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**TEST REPORT**

**LEADER - WAI KEE (C&T) JOINT VENTURE**

**REMAINING ENGINEERING  
INFRASTRUCTURE WORKS FOR  
PAK SHEK KOK DEVELOPMENT  
PACKAGE 2A  
(CONTRACT NO.: TP 37/03)**

**MONTHLY EM&A REPORT  
(JUNE 2005)**

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## EXECUTIVE SUMMARY

This monthly EM&A report (No.2) 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 2A (Contract No: TP 37/03) during the reporting period from 01 to 30 June 2005.

### Construction Progress

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

- Drainage works (excavation, pipe laying and breaking) at Section 5, 6, 7 & 8
- Taking up of rubbles and under-layers at Landscape Node P1, P2 and Public Landing Steps
- Taking up existing utilities at cycle track adjoining to landscape Nod P2
- Construction of Kerb Planter Wall and Feature Wall at PSK Waterfront Promenade
- Abandon the existing 3200 dia. Drain pipe across the proposed promenade and existing cycle track at Zone R
- Dismantle of existing HY/98/02 site office

### Environmental Monitoring Progress

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

- Noise Monitoring (Day-time): 5 Occasion at 4 designated locations
- 24-hour TSP Monitoring: 5 Occasions at 3 designated locations
- 1-hour TSP Monitoring: 13 Occasions at 3 designated locations
- Weekly-site inspection: 4 Occasions

### Noise Monitoring

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

### Air Monitoring

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

### Wastewater Monitoring

During this reporting month, no wastewater monitoring was carried out since the Discharge Licence required carrying out wastewater monitoring at effluent discharge point quarterly and the monitoring had been carried out at 25 May 2005 by ET. The next wastewater monitoring should be at August 2005.

### Site Inspection

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

<u>Concerned Parties</u>	<u>Dates of Audit / Inspection</u>
Weekly site inspection (ET)	04, 09, 18, 25
Monthly site inspection (IEC/LWKJV/RE)	29

The observations were raised during this reporting month. The site inspection findings are presented as follows:

<u>Item</u>	<u>Aspects</u>	<u>Findings</u>	<u>Action(s) taken by LWKJV</u>	<u>ET Verification</u>
1	Water	Refer to the previous site inspection of the last month, standing water observed at Road L4 was drained out during weekly site inspection (04/06/05).	Since the finding was improved, no further actions were required.	Since the finding was improved, no further verifications were required.
2	Waste	The rubbish skip was found full at Road L4 during weekly site inspection (09/06/05).	The Contractor replied to clean the rubbish skip frequently and if necessary.	During the subsequent site inspection (18/06/05), it was found that the rubbish had been clean up. Hence, the finding was completed and no further actions were required.
3	Air	Stockpile of excavated material at Road L4 was found without cover during weekly site inspections (09/06/05 and 18/06/05).	The Contractor replied to cover the stockpile area.	During the subsequent site inspection (23/06/05), it was found that the stockpile at Road L4 was found removed. Hence, no further actions were required and the finding was completed.
4	Chemical	Chemical container at Landscape Node 1 was on the ground without drip tray during weekly site inspection (09/06/05).	The Contractor replied to remove the chemical container to chemical storage area immediately	During the subsequent site inspection (18/06/05), it was found that the chemical container had been removed. Hence, the finding was completed and no further actions were required.



Item	Aspects	Findings	Action(s) taken by LWKJV	ET Verification
5	Water	The silt curtain was found not fully enclosed in the working area at Landscape Node 1 during weekly site inspection (18/06/05).	The Contractor replied to enclose the working area by using silt curtain during marine works.	During the subsequent site inspection (23/06/05), it was found that the working area at Landscape Node 1 was enclosed by silt curtain. Hence, the finding was completed and no further actions were required.
6	Water	Site runoff was found directly discharged into the sea at SA14 during weekly site inspections (18/06/05 and 23/06/05).	The Contractor replied to treat the site runoff (e.g. passing through sedimentation tank) before discharge.	Since the finding was still observed at the last weekly site inspection of this reporting month, the finding will be verified at the first inspection at the coming month.

### **Waste Management**

According to weekly site inspection, ET found that the Contractor followed the recommended procedures stipulated in the Waste Management Plan (WMP) on handling and disposal of wastes. 5100 m<sup>3</sup> inert C&D materials and 2000 kg C&D Wastes (e.g. general refuse) were generated. All inert C&D materials were reused in the Contract and other wastes were handled under the instruction and procedure stated in the WMP in 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**

Based 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 or sedimentation tanks;
- Use and maintenance of silt curtain properly during marine works;
- Maintain good site practice and waste management to minimize environmental impacts at the site;
- Follow-up improvements on waste management issues.

## 1.0 INTRODUCTION

Leader – Wai Kee (C&T) Joint Venture (LWKJV) appointed Environmental Team (ET) of ETS-Testconsult Limited (ETL) to undertake the Environmental Monitoring and Audit (EM&A) for Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 2A (Contract No.: TP 37/03).

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

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

This monthly EM&A report summarizes the impact monitoring results and audit findings of the EM&A program during the reporting period from 01 to 30 June 2005.

## 2.0 PROJECT INFORMATION

### 2.1 Background

Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 2A (Contract No.: TP 37/03) was planned and designed by the Civil Engineering and Development Department (CEDD).

As the main Contractor of the captioned project: contracted by, LWKJV 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 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	Mr. M. S. Lam	Employer	2158 5630	2693 2918
Hyder	Mr. Herman Fong	Engineer	2603 6638	2603 7883
LWJV	Mr. T. T. Wong	Project Manager	2442 1123	2442 9733
Hyder	Ir. Coleman Ng	Independent Environmental Checker	2911 2233	2805 5028
ETL	Mr. C.L. Lau	Environmental Team Leader	2946 7791	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

Major Construction Activity	Location
Drainage Works (Excavation, pipe laying and breaking)	Section 5, 6, 7, 8
Taking up of rubbles and underlays	Landscape Node P1, P2 and Public Landing Steps
Taking up existing utilities	Cycle track adjoining to Landscape Node P2
Planter Wall Construction	Pak Shek Kok Waterfront Promenade
Abandon the existing 3200 dia. Drain pipe across the proposed promenade and existing cycle track	Zone ZR
Dismantle of existing HY/98/02 site office	HY/98/02 site office

Table 3.2 Implementation of Environmental Mitigation Measures

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

#### 4.1 Monitoring Requirement

1-hour and 24-hour TSP monitoring were required to conduct 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;
- Near Wen Chih Tang at the CUHK.

#### 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 certificates for the HVS and portable dust meter are attached in Appendix B1.

Table 4.1 Air Quality Monitoring Equipment

Equipment	Model and Make
HVS	Greasby GMWS2310
Calibrator	Tisch TE-5025A
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

Table 4.3 tabulates the air quality monitoring locations of this project.

Table 4.3 Air quality monitoring locations

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
AM5	Near Wen Chih Tang at the CUHK

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					02/06/05	17:08	18:08
						04/06/05	09:00	10:00
						07/06/05	14:45	15:45
						08/06/05	09:00	10:00
						09/06/05	15:08	16:08
						14/06/05	09:00	10:00
						16/06/05	09:45	10:45
						18/06/05	14:20	15:20
						21/06/05	08:45	09:45
						23/06/05	08:45	09:45
						25/06/05	08:15	09:15
						28/06/05	09:00	10:00
						30/06/05	10:15	11:15

Air quality monitoring stations	Location	Monitoring Period						
		24-hr TSP				1-hr TSP		
		Start		Finish		Date	Start	Finish
		Date	Time	Date	Time			
AM3	Cheung Shue Tan Village (Near the outer building, temple)					02/06/05	10:56	11:56
						04/06/05	10:15	11:15
						07/06/05	09:00	10:00
						08/06/05	15:00	16:00
						09/06/05	09:00	10:00
						14/06/05	13:00	14:00
						16/06/05	16:30	17:30
						18/06/05	13:00	14:00
						21/06/05	14:30	15:30
						23/06/05	14:00	15:00
						25/06/05	13:00	14:00
						28/06/05	14:45	15:45
						30/06/05	15:10	16:10
AM5	Near Wen Chih Tang at the CUHK					02/06/05	13:00	14:00
						04/06/05	15:30	16:30
						07/06/05	10:20	11:20
						08/06/05	10:15	11:15
						09/06/05	10:20	11:20
						14/06/05	10:20	11:20
						16/06/05	11:00	12:00
						18/06/05	18:00	19:00
						21/06/05	15:50	16:50
						23/06/05	15:12	16:12
						25/06/05	11:00	12:00
						28/06/05	13:15	14:15
						30/06/05	16:23	17:23
AM1	HKIB Staff Accommodation	04/06/05	18:20	05/06/05	18:16			
		10/06/05	10:45	11/06/05	10:40			
		16/06/05	09:55	17/06/05	09:59			
		22/06/05	15:12	23/06/05	15:23			
		28/06/05	09:05	29/06/05	08:55			
AM3A	Cheung Shue Tan (in front of Man Kee Store)	04/06/05	18:40	05/06/05	18:53			
		10/06/05	10:30	11/06/05	10:31			
		16/06/05	16:40	17/06/05	16:26			
		22/06/05	15:36	23/06/05	15:16			
		28/06/05	14:50	29/06/05	15:18			
AM5	Near Wen Chih Tang at the CUHK	04/06/05	18:30	05/06/05	18:45			
		10/06/05	10:55	11/06/05	11:03			
		16/06/05	11:07	17/06/05	11:07			
		22/06/05	15:23	23/06/05	15:38			
		28/06/05	13:20	29/06/05	13:32			

## 4.5 Monitoring Methodology

### 4.5.1 24-hour TSP Monitoring

#### Instrumentation

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

#### Installation

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

#### Operation/Analytical Procedures

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

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

sampler was properly set (between 0.6m<sup>3</sup>/min and 1.7m<sup>3</sup>/min.) in accordance with the manufacturer's instruction to within the range recommended in USEPA Standard Title 40, CFR Part 50.

- For TSP sampling, fiberglass filters (GA-55) were used.
- The power supply was checked to ensure the sampler worked properly.
- On sampling, the sampler was operated 5 minutes to establish thermal equilibrium before placing any filter media at designated air monitoring station.
- The filter holding frame was then removed by loosening the four nuts and carefully a weighted and conditioned filter was centered with the stamped number upwards, on a supporting screen.
- The filter was aligned on the screen so that the gasket formed an air-tight seal on the outer edges of the filter. Then the filter holder frame was tightened to the filter holder with swing bolts. The applied pressure should be sufficient to avoid air leakage at the edges.
- The programmable timer will be set for a sampling period of 24 hours. Information was recorded on the record sheet, which included the starting time, the weather condition and the filter number (the initial weight of the filter paper can be found out by using the filter number.).
- After sampling, the filter was transferred from the filter holder of the HVS to a sealed plastic bag and sent to the laboratory for weighting. The elapsed time was also recorded.
- Before weighting, all filters were equilibrated in a desiccator for 24 hour with the temperature of 25°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 ( $\mu\text{g}/\text{m}^3$ )		1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	
	Action Level	Limit Level	Action Level	Limit Level
AM1	164 *	260 *	325 *	500 *
AM3	---	---	306 **	500 **
AM3A	183 **	260 **	---	---
AM5	174	260	329	500

\* = 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.

\*\* = Reference to the information contained in the Baseline Monitoring Report submitted under the "Remaining Engineering Infrastructure Works for Pak Shek Kok Development Package 1 – Contract No. TP 35/02.

#### 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;
- Near Wen Chih Tang at the CUHK.

#### 5.2 Monitoring Equipment

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

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

Table 5.1 Noise Monitoring Equipment

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

### 5.3 Monitoring Parameters, duration and Frequency

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

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

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

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

Table 5.2 Duration, Frequencies and Parameters of Noise Monitoring

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

### 5.4 Monitoring Locations and Period

In this reporting month, there were four noise monitoring locations: HKIB Staff Accommodation, Cheung Shue Tan Village, CUHK Residence No.10 and Near Wen Chih Tang at the CUHK. 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)
NM8	Near Wen Chih Tang at the CUHK

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

Monitoring stations	Monitoring Period							
	Day-time		Evening-time		Holiday		Night-time	
NM1	02/06/05	17:13	---	---	---	---	---	---
	09/06/05	15:15	---	---	---	---	---	---
	16/06/05	09:50	---	---	---	---	---	---
	25/06/05	08:13	---	---	---	---	---	---
	30/06/05 *	---	---	---	---	---	---	---
NM2	02/06/05	13:48	---	---	---	---	---	---
	09/06/05	11:08	---	---	---	---	---	---
	16/06/05	17:50	---	---	---	---	---	---
	25/06/05	11:17	---	---	---	---	---	---
	30/06/05 *	---	---	---	---	---	---	---
NM3	02/06/05	11:00	---	---	---	---	---	---
	09/06/05	09:03	---	---	---	---	---	---
	16/06/05	16:35	---	---	---	---	---	---
	25/06/05	13:02	---	---	---	---	---	---
	30/06/05 *	---	---	---	---	---	---	---

Monitoring stations	Monitoring Period							
	Day-time		Evening-time		Holiday		Night-time	
NM8	02/06/05	13:03	---	---	---	---	---	---
	09/06/05	10:23	---	---	---	---	---	---
	16/06/05	11:03	---	---	---	---	---	---
	25/06/05	10:02	---	---	---	---	---	---
	30/06/05 *	---	---	---	---	---	---	---

Remark (\*): The noise monitoring was cancelled due to the rain.

## 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

Only Day-time noise monitoring were carried out at monitoring stations in this reporting month. No Evening-time, Night-time and Holiday 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 is shown in Appendix C3.

No Day-time 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 noise monitoring.

## 6.0 WASTEWATER MONITORING

Effluent Discharge License of this Project is valid from 06 December 2004 (Discharge Licence No.: 3246-Part A and Part B).

Water quality monitoring was carried out at 25 May 2005. One wastewater sample was collected from the discharge point at the construction site. The results of suspended solids content of the wastewater sample was complied the discharge limit of the Discharge Licence. The test report was attached at Appendix I.

Since the Discharge Licence required carrying out wastewater monitoring at effluent discharge point quarterly, the next wastewater monitoring should be at August 2005.

## 7.0 ENVIRONMENTAL NON-CONFORMANCE

### 7.1 Summary of environmental 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 noise level measured at all monitoring stations exceeded the Action and Limit Level in the reporting month. No evening-time, night-time and holiday noise monitoring were required since no construction works were processed during these periods.

During this reporting month, no wastewater monitoring was carried out since the Discharge Licence required carrying out wastewater monitoring at effluent discharge point quarterly and the monitoring had been carried out at 25 May 2005 by ET. The next wastewater monitoring should be at August 2005.

### 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 was no notification of summons respect to environmental issues registered in this month.

## 8.0 SITE INSPECTION

Weekly site inspections were carried out by the ET in this reporting month (04, 09, 16 and 23 June 2005). Monthly joint site inspection at 29 June 2005 was carried out by Engineer's Representative, IEC and LWKJV. The implementation status of the mitigation measures on site inspections in this reporting month is presented in Appendix H.

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

Summaries of the site inspection findings in this reporting month are shown in Table 8.1.

Table 8.1 The summary of the site inspection findings and Action(s) taken by LWKJV and ET

Item	Aspects	Findings	Action(s) taken by LWKJV	ET Verification
1	Water	Refer to the previous site inspection of the last month, standing water observed at Road L4 was drained out during weekly site inspection (04/06/05).	Since the finding was improved, no further actions were required.	Since the finding was improved, no further verifications were required.
2	Waste	The rubbish skip was found full at Road L4 during weekly site inspection (09/06/05).	The Contractor replied to clean the rubbish skip frequently and if necessary.	During the subsequent site inspection (18/06/05), it was found that the rubbish had been clean up. Hence, the finding was completed and no further actions were required.
3	Air	Stockpile of excavated material at Road L4 was found without cover during weekly site inspections (09/06/05 and 18/06/05).	The Contractor replied to cover the stockpile area.	During the subsequent site inspection (23/06/05), it was found that the stockpile at Road L4 was found removed. Hence, no further actions were required and the finding was completed.
4	Chemical	Chemical container at Landscape Node 1 was on the ground without drip tray during weekly site inspection (09/06/05).	The Contractor replied to remove the chemical container to chemical storage area immediately	During the subsequent site inspection (18/06/05), it was found that the chemical container had been removed. Hence, the finding was completed and no further actions were required.
5	Water	The silt curtain was found not fully enclosed in the working area at Landscape Node 1 during weekly site inspection (18/06/05).	The Contractor replied to enclose the working area by using silt curtain during marine works.	During the subsequent site inspection (23/06/05), it was found that the working area at Landscape Node 1 was enclosed by silt curtain. Hence, the finding was completed and no further actions were required.
6	Water	Site runoff was found directly discharged into the sea at SA14 during weekly site inspections (18/06/05 and 23/06/05).	The Contractor replied to treat the site runoff (e.g. passing through sedimentation tank) before discharge.	Since the finding was still observed at the last weekly site inspection of this reporting month, the finding will be verified at the first inspection at the coming month.

### 8.2 Status of Environmental Licensing and Permitting

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

Table 8.2 Summary of environmental licensing and permit status

Description	Permit No.	Valid Period		Section
		From	To	
Construction Noise Permit	GW-RN0682-04	30/12/04	29/06/05	<u>Group A</u> One Tug Boat (CNP221) <u>Group B</u> Two Derrick Barge (CNP061) One Dredger, grab (CNP063)
Construction Noise Permit	GW-RN0266-05	01/07/05	31/12/05	<u>Group A</u> One Poker, vibrator, hand-held (CNP170) One Concrete pump, lorry mounted (CNP047) One Concrete lorry mixer (CNP044) <u>Group B</u> One Dump Truck (CNP067) One Excavator, tracked (CNP081)
Chemical Waste Producer	5113-729-LL1113-01	24/09/04	---	Spent lubricating oil, spent battery parts containing heavy metals
Wastewater Discharge License	3246 – Part A	06/12/04	05/12/09	Discharge of trade Effluent, surface run-off and all other wastewater arising from the construction site and sedimentation tank to Coastal water or communal drain for the carriage of surface drainage water.
Wastewater Discharge License	3246 – Part B	06/12/04	05/12/09	Discharge of trade Effluent, surface run-off and all other wastewater arising from the construction site and on-site aerobic waste water treatment system to soak-away pit.

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

Based on the site inspection findings, the recommendations are as below:

- All stockpiles should be covered with clean tarpaulin sheets, spraying with water 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;
- Minimize of exposed soil areas to reduce the potential for increased siltation and contamination of run-off;
- 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;
- Use and maintenance of silt curtain properly during marine works;
- 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;
- 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. The implementation status of the mitigation measures on waste management in this reporting month 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 refuse;
- 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	Cumulative Quantity
Inert C&D Materials	Total Quantity Generated (m³)	5100	Reused in the Contract	38915
	Broken Concrete (m³)	100	N/A	485
	Reused in the Contract (m³)	5000	N/A	38500
	Reused in other Projects (m³)	0	N/A	0
	Disposal as Public Fill (m³)	0	N/A	0
C&D Waste	Metals (1000kg)	0	N/A	37.341
	Paper/Cardboard Packaging (1000kg)	0	N/A	0.010
	Plastics (1000kg)	0	N/A	0.014
	Chemical Waste (1000kg)	0	N/A	1
	Other, e.g. General Refuse (1000kg)	2	SENT	60.29

## 10.0 IMPLEMENTATION STATUS

### 10.1 Implementation Status of Environmental Mitigation Measures

LWKJV has been implementing the required environmental mitigation measures according to the Mitigation Protection Measures stated in Implementation Schedule of the EM&A Manual. The implementation status of the environmental mitigation measures in this reporting month is presented in Appendix H.

### Air Quality

The Contractor was reminded to water 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 and provide effective wheel washing facilities.

### Noise

All mitigation measures stated in Appendix H 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.

### Waste Management

LWKJV 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 noise level measured at all monitoring stations exceeded the Action and Limit Level in the reporting month. No Evening-time, Night-time and Holiday noise monitoring were required since no construction works were processed during these periods.

During this reporting month, no wastewater monitoring was carried out since the Discharge Licence required carrying out wastewater monitoring at effluent discharge point quarterly and the monitoring had been carried out at 25 May 2005 by ET. The next wastewater monitoring should be at August 2005.

