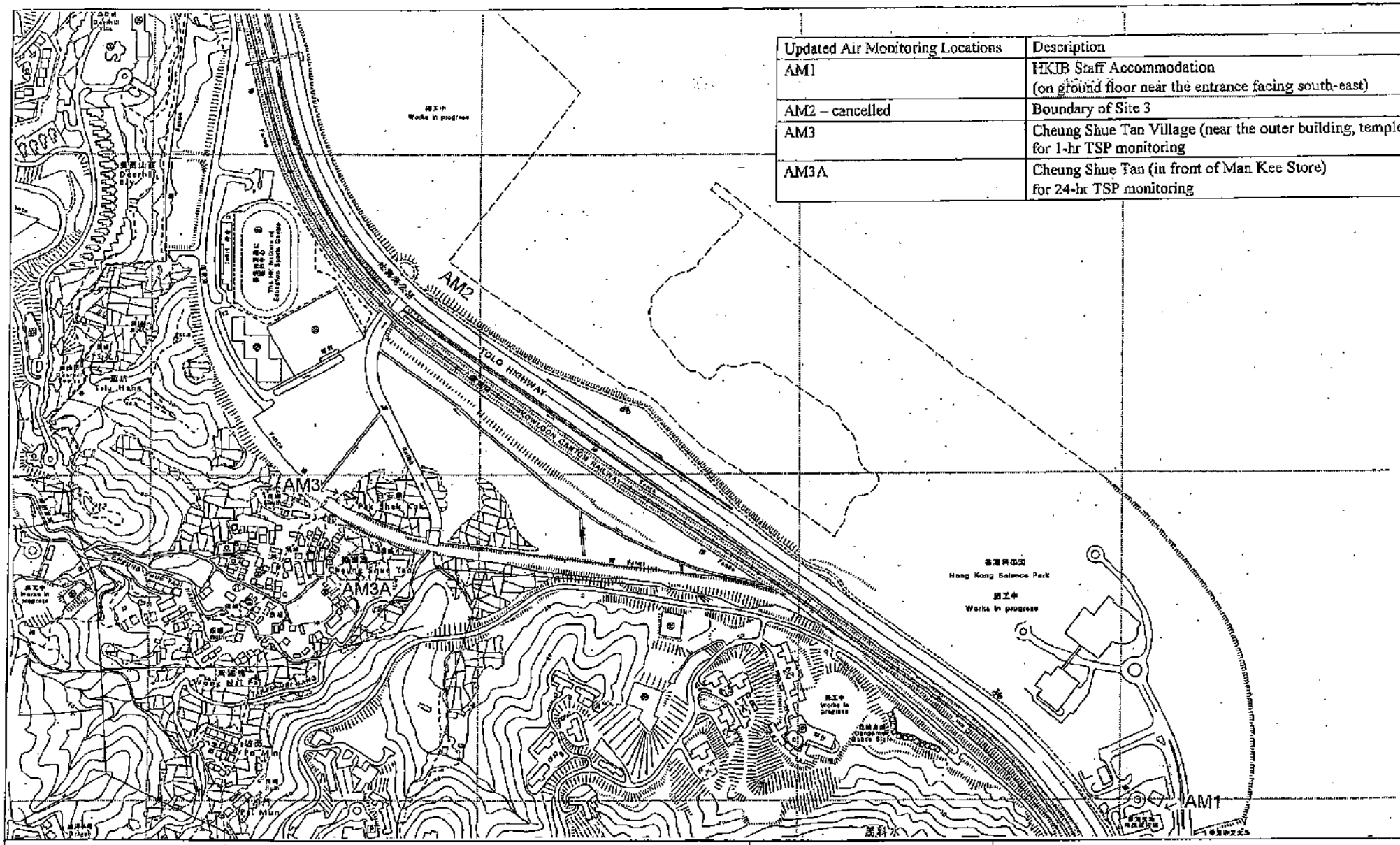
Remaining Engineering Works for Pak Shek Kok Development, Package 1
Contract No. TP35/02