According to the ET weekly site inspection and IEC monthly site audit carried out this month, it indicated that site practices of the LWKJV 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&amp;A Schedule in coming two months

Type of Monitoring	July 2005	August 2005
Noise Monitoring (Day-time)	05, 12, 19, 26	02, 09, 16, 23, 30
1-hour TSP	02, 05, 07, 09, 12, 14, 16, 19, 21, 23, 26, 28, 30	02, 04, 06, 09, 11, 13, 16, 18, 20, 23, 25, 27, 30
24-hour TSP	04, 09, 15, 21, 27	02, 08, 13, 19, 25, 31
Site Inspection	07, 14, 21, 28	04, 11, 18, 25

## 12.2 Upcoming construction works schedule in the coming month

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

Table 12.2 – Construction Plan in the coming month

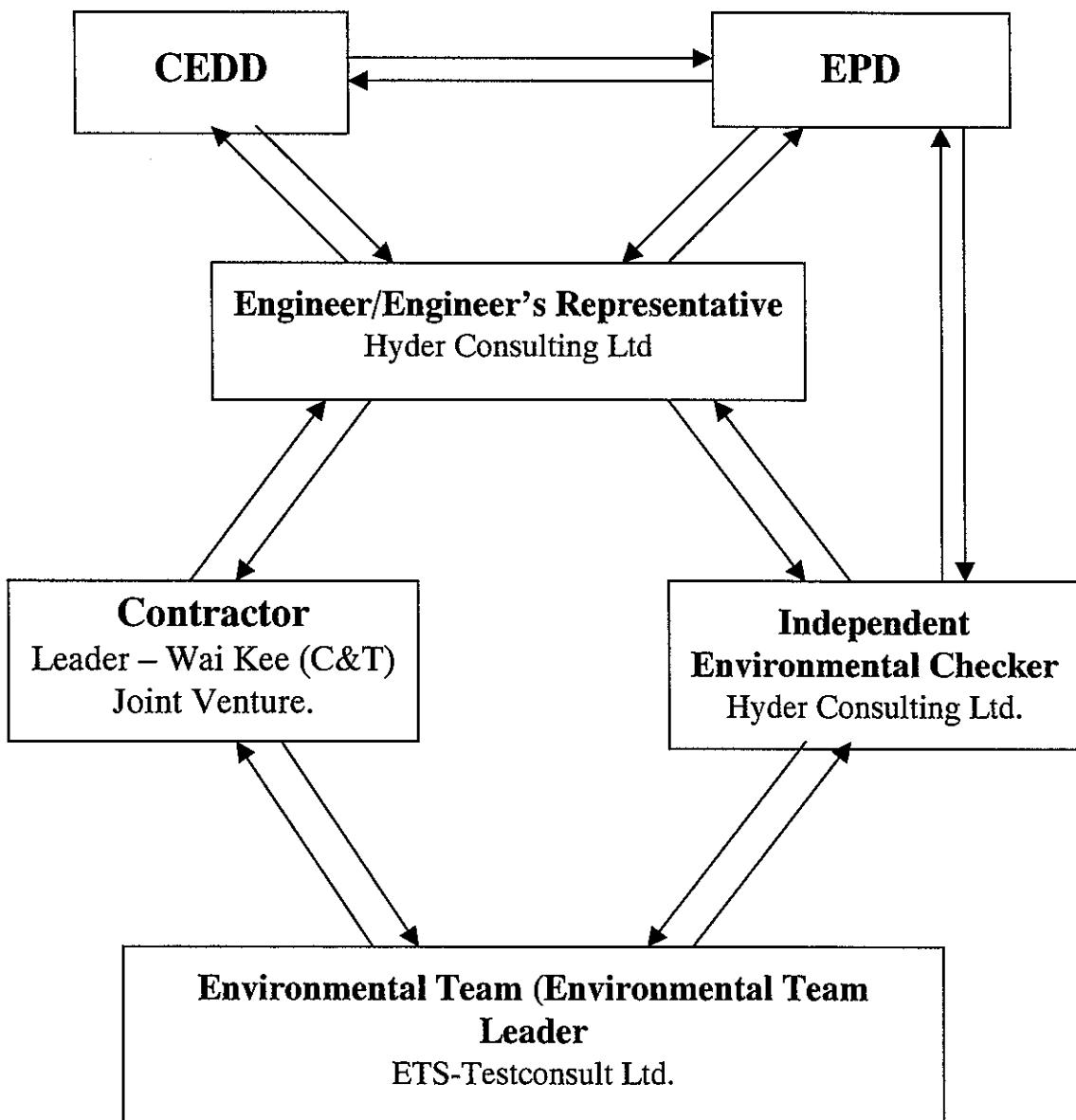
Month	Works Planned to be Carried Out
Between July and August 2005	<ul style="list-style-type: none"><li>▪ Drainage Works (excavation, pipe laying and breaking) at Section 5, 6, 7 and 8;</li><li>▪ Construction of Landscape Node P1, P2 and Public Landing Steps;</li><li>▪ Piling works at SA3;</li><li>▪ Preloading mound at SA3;</li><li>▪ Construction of parapet wall, kerb planter wall and feature wall at PSK promenade.</li></ul>

## Appendix A

### Organization Chart and Lines of Communication



# Lines of Communication



## Appendix B1

### Calibration Certificates for Air Quality Monitoring Equipments



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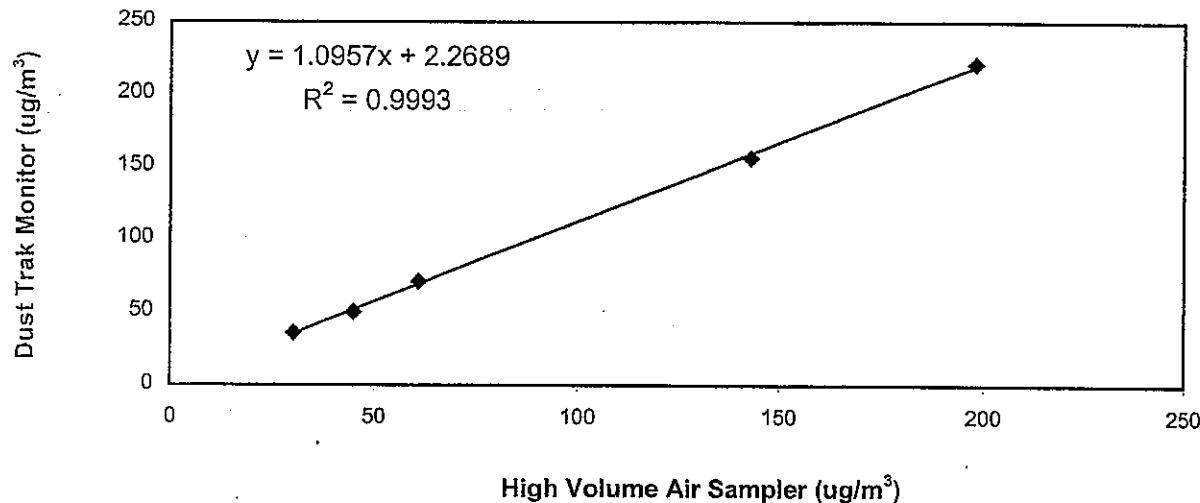
8/F, Block B, Verlstrong Industrial Centre, 34-36 Au Pui Wari Street, Fotan, Hong Kong  
Tel : 2695 8318      E-mail : etl@ets-testconsult.com  
Fax : 2695 3944      Web site : www.ets-testconsult.com

**TEST REPORT**

Internal Calibration Report  
of  
Dust Trak Monitor

Manufacturer	: TSI - 8520 Dust Trak	Date of Calibration	: 18 March 2005																						
Serial No.	: 15115 (EA/001/02)	Calibration Due Date	: 17 September 2005																						
Method	Place two Dust Trak Monitor together at same environment condition for parallel measurement with five point calibration																								
Results	<table border="1"><tr><td>Dust Trak Monitor (<math>\mu\text{g}/\text{m}^3</math>)</td><td>36</td><td>50</td><td>71</td><td>156</td><td>221</td></tr><tr><td>High Volume Air Sampler (<math>\mu\text{g}/\text{m}^3</math>)</td><td>30</td><td>45</td><td>61</td><td>143</td><td>198</td></tr><tr><td>High Volume Air Sampler Serial No.: 1178</td><td colspan="4">Calibration Date: 15 / 03 / 2005</td><td></td><td></td></tr></table>						Dust Trak Monitor ( $\mu\text{g}/\text{m}^3$ )	36	50	71	156	221	High Volume Air Sampler ( $\mu\text{g}/\text{m}^3$ )	30	45	61	143	198	High Volume Air Sampler Serial No.: 1178	Calibration Date: 15 / 03 / 2005					
Dust Trak Monitor ( $\mu\text{g}/\text{m}^3$ )	36	50	71	156	221																				
High Volume Air Sampler ( $\mu\text{g}/\text{m}^3$ )	30	45	61	143	198																				
High Volume Air Sampler Serial No.: 1178	Calibration Date: 15 / 03 / 2005																								

Calibration of Dust Trak Monitor (Serial No. 15115)



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

The Dust Trak Monitor complies \* / does not comply \* with the internal calibration procedures and is deemed acceptable \*/ unacceptable \* for use.

Calibrated by :   
Felix Tin  
(Technician)

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



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

**TEST REPORT**

**Calibration Report  
of  
High Volume Air Sampler**

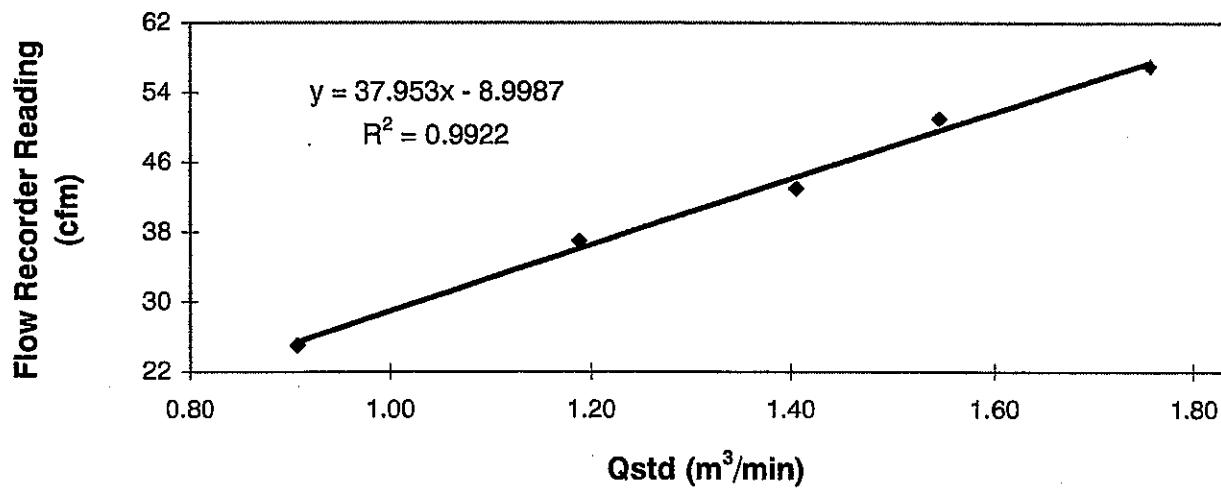
**Manufacturer** : Greasby GMW                                  Date of Calibration : 14 May 2005

**Serial No.** : 1178 (ET / EA / 003 / 01)                                  Calibration Due Date : 13 July 2005

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

<b>Results</b>	Flow recorder reading (cfm)	57	51	43	37	25
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.75	1.55	1.40	1.19	0.91
	Pressure : 754.56 mm Hg	Temp. : 302 K				

**Sampler 1178 Calibration Curve**  
**Site: Pak Shek Kok Monitoring Station AM1 (24hr.)**  
**Date of Calibration: 14 May 2005**



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

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

Calibrated by : Peter Leung  
(Technician)

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



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

**TEST REPORT**

**Calibration Report**

of

**High Volume Air Sampler**

**Manufacturer** : Greasby GMW      **Date of Calibration** : 14 May 2005

**Serial No.** : 7179 ( ET / EA / 003 / 16 )      **Calibration Due Date** : 13 July 2005

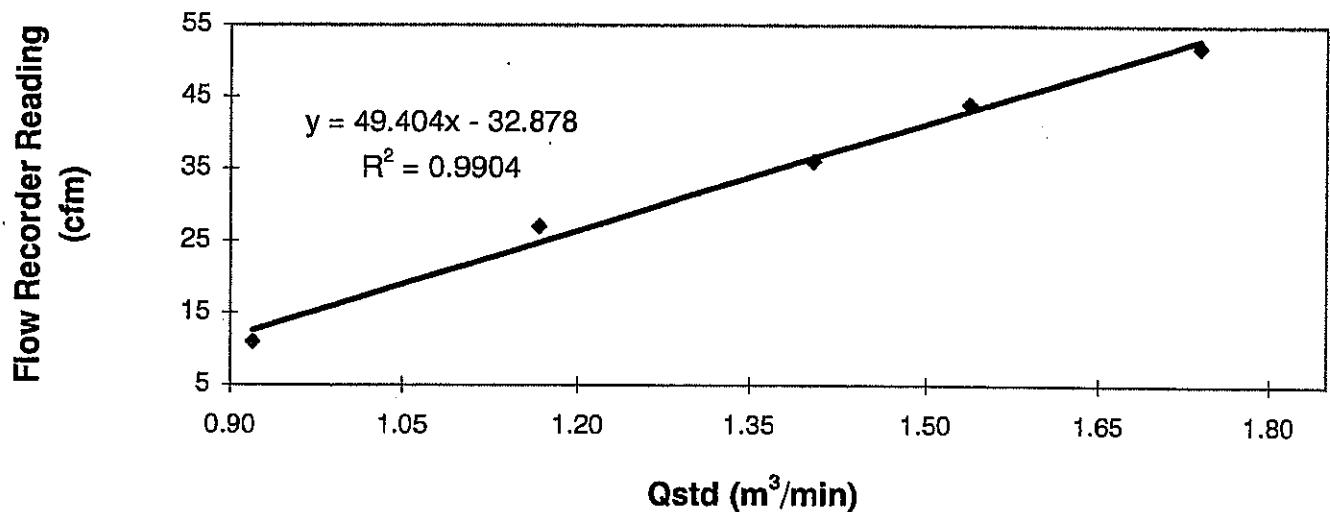
**Method** : Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A

<b>Results</b>	Flow recorder reading (cfm)	52	44	36	27	11
	Qstd (Actual flow rate, m <sup>3</sup> /min)	1.74	1.54	1.40	1.17	0.92
	Pressure :	754.56 mm Hg	Temp. :	302 K		

**Sampler 7179 Calibration Curve**

**Site: Pak Shek Kok (AM3A)**

**Date of Calibration: 14 May 2005**



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

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

Calibrated by :

Peter Leung  
(Technician)

Approved by :

H. T. Chow  
(Asst. Environmental Officer)



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ETS-TESTCONSULT LIMITED

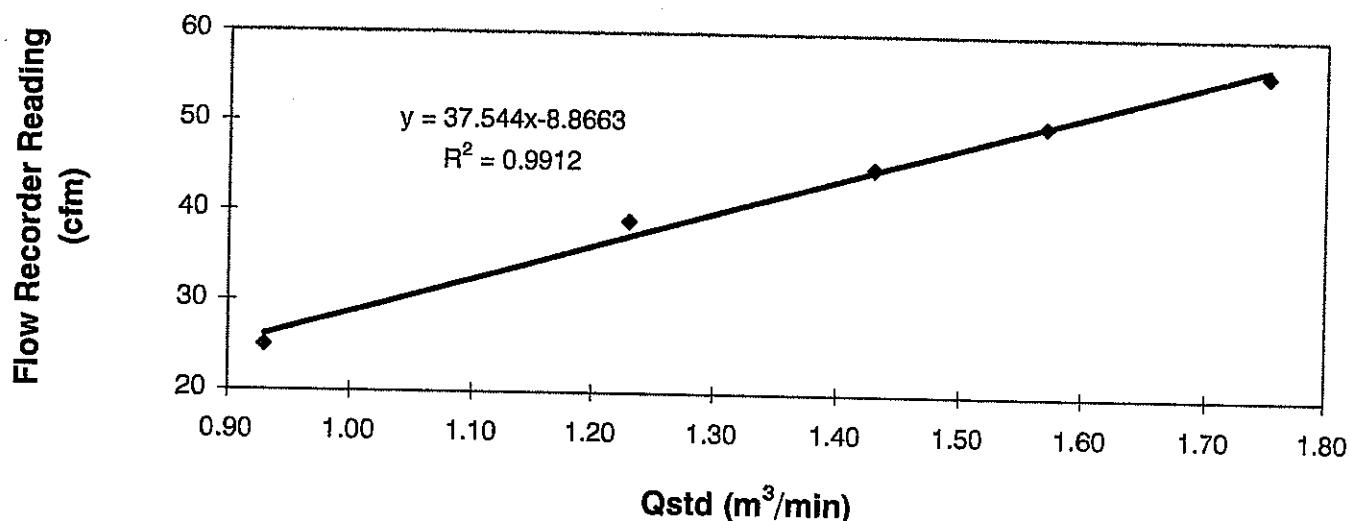
8/F, Block B, Veristrong Industrial Centre, 34-36 Au Pui Wan Street, Fotan, Hong Kong  
Tel : 2695 8318      E-mail : etl@ets-testconsult.com  
Fax : 2695 3944      Web site : www.ets-testconsult.com

**TEST REPORT**

**Calibration Report  
of  
High Volume Air Sampler**

Manufacturer	:	Greasby GMW	Date of Calibration	:	14 May 2005
Serial No.	:	1172 ( ET / EA / 003 / 11 )	Calibration Due Date	:	13 July 2005
Method	:	Based on Operations Manual for Graseby Model GS2310 series using calibration kit TE-5025A			
Results	:	Flow recorder reading (cfm)	56	50	45
		Qstd (Actual flow rate, m <sup>3</sup> /min)	1.75	1.57	1.43
		Pressure :	754.56 mm Hg	Temp. :	302 K

**Sampler 1172 Calibration Curve  
Site: Pak Shek Kok (AM5)  
Date of Calibration: 14 May 2005**



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

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

Calibrated by :   
Peter Leung  
(Technician)

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



## **Appendix B2**

### **Air Quality Monitoring Results**

## Summary of 24-hr TSP Monitoring Results

Monitoring Station : AM1  
Location : HKIB Staff Accommodation

Start Date	Time	Finish Date	Time	Elapse Time	Sampling Time (hrs)	Flow Rate (m³/min.)	Average (m³/min.)	Filter Weight (g)	Conc. (µg/m³)	Weather Condition
					Initial	Final	Initial	Final		
04/06/05	18:20	05/06/05	18:16	8620.13	8644.06	23.93	1.24	1.24	3.0164	61 Cloudy
10/06/05	10:45	11/06/05	10:40	8644.06	8667.97	23.91	1.24	1.24	2.9696	44 Cloudy
16/06/05	09:55	17/06/05	09:59	8667.97	8692.04	24.07	1.24	1.24	2.9167	45 Cloudy
22/06/05	15:12	23/06/05	15:23	8692.04	8716.22	24.18	1.26	1.26	2.8336	35 Rainy
28/06/05	09:05	29/06/05	08:55	8716.22	8740.05	23.83	1.26	1.26	2.8613	2.8952 19 Sunny

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

Start Date	Time	Finish Date	Time	Elapse Time	Sampling Time (hrs)	Flow Rate (m³/min.)	Average (m³/min.)	Filter Weight (g)	Conc. (µg/m³)	Weather Condition
					Initial	Final	Initial	Final		
04/06/05	18:40	05/06/05	18:53	13959.45	13983.67	24.22	1.39	1.39	2.9565	25 Cloudy
10/06/05	10:30	11/06/05	10:31	13983.67	14007.68	24.01	1.39	1.39	2.9091	38 Cloudy
16/06/05	16:40	17/06/05	16:26	14007.88	14031.65	23.77	1.39	1.39	2.8136	20 Cloudy
22/06/05	15:36	23/06/05	15:16	14031.65	14056.31	24.66	1.41	1.41	2.8380	19 Rainy
28/06/05	14:50	29/06/05	15:18	14056.31	14080.78	24.47	1.41	1.41	2.8787	2.9161 18 Sunny

Monitoring Station : AM5  
Location : Near Wen Chin Tung at the CUHK

Start Date	Time	Finish Date	Time	Elapse Time	Sampling Time (hrs)	Flow Rate (m³/min.)	Average (m³/min.)	Filter Weight (g)	Conc. (µg/m³)	Weather Condition
					Initial	Final	Initial	Final		
04/06/05	18:30	05/06/05	18:45	3996.83	4021.08	24.25	1.14	1.14	2.8862	26 Cloudy
10/06/05	10:55	11/06/05	11:03	4021.08	4045.22	24.14	1.14	1.14	2.9027	37 Cloudy
16/06/05	11:07	17/06/05	11:07	4045.22	4069.22	24.00	1.14	1.14	2.8142	22 Cloudy
22/06/05	15:23	23/06/05	15:38	4069.22	4093.47	24.25	1.20	1.20	2.8264	21 Rainy
28/06/05	13:20	29/06/05	13:32	4093.47	4117.67	24.20	1.20	1.20	2.8710	2.9023 18 Sunny

## Summary of 1-hr TSP Monitoring Results

Monitoring Station : AM1 (HKIB Staff Accommodation)

Date	Monitoring Period			1-hr TSP ( $\mu\text{g}/\text{m}^3$ )			Weather
	Start	Finish	Minimum	Maximum	Average		
02/06/05	17:08	18:08	105	410	220	Cloudy	
04/06/05	09:00	10:00	102	401	170	Cloudy	
07/06/05	14:45	15:45	98	399	147	Cloudy	
08/06/05	09:00	10:00	109	411	144	Sunny	
09/06/05	15:08	16:08	98	381	143	Cloudy	
14/06/05	09:00	10:00	82	397	152	Cloudy	
16/06/05	09:45	10:45	86	372	148	Cloudy	
18/06/05	14:20	15:20	69	331	96	Rainy	
21/06/05	08:45	09:45	72	379	144	Rainy	
23/06/05	08:45	09:45	51	498	170	Rainy	
25/06/05	08:15	09:15	95	396	169	Cloudy	
28/06/05	09:00	10:00	97	359	123	Sunny	
30/06/05	10:15	11:15	55	347	106	Rainy	

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

Date	Monitoring Period			1-hr TSP ( $\mu\text{g}/\text{m}^3$ )			Weather
	Start	Finish	Minimum	Maximum	Average		
02/06/05	10:56	11:56	89	348	159	Cloudy	
04/06/05	10:15	11:15	68	327	128	Cloudy	
07/06/05	09:00	10:00	89	351	105	Cloudy	
08/06/05	15:00	16:00	91	378	107	Sunny	
09/06/05	09:00	10:00	79	311	88	Cloudy	
14/06/05	13:00	14:00	72	330	144	Cloudy	
16/06/05	16:30	17:30	64	320	120	Cloudy	
18/06/05	13:00	14:00	57	296	79	Rainy	
21/06/05	14:30	15:30	64	321	133	Rainy	
23/06/05	14:00	15:00	47	466	138	Rainy	
25/06/05	13:00	14:00	72	330	147	Cloudy	
28/06/05	14:45	15:45	91	321	99	Sunny	
30/06/05	15:10	16:10	42	288	75	Rainy	