Figure 1 Location of Noise Monitoring Stations

Scale : ---

Revised Date:
15/11/2002

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED



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

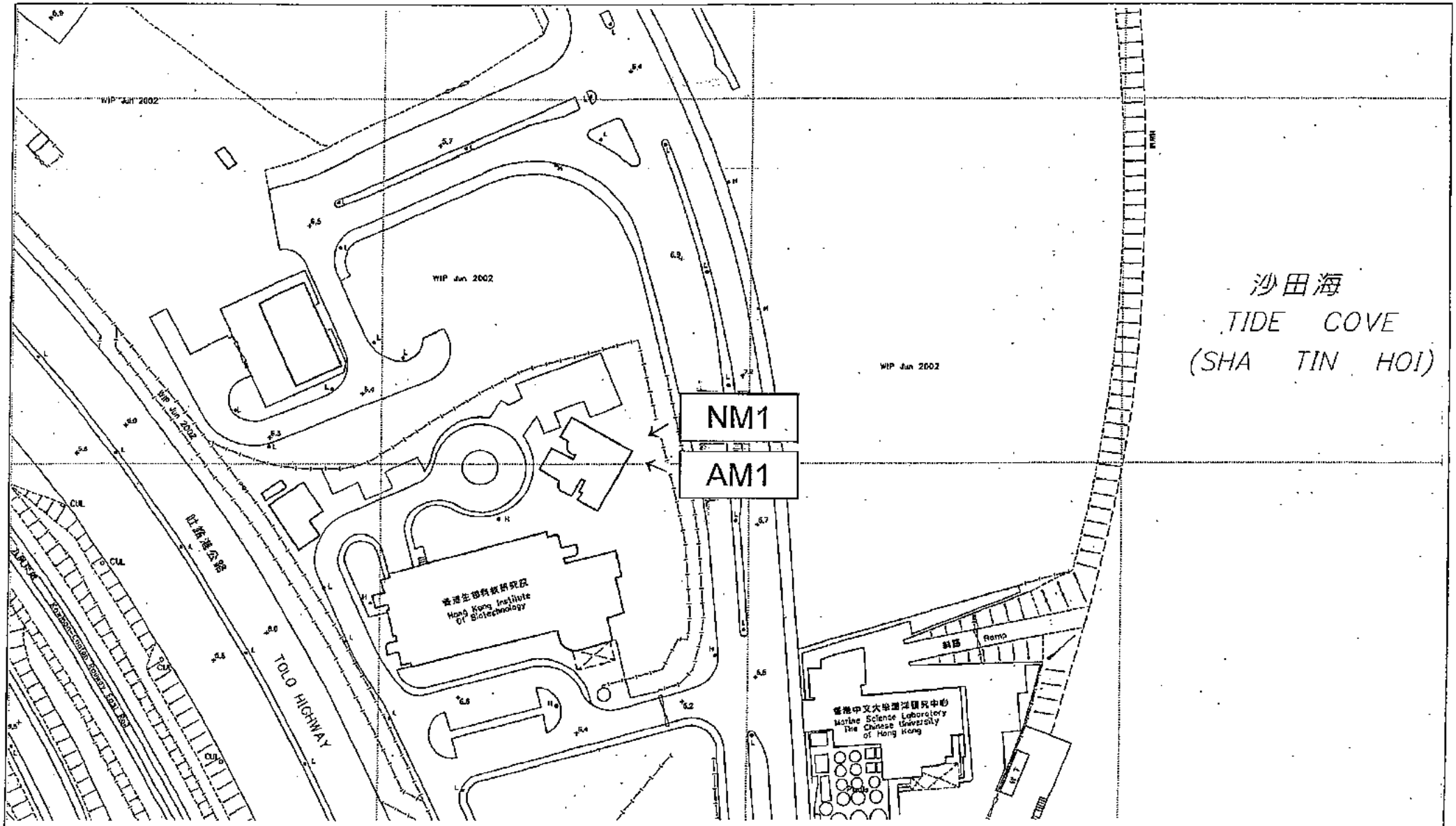
Remaining Engineering Works for Pak Shek Kok Development, Package 1
Contract No. TP35/02