### Summary of 1-hr TSP Monitoring Results

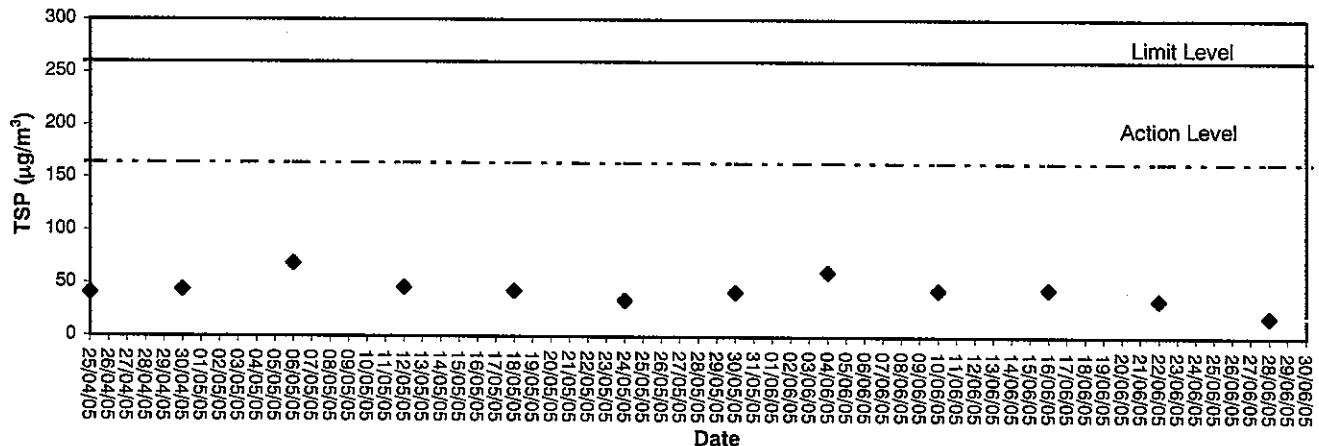
Monitoring Station : AMB – Near Wen Vhin Tand at the CUHK

Date	Monitoring Period		Minimum	Maximum	1-hr TSP ( $\mu\text{g}/\text{m}^3$ )	Average	Weather
	Start	Finish					
02/06/05	13:00	14:00	75	324	144	Cloudy	
04/06/05	15:30	16:30	59	310	114	Cloudy	
07/06/05	10:20	11:20	85	330	90	Cloudy	
08/06/05	10:15	11:15	99	369	120	Sunny	
09/06/05	10:20	11:20	83	362	92	Cloudy	
14/06/05	10:20	11:20	64	318	141	Cloudy	
16/06/05	11:00	12:00	58	317	115	Cloudy	
18/06/05	18:00	19:00	63	312	87	Rainy	
21/06/05	15:50	16:50	60	309	107	Rainy	
23/06/05	15:12	16:12	55	475	182	Rainy	
25/06/05	11:00	12:00	69	314	138	Cloudy	
28/06/05	13:15	14:15	95	337	108	Sunny	
30/06/05	16:23	17:23	47	306	83	Rainy	

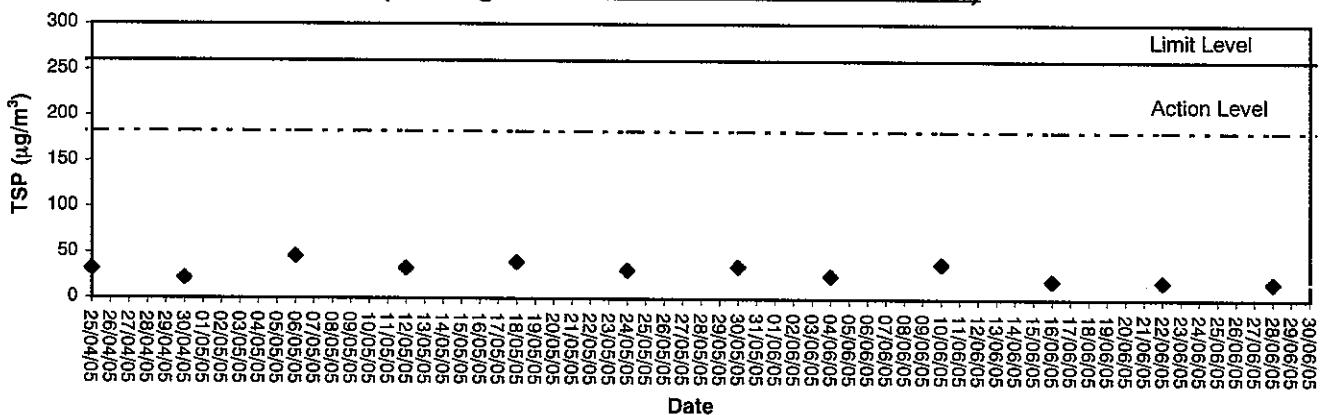
## **Appendix B3**

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

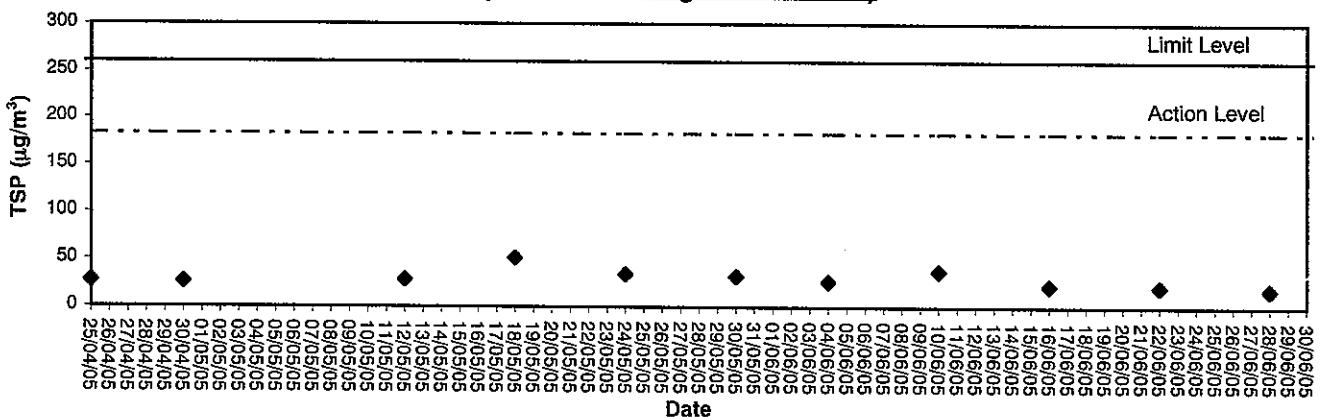
**24-hour TSP level at AM1 (HKIB Staff Accommodation)**



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

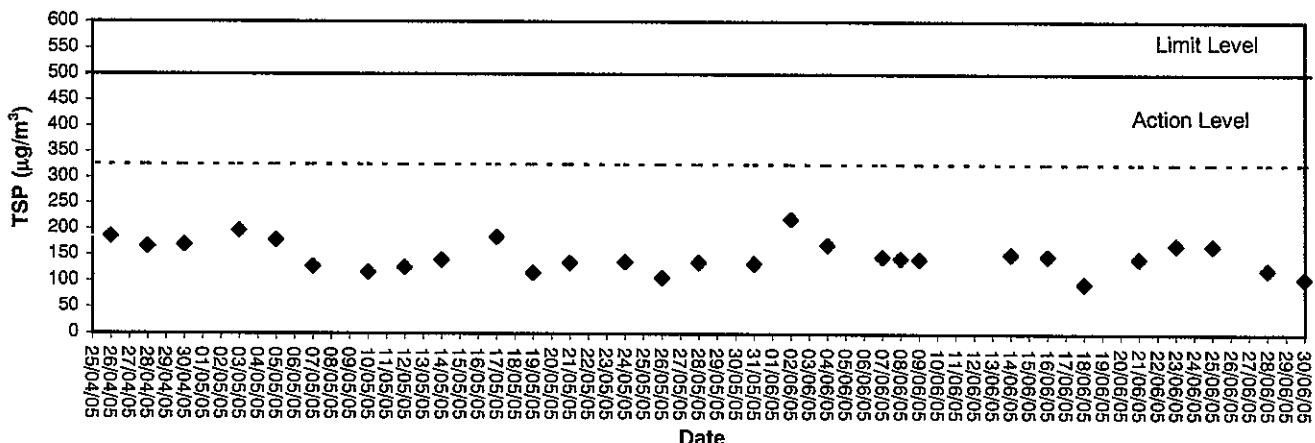


**24-hour TSP level at AM5  
(Wen Chih Tang at the CUHK)**

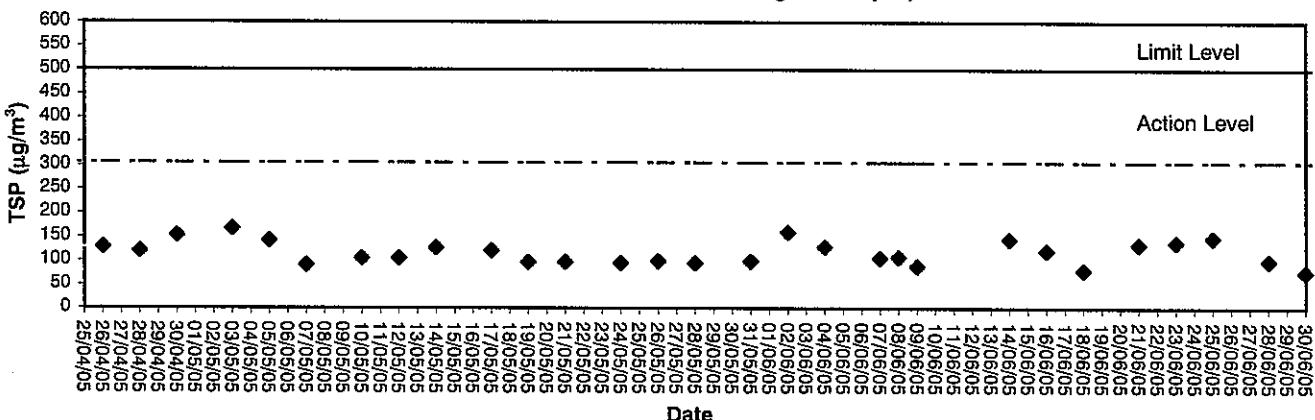




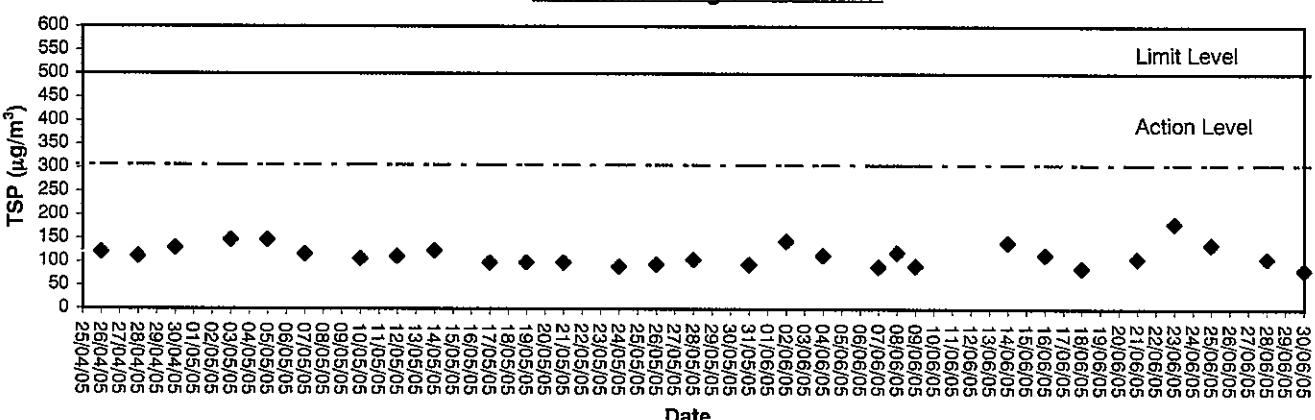
1-hour TSP level at AM1, HKIB Staff Accommodation



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



1-hour TSP level at AM5  
Wen Chih Tang at the CUHK



## Appendix C1

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



## Calibration Certificate

Certificate No. 51472

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. :** Q50535

**Date of receipt :** 7-Apr-05

### Item Tested

**Description :** Precision Integrating Sound Level Meter

**Manufacturer :** Rion

**Model :** NL-31

**Serial No. :** 00531142

### Test Conditions

**Date of Test :** 20-Apr-05

**Supply Voltage :** --

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

**Relative Humidity :** (50 ± 20) %

### Test Specifications

Calibration check according to customer's requirement.

Calibration procedure : Z01.

### Test Results

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

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

Test equipment used:

<u>Equipment No.</u>	<u>Cert. No.</u>	<u>Due Date</u>	<u>Traceable to</u>
S017	C051022	21-Mar-06	PRC-NIM
S024	S41431	22-May-05	PRC-NIM

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

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

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

Calibrated by :

Approved by :

Alan Chu - Manager



# Calibration Certificate

Certificate No. 51472

Page 2 of 3 Pages

Results :

## 1. SPL Accuracy

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

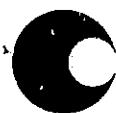
IEC 651 Type 1 Spec. :  $\pm 0.7$  dB

Uncertainty :  $\pm 0.2$  dB

## 2. Level Stability : 0.0 dB

IEC 651 Type 1 Spec. :  $\pm 0.3$  dB

Uncertainty :  $\pm 0.01$  dB



Hong Kong Calibration Ltd.

香港校正有限公司

# Calibration Certificate

Certificate No. 51472

Page 3 of 3 Pages

## 3. Frequency Weighting

A weighting

Frequency	Attenuation (dB)	IEC 651 Type 1 Spec.
31.5 Hz	- 39.6	- 39.4 dB, $\pm 1.5$ dB
63 Hz	- 26.2	- 26.2 dB, $\pm 1.5$ dB
125 Hz	- 16.2	- 16.1 dB, $\pm 1$ dB
250 Hz	- 8.7	- 8.6 dB, $\pm 1$ dB
500 Hz	- 3.2	- 3.2 dB, $\pm 1$ dB
1 kHz	0.0 (Ref.)	0 dB, $\pm 1$ dB
2 kHz	+ 1.3	+ 1.2 dB, $\pm 1$ dB
5 kHz	+ 1.1	+ 1.0 dB, $\pm 1$ dB
8 kHz	- 1.1	- 1.1 dB, + 1.5 dB ~ 3 dB
16 kHz	- 6.7	- 6.6 dB, + 3 dB ~ $\infty$

Uncertainty :  $\pm 0.1$  dB

## 4. Time Averaging

Applied Burst duty Factor	UUT Reading (dB)	Correction (dB)	IEC 804 Type 1 Spec.
continuous	40.0	--	--
1/10	39.9	+ 0.1	$\pm 0.5$ dB
1/10 <sup>2</sup>	39.9	+ 0.1	
1/10 <sup>3</sup>	39.9	+ 0.1	$\pm 1.0$ dB
1/10 <sup>4</sup>	39.8	+ 0.2	

Uncertainty :  $\pm 0.1$  dB

Remark : 1. UUT : Unit-Under-Test

2. True Value = UUT Reading + Correction.

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

4. Atmospheric Pressure : 1 000 hPa.

----- END -----



## Calibration Certificate

Certificate No. 51473

Page 1 of 2 Pages

Customer : ETS-Testconsult Limited

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

Order No. : Q50535

Date of receipt : 7-Apr-05

### Item Tested

Description : Sound Level Calibrator (Eqip No.: ET/0527/004)

Manufacturer : Rion

Model : NC-73

Serial No. : 10196943

### Test Conditions

Date of Test : 20-Apr-05

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	43147	7-Jul-05	PRC-NIM
S024	S41431	22-May-05	PRC-NIM
S041	43734	12-Aug-05	PRC-NIM

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

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

Calibrated by :

Approved by :

  
Alan Chu

- Manager



Hong Kong Calibration Ltd.

香港校正有限公司

# Calibration Certificate

Certificate No. 51473

Page 2 of 2 Pages

Results :

## 1. Level Accuracy (at 1 kHz)

UUT Nominal Value	Measured Value	Mfr's Spec.
94 dB	94.1 dB	± 1 dB

Uncertainty : ± 0.2 dB

## 2. Frequency Accuracy

UUT Nominal Value	Measured Value	Mfr's Spec.
1 kHz	0.991 kHz	± 2 %

Uncertainty : ± 0.1 %

## 3. Level Stability : 0.0 dB

Uncertainty : ± 0.01 dB

## 4. Total Harmonic Distortion : < 0.3 %

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 : 1 000 hPa

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

----- 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
		$L_{eq(30min)}$	L10	L90		
02/06/05	17:13	58.1	60.5	57.3	0.9	Cloudy
09/06/05	15:15	58.0	60.3	55.6	1.0	Cloudy
16/06/05	09:50	58.2	60.5	55.8	0.9	Cloudy
25/06/05	08:13	59.2	61.3	57.3	0.8	Cloudy
30/06/05 *	---	---	---	---	---	Rainy

Remark (\*): The noise monitoring was cancelled due to the rain.

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

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		$L_{eq(30min)}$	L10	L90		
02/06/05	13:48	55.2	57.5	52.4	0.6	Cloudy
09/06/05	11:08	54.6	57.6	52.5	0.6	Cloudy
16/06/05	17:50	54.8	57.0	53.0	0.8	Cloudy
25/06/05	11:17	54.6	56.8	50.6	0.6	Cloudy
30/06/05 *	---	---	---	---	---	Rainy

Remark (\*): The noise monitoring was cancelled due to the rain.

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

Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		$L_{eq(30min)}$	L10	L90		
02/06/05	11:00	54.4	56.3	50.1	0.8	Cloudy
09/06/05	09:03	53.1	55.8	49.3	0.8	Cloudy
16/06/05	16:35	53.3	55.8	49.7	1.0	Cloudy
25/06/05	13:02	53.8	55.6	49.6	0.5	Cloudy
30/06/05 *	---	---	---	---	---	Rainy

Remark (\*): The noise monitoring was cancelled due to the rain.

### Monitoring Location: NM8 (Near Wen Chih Tang at the CUHK)

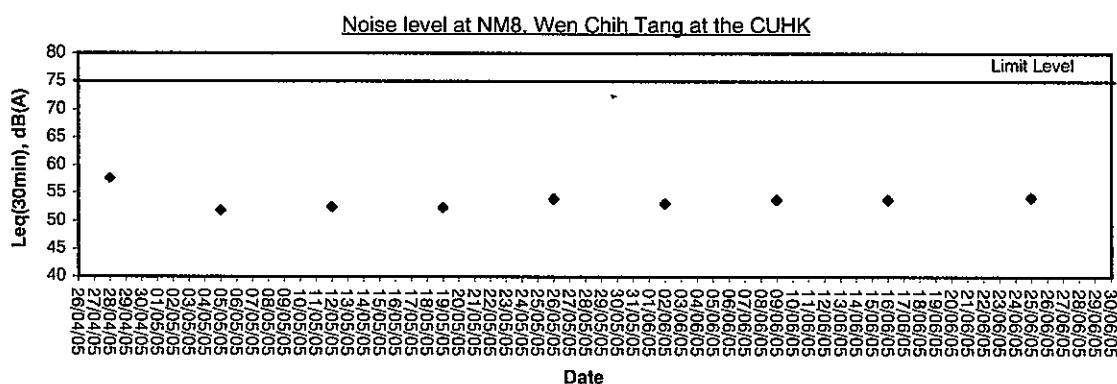
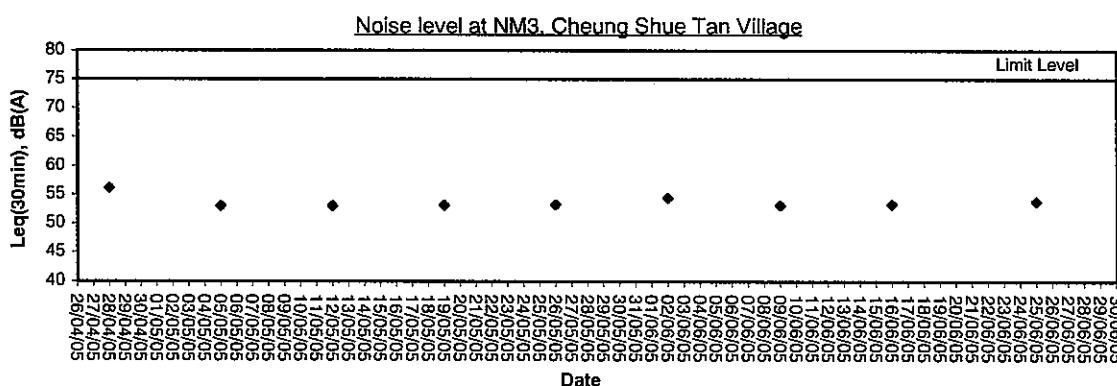
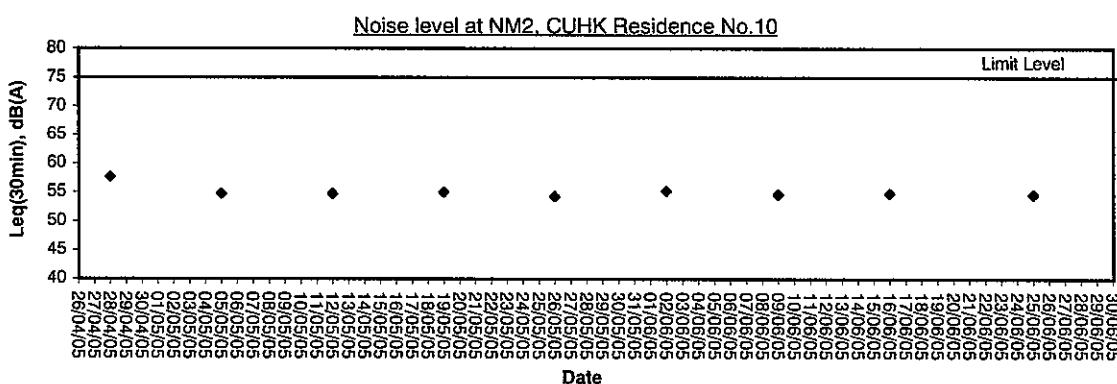
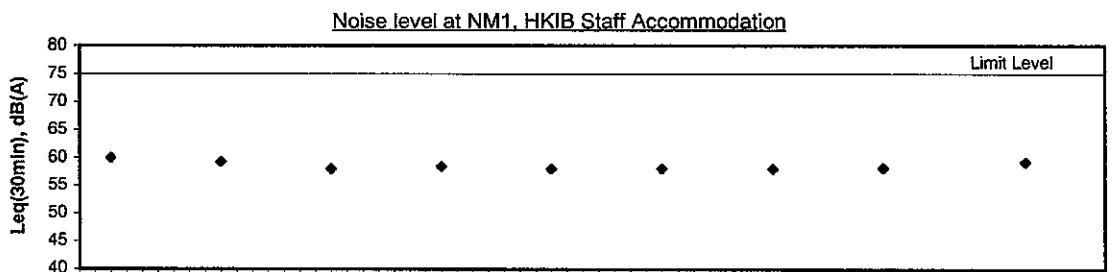
Date	Start Sampling Time (hh:mm)	Noise Level dB (A)			Wind Speed (m/s)	Weather Condition
		$L_{eq(30min)}$	L10	L90		
02/06/05	13:03	53.1	55.3	49.2	0.4	Cloudy
09/06/05	10:23	53.8	56.4	50.0	0.8	Cloudy
16/06/05	11:03	53.8	56.2	49.8	0.6	Cloudy
25/06/05	10:02	54.2	56.9	50.3	0.8	Cloudy
30/06/05 *	---	---	---	---	---	Rainy

Remark (\*): The noise monitoring was cancelled due to the rain.

## **Appendix C3**

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

## Noise Monitoring (Day-time)



## **Appendix D**

### **Weather Condition**

## Weather Condition

Date	Rainfall (mm)	Max. Temp. (°C)	Min. Temp. (°C)	Relative Humidity (%)	Wind Direction	Wind Speed (m/s)
01/06/05	Trace	31.0	26.0	82	S	<5
02/06/05	3.2	30.8	28.0	82	SW	<5
03/06/05	1.7	33.4	26.0	81	SW	<5
04/06/05	32.5	29.4	25.8	92	SE	<5
05/06/05	7.0	26.6	23.2	78	E	<5
06/06/05	Trace	26.1	25.0	82	E	<5
07/06/05	1.4	25.8	23.6	84	E	<5
08/06/05	Trace	28.2	25.1	82	E	<5
09/06/05	5.3	27.9	25.0	87	E	<5
10/06/05	0.9	31.4	25.3	83	SW	<5
11/06/05	-	32.7	27.8	79	SW	<5
12/06/05	4.8	30.9	26.9	80	SW	<5
13/06/05	8.1	28.7	26.4	86	SW	<5
14/06/05	19.2	31.2	26.0	86	SW	<5
15/06/05	168.5	29.3	25.1	92	SW	<5
16/06/05	26.1	27.5	25.4	93	W	<5
17/06/05	35.1	29.4	24.4	91	S	<5
18/06/05	3.3	30.9	27.6	82	SW	<5
19/06/05	Trace	30.9	28.3	80	SW	<5
20/06/05	1.0	30.5	28.3	81	SW	<5
21/06/05	106.3	29.6	25.1	84	SW	<5
22/06/05	32.7	29.3	24.7	87	SW	<5
23/06/05	106.6	28.5	24.8	91	S	<5
24/06/05	232.6	28.7	24.2	93	S	<5
25/06/05	3.9	30.9	26.5	85	S	<5
26/06/05	11.5	30.7	26.0	85	S	<5
27/06/05	3.4	31.4	28.0	80	S	<5
28/06/05	Trace	31.6	28.0	82	SE	<5
29/06/05	31.8	30.3	25.6	88	SE	<5
30/06/05	47.0	28.1	25.0	91	S	<5

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

## **Appendix E**

### **Event-Action Plans**

## Event / Action Plan for Air Quality

EVENT	ET Leader	IC(E)	ER	ACTION	
				CNOTRATOR	
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 possible 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 Contractor's working method 3. Discuss with ET and Contractor on possible remedial measures 4. Advise the ER on the effectiveness of the proposed remedial measures 5. Supervisor implementation of remedial measures	1. 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 be 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 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 possible, still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated.	

### Event / Action Plan for Construction Noise

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



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

## **Appendix F**

### **Construction Programme**

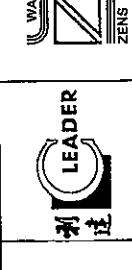








Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	M J J A S O N D J F M A M 2005	M J J A S O N D J F M A M 2006	M J J A S O N D J F M A M 2007
JICUTI320	Watermain - Testing and Connection of 300 Dia	16	874		0 21MAY05	10JUN05	07AUG05	25AUG05			
JICUTI420	Watermain - Testing and Connection of 250 Dia	16	65d		0 21FEB05	10MAR05	10AUG05	27AUG05			
JICUTI520	Install Public Lighting Post	8	43d		0 18MAY05	26MAY05	10JUL05	16JUL05			
JICTPK0100	Lighting Duct and Kerb	18	23d		0 23MAY05	13APR06	28APR06	11MAY06			
JICTPK0200	Construct Duct Wall (South Section)	18	15d		0 24APR05	25APR05	22APR05	13MAY06			
JICTPK0300	Kerb (South Section)	14	38d		0 23MAY05	08APR06	10AUG05	25AUG05			
JICTPK0400	Kerb (North Section)	11	34d		0 24APR05	17APR05	16AUG05	27AUG05			
JICTPK0500	Lighting Duct & Cable Duct (South Section)	18	23d		0 14APR05	35MAY05	12AUG05	02JUN06			
JICTPK0600	Lighting Duct & Cable Duct (North Section)	18	15d		0 24APR05	17MAY05	15MAY05	05JUN06			
<b>Earth and Fencing</b>											
JICTRP0100	Fence Formation & Lay Subbase (South Section)	12	23d		0 28APR05	12MAY06	28MAY05	03JUN05			
JICTRP0200	Fence Formation & Lay Subbase (North Section)	10	15d		0 11MAY05	22MAY05	28MAY05	06JUN05			
JICTRP0300	Lay Cycle Track Pavement (South Section)	18	23d		0 13MAY05	03JUN05	10JUN05	30JUN06			
JICTRP0400	Lay Cycle Track Pavement (North Section)	18	15d		0 23MAY05	13JUN05	10JUN05	30JUN06			
<b>Road Marking, Traffic Signs and Fencing</b>											
JICTRM0100	Apply Road Marking	1	28d		0 14JUN05	14JUN06	18JUL05	08JUL06			
JICTRM0200	Erret Signage	4	47d		0 18MAY05	22MAY05	14JUL05	18JUL05			
JICTRM0300	Install Railing, Fencing & etc	6	45d		0 18MAY05	24MAY05	12JUL05	18JUL05			
<b>Section 2:</b> Temporary Traffic Management Scheme											
JTA Implementation Plan											
02TJTA0100	JTA No. 01 - Sui Cheung St. (SB Slow Lane)	1	10d		0 15FEB05	15FEB06	16JUN05	18JUN05			
02TJTA0200	JTA No. 02 - Sui Cheung St. (SB Fast Lane)	1	10d		0 26APR05	25APR06	25ALG05	25ALG06			
02TJTA0300	JTA No. 03 - Existing Ma Liu Shui Bridge	1	28d		0 14JUN05	14JUN06	19JUL05	19JUL06			
02TJTA0400	JTA No. 04 - Cycle Track	1	15d		0 14JUN05	14JUN05	03JUL05	03JUL05			
02TJTA0500	JTA No. 05 - Sui Cheung St. Roundabout	1	85d		0 14JUN05	14JUN05	23SEP05	23SEP06			
02TJTS0600	JTA No. 06 - Sui Cheung St. Roundabout	1	85d		0 14JUL05	10JUL06	18OCT05	19OCT06			
02TJTS0700	JTA No. 07 - Sui Cheung St. Roundabout	1	85d		0 28JUL05	25JUL05	09NOV05	09NOV05			
02TJTS0800	JTA No. 08 - Sui Cheung St. & EMSSB	1	15d		0 18AUG05	08SEPR05	03SEPR05	03SEPR05			
02TJTS0900	JTA No. 09 - Sui Cheung St.	1	15d		0 18OCT05	18OCT05	08NOV05	08NOV05			
02TJTS0100	Implement Permanent Traffic Scheme	1	15d		0 07DEC05	07DEC05	28DEC05	28DEC05			
<b>Proposed Ma Liu Shui Bridge</b>											
02ABUBD0100	Utility Diversion at Sui Cheung Street	12			100 18AUG04 A	08SEP04 A	18AUG04 A	08SEP04 A			
02ABUBD0100	Trial Pits				100 18AUG04 A	08SEP04 A	28AUG04 A	17SEP04 A			
02ABUBD0200	Liaison with CLP & WSD for Diversion Works	30			100 23AUG04 A	17SEP04 A	29AUG04 A	23SEP04 A			
02ABUBD0300	Submit TTA for Approval	24			100 08SEP04 A	08SEP04 A	10SEP04 A	23SEP04 A			
02ABUBD0400	Implement TTA	1			100 08SEP04 A	08SEP04 A	09NOV04 A	09NOV04 A			
02ABUBD0500	CLP 11kV Cables diversion	24			100 15JAN05 A	15JAN05 A	18JAN05 A	18JAN05 A			
02ABUD0510	CLP 132kV Cable Ducts diversion	12			100 24DEC04 A	15JAN05 A	20DEC04 A	15JAN05 A			
02ABUD0600	Wetmain Diversions & Advance Notice to WSD	35			100 08NOV04 A	03JAN05 A	08NOV04 A	03JAN05 A			
02ABUD0700	Wetmain Connection by WSD	18			100 102JAN05 A	22JAN05 A	22JAN05 A	22JAN05 A			
<b>Existing Structure Survey</b>											
02ABESE0100	Existing Bridge & Road Survey	12			100 07JUL04 A	20JUL04 A	07JUL04 A	20JUL04 A			
02ABESE0200	Submit Monitoring Proposal	12			100 16AUG04 A	22AUG04 A	16AUG04 A	22AUG04 A			
02ABESE0300	Engineer Approval of Monitoring Proposal	12			100 24AUG04 A	30AUG04 A	24AUG04 A	30AUG04 A			
<b>Pre-Drilling Works</b>											
02MSPFI0100	Submit the Coordinates of Culvert	1			100 18AUG04 A	18AUG04 A	18AUG04 A	18AUG04 A			
02MSPFI0200	Predrilling (P-1-P8)	45			100 25SEP04 A	03NOV04 A	25SEP04 A	03NOV04 A			
02MSPFI0300	Predrilling (P-9-P11)	24			100 28OCT04 A	04NOV04 A	28OCT04 A	04NOV04 A			
02MSPFI0400	Predrilling ( Pier 1 )	30			100 25SEP04 A	23OCT04 A	25SEP04 A	23OCT04 A			
<b>Existing Bridge &amp; Road Survey</b>											
02ABESE0100	Existing Bridge & Road Survey	12			100 16AUG04 A	22AUG04 A	16AUG04 A	22AUG04 A			
02ABESE0200	Submit Monitoring Proposal	12			100 24AUG04 A	30AUG04 A	24AUG04 A	30AUG04 A			
02ABESE0300	Engineer Approval of Monitoring Proposal	12			100 08SEP04 A	14SEP04 A	08SEP04 A	14SEP04 A			
<b>Wetmain Connection by WSD</b>											
02ABUD0100	Submit the Coordinates of Culvert	1			100 08SEP04 A	08SEP04 A	08SEP04 A	08SEP04 A			
02ABUD0200	Predrilling (P-1-P8)	45			100 10SEP04 A	16SEP04 A	10SEP04 A	16SEP04 A			
02ABUD0300	Predrilling (P-9-P11)	24			100 13OCT04 A	19OCT04 A	13OCT04 A	19OCT04 A			
02ABUD0400	Predrilling ( Pier 1 )	30			100 25SEP04 A	23OCT04 A	25SEP04 A	23OCT04 A			
<b>Wetmain Connection by WSD</b>											
02ABUD0100	Submit the Coordinates of Culvert	1			100 08SEP04 A	08SEP04 A	08SEP04 A	08SEP04 A			
02ABUD0200	Predrilling (P-1-P8)	45			100 10SEP04 A	16SEP04 A	10SEP04 A	16SEP04 A			
02ABUD0300	Predrilling (P-9-P11)	24			100 13OCT04 A	19OCT04 A	13OCT04 A	19OCT04 A			
02ABUD0400	Predrilling ( Pier 1 )	30			100 25SEP04 A	23OCT04 A	25SEP04 A	23OCT04 A			





Act ID	Description	Orig Dur		Total Float	Percent Complete	Early Start	Late Finish	W J J	2004	Late Start	2005	W J J	2005	W J J	2006	W J J	2006	W J J	2007
		Start	End																
02MBDA0900	Instl. Stress Tendons & Grouting	12		69d		01NOV05	05DEC05	11FEB06	24FEB06										
02MBDB1000	Remove Formwork & Scaffolding	6		89d		012OCT05	17DEC05	04MARS06	10MARS06										
02MBDB1100	Construct Perpel.	48		14d		01OCT05	05DEC05	25MAY06	23MUL06										
02MBDA1200	Construct Centre Barrier	20		14d		01FEB06	23FEB06	20JUL06	11AUG06										
<b>Ridge Deck - Plur. 1 to Pier 2</b>																			
02MBBD0100	Erect Scaffolding	8		57d		03AUG05	12OCT05	08DEC05	17DEC05										
02MBBD0200	Erect Formwork (Bottom Slab)	8		57d		013OCT05	21OCT05	19DEC05	27DEC05										
02MBBD0300	Steel Fixing	8		57d		022OCT05	31OCT05	28DEC05	05JAN06										
02MBBD0400	Erect Formwork (Ticker)	6		57d		03NOV05	03NOV05	05JAN06	14JAN06										
02MBBD0500	Concrete	1		57d		010NOV05	10NOV05	16JAN06	18JAN06										
02MBBD0600	Erect Framework (Diaphragm & Top Slab)	8		57d		011NOV05	19NOV05	17JAN06	25JAN06										
02MBBD0700	Steel Fixing	6		57d		021NOV05	28NOV05	25JAN06	03FEB06										
02MBBD0800	Concreting	1		57d		026NOV05	26NOV05	03FEB06	03FEB06										
02MBBD0900	Install Stress Tendons & Grouting	12		57d		03DEC05	17DEC05	11FEB06	24FEB06										
02MBBD1000	Remove Formwork & Scaffolding	6		57d		02JAN06	02JAN06	07JAN06	17JAN06										
02MBBD1100	Construct Perpel.	36		13d		019DEC05	28JAN06	29MAY06	1JUL06										
02MBBD1200	Construct Centre Barrier	27		13d		01FEB06	03MAR06	12JUL06	11AUG06										
<b>Ridge Deck - Plur. 2 to North Abutment</b>																			
02MBDC0100	Erect Scaffolding	8		57d		010JAN06	17JAN06	11MARS06	17MARS06										
02MBDC0200	Erect Formwork (Bottom Slab)	6		57d		011JAN06	26JAN06	26MARS06	05APR06										
02MBDC0300	Steel Fixing	6		57d		027JAN06	07FEB06	07APR06	07APR06										
02MBDC0400	Erect Formwork (Ticker)	8		57d		03FEB06	16FEB06	17APR06	25APR06										
02MBDC0500	Concrete	1		57d		017FEB06	17FEB06	17FEB06	25APR06										
02MBDC0600	Erect Framework (Diaphragm & Top Slab)	8		57d		018FEB06	27FEB06	27FEB06	27FEB06										
02MBDC0700	Steel Fixing	6		57d		028FEB06	03MAR06	03MAY06	13MAY06										
02MBDC0800	Concreting	1		57d		037MAR06	07MAR06	15MAY06	15MAY06										
02MBDC0900	Install Stress Tendons & Grouting	12		57d		015APR06	20MAY06	23MAY06	06JUN06										
02MBDC1000	Remove Formwork & Scaffolding	6		57d		013APR06	19APR06	13JUL06	19JUL06										
02MBDC1100	Construct Perpel.	36		57d		029MAY06	11MAY06	07JUL06	19JUL06										
02MBDC1200	Construct Centre Barrier	38		7d		018APR06	18APR06	08JUL06	11AUG06										
<b>Abutments Work</b>																			
02MBAW0100	Install Draining System	20		57d		012MAY06	05JUN06	20JUL06	11AUG06										
02MBAW0200	Install Aluminium Rail	20		57d		012MAY06	05JUN06	20JUL06	11AUG06										
02MBAW0300	Install Public Lighting Post	12		65d		025MAY06	25MAY06	29JUL06	11AUG06										
02MBAW0400	Soil Lighting	6		65d		03DEC05	10DEC05	01APR06	05APR06										
<b>Zones and Paving</b>																			
02MBRP0100	North Abutment - Backfill to Formation	40		9d		017JAN06	06MARS06	10MAY06	26JUN06										
02MBRP0200	North Abutment - Ley Subbase	8		9d		018APR06	21APR06	03AUG06	11AUG06										
02MBRP0300	Road Pavement	18		20d		010JUL06	29JUL06	12AUG06	03SEP06										
02MBRM0100	Appl. Road Marking	2		28d		013JUL06	01AUG06	02SEP06	03SEP06										
02MBRM0200	Erect Signage	12		28d		017JUL06	28JUL06	19AUG06	01SEP06										
<b>Establishing Wall</b>																			
02REWA0100	Bay 1	16		23d		013AUG05	31AUG05	16SEP05	06OCT05										
02REWA0200	Bay 2	14		23d		01SEP05	01SEP05	07OCT05	24OCT05										
02REWA0300	Bay 3	14		23d		01SEP05	05OCT05	25OCT05	03NOV05										
02REWA0400	Bay 4	14		23d		01OCT05	22OCT05	16NOV05	25NOV05										
02REWA0500	Bay 5	14		23d		02OCT05	08OCT05	21OCT05	12DEC05										
02REWA0600	Bay 6	14		107d		03NOV05	24NOV05	16NOV05	31MAR06										
<b>Leader - Wai Kee (C&amp;T) Joint Venture</b>																			
<b>TP37/03 - Initial Works Programme</b>																			
Updated to 28 January 2005																			



Private Systems No.  Summary Ref.  Final mainline section  
Detailed mainline section