Figure 2 Location of Air Monitoring Stations

Scale : ---

Revised Date:
15/11/2002

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED



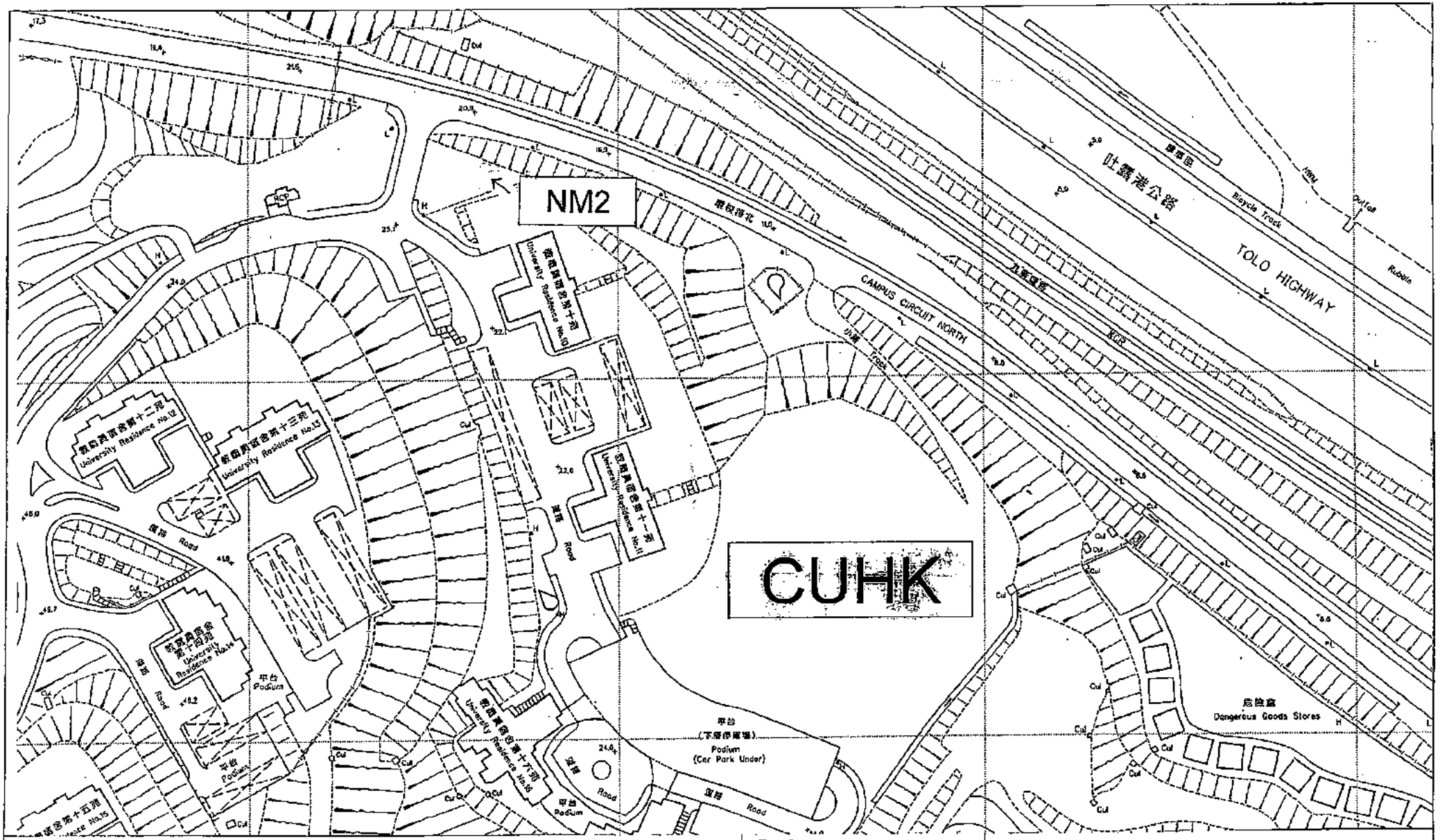
Remaining Engineering Works for Pak Shek Kok Development, Package 1
Contract No. TP35/02

Figure 3 Location of Air and Noise Monitoring Stations at HKIB Staff Accommodation