Act ID	Description	Orig Total Dur	Percent Complete	Early Start	Late Finish	M J	2004	A S O N D J F M A M J	2005	D J F M A M J	2006	D J F M A M J	2007
2REWA1070	Bay 7	14	107d	0 23NOV05	10DEC05	0 1APR06	18APR05			01AUG06	05MAY06	05MAY06	01JUN07
2REWA0550	Bay 8	14	107d	0 12DEC05	27DEC05	0 13APR06	05MAY05			01AUG06	05MAY06	05MAY06	01JUN07
2REWA0500	Bay 9	14	114d	0 12NOV05	28NOV05	0 13APR06	12MAY05			01AUG06	05MAY06	05MAY06	01JUN07
2REWA1000	Bay 10	14	114d	0 28NOV05	1DEC05	0 11APR06	29APR05			01AUG06	05MAY06	05MAY06	01JUN07
2REWA1100	Bay 11	14	114d	0 15DEC05	30DEC05	0 02MAY06	17MAY05			01AUG06	05MAY06	05MAY06	01JUN07
2REWA1200	Filling to Road Formation Levels	20	107d	0 20DEC05	15AN06	0 05MAY06	21MAY05						
<b>ad Di</b>													
2RDWV0100	Decide Exact Location of Manholes & Catchpits	1	165d	0 13AUG05	13AUG05	0 28FEB06	28FEB05						
2RDWV0200	S615 - S705	36	39d	0 02JAN06	14FEB06	0 19FEB06	31MAR05						
2RDWV0300	S625 - S829	31	93d	0 07MAR06	12APR06	0 27JUN06	02AUG05						
2RDWV0400	S698 - S710	27	98d	0 04NOV05	05DEC05	0 01MAY06	31MAR05						
2RDWV0500	S81PA - S610 (TTA No. 01)	20	101d	0 16FEB06	10MAR06	0 17JUN06	11JUL05						
2RDWV0600	S610 - S710 (TTA No. 04)	22	21d	0 15JUN06	11JUL06	0 04AUG06	04AUG05						
2RDWV0700	Replace 500 Pipe by 900 Pipe (TTA No. 04)	20	15d	0 08JUL06	09JUL06	0 26JUL06	26JUL06						
2RDWV0800	Reconstructed Existing MW 1800 Chamber (TTA No. 05)	22	19d	0 19AUG06	13SEP06	0 05OCT06	05OCT06						
2RDWV0900	Construct Gullies to Existing Pipe (TTA No. 09)	8	15d	0 09SEP06	16SEP06	0 27SEP06	03OCT06						
2RDWV1000	Construct Gullies to Existing Pipe (TTA No. 09)	10	15d	0 19OCT06	31OCT06	0 07NOV06	11NOV06						
<b>Wkhs</b>													
2RDUT0000	WMT & HGC - Laying Cable Duct	17	39d	0 01MAY06	20MAY06	0 08MAY06	08MAY05						
2RDUT0100	WMT & HGC Cable Connection	27	148d	0 21MAY06	21APR06	0 14SEP06	11OCT05						
2RDUT0200	WMT & Laying Cable Duct	17	39d	0 21MAY06	10APR06	0 10APR06	08MAY05						
2RDUT0300	WMT - Cable Connection	26	132d	0 11APR06	11APR06	0 15SEP06	16OCT05						
2RDUT0400	PCCW - Laying Cable Duct	40	39d	0 11APR06	27MAY06	0 14JUL06	14JUL06						
2RDUT0500	PCCW - Cable Connection	39	44d	0 28MAY06	14JUL06	0 21JUL06	04SEP06						
2RDUT0600	Watermain - Laying PW Main Crossing	12	39d	0 15FEB06	01APR06	0 14APR06	15APR05						
2RDUT0700	Watermain - Laying PW Main Crossing (TTA No. 04)	8	15d	0 10JUL06	18JUL06	0 21JUL06	21JUL06						
2RDUT0800	Watermain - Replace Fresh Main (TTA No. 01)	18	101d	0 11MAY06	31MAY06	0 01AUG06	01AUG06						
2RDUT0900	Watermain - Replace Fresh Main (TTA No. 03)	18	15d	0 19AUG06	01SEP06	0 26SEP06	26SEP06						
2RDUT1000	Install Public Lighting Post (TTA No. 04)	8	21d	0 02AUG06	10AUG06	0 26AUG06	04SEP06						
2RDUT1100	Install Public Lighting Post (TTA No. 09)	8	24d	0 15NOV06	21NOV06	0 15DEC06	23DEC05						
<b>Lighting Ducts and Kerb</b>													
2RPK0100	Lay Kerb	14	33d	0 20JUL06	06AUG06	0 21AUG06	21AUG05						
2RPK0200	Lay Kerb (TTA No. 04)	6	15d	0 26JUL06	01AUG06	0 12AUG06	18AUG05						
2RPK0300	Lay Kerb (TTA No. 09)	6	15d	0 08NOV06	14NOV06	0 14NOV06	23NOV05						
2RPK0400	Construct Central Divider	24	43d	0 29MAY06	28JUN06	0 23JUL06	16AUG05						
2RPK0500	Construct Central Divider (TTA No. 06)	12	15d	0 19SEP06	02OCT06	0 05OCT06	20OCT05						
2RPK0600	Construct CPB	24	43d	0 29MAY06	26JUN06	0 20JUL06	16AUG05						
2RPK0700	Lighting Duct & Cable Duct	18	39d	0 20MAY06	15JUL06	0 15JUL06	01AUG05						
2RPK0800	Lighting Duct & Cable Duct (TTA No. 04)	6	15d	0 19JUL06	25JUL06	0 05AUG06	11AUG05						
2RPK0900	Lighting Duct & Cable Duct (TTA No. 09)	6	15d	0 01NOV06	07NOV06	0 21NOV06	21NOV05						
<b>Driveway, Pavings and Paving</b>													
2DRP0100	Trim Formation & Lay Subbase	20	39d	0 20JUN06	13JUL06	0 05AUG06	28AUG05						
2DRP0200	Trim Formation & Lay Subbase (TTA No. 01)	10	101d	0 01AUG06	01AUG06	0 12AUG06	01SEP05						
2DRP0300	Trim Formation & Lay Subbase (TTA No. 02)	6	101d	0 27AUG06	01SEP06	0 01SEP06	01SEP05						
2DRP0400	Trim Formation & Lay Subbase (TTA No. 04)	6	15d	0 28JUL06	03AUG06	0 15AUG06	21AUG05						
2DRP0500	Trim Formation & Lay Subbase (TTA No. 05)	6	15d	0 28SEP06	04OCT06	0 17OCT06	22OCT05						
2DRP0600	Trim Formation & Lay Subbase (TTA No. 09)	6	15d	0 15NOV06	21NOV06	0 03DEC06	03DEC05						
2DRP0700	Road Pavement - W/C	6	39d	0 14JUL06	20JUL06	0 29AUG06	04SEP06						
<b>Leader - Wai Kee (C&amp;T) Joint Venture</b>													
<b>TP37/03 - Initial Works Programme</b>													
Updated to 28 January 2005													







Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Late Finish	M	J	2004	A S O N D	J F M A M J	2005	A S O N D	J F M A M J J	2006	A S O N D	J F M A M J J	2007
ZEBR0300	Erect Signage				12	5dd	0	31SEP06	14OCT06	09DEC05	22DEC05							
ZEBR0400	Install Railing, Fencing & etc				12	5dd	0	52SEP06	14OCT06	09DEC05	22DEC05							
	Park and Access Road																	
Faingoo Works																		
ZCPDW1200	SSB2 - Existing Culvert				21	16d	0	17JAN06	21FEB06	16AUG05	11SEP06							
ZCPDW1300	C/GDW1200				16	16d	0	22FEB06	11MAR06	12SEP06	20SEP06							
Jilly Works																		
ZCPPL0500	Install Public Lighting Post				8	16d	0	08MAY05	16MAY05	16DEC05	25DEC05							
Public Lighting Duct and Kerb					23	16d	0	13MAR06	08APR06	30SEP05	27OCT06							
ZCPPL0100	Construct Duct Wall				8	16d	0	24APR06	06MAY05	16JULY05	24NOV05							
Lay Kerb					10	20d	0	10APR06	26APR06	05DEC05	15DEC06							
ZCPPL0300	Public Lighting Controller				15	16d	0	10APR06	26APR06	26CCT05	15NOV06							
ZCPPL0400	Lighting Duct & Cable Duct				8	17dd	0	08MAY05	16MAY05	06DEC05	13DEC06							
Lighting Duct and Paving					8	17dd	0	17MAY05	25MAY06	14DEC05	22DEC05							
ZCPRP0200	Road Paving				18	16d	0	08MAY05	27MAY06	25NOV05	15DEC05							
ZCPRP0300	Construct Footpath				2	16d	0	08JUN06	07JUN06	23DEC05	25DEC05							
ZCPRP0400	Footpath, Traffic Signs and Fencing				6	16d	0	28MAY06	05JUN06	16DEC05	22DEC05							
ZCPRN0100	Apply Road Marking				6	16d	0	28MAY06	05JUN06	16DEC05	22DEC05							
	Tenancy Area																	
Faingoo Works																		
ZAMDNW100	Construct U-Channels				18	16dd	0	15APR06	06MAY06	05DEC05	25DEC05							
Jilly Works																		
ZAMHWT0100	Water Point W/P1-3 to Water Meter No. 1				18	7d	0	25AUG05	14SEP05	21NOV05	11DEC06							
ZAMHWT0200	Water Point W/P2-3 to Water Meter No. 2				17	10d	0	09AUG05	23AUG05	08DEC05	25DEC05							
ZAMHWT0300	Water Point W/P3-5 to Water Meter No. 3				26	15d	0	22MAY06	21JUN06	25NOV05	15DEC05							
ZAMHWT0400	Water Point W/P8-2 to Water Meter No. 8				12	7d	0	15SEP06	07SEP06	12DEC05	25DEC05							
	Section 3																	
	Liu Shui Subway																	
ZALSHS0100	Temp House Construction				8	36d	0	17SEP05	27SEP05	05DEC05	16DEC05							
ZALSHS0200	Construct Base Slab				9	30d	0	29SEP05	07OCT05	15NOV05	24NOV05							
ZALSHS0200	Construct Wall up to Base Slab				9	49d	0	31OCT05	12NOV05	15DEC05	28DEC05							
ZALSHS0300	Construct Wall up to Top Slab				12	36d	0	21NOV05	01DEC05	12JAN06	25JAN06							
ZALSHS0400	Construct Top Slab				12	36d	0	21NOV05	10DEC05	12DEC05	25DEC05							
ZALSHS0500	Install Hoisting Beam				6	30d	0	21NOV05	26NOV05	05JAN06	11JAN06							
	Subway Barrel Construction				20	15d	0	13AUG05	16SEP05	31AUG05	06OCT05							
ZAMSSB0100	Excavation				9	16d	0	31AUG05	08SEP05	20SEP05	25SEP05							
ZAMSSB0200	Construct Subway #1 Base Slab				9	49d	0	10SEP05	21SEP05	10NOV05	19NOV05							
ZAMSSB0300	Construct Subway #2 Base Slab				9	49d	0	22SEP05	03OCT05	21NOV05	30NOV05							
ZAMSSB0400	Construct Subway #3 Base Slab				12	36d	0	17OCT05	29OCT05	01DEC05	14DEC05							
ZAMSSB0500	Construct Subway #4 Base Slab				12	36d	0	18OCT05	31OCT05	11NOV05	20NOV05							
ZAMSSB0600	Construct Subway #1 Wall + Top Slab				12	5d	0	10SEP05	24SEP05	17NOV05	30NOV05							
ZAMSSB0700	Construct Subway #2 Wall + Top Slab				12	5d	0	14NOV05	26NOV05	12JAN06	25JAN06							
ZAMSSB0800	Construct Subway #3 Wall + Top Slab				12	49d	0	04OCT05	18OCT05	01DEC05	14DEC05							
ZAMSSB0900	Construct Subway #4 Wall + Top Slab				12	5d	0	31OCT05	12NOV05	29DEC05	11JAN06							
ZAMSSB1000	Excavation				16	36d	0	12DEC05	31DEC05	25JAN06	17FEB06							
ZAMSSB1000	Excavation				44	15d	0	31AUG05	24OCT05	02OCT05	17NOV05							
ZAMSSB1100	Construct E1 Ramp Base Slab				6	43d	0	27OCT05	20NOV05	16DEC05	22DEC05							
ZAMSSB1200	Construct E2 Ramp Base Slab				6	41d	0	29OCT05	26OCT05	07DEC05	13DEC05							
ZAMSSER300	Construct E3 Ramp Base Slab																	
	Wai Kee																	
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ZENS

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Date	10/07/04	Early start date	28/06/04	Early finish point	05/08/04
Target start point	ZJANS00	Target finish point	ZJANS01	Target base	ZJANS02
Site name	IPOG	Site number	11A	Cricket bar	Sunnyline bar
Number	1	Project no.	1	Contract bar	Finish milking point
Pneumatic Systems, Inc.					

Act ID	Description	Orig Dur	Total Dur	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	M	J	A	S	O	N	D	J	F	M	A	M	2004	2005	2006	2007	
03MSSSE400	Construct E3 Ramp Base Slab	6	21d	0	21OCT05	28NOV05	28OCT05	28NOV05	0																
03MSSSE500	Construct E4 Ramp Base Slab	6	21d	0	21OCT05	28NOV05	21NOV05	28NOV05	0																
03MSSSE600	Construct E5 Ramp Base Slab	6	21d	0	19OCT05	14NOV05	19OCT05	14NOV05	1																
03MSSSE700	Construct E6 Ramp Base Slab	6	21d	0	05OCT05	12NOV05	12OCT05	07NOV05	0																
03MSSSE800	Construct E7 Ramp Base Slab	6	21d	0	21SEP05	04OCT05	31OCT05	04OCT05	0																
03MSSSE900	Construct E8 Ramp Base Slab	6	17d	0	20SEP05	12OCT05	19OCT05	19OCT05	0																
03MSSSE1000	Construct E9 Ramp Base Slab	6	15d	0	12SEP05	17SEP05	17SEP05	17SEP05	0																
03MSSSE1100	Construct E10 Ramp Base Slab	8	15d	0	20SEP05	18OCT05	18OCT05	18OCT05	0																
03MSSSE1200	Construct E11 Ramp Base Slab	8	15d	0	23SEP05	08OCT05	08OCT05	07NOV05	1																
03MSSSE1300	Construct E12 Ramp Base Slab	8	15d	0	10OCT05	19OCT05	19OCT05	19OCT05	1																
03MSSSE1400	Construct E1 Ramp Walls	8	15d	0	01OCT05	09OCT05	01OCT05	01OCT05	0																
03MSSSE1500	Construct E2 Ramp Walls	8	15d	0	22NOV05	30NOV05	22NOV05	22NOV05	0																
03MSSSE1600	Construct E3 Ramp Walls	8	15d	0	12NOV05	21NOV05	12NOV05	12NOV05	0																
03MSSSE1700	Construct E4 Ramp Walls	8	15d	0	21NOV05	22NOV05	12DEC05	12DEC05	0																
03MSSSE1800	Construct E5 Ramp Walls	8	15d	0	15NOV05	23NOV05	22OCT05	22OCT05	0																
03MSSSE1900	Construct E6 Ramp Walls	6	15d	0	05NOV05	14NOV05	23NOV05	23NOV05	0																
03MSSSE2000	Construct E7 Ramp Walls	10	15d	0	25OCT05	04NOV05	11NOV05	11NOV05	0																
03MSSSE2100	Construct E8 Ramp Walls	10	15d	0	19OCT05	24OCT05	12DEC05	12DEC05	0																
03MSSSE2200	Construct E9 Ramp Walls	10	15d	0	23SEP05	12OCT05	19OCT05	19OCT05	0																
03MSSSE2300	Construct E10 Ramp Walls	10	15d	0	13OCT05	24OCT05	04OCT05	04OCT05	0																
03MSSSE2400	Construct E11 Ramp Walls	8	15d	0	25OCT05	02NOV05	11NOV05	11NOV05	0																
03MSSSE2500	Construct E12 Ramp Walls	8	15d	0	19OCT05	24OCT05	11NOV05	11NOV05	0																
03MSSSE2600	Backfilling	20	15d	0	03DEC05	26DEC05	21OCT05	21OCT05	0																
03MSSSE2700	Install Roof Steel Posts	10	9d	0	17OCT05	16JAN06	17APR06	08MAY06	0																
03MSSSE2800	Construct Roof Slab E6, E8	12	9d	0	17OCT05	01FEB06	01FEB06	15FEB06	0																
03MSSSE2900	Construct Roof Slab E5, E7	12	9d	0	12OCT05	25OCT05	11NOV05	11NOV05	0																
03MSSSE3000	Construct Roof Slab E4, E9	12	9d	0	07JUN06	01MAR06	07JUN06	07JUN06	0																
03MSSSE3100	Construct Roof Slab E3, E10	12	9d	0	02MAR06	15MAR06	21JUN06	05JUL06	0																
03MSSSE3200	Construct Roof Slab E2, E11	12	9d	0	16MAR06	19MAR06	05JUL06	19JUL06	0																
03MSSSE3300	Construct Root Slab E1, E12	12	9d	0	30MAR06	13APR06	20JUL06	02AUG06	0																
Subway West Ramp Construction		41	4d	0	25OCT05	10DEC05	21DEC05	04FEB06	0																
03MSSSW0100	Excavation (Western Ramp)				8	75d	0	13DEC05	0																
03MSSSW0200	Construct W1 Ramp Base Slab				8	73d	0	01DEC05	12OCT05	0															
03MSSSW0300	Construct W2 Ramp Base Slab				8	71d	0	24NOV05	02DEC05	0															
03MSSSW0400	Construct W3 Ramp Base Slab				8	49d	0	15NOV05	23NOV05	0															
03MSSSW0500	Construct W4 Ramp Base Slab				8	49d	0	05NOV05	14NOV05	0															
03MSSSW0600	Construct W5 Ramp Base Slab				8	49d	0	15NOV05	23NOV05	0															
03MSSSW0700	Construct W6 Ramp Base Slab				8	91d	0	24NOV05	02DEC05	0															
03MSSSW0800	Construct W7 Ramp Base Slab				10	35d	0	09FEB06	20FEB06	0															
03MSSSW0900	Construct W1 Ramp Walls				10	35d	0	15NOV05	01DEC05	0															
03MSSSW1000	Construct W2 Ramp Walls				10	35d	0	26JAN06	02FEB06	0															
03MSSSW1100	Construct W3 Ramp Walls				10	35d	0	14JAN06	23JAN06	0															
03MSSSW1200	Construct W4 Ramp Walls				10	35d	0	03JAN06	13JAN06	0															
03MSSSW1300	Construct W5 Ramp Walls				20	35d	0	01FEB06	20JAN06	0															
03MSSSW1400	Construct W6 Ramp Walls				20	45d	0	03JAN06	25JAN06	0															
03MSSSW1500	Construct W7 Ramp Walls				20	35d	0	21FEB06	15MAR06	0															
03MSSSW1600	Backfilling				18	50d	0	16APR06	06APR06	0															
03MSSSW1700	Install Roof Posts				18	50d	0	16APR06	06APR06	0															