Scale : ---

Revised Date: 15/11/2002

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED



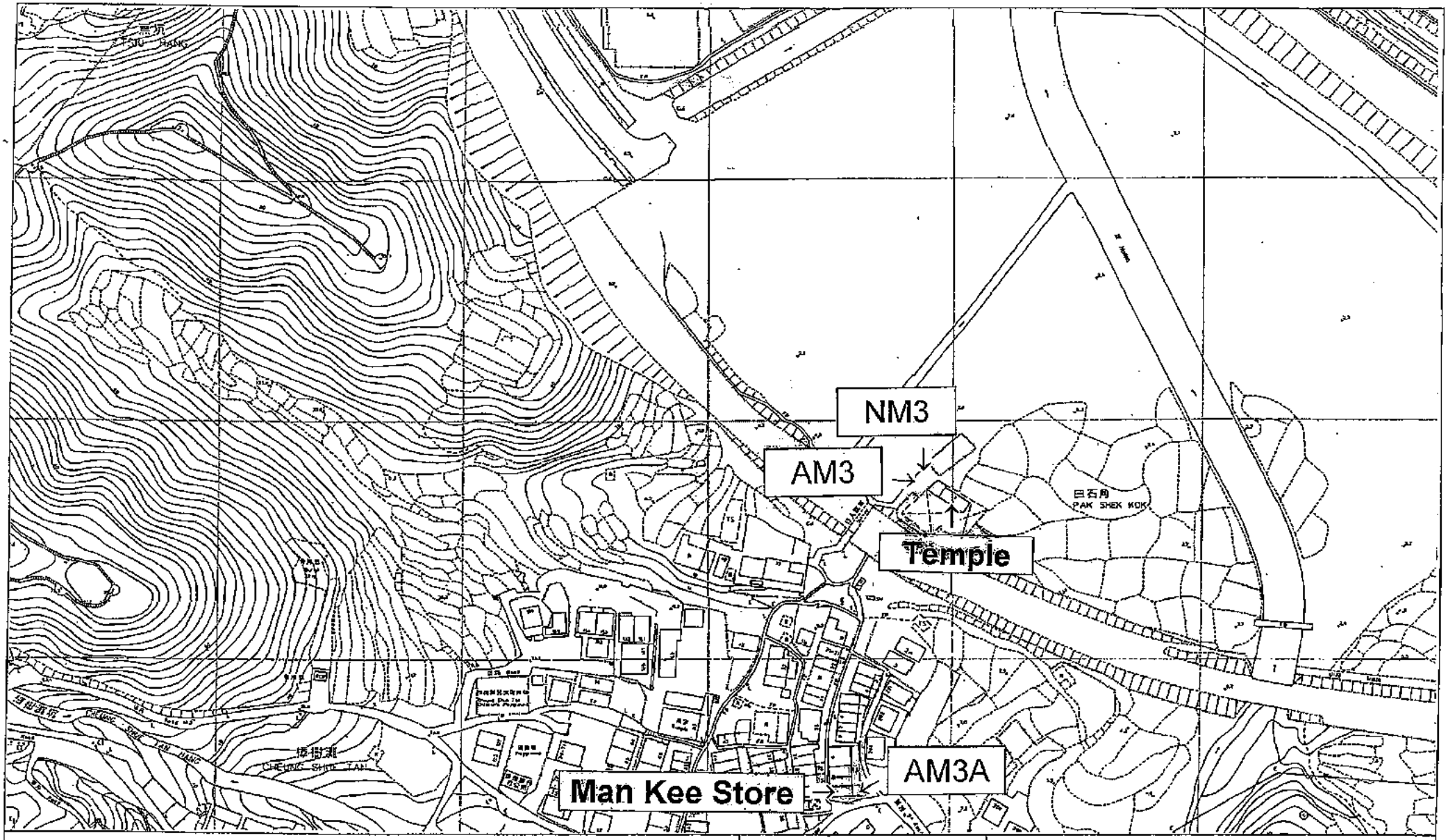
Remaining Engineering Works for Pak Shek Kok Development, Package 1
Contract No. TP35/02

Figure 4 Location of Noise Monitoring Station at CUHK Residence No.10

Scale : ---

Revised Date:
15/11/2002

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED



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

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

Scale : ---

Revised Date:
15/11/2002

東業德勤測試顧問有限公司
ETS-TESTCONSULT LIMITED