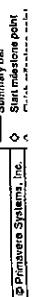
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Act ID	Description	Orig Dur	Total Dur	Percent Complete	Early Start	Late Finish	2004		2005		2006		2007	
							M	J	A	S	O	N	D	J
1MSSW1800	[Construct Roof Slab W4]	12	5d	0	21APR05	20JUN05								
1MSSW1900	[Construct Roof Slab W3, W5]	12	5d	0	21APR05	05JUL05	21JUN05	05JUL05						
1MSSW2000	[Construct Roof Slab W2, W6]	12	5d	0	06MAY05	19JUN05	05JUL05	19JUL05						
1MSSW2100	[Construct Roof Slab W1, W7]	12	5d	0	20MAY05	03JUN05	20JUN05	02JUL05						
<b>Pumping and Draining System</b>														
2MSPD0100	[Pumping System Installation]	30	18d	0	01FEL05	27MAR06	15DEC05	20NOV05						
2MSPD0200	[Drainage System Installation]	20	5d	0	05JUN05	27JUN05	03JUL05	25JUL05						
<b>Miscellaneous Works</b>														
3MSMW1500	[Miscellaneous Metal Works]	24	5d	0	21SEP05	19OCT06	28NOV05	25DEC05						
<b>Finishing Works</b>														
3MSFW1000	[Finishing Works at Barrel]	24	5d	0	26JUN05	26JUL05	26AUG05	22SEP05						
3MSFW2000	[Finishing Works at East Ramp]	24	5d	0	02JUL05	12AUG05	32SEP05	21OCT05						
3MSFW3000	[Finishing Works at West Ramp]	24	5d	0	02AUG05	20SEP05	23OCT05	20NOV05						
<b>&amp; M Works</b>														
03NSEM0100	[Electrical Installation at Barrel & Pump House]	24	9d	0	27JUL05	22AUG05	21NOV05	18DEC05						
03NSEM0200	[Electrical Installation at East Ramp]	24	7d	0	02AUG05	20SEP05	21NOV05	18DEC05						
03NSEM0300	[Electrical Installation at West Ramp]	24	5d	0	02SEP05	19OCT05	21NOV05	18DEC05						
<b>Getting and Committing</b>														
03NSC0100	[Pumping System & Electrical Installation]	6	5d	0	02OCT05	28OCT05	19DEC05	25DEC05						
<b>Delivery and Unloading Area</b>														
<b>Vitrification Works</b>														
03LUDW0100	[Deliver Location of Manholes & Catchpits]	1	21d	0	13APR05	13AUG05	26APR05	26APR05						
03LUDW200	[F302 - F306]	25	3d	0	19MAY05	30JUN05	31JUL05							
03LUDW300	[Trial Pit for F306 + F308A]	10	27d	0	13AUG05	24AUG05	13JUL05	24JUL05						
03LUDW400	[F305 - F306A (TTA No. 09)]	11	27d	0	07OCT05	18NOV05	03OCT05	18OCT05						
03LUDW500	[F308A - Existing Sewer Manhole]	11	19d	0	19OCT05	01NOV05	11NOV05	23NOV05						
03LUDW600	[S712 - S522]	21	27d	0	18NOV05	13DEC05	17OCT05	19NOV05						
03LUDW700	[S712 - S516]	11	3d	0	11APR05	10APR05	10APR05	12APR05						
03LUDW800	[S716 - S524]	21	3d	0	24APR05	16MAY05	05JUN05	06JUN05						
03LUDW900	[S716 - S523 (TTA no. 04)]	26	5d	0	02JUN05	20JUL05	28AUG05	26SEP05						
03LUDW1000	[S713 - S534]	21	3d	0	20JUN05	14JUL05	01AUG05	02AUG05						
<b>Utility Works</b>														
03LUJUT0100	[CLP - Laying LV Cable]	5	3d	0	18AUG05	22AUG05	20SEPT05	03OCT05						
03LUJUT0200	[CLP - Construct Pillar Box]	5	18d	0	16AUG05	21MAY06	23SEPT05	27SEPT05						
03LUJUT0300	[Install Public Lighting Post]	8	2d	0	16NOV05	24NOV05	10DEC05	25DEC05						
<b>Public Lighting, Driveway, Kerb</b>														
03LUJUP0100	[Construct Driveway Wall]	50	3d	0	20JUN05	17AUG05	01AUG05	27SEPB05						
03LUJUP0200	[Construct Driveway Wall (TTA No. 04)]	6	8d	0	21JUL05	27JUL05	02SEPT05	03OCT05						
03LUJUP0300	[Lay Kerb (TTA No. 04)]	12	3d	0	14SEP05	27SEP05	20OCT05	09NOV05						
03LUJUP0400	[Lay Kerb (TTA No. 09)]	6	19d	0	08NOV05	15NOV05	01DEC05	07DEC05						
03LUJUP0500	[Lighting Drenphl & Cable Duct (TTA No. C4)]	18	3d	0	24AUG05	15SEP05	09OCT05	25OCT05						
03LUJUP0600	[Lighting Drenphl & Cable Duct (TTA No. G9)]	6	19d	0	02SEPT05	08NOV05	24NOV05	30NOV05						
<b>Roads and Pavings</b>														
03LUJUP0700	[Trim Formation & Lay Subbase (TTA No. 09)]	8	1d	0	11NOV05	20NOV05	04DEC05	12DEC05						
03LUJUP0800	[Road Paving (TTA No. 09)]	8	1d	0	21NOV05	29NOV05	13DEC05	21DEC05						
03LUJUP0900	[Construct Footpath (TTA No. G5)]	24	3d	0	28SEPT05	25OCT05	10NOV05	07DEC05						
03LUJUP0100	[Construct Footpath (TTA No. G9)]	6	19d	0	16NOV05	22NOV05	08DEC05	14DEC05						
<b>Road Marking, Traffic Sign and Fencing</b>														
03LUJUR0100	[Apply Road Marking]	2	1d	0	30NOV05	01DEC06	22DEC05	22DEC05						
03LUJUR0200	[Erect Signage]	6	1d	0	23NOV05	28NOV05	15DEC05	21DEC05						
03LUJUR0300	[Install Railing, Fencing & etc]	6	1d	0	23NOV05	29NOV05	15DEC05	21DEC05						
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Act ID	Description	Orig Dur	Total Percent Complete	Early Start	Late Finish	Late Start	Late Finish	2007 J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M 2006									
								2004	2005	M J J	A S O N D	J F M A M J J	A S O N D	J F M A M J J	A S O N D	J F M A M J J	
<b>Mainly Area</b>																	
Ground Works	Contract U-Channels			35	73d	0 18AUG06	28SEP06	14NOV06	24DEC06								Contract U-Channels
Utility Works	Water Point Wp4-2 to Water Meter No.3	16	63d	0 29AUG06	12SEP06	09NOV06	27NOV06										
03ANAU0100	Water Point Wp4-2 to Water Meter No.3	10	63d	0 25SEP06	23SEP06	21NOV06	01DEC06										
03ANAU0200	Water Point Wp5-1 to Water Meter No.5																
03ANAU0300	Water Point Wp5-2 to Water Meter No.6	14	63d	0 25SEP06	11OCT06	08DEC06	29DEC06										
<b>Section 4</b>																	
<b>Public Toilet No. 2</b>																	
Foundation Construction																	
04PTFC0100	Excavation to Formation Level	6	15d	0 28AUG05	05SEP05	15SEP05	22SEP05										
04PTFC0200	Subsoil Inspection by Structural Engineer	1	15d	0 07SEP05	03SEPO5	22SEPO5											
04PTFC0300	Blinching	1	15d	0 06SEP05	01SEPO5	21SEPO5											
04PTFC0400	Steel Fixing for Fixeling	6	15d	0 07SEP05	13SEP05	28SEP05	03OCT05										
04PTFC0500	Fixework	4	15d	0 14SEP05	17SEP05	04OCT05	09OCT05										
04PTFC0600	Concreting	1	15d	0 26SEP05	29SEP05	09OCT05	13OCT05										
04PTFC0700	Steel Fixing for Walls & Columns	3	15d	0 21SEP05	10OCT05	10OCT05	19OCT05										
04PTFC0800	Fixework	4	15d	0 24SEP05	28SEP05	14OCT05	19OCT05										
04PTFC0900	Concreting	1	15d	0 28SEP05	29SEP05	19OCT05	19OCT05										
04PTFC1000	Remove Fixework	6	15d	0 30SEP05	07OCT05	29OCT05	29OCT05										
04PTFC1100	Backfilling	12	15d	0 08OCT05	22OCT05	27OCT05	08NOV05										
Ground Floor Slab Construction																	
Ground Floor Slab Construction																	
04PTGF0100	Erect Propriety & Formwork	6	15d	0 21OCT05	25OCT05	11NOV05	16NOV05										
04PTGF0200	Ground Slab Steel Fixing	3	15d	0 24OCT05	02NOV05	11NOV05	15NOV05										
04PTGF0300	Formwork	2	15d	0 03NOV05	04NOV05	04NOV05	21NOV05										
04PTGF0400	Concreting	1	15d	0 05NOV05	05NOV05	05NOV05	23NOV05										
04PTGF0500	Erect Scaffoldings	3	15d	0 07NOV05	09NOV05	09NOV05	26NOV05										
04PTGF0600	Walls & Columns Formwork	3	15d	0 10NOV05	12NOV05	12NOV05	30NOV05										
04PTGF0700	Steel Fixing for Walls & Columns	3	15d	0 14NOV05	16NOV05	16NOV05	03DEC05										
04PTGF0800	Formwork	3	15d	0 18NOV05	19NOV05	19NOV05	07DEC05										
04PTGF0900	Concreting	1	15d	0 21NOV05	02DEC05	08DEC05	08DEC05										
04PTGF1000	Remove Formwork & Propriety	12	15d	0 30NOV05	13DEC05	17DEC05	30DEC05										
Mezzanine Floor Slab Construction																	
04PTMF0100	Erect Propriety & Formwork	6	15d	0 11DEC05	20DEC05	31DEC05	06JAN06										
04PTMF0200	Mezzanine Slab Steel Fixing	3	15d	0 21DEC05	23DEC05	07JAN06	10JAN06										
04PTMF0300	Formwork	2	15d	0 24DEC05	26DEC05	11JAN06	12JAN06										
04PTMF0400	Concreting	1	15d	0 27DEC05	31DEC05	13JAN06	13JAN06										
04PTMF0500	Walls & Columns Formwork	3	15d	0 29DEC05	30DEC05	14JAN06	17JAN06										
04PTMF0600	Steel Fixing for Walls & Columns	3	15d	0 03JAN06	03JAN06	17JAN06	20JAN06										
04PTMF0700	Formwork	3	15d	0 05JAN06	05JAN06	05JAN06	21JAN06										
04PTMF0800	Concreting	1	15d	0 07JAN06	07JAN06	07JAN06	25JAN06										
04PTMF0900	Remove Formwork & Propriety	12	15d	0 17JAN06	01FEB06	06FEB06	18FEB06										
Upper Mezzanine Floor Slab Construction																	
04PTUF0100	Erect Propriety & Formwork	6	15d	0 02FEB06	08FEB06	11FEB06	17FEB06										
04PTUF0200	Upper Mezzanine Slab Steel Fixing	3	15d	0 05FEB06	05FEB06	14FEB06	19FEB06										
04PTUF0300	Formwork	2	15d	0 07FEB06	07FEB06	15FEB06	20FEB06										
04PTUF0400	Concreting	1	15d	0 09FEB06	09FEB06	24FEB06	29FEB06										
04PTUF0500	Remove Formwork & Propriety	12	15d	0 15FEB06	03MAR06	14MAR06	27MAR06										
Structural Shop Drawings																	
04PTSS0100	Prepare & Submit Shop Drawings	30	24d	0 18AUG05	01AUG05	30AUG05	05SEP05										
04PTSS0200	Engineer's Approval of Shop Drawings	12	24d	0 05AUG05	06AUG05	20AUG05	01SEP05										
<b>Wahee Leader - Wai Kee (C&amp;T) Joint Venture TP37/03 - Initial Works Programme Updated to 28 January 2005</b>																	
 																	

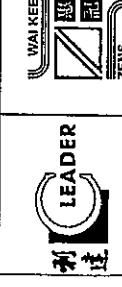








Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Late Finish	Late Start	Late Finish	M J J 2004	A S O N D J F W A M J 2005	A S O N D J F M A M J 2006	A S O N D J F M A M J 2007	
7WPHL000	Construct Pergola (In 20)	47	-4d	0	130E05	07FE06	08E05	26JAN05					
7WPHL100	Construct Pergola (In 25)	24	28d	0	24JUL05	21SEP05	28SEP05	27OCT05					
7WPHL100	Water Point WP24 - In 2B-5 (In 20)	30	27d	0	08NOV05	12DEC05	09E05	12JAN05					
7WPHL200	Water Point WP27-2 - In 2B-4 (In 25)	15	7d	0	30APR05	17MAY05	03AUG05	18AUG05					
7WPHL300	Water Point WP26 - In 2B-5 (In 25)	15	7d	0	18MAY05	03JUN05	20AUG05	03SEP05					
7WPHL400	Water Point WP25-2 - In 2B-4 (In 25)	15	5d	0	29JUN05	16JUL05	07SEP05	24SEP05					
7WPHL500	Public Toilet & Pavilion by ASD's Contractor	303	-7d	0	28DEC04 A	28JAN05	28DEC04 A	03NOV05					
<b>Section 3</b>													
<b>Indicate Node Structure</b>													
8LANS0100	Drilling (Two Drillholes)	16		100	23SEPT04 A	04OCT04 A	23SEPT04 A	04OCT04 A					
8LANS0200	Removal of Existing Armour & Underlayer	6		100	28OCT04 A	05NOV04 A	28OCT04 A	05NOV04 A					
8LANS0300	Demolish Existing Outfall Units & Toe Blocks	15		100	13NOV04 A	16NOV04 A	13NOV04 A	16NOV04 A					
8LANS0400	Remove Existing 5 Cells Box Culvert Units	18	9d	0	26JUN05	21FEB05	18MAY05	07JUN05					
8LANS0500	Removal of Existing Rubble	19	9d	60	19JUN05 A	23FEB05	19JUN05 A	13JUN05					
8LANS0600	Block Wall Construction	31	5d	0	26FEB05	14JUN05	20JUL05						
8LANS0700	Backfill Rubble Behind	10	9d	0	05APR05	15APR05	21MAY05	01AUG05					
8LANS0800	Reinstate 5 Cells Box Culvert Units	18	9d	0	16APR05	06MAY05	12APR05	22APR05					
8LANS0900	Fabrication of 5 Cells Box Culvert Outfalls	60	5d	0	27FEB05	05MAY05	13JUN05	22APR05					
8LANS1000	Install 5 Cells Box Culvert Units	12	5d	0	01MAY05	23MAY05	23APR05	03SEPM5					
8LANS1100	Install Reinforcing Blocks for Both Side Outfall	2	18d	0	21MAY05	23MAY05	21DEC05	27DEC05					
8LANS1200	Reinstate Armour & Underlayer	6	15d	0	24MAY05	28MAY05	27OEC05	31DEC05					
<b>Indicate Node Structure</b>													
8LBNSS0100	Drilling (Two Drillholes)	16		100	27SEPT04 A	16OCT04 A	27SEPT04 A	16OCT04 A					
8LBNSS200	Removal of Existing Armour & Underlayer	6		100	06NOV04 A	08JAN05 A	06NOV04 A	08JAN05 A					
8LBNSS300	Demolish Existing Outfall Units & Toe Blocks	25		100	17NOV04 A	20NOV04 A	17NOV04 A	20NOV04 A					
8LBNS400	Remove Existing 2500m Dia. Concrete Pipe	12	49d	0	02FEB05	18FEB05	05APR05	16APR05					
8LBNS500	Removal of Existing Rubble	18	49d	60	15NOV04 A	23FEB05	15NOV04 A	22APR05					
8LBNS600	Block Wall Construction	33	49d	0	24FEB05	02APR05	23APR05	31MAY05					
8LBNS700	Backfill Rubble Behind	10	49d	0	05APR05	15APR05	01JUN05	13JUN05					
8LBNS800	Reinstate Box Culvert Units	12	49d	0	16APR05	01JUN05	14JUN05	27JUN05					
8LBNS900	Fabrication of Box Culvert Outfalls	60	4d	0	18FEB05	22APR05	18APR05	27JUN05					
8LBNS1000	Install Box Culvert Units	12	49d	0	30APR05	17MAY05	28JUN05	12JUL05					
8LBNS1100	Install Reinforcing Blocks for Both Side Outfall	2	9d	0	14JUN05	16MAY05	01SEP05	22JUN05					
8LBNS1200	Reinstate Armour & Underlayer	5	9d	0	17MAY05	21MAY05	03SEP05	18SEP05					
<b>Wall Adjacent to Lanting Step</b>													
<b>Time Work</b>													
8LMAG0100	Remove of Armour & Underlayer (First 2 Bays)	4		100	10NOV04 A	12DEC04 A	10NOV04 A	12DEC04 A					
8LMAG0200	Removal of Existing Rubble (First 2 Bays)	9	Bd	60	01DEC04 A	01FEB05	01DEC04 A	11FEB05					
8LMAG0300	Placing of Robust Foundation (First 2 Bays)	5	-13d	0	22JAN05	26MAY05	07MAR05	11MAR05					
8LMAG0400	Block Wall Construction (First 2 Bays)	17	-13d	0	10MAY05	28JUN05	25APR05	13MAY05					
8LMAG0500	Backfill the Rubble Behind (First 2 Bays)	1	-13d	0	22JUN05	22JUN05	06JUN05	06JUN05					
8LMAG0600	Backfill the G200 Rockfill Behind (First 2 Bays)	1	-13d	0	27JUN05	10JUN05	10JUN05	10JUN05					
8LMAG0700	Reinforce of Armour & Underlayer (Second 2 Bays)	4		100	09NOV04 A	04DEC04 A	09NOV04 A	04DEC04 A					
8LMAG0800	Remove of Existing Rubble (Second 2 Bays)	9	9d	60	17NOV04 A	17FEB05	17NOV04 A	17FEB05					
8LMAG0900	Placing of Rubble Foundation (Second 2 Bays)	5	-13d	0	28JAN05	01APR05	12MAR05	17MAR05					
8LMAG1000	Block Wall Construction (Second 2 Bays)	17	-13d	0	10MAY05	16JUN05	14MAY05	02JUN05					
8LMAG1100	Backfill the Rubble Behind (Second 2 Bays)	1	-13d	0	23JUN05	23JUN05	07JUN05	07JUN05					
8LMAG1200	Backfill the G200 Rockfill Behind (Second 2 Bays)	1	-13d	0	28JUN05	13JUN05							



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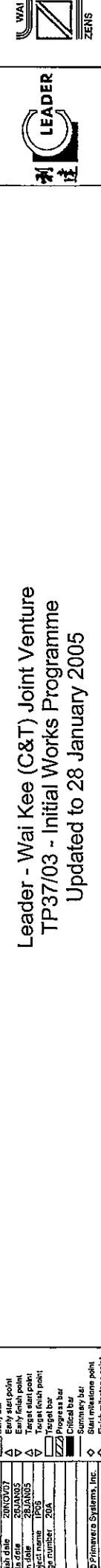
WAI KEE  
C&T  
LEADER  
WAI KEE  
C&T  
LEADER

Waterfront Promenade

Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	2004	2005	2006	
OBALMA1300	Rearrangement of Armour & Underlayer	14	-135		01 JUN 05	27 JUN 05	25 JUN 05	12 JUL 05	J	J	J	
<small>✓ Installation of Armour &amp; Underlayer</small>												

OBALMA1300 Rearrangement of Armour & Underlayer

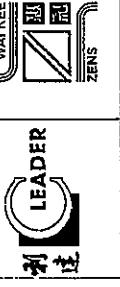
Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	2004	2005	2006
OBALMA1300	Rearrangement of Armour & Underlayer	14	-135		01 JUN 05	27 JUN 05	25 JUN 05	12 JUL 05	J	J	J
Drainage Works											
OBMPFW100	Reinforce Exact Location of Manholes & Catchpits	1		100	21 OCT 04	A	27 SEP 04 A	27 SEP 04 A			
OBMPFW200	\$745 - \$735	55	48d		30 JUN 05	21 OCT 04 A	17MAY05	27 OCT 04 A	1 MAY 05		
OBMPFW300	\$717 - \$723	70	48d		30 JUN 05	22 DEC 04 A	21 MAY 05	22 DEC 04 A	15UL05		
OBMPFW400	\$725 - \$720	14	18d		01 MAY 05	30 JUN 05	18FEC05	31OEC05			
OBMPFW500	\$739 - \$732	50	-13d		02 JUL 05	24 SEP 05	13JUL05	06SEP05			
OBMPFW550	Beverage System (in Z3)	40	46d		02 MAY 05	09 JUL 05	18JUL05	07SEP05			
OBMPFW600	Existing Box Culvert	27	48d		01 JUL 05	10 JUL 05	02 SEP 05	06OCT05			
OBMPFW700	Existing Box Culvert	91	90d		09 JUN 05	A	18JUN05	05NOV05	03NOV05 A	03OCT05	
OBMPFW800	225HR & Catchpit/200D.I. along Planter Wall (Z3)	48	47d		01 MAY 05	08 MAY 05	08 MAY 05	03JUL05			
OBMPFW900	225HR & Catchpit/200D.I. along Planter Wall (Z3)	24	48d		03 MAY 05	27 JUN 05	25JUL05	21AUG05			
OBMPFW1000	225HR & Catchpit/200D.I.along Planter Wall (Z3)	12	48d		01 MAY 05	28 MAY 05	11JUL05	24JUL05			
OBWPDW1100	225HR & Catchpit/200D.I.along Planter Wall (Z3)	6	48d		01 MAY 05	15 MAY 05	04JUL05	10JUL05			
OBWPDW1200	225HR & Catchpit/200D.I. Planter Wall (A, M, L)	80	47d		01 NOV 05	03 NOV 05	09 MAY 05	09 MAY 05			
OBWPDW1300	225UC along Planter Wall (in Z3)	79	50d		01 JUL 05	02 JUL 05	02JUL05	21JUL05			
OBWPDW1400	225UC along Planter Wall (in Z3)	38	48d		01 JUL 05	07 MAR 06	28APR06	1 MAY 06	22JUN05		
OBWPDW1500	225UC along Planter Wall (in Z3)	17	52d		01 FEB 06	08 MAR 06	20APR06	10MAY06			
OBWPDW1600	225UC along Planter Wall (in Z3)	10	54d		01 FEB 06	03 FEB 06	04APR06	15APR06			
OBWPDW1700	225UC along Planter Wall (in Z3 - Landscapes N1)	73	50d		01 MAY 05	01 AUG 05	03JUL05	04OCT05			
OBWPDW1800	225UC along Planter Wall (in Z3, Z1, Z3)	73	53d		01 FEB 06	15 MAY 06	21APR06	15JUL06			
OBWPDW1900	225 Perforated Drain (in Z3)	19	50d		01 FEB 06	05AUG05	26AUG05	05OCT05			
OBWPDW2000	225 Perforated Drain (in Z3)	18	51d		01 FEB 06	09AUG05	18APR06	10MAY06			
OBWPDW2100	225 Perforated Drain (in Z3)	9	53d		01 FEB 06	03FEB06	13FEB06	19APR06			
OBWPDW2200	225 Perforated Drain (in Z3)	5	56d		01 FEB 06	24JAN06	01APR06	07APR06			
OBWPDW2300	225 Perforated Drain (Z3 - CFP82)	24	50d		01 FEB 06	012APR05	09NAV05	08JUL05			
OBWPDW2400	Remove Existing 3250 Drainspipe	18	73d		01 JUL 05	02 JUL 05	01FEB05	28APR05	18MAY05		
Utility Works											
OBWPDU100	Watermain - Lay Silt Main	18	125d		01 JUL 05	30JUL05	08DEC05	28DEC05			
OBWPDU200	PCCW - Lay Cable (in Z3)	48	70d		02AUG05	21OCT05	11NOV05	11JAN06			
OBWPDU300	PCCW - Lay Cable (in Z3)	22	70d		01 IDEC05	25JAN06	25MAR06	26APR06			
OBWPDU400	PCCW - Lay Cable (in Z3)	19	70d		02 DEC 05	30DEC25	19MARD05	24MARD05			
OBWPDU500	PCCW - Lay Cable (in Z3)	6	70d		03 DEC 05	19DEC05	07MARD05	15MARD05			
OBWPDU1000	PCCW - Lay Cable (in Z3, ZM, Z1)	44	70d		02 OCT 05	12DEC05	12JAN06	05MARD05			
OBWPFT1200	HKCC - 325RP Riser	3	130d		02 JUL 05	30JUL05	30DEC05	02JAN06			
OBWPFT1300	HKCC - 90 GRP Riser	5	130d		01 AUG 05	06AUG05	03JAN06	07JAN06			
OBWPFT1400	HKCC - 63 GRP Riser	3	130d		02 AUG 05	09AUG05	03JAN06	11JAN06			
Public Lighting Duct and Knob											
OBWPFL100	Construct Duct/Wall along Road D1	23	95d		02AUG05	21FEB06	15MAY06	15JUN06			
OBWPFL200	Lay Paving Block (in Z3)	21	95d		02 SEP 05	18JUL06	11JUL06				
OBWPFL300	Public Lighting along Waterfront Promenade	58	95d		01 NOV 05	23JAN06	10MAR06				
OBWPFL400	Public Lighting along Road D1	18	95d		01 MAR 06	08APR06	01AUG06	12JUL06			
Roads and Paths											
OBWPFR100	Lay Paving Block (in Z3)	49	46d		01 JUL 05	09SEPRO5	07SEP06	04NOV05			
OBWPFR200	Lay Paving Block (in Z3)	24	46d		01 SEP 05	14JUL06	10AUG06	05SEP06			
OBWPFR300	Lay Paving Block (in Z3)	12	48d		01 NOV 05	13JUL06	27JUL06	03AUG06			
OBWPFR400	Lay Paving Block (in Z3)	12	48d		01 MAY 06	13JUL06	26JUL06	01AUG06			
OBWPFR500	Lay Paving Block (in Z3, ZM, ZL)	80	53d		01 SEP 05	09MAY06	07APR06	12JUL06			





Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Late Finish	2004		2005		2006		2007	
							W	J	J	A	S	O	N	D
2SLSM1A160	[Preurement of Structural Steel]	120	115d	0	02JUN05	25OCT05	200CTOS		01MAR06					
2SLSM1A1700	[Delivery of Pyramid Skylight]	30	15d	0	25OCT05	28NOV05	24APR06	29MAY06						
2SLSM1A1800	[Delivery of Structural Steel]	30	115d	0	25OCT05	28NOV05	11FEB06	15APR06						
2SLSM1A1900	[Inspection & Testing]	30	115d	0	30NOV05	03JAN06	17APR06	22MAY06						
2SLSM1A2000	[Fabrication & Painting of Steel Works]	48	12d	0	04JAN06	02MAR06	30JUN06	26JUL06						
2SLSM1A2100	[Concrete Coping with 10 tone Bolts & Handrail]	30	115d	0	30NOV05	03JAN06	17APR06	22MAY06						
2SLSM1A2200	[Construct Shelter Flooring]	24	15d	0	04JAN06	02FEB06	23MAY06	20JUN06						
2SLSM1A2300	[Construct Shelter Column]	30	115d	0	03FEB06	09MAR06	21JUL06	26JUL06						
2SLSM1A2400	[Construct Shelter Roof]	24	115d	0	01MAR06	07APR06	27JUL06	23AUG06						
2SLSM1A2500	[Public Lighting]	8	115d	0	01APR06	17APR06	24APR06	01SEP06						
2SLSM1A2600	[Rubber, Steel & Land Stop Fender]	18	115d	0	01APR06	09MAY06	02SEP06	22SEP06						
2SLSM1A2700	[Surface Mounted Seats]	18	115d	0	10MAY06	30MAY06	23SEP06	11OCT06						
<b>Section 10</b>														
<b>Indelible Works</b>														
10RWAVWAV0100	[Miscellaneous works]	1	75d	0	03MAR06	03MAR06	03JUN06							
10RWAVWAV0200	[Demolish HV/SB02 CRE Office]	30	75d	0	25MAR06	25APR06	26JUN06							
10RWAVWAV0300	[Demolish HV/SB02 Contractor's Office]	1	12d	0	03MAR06	03MAR06	31JUL06							
10RWAVWAV0400	[Demolish HV/SB02 Contractor's Office (P1)]	30	75d	0	02MAY06	06JUN06	01AUG06							
10RWAVWAV0500	[El to Remove Run-in & Reinstate FPIC/T]	1	1d	0	07JUN06	07JUN06	28SEP06							
10RWAVWAV0600	[Remove Run-in & Reinstate FPIC/T(P1)]	18	75d	0	21JUL06	10AUG06	21OCT06							
10RWAVWAV0700	[El to Demolish Existing Paving (P1)]	1	75d	0	07JUN06	07JUN06	03SEP06							
10RWAVWAV0800	[Demolish Existing Paving (P1)]	18	75d	0	29JUN06	20JUL06	27SEP06	18OCT06						
10RWAVWAV0900	[El to Fencing Around LO Site]	1	75d	0	11AUG06	13AUG06	21OCT06							
10RWAVWAV1000	[Fencing Around LO Site (P1)]	18	75d	0	02SEP06	22SEP06	05DEC06	25DEC06						
<b>Section 11</b>														
<b>Area SA6, SA11B &amp; SA14</b>														
11AASL0100	[Soil Mix (Section 5)]	24	23d	0	05JUL05	05AUG05	05AUG05	01SEP05						
11AASL0200	[Soil Mix (in Z3 - South End - 10m)]	10	5d	0	04JUN05	16JUN05	15AUG05	25AUG05						
11AASL0300	[Soil Mix (in Z3 - 100 - 200m)]	10	11d	0	12AUG05	23AUG05	25AUG05	31AUG05						
11AASL0400	[Soil Mix (in Z3 - 200 - 300m)]	10	75d	0	10AUG05	29APR06	22JUL05	02AUG05						
11AASL0500	[Soil Mix (in Z3 - 300 - 400m)]	10	114d	0	25MAY05	05APR06	09AUG05	19AUG05						
11AASL0600	[Soil Mix (in Z3 - North End)]	10	5d	0	17JUN05	26JUN05	06SEP05							
11AASL0700	[Soil Mix (in Z3 - 300m)]	30	24d	0	05OCT05	07NOV05	01NOV05	05DEC05						
11AASL0800	[Soil Mixing Works]	110	-4d	0	27MAY05	16OCT05	30SEP05							
11AASL0900	[Groundcovers Works]	60	-4d	0	07OCT05	18DEC05	03DEC05	12DEC05						
<b>Section 12</b>														
<b>Area SA7, SA10, SA11A, SA12 &amp; SA13</b>														
12ABSL0100	[Soil Mix (Z3 - 305m)]	47	8d	0	21JUN05	15AUG05	05OCT05	12NOV05						
12ABSL0200	[Soil Mix (in Z3 - South End - 180m)]	24	-13d	0	17FEB06	16MAR06	01MAR06	01MAR06						
12ABSL0300	[Soil Mix (in Z4 - 35m)]	12	-1d	0	03FEB06	16FEB06	17AUG05	01FEB06						
12ABSL0400	[Soil Mix (in Z4.5 - 50m)]	7	-1d	0	24JAN06	02FEB06	03JAN06	16JAN06						
12ABSL0500	[Soil Mix (Z3 - Landscaping Node 1 South - 250m)]	30	Sol	0	01FEB05	16MAY05	08JUN05	16JUL05						
12ABSL0600	[Soil Mix (Z3, Z1.1 - 240m)]	71	53d	0	24NOV05	18FEB06	25MAY05	20APR06						
12ABSL0700	[Planting Works]	127	-1d	0	22APR06	20SEP06	07APR06	05SEP06						
12ABSL0800	[Groundcovers Works]	50	-1d	0	21SEP06	20NOV06	04SEP06	01NOV06						
<b>Section 13</b>														
<b>Area SA1, SA2, SA3, SA4 &amp; SA5</b>														
12ABSL0900	[Soil Mixing]	1												
12ABSL1000	[Soil Mixing]	1												
12ABSL1100	[Soil Mixing]	1												
12ABSL1200	[Soil Mixing]	1												
12ABSL1300	[Soil Mixing]	1												
12ABSL1400	[Soil Mixing]	1												
12ABSL1500	[Soil Mixing]	1												

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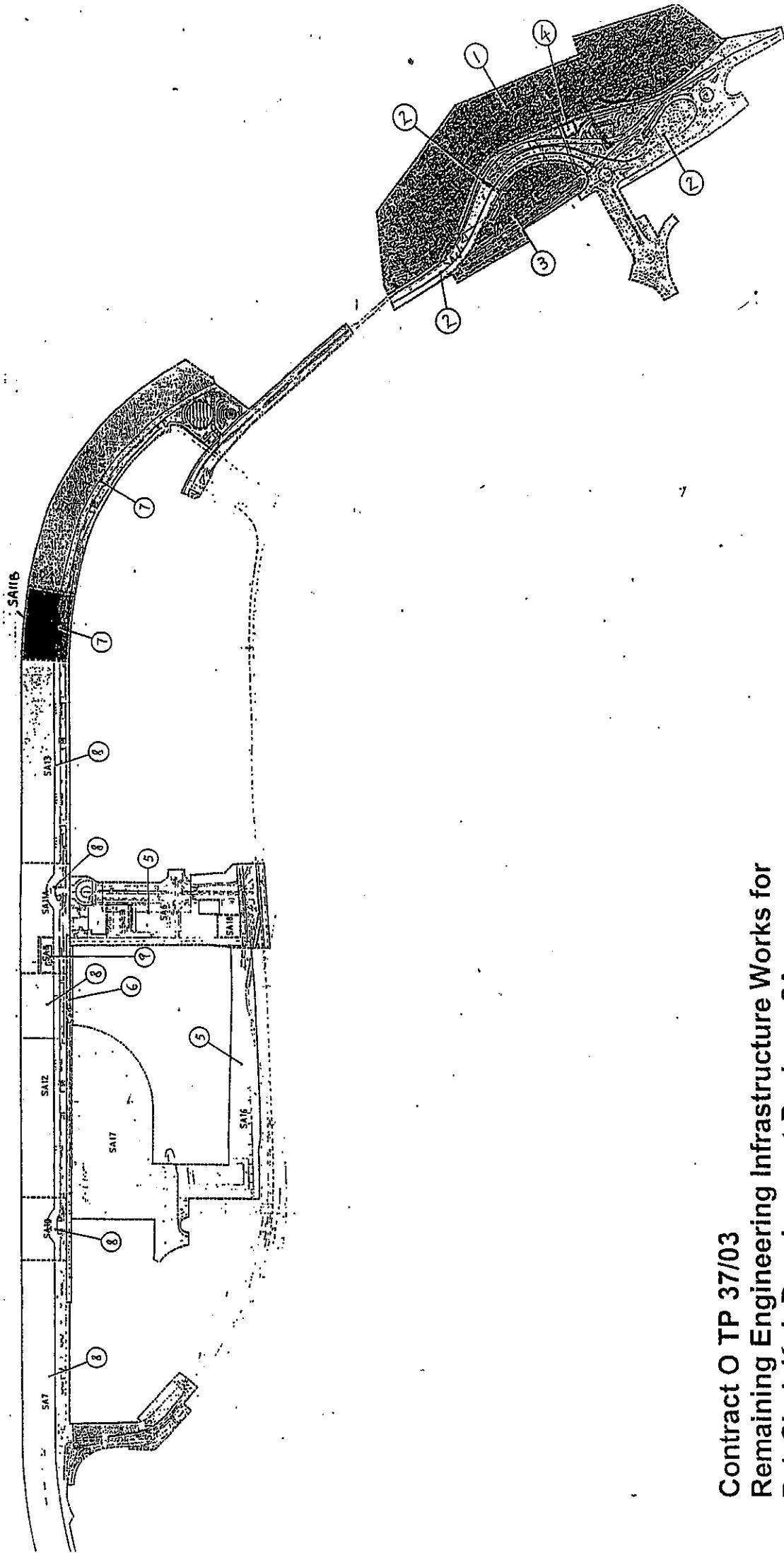




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## **Appendix G**

### **Construction Site Area**



Contract O TP 37/03  
Remaining Engineering Infrastructure Works for  
Pak Shek Kok Development Package 2A

Location and Key Plan

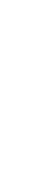


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## Appendix H

### **The Implementation Status of Mitigation Measures and Follow-up Actions during Weekly Site Inspections**

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Inspection Date	: 4 June 2004	Inspected by	Name : (RSS) Johnny Yung (LW&JV)	(EN) H.T. Chow
Time	: 10:45	Signature	: 	
Weather Condition	: Sunny / Fine / Overcast / Drizzle / Rain / Storm / Hazy	Temperature	: 29 °C	
Wind	: Calm / Light / Breeze / Strong	Humidity	: High / Moderate / Low	

Mitigation Measures on Waste Management	Implementation Stages*			Remark
	Yes	No	N/A	
<b>Air Quality</b>				
• The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading.	✓			
• During transportation by truck, material should be loaded to a level lower than the side and tail boards, and should be dampened or covered before transport.	✓			
• All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
• The haul road should be either paved or regular watering.	✓			
• Unpaved areas should be watered regularly to avoid dust generation.	✓			
• The public road around the site entrance should be kept clean and free from dust.	✓			
• Vehicle speed should be limited to 20 km/hr.	✓			
• Wheel washing facilities should be provided at all main entrance of work site.	✓			
• The enclosures should be around the main dust-generating activities.	✓			
• Dusty materials should be sprayed prior to loading.	✓			
• All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
• Vehicle and equipment should be switched off while not in use.	✓			
• Open burning should be prohibited.	✓			
<b>Noise</b>				
• The construction works should be scheduled to minimize noise nuisance.	✓			
• Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
• Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
• Plant known to emit noise strongly in one direction, should, where possible, be orientated so that the noise is directed away from nearby NSRs.	✓			
• Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
• Noise enclosures, noise barriers, or portable noise barriers used where necessary.	✓			
• Air compressors and hand held breakers should have noise labels.	✓			
• Compressors and generators should operate with door closed.	✓			
• Construction Noise Permits should be available for inspection.	✓			

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management	Implementation Stages*			Remark
		Yes	No	N/A	
<b>Water Quality</b>					
<b>General Construction Activities</b>					
- Temporary ditches shall be provided to facilitate runoff discharge into appropriate watercourses, via a sediment trap / sedimentation tanks, prior to discharge.	✓				
- Permanent drainage channels shall incorporate sediment basins / traps, and baffles.	✓				
- All traps shall incorporate oil and grease removal facilities.	✓				
- Sediment traps / sedimentation tanks shall be regular cleaned and maintained regularly.	✓				
- All drainage facilities should be adequate for controlled release of storm flows.	✓				
- Minimizing of exposed soil areas to reduce the potential for increased siltation and contamination of runoff.	✓				
- Open stockpiles of more than 50m <sup>3</sup> should be covered.	✓				
- Temporary stockpiles of excavated materials should be covered during rainstorms.	✓				
- Manholes should be covered and sealed.	✓				
- All chemical stores shall be contained (bunded) such that spills are not allowed to gain access to water bodies.	✓				
- Vehicles and plant should be cleaned of earth, mud and debris before leaving the site.	✓				
- Vehicle washing facilities should be provided at every site exit.	✓				
- Vehicle washing facilities should be adequate to settle out the sand and silt.	✓				
- Washing area and road exiting from washing facility should be paved.	✓				
- Access road should have sufficient back fall toward washing facility.	✓				
<b>Dredging Activities</b>					
- Dredging of designated contaminated marine mud shall only be undertaken by a suitable grab dredger using a close grab.	✓				
- Mechanical grabs shall be designed and maintained to avoid spillage and shall be seal tightly while being lifted.	✓				
- All vessel is shall be sized such that adequate clearance is maintained between vessel and the sea bed and under water pipelines at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller on the water within the site.	✓				
- The works shall cause no visible foam, oil, grease, scum litter or other objectionable matter to be present on the water within the site.	✓				
- All barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials.	✓				
- Excess material shall be cleared from the decks and exposed fittings of the barges before the vessels are moved.	✓				
- Loading of barges shall be controlled to prevent splashing of dredging material to the surrounding water and the barges shall not be filled to a level which will cause overflowing of material or polluted water during loading or transportation.	✓				
- Adequate freeboard shall be maintained on barges to ensure that decks are not washed by wave action.	✓				

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management	Implementation Stages*			Remark
		Yes	No	N/A	
<b>Filling Activities</b>					
▪ Use of silt screen around the filling face to reduce the losses to the surrounding.					
▪ All vessels shall be sized such that adequate clearance is maintained between vessel and the sea bed and under water pipeline at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash or pipelines damaged.	✓				
▪ The works shall cause no visible foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site.	✓				
▪ All barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material.	✓				
▪ Loading of barges shall be controlled to prevent splashing of dredged material to the surrounding water and barges shall not be filled to a level which will cause overflowing of material or polluted water during loading transportation.	✓				
<b>Waste Management</b>					
<b>Marine Dredged Sediment</b>					
▪ Relevant licence / permits for disposal of marine dredged sediment are available for inspection.	✓				
▪ Bottom opening of barges is fitted with tight fitting seals to prevent leakage of material. Excess material is cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.	✓				
▪ Monitoring of the barging loading is conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels are equipped with automatic self-monitoring devices as specified by the EPD.	✓				
▪ Transport of dredged marine sediments to the disposal site is by split barge of not less than 750m <sup>3</sup> capacity, well maintained and capable of rapid opening and discharge at the disposal site.	✓				
▪ Inspection of the barge loading to ensure that loss of material does not take place during transportation.	✓				
<b>Construction and Demolition (C&amp;D) Waste</b>					
▪ Most of the C&D materials generated from the construction are sorted immediately in-situ to find out if they can be re-used for this job site or for other job sites.	✓				
▪ Sufficient spaces are identified and provided during the construction stage for the collection, temporary storage and on-site sorting of C&D materials.	✓				
▪ Proper protective measures, such as fences and tarpaulin, are provided, in order to protective the temporary stockpiled materials for later reuse / recycle.	✓				
▪ Avoiding cross contamination to reusable and / or recyclable materials collected (e.g. covering the reusable materials)	✓				
▪ In order to reduce the impacts to the public, except for those sorted inert C&D materials to be reused on site, all other sorted non-inert materials (e.g. general refuse and waste frameworks) shall be removed off site as soon as practicable in order to optimise the use of the on-site storage space. If the non-inert materials need to be stored on site for a short period, the materials shall be centralized and stored at specific areas far away the sensitive receivers.	✓				
▪ All Public Fill arising from the demolition works shall be limited to a size not more than 250mm and free of reinforcement bars, timber, etc. before re-using it.	✓				
▪ Recyclable materials sorted from the site should be collected by potential recycling contractors under the Contractor's arrangement.	✓				
▪ Trip ticket system will be implemented to ensure proper waste disposal at public filling and landfills	✓				
▪ Appropriate measures should be employed to minimise windblown litter and dust during transportation of wastes by either covering trucks or by transporting wastes in enclosed containers.	✓				
▪ Proper resource planning and calculations before ordering the construction materials to be used will ensure that the wastage of the materials can be minimized	✓				

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

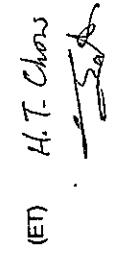
Mitigation Measures on Waste Management	Implementation Stages*			Remark
	Yes	No	N/A	
• Proper storage will minimize the damage and thus the wastage of the materials	✓			
• Training of site personnel in proper waste management procedures. The workers shall be constantly educated for the awareness of the proper handling of waste and to reduce the amount of waste while Site Agent shall be constantly met to discuss the effectiveness of the implementation of the waste management plan. Information to promote the waste management and the reduction concept shall be posted at the site to raise alertness of the personnel concerned.	✓			
• Chemical Waste				
• It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓			
• After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓			
• Chemical wastes should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	✓			
• Containers used for the storage of chemical wastes				
• Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed	✓			
• Have a capacity of less than 450L unless the specification have been approved by the EPD	✓			
• Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste (General) Regulations and Codes of Practice	✓			
• Labelling				
• Every container of chemical waste would bear an appropriate label, which would contain the particulars details.	✓			
• The waste produced would ensure that the information contained on the label is accurate and sufficient so as to enable proper and safe handling, storage and transport of the chemical waste	✓			
• Storage Area				
• Be clearly labeled and used solely for the storage of chemical waste	✓			
• Be enclosed on at least 3 sides	✓			
• Have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste stored in that area, whichever is the greatest	✓			
• Have adequate ventilation	✓			
• Be covered to prevent rainfall entering	✓			
• Be arranged so that incompatible materials are adequately separated	✓			
• Be clean and maintain regularly	✓			
• Disposal				
• Be via a licensed waste collector	✓			
• To a licensed disposal facility, such as Chemical Waste Treatment Centre	✓			
• Be a reuser of the waste, under approval from the EPD	✓			

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management	Implementation Stages*			Remark
		Yes	No	N/A	
• Spillage					
• Establish sources of spill or discharge and determine nature of material, where possible halt discharge					
• Commencing at the source of the spill, establish all current and potential impacted areas	✓				
• Commerce containment of spill using bunds made from available materials and ground water cut-off trenches where necessary	✓				
• After spill is contained remove material (including contaminated soil where necessary) using pumps and/or absorbent materials	✓				
• Dispose of materials as chemical wastes	✓				
• General Refuse					
• General refuse generated on-site is in enclosed bins or compaction units separate from construction and chemical waste	✓				
• A reputable waste collector is employed by the Contractor to remove general refuse from the site, separately from the construction and chemical waste.	✓				
• General refuse generated is removed on daily or every second day basis to minimise odour, pest and litter impacts	✓				
• Aluminium cans are recovered from the waste stream by individual collectors if they are segregated or easily accessible, so separate, labelled bins for their deposit should be provided if feasible.	✓				
• Office wastes are reduced through recycling of paper if volumes are large enough to warrant collection.	✓				
• Site Practice					
• Good site practices should be adopted to clean the rubbish and litter on the construction sites so as to prevent the rubbish and litter from dropping into the nearby environment.	✓				
• Construction sites should be cleaned on a regular basis.	✓				
• The Contractor assigned worker is responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.	✓				
• Proper storage and site practices to minimise the potential for damage or contamination of construction materials.	✓				
• The Environmental Permit should be displayed conspicuously on site	✓				
• Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.	✓				
• Any unused chemicals or those with remaining functional capacity should be recycled.	✓				
• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.	✓				
• Suitable collection sites around site offices will be required. For environmental hygiene reasons and to minimize odour, refuse should not be stored for a period exceeding 48 hours, however, removal every 24 hours is preferable.	✓				
• Minimize windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed container.	✓				
• All generators, fuel and oil storage are within bundle areas.	✓				
• Oil leakage from machinery, vehicle and plant is prevented.	✓				
• Chemical storage area, drainage systems, silt traps, sumps and oil interceptors are cleaned and maintained regularly.	✓				

### Table for follow-up Action:

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Inspection Date	: 9 June 2005	Inspected by	Name : Uncle	(RSS)	Signature : 
Time	: 09:00				
Weather Condition	: Sunny / Fine / Overcast / Drizzle / Rain / Storm / Hazy				
Wind	: Calm / Light Breeze / Strong				
		Temperature	: High	28°C	
		Humidity	: Moderate	/ Low	

Mitigation Measures on Waste Management				Implementation Stages*			Remark
		Yes	No	N/A			
<b>Air Quality</b>							
<ul style="list-style-type: none"> <li>- The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading.</li> <li>- During transportation by truck, material should be loaded to a level lower than the side and tail boards, and should be dampened or covered before transport.</li> <li>- All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.</li> <li>- The haul road should be either paved or regular watering.</li> <li>- Unpaved areas should be watered regularly to avoid dust generation.</li> <li>- The public road around the site entrance should be kept clean and free from dust.</li> <li>- Vehicle speed should be limited to 20 km/hr.</li> <li>- Wheel washing facilities should be provided at all main entrance of work site.</li> </ul>							
<b>Noise</b>							
<ul style="list-style-type: none"> <li>- The constructions works should be scheduled to minimize noise nuisance.</li> <li>- Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.</li> <li>- Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.</li> <li>- Plant known to emit noise strongly in one direction, should, where possible, should be orientated so that the noise is directed away from nearby NSRs.</li> <li>- Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.</li> <li>- Noise enclosures, noise barriers, or portable noise barriers used where necessary.</li> <li>- Air compressors and hand held breakers should have noise labels.</li> <li>- Compressors and generators should operate with door closed.</li> <li>- Construction Noise Permits should be available for inspection.</li> </ul>							

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management	Implementation Stages*			Remark		
		Yes	No	N/A			
<b>Water Quality</b>							
<b>General Construction Activities</b>							
▪ Temporary ditches shall be provided to facilitate runoff discharge into appropriate watercourses, via a sediment trap / sedimentation tanks, prior to discharge.	✓						
▪ Permanent drainage channels shall incorporate sediment basins / traps, and baffles.	✓						
▪ All traps shall incorporate oil and grease removal facilities.	✓						
▪ Sediment traps / sedimentation tanks shall be regular cleaned and maintained regularly.	✓						
▪ All drainage facilities should be adequate for controlled release of storm flows.	✓						
▪ Minimizing of exposed soil areas to reduce the potential for increased siltation and contamination of runoff.	✓						
▪ Open stockpiles of more than 50m <sup>3</sup> should be covered.	✓						
▪ Temporary stockpiles of excavated materials should be covered during rainstorms.	✓						
▪ Manholes should be covered and sealed.	✓						
▪ All chemical stores shall be contained (bunded) such that spills are not allowed to gain access to water bodies.	✓						
▪ Vehicles and plant should be cleaned of earth, mud and debris before leaving the site.	✓						
▪ Vehicle washing facilities should be provided at every site exit.	✓						
▪ Vehicle washing facilities should be adequate to settle out the sand and silt.	✓						
▪ Washing area and road exiting from washing facility should be paved.	✓						
▪ Access road should have sufficient back fall toward washing facility.	✓						
<b>Dredging Activities</b>							
▪ Dredging of designated contaminated marine mud shall only be undertaken by a suitable grab dredger using a close grab.					✓		
▪ Mechanical grabs shall be designed and maintained to avoid spillage and shall be seal tightly while being lifted.					✓		
▪ All vessels shall be sized such that adequate clearance is maintained between vessel and the sea bed and under water pipelines at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller on the water within the site.					✓		
▪ The works shall cause no visible foam, oil, grease, scum litter or other objectionable matter to be present on the water within the site.					✓		
▪ All barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials.					✓		
▪ Excess material shall be cleaned from the decks and exposed fittings of the barges before the vessels are moved.					✓		
▪ Loading of barges shall be controlled to prevent splashing of dredging material to the surrounding water and the barges shall not be filled to a level which will cause overflowing of material or polluted water during loading or transportation.					✓		
▪ Adequate freeboard shall be maintained on barges to ensure that decks are not washed by wave action.					✓		

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management			Implementation Stages*			Remark
	Yes	No	N/A				
<b>Filling Activities</b>							
▪ Use of silt screen around the filling face to reduce the losses to the surrounding.				✓			
▪ All vessels shall be sized such that adequate clearance is maintained between vessel and the sea bed and under water pipeline at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash or pipelines damaged.				✓			
▪ The works shall cause no visible foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site.				✓			
▪ All barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material.				✓			
▪ Loading of barges shall be controlled to prevent splashing of dredged material to the surrounding water and barges shall not be filled to a level which will cause overflowing of material or polluted water during loading transportation.				✓			
<b>Waste Management</b>							
<b>Marine Dredged Sediment</b>							
• Relevant licence / permits for disposal of marine dredged sediment are available for inspection.				✓			
• Bottom opening of barges is fitted with tight fitting seals to prevent leakage of material. Excess material is cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.				✓			
• Monitoring of the barging loading is conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels are equipped with automatic self-monitoring devices as specified by the EPD.				✓			
• Transport of dredged marine sediments to the disposal site is by split barge of not less than 750m <sup>3</sup> capacity, well maintained and capable of rapid opening and discharge at the disposal site.				✓			
• Inspection of the barge loading to ensure that loss of material does not take place during transportation.				✓			
<b>Construction and Demolition (C&amp;D) Waste</b>							
• Most of the C&D materials generated from the construction are sorted immediately in-situ to find out if they can be re-used for this job site or for other job sites.				✓			
• Sufficient spaces are identified and provided during the construction stage for the collection, temporary storage and on-site sorting of C&D materials.				✓			
• Proper protective measures, such as fences and tarpaulin, are provided, in order to protective the temporary stockpiled materials for later reuse / recycle.				✓			
• Avoiding cross contamination to reusable and / or recyclable materials collected (e.g. covering the reusable materials)				✓			
• In order to reduce the impacts to the public, except for those sorted inert C&D materials to be reused on site, all other sorted non-inert materials (e.g. general refuse and waste formworks) shall be removed off site as soon as practicable in order to optimise the use of the on-site storage space. If the non-inert materials need to be stored on site for a short period, the materials shall be centralized and stored at specific areas far away the sensitive receivers.				✓			
• All Public Fill arising from the demolition works shall be limited to a size not more than 250mm and free of reinforcement bars, timber, etc. before re-using it.				✓			
• Recyclable materials sorted from the site should be collected by potential recycling contractors under the Contractor's arrangement.				✓			
• Trip ticket system will be implemented to ensure proper waste disposal at public filling and landfills				✓			
• Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.				✓			
• Proper resource planning and calculations before ordering the construction materials to be used will ensure that the wastage of the materials can be minimized				✓			

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Mitigation Measures on Waste Management	Implementation Stages*			Remark
	Yes	No	N/A	
Proper storage will minimize the damage and thus the wastage of the materials	✓			
Training of site personnel in proper waste management procedures. The workers shall be constantly educated for the awareness of the proper handling of waste and to reduce the amount of waste while Site Agent shall be constantly met to discuss the effectiveness of the implementation of the waste management plan. Information to promote the waste management and the reduction concept shall be posted at the site to raise alertness of the personnel concerned.	✓			
Chemical Waste				
It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓			
After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓			
Chemical wastes should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	✓			
Containers used for the storage of chemical wastes				
Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed	✓	(3)		
Have a capacity of less than 450L unless the specification have been approved by the EPD	✓			
Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste (General) Regulations and Codes of Practice	✓			
Labelling				
Every container of chemical waste would bear an appropriate label, which would contain the particulars details.	✓			
The waste produced would ensure that the information contained on the label is accurate and sufficient so as to enable proper and safe handling, storage and transport of the chemical waste	✓			
Storage Area				
Be clearly labeled and used solely for the storage of chemical waste	✓			
Be enclosed on at least 3 sides	✓			
Have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste stored in that area, whichever is the greatest	✓			
Have adequate ventilation	✓			
Be covered to prevent rainfall entering	✓			
Be arranged so that incompatible materials are adequately separated	✓			
Be clean and maintain regularly	✓			
Disposal				
Be via a licensed waste collector	✓			
To a licensed disposal facility, such as Chemical Waste Treatment Centre	✓			
Be a reuser of the waste, under approval from the EPD	✓			

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management	Implementation Stages*			Remark
		Yes	No	N/A	
• Spillage					
• Establish source of spill or discharge and determine nature of material, where possible halt discharge				✓	
• Commencing at the source of the spill, establish all current and potential impacted areas				✓	
• Commence containment of spill using bunds made from available materials and ground water cut-off trenches where necessary				✓	
• After spill is contained remove material (including contaminated soil where necessary) using pumps and/or absorbent materials				✓	
• Dispose of materials as chemical wastes				✓	
• General Refuse					
• General refuse generated on-site is in enclosed bins or compaction units separate from construction and chemical waste	✓				
• A reputable waste collector is employed by the Contractor to remove general refuse from the site, separately from the construction and chemical waste.	✓				
• General refuse generated is removed on daily or every second day basis to minimise odour, pest and litter impacts		✓			①
• Aluminium cans are recovered from the waste stream by individual collectors if they are segregated or easily accessible, so separate, labelled bins for their deposit should be provided if feasible.			✓		
• Office wastes are reduced through recycling of paper if volumes are large enough to warrant collection.			✓		
• Site Practice					
• Good site practices should be adopted to clean the rubbish and litter on the construction sites so as to prevent the rubbish and litter from dropping into the nearby environment.				✓	
• Construction sites should be cleaned on a regular basis.					
• The Contractor assigned worker is responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.				✓	①
• Proper storage and site practices to minimise the potential for damage or contamination of construction materials.					
• The Environmental Permit should be displayed conspicuously on site	✓				
• Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.					
• Any unused chemicals or those with remaining functional capacity should be recycled.				✓	
• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.				✓	
• Suitable collection sites around site offices will be required. For environmental hygiene reasons and to minimize odor, refuse should not be stored for a period exceeding 48 hours, however, removal every 24 hours is preferable.				✓	
• Minimize windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed container.				✓	
• All generators, fuel and oil storage are within bundle areas.				✓	
• Oil leakage from machinery, vehicle and plant is prevented.				✓	
• Chemical storage area, drainage systems, silt traps, sumps and oil interceptors are cleaned and maintained regularly.				✓	

## **Table for follow-up Action:**

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Inspection Date	: 18 June 2005	Inspected by	Name : (RSS) Eric Leung	Signature : 	(LWKJV) Ben Ho	Signature : 	(ET) H-T Chow	Signature : 
Time	: 10:00 a.m.							
Weather Condition	: Sunny / Fine / Overcast / Drizzle / Rain / Storm / Hazy				Temperature	: 26 °C		
Wind	: Calm / Light / Breeze / Strong				Humidity	: (High) Moderate / Low		

Mitigation Measures on Waste Management	Implementation Stages*			Remark
	Yes	No	N/A	
<b>Air Quality</b>				
- The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	# 2
- During transportation by truck, material should be loaded to a level lower than the side and tail boards, and should be dampened or covered before transport.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- The haul road should be either paved or regular watering.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Unpaved areas should be watered regularly to avoid dust generation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- The public road around the site entrance should be kept clean and free from dust.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Vehicle speed should be limited to 20 km/hr.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Wheel washing facilities should be provided at all main entrance of work site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- The enclosures should be around the main dust-generating activities.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Dusty materials should be sprayed prior to loading.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- All plant and equipment should be well maintained e.g. without black smoke emission.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Vehicle and equipment should be switched off while not in use.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Open burning should be prohibited.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Noise</b>				
- The constructions works should be scheduled to minimize noise nuisance.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Plant known to emit noise strongly in on direction, should, where possible, should be orientated so that the noise is directed away from nearby NSRs.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Noise enclosures, noise barriers, or portable noise barriers used where necessary.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Air compressors and hand held breakers should have noise labels.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Compressors and generators should operate with door closed.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
- Construction Noise Permits should be available for inspection.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management	Implementation Stages*			Remark
		Yes	No	N/A	
<b>Water Quality</b>					
<b>General Construction Activities</b>					
- Temporary ditches shall be provided to facilitate runoff discharge into appropriate watercourses, via a sediment trap / sedimentation tanks, prior to discharge.	✓	✓			(2)
- Permanent drainage channels shall incorporate sediment basins / traps, and baffles.	✓				
- All traps shall incorporate oil and grease removal facilities.	✓				
- Sediment traps / sedimentation tanks shall be regular cleaned and maintained regularly.	✓				
- All drainage facilities should be adequate for controlled release of storm flows.	✓				
- Minimizing of exposed soil areas to reduce the potential for increased siltation and contamination of runoff.	✓				
- Open stockpiles of more than 50m <sup>3</sup> should be covered.	✓				
- Temporary stockpiles of excavated materials should be covered during rainstorms.	✓				
- Manholes should be covered and sealed.	✓				
- All chemical stores shall be contained (bunded) such that spills are not allowed to gain access to water bodies.	✓				
- Vehicles and plant should be cleaned of earth, mud and debris before leaving the site.	✓				
- Vehicle washing facilities should be provided at every site exit.	✓				
- Vehicle washing facilities should be adequate to settle out the sand and silt.	✓				
- Washing area and road exiting from washing facility should be paved.	✓				
- Access road should have sufficient back fall toward washing facility.	✓				
<b>Dredging Activities</b>					
- Dredging of designated contaminated marine mud shall only be undertaken by a suitable grab dredger using a close grab.	✓				
- Mechanical grabs shall be designed and maintained to avoid spillage and shall be seal tightly while being lifted.	✓				
- All vessels shall be sized such that adequate clearance is maintained between vessel and the sea bed and under water pipelines at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller on the water within the site.	✓				
- The works shall cause no visible foam, oil, grease, scum litter or other objectionable matter to be present on the water within the site.	✓				
- All barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials.	✓				
- Excess material shall be cleaned from the decks and exposed fittings of the barges before the vessels are moved.	✓				
- Loading of barges shall be controlled to prevent splashing of dredging material to the surrounding water and the barges shall not be filled to a level which will cause overflowing of material or polluted water during loading or transportation.	✓				
- Adequate freeboard shall be maintained on barges to ensure that decks are not washed by wave action.	✓				

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	<b>Mitigation Measures on Waste Management</b>	Implementation Stages*			Remark
		Yes	No	N/A	
<b>Filling Activities</b>					
-	Use of silt screen around the filling face to reduce the losses to the surrounding.				①
-	All vessels shall be sized such that adequate clearance is maintained between vessel and the sea bed and under water pipeline at all states of the tide to ensure that undule turbidity is not generated by turbulence from vessel movement or propeller wash or pipelines damaged.	✓			
-	The works shall cause no visible foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site.	✓			
-	All barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material.	✓			
-	Loading of barges shall be controlled to prevent splashing of dredged material to the surrounding water and barges shall not be filled to a level which will cause overflowing of material or polluted water during loading transportation.	✓			
<b>Waste Management</b>					
<b>Marine Dredged Sediment</b>					
-	Relevant licence / permits for disposal of marine dredged sediment are available for inspection.	✓			
-	Bottom opening of barges is fitted with tight fitting seals to prevent leakage of material. Excess material is cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.	✓			
-	Monitoring of the barging loading is conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels are equipped with automatic self-monitoring devices as specified by the EPD.	✓			
-	Transport of dredged marine sediments to the disposal site is by split barge of not less than 750m <sup>3</sup> capacity, well maintained and capable of rapid opening and discharge at the disposal site.	✓			
-	Inspection of the barge loading to ensure that loss of material does not take place during transportation.	✓			
<b>Construction and Demolition (C&amp;D) Waste</b>					
-	Most of the C&D materials generated from the construction are sorted immediately in-situ to find out if they can be re-used for this job site or for other job sites.	✓			
-	Sufficient spaces are identified and provided during the construction stage for the collection, temporary storage and on-site sorting of C&D materials.	✓			
-	Proper protective measures, such as fences and tarpaulin, are provided, in order to protective the temporary stockpiled materials for later reuse / recycle.	✓			
-	Avoiding cross contamination to reusable and / or recyclable materials collected (e.g. covering the reusable materials)	✓			
-	In order to reduce the impacts to the public, except for those sorted inert C&D materials to be reused on site, all other sorted non-inert materials (e.g. general refuse and waste framework) shall be removed off site as soon as practicable in order to optimise the use of the on-site storage space. If the non-inert materials need to be stored on site for a short period, the materials shall be centralized and stored at specific areas far away the sensitive receivers.	✓			
-	All Public Fill arising from the demolition works shall be limited to a size not more than 250mm and free of reinforcement bars, timber, etc. before re-using it.	✓			
-	Recyclable materials sorted from the site should be collected by potential recycling contractors under the Contractor's arrangement.	✓			
-	Trip ticket system will be implemented to ensure proper waste disposal at public filling and landfills	✓			
-	Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.	✓			
-	Proper resource planning and calculations before ordering the construction materials to be used will ensure that the wastage of the materials can be minimized	✓			

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Mitigation Measures on Waste Management	Implementation Stages*			Remark
	Yes	No	N/A	
• Proper storage will minimize the damage and thus the wastage of the materials	✓			
• Training of site personnel in proper waste management procedures. The workers shall be constantly educated for the awareness of the proper handling of waste and to reduce the amount of waste while Site Agent shall be constantly meet to discuss the effectiveness of the implementation of the waste management plan. Information to promote the waste management and the reduction concept shall be posted at the site to raise alertness of the personnel concerned.	✓	✓		
• Chemical Waste				
• It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓			
• After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓			
• Chemical wastes should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.	✓			
• Containers used for the storage of chemical wastes				
• Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed	✓			
• Have a capacity of less than 450L unless the specification have been approved by the EPD	✓			
• Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste (General) Regulations and Codes of Practice	✓			
• Labelling				
• Every container of chemical waste would bear an appropriate label, which would contain the particulars details.	✓			
• The waste produced would ensure that the information contained on the label is accurate and sufficient so as to enable proper and safe handling, storage and transport of the chemical waste	✓			
• Storage Area				
• Be clearly labeled and used solely for the storage of chemical waste	✓			
• Be enclosed on at least 3 sides	✓			
• Have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste stored in that area, whichever is the greatest	✓			
• Have adequate ventilation	✓			
• Be covered to prevent rainfall entering	✓			
• Be arranged so that incompatible materials are adequately separated	✓			
• Be clean and maintain regularly	✓			
• Disposal				
• Be via a licensed waste collector	✓			
• To a licensed disposal facility, such as Chemical Waste Treatment Centre	✓			
• Be a reuser of the waste, under approval from the EPD	✓			

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management	Implementation Stages*			Remark
		Yes	No	N/A	
• Spillage					
• Establish source of spill or discharge and determine nature of material, where possible halt discharge					
• Commencing at the source of the spill, establish all current and potential impacted areas					
• Commence containment of spill using bunds made from available materials and ground water cut-off trenches where necessary					
• After spill is contained remove material (including contaminated soil where necessary) using pumps and/or absorbent materials					
• Dispose of materials as chemical wastes					
• General Refuse					
• General refuse generated on-site is in enclosed bins or compaction units separate from construction and chemical waste					
• A reputable waste collector is employed by the Contractor to remove general refuse from the site, separately from the construction and chemical waste.					
• General refuse generated is removed on daily or every second day basis to minimise odour, pest and litter impacts					
• Aluminium cans are recovered from the waste stream by individual collectors if they are segregated or easily accessible, so separate, labelled bins for their deposit should be provided if feasible.					
• Office wastes are reduced through recycling of paper if volumes are large enough to warrant collection.					
• Site Practice					
• Good site practices should be adopted to clean the rubbish and litter on the construction sites so as to prevent the rubbish and litter from dropping into the nearby environment.					
• Construction sites should be cleaned on a regular basis.					
• The Contractor assigned worker is responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.					
• Proper storage and site practices to minimise the potential for damage or contamination of construction materials.					
• The Environmental Permit should be displayed conspicuously on site					
• Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.					
• Any unused chemicals or those with remaining functional capacity should be recycled.					
• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.					
• Suitable collection sites around site offices will be required. For environmental hygiene reasons and to minimize odor, refuse should not be stored for a period exceeding 48 hours, however, removal every 24 hours is preferable.					
• Minimize windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed container.					
• All generators, fuel and oil storage are within bundle areas.					
• Oil leakage from machinery, vehicle and plant is prevented.					
• Chemical storage area, drainage systems, silt traps, sumps and oil interceptors are cleaned and maintained regularly.					

### Table for follow-up Action:

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Inspection Date : 23 June 2015      Inspected by Name : (RSS) Danny Yeung (WKN) Danny  
 Time : 10:00      Signature : Sab

Weather Condition : Sunny / Fine / Overcast / Drizzle / Rain Light Breeze / Strong  
 Wind : Calm Light

Temperature : 26°C  
 Humidity : High Moderate / Low

Mitigation Measures on Waste Management	Implementation Stages*			Remark
	Yes	No	N/A	
<b>Air Quality</b>				
- The heights from which fill materials are dropped should be controlled to a practical height to minimize the fugitive dust arising from unloading.	✓			
- During transportation by truck, material should be loaded to a level lower than the side and tail boards, and should be dampened or covered before transport.	✓			
- All stockpile of aggregate or spoil should be enclosed or covered and water applied in dry or windy condition.	✓			
- The haul road should be either paved or regular watering.	✓			
- Unpaved areas should be watered regularly to avoid dust generation.	✓			
- The public road around the site entrance should be kept clean and free from dust.	✓			
- Vehicle speed should be limited to 20 km/hr.	✓			
- Wheel washing facilities should be provided at all main entrance of work site.	✓			
- The enclosures should be around the main dust-generating activities.	✓			
- Dusty materials should be sprayed prior to loading.	✓			
- All plant and equipment should be well maintained e.g. without black smoke emission.	✓			
- Vehicle and equipment should be switched off while not in use.	✓			
- Open burning should be prohibited.	✓			
<b>Noise</b>				
- The construction works should be scheduled to minimize noise nuisance.	✓			
- Only well maintained plant should be operated on-site and plant should be serviced regularly during the construction works.	✓			
- Machines and plants that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	✓			
- Plant known to emit noise strongly in on direction, should, where possible, should be orientated so that the noise is directed away from nearby NSRs.	✓			
- Powered mechanical equipment (PME) should be covered or shielded by appropriate acoustic materials.	✓			
- Noise enclosures, noise barriers, or portable noise barriers used where necessary.	✓			
- Air compressors and hand held breakers should have noise labels.	✓			
- Compressors and generators should operate with door closed.	✓			
- Construction Noise Permits should be available for inspection.	✓			

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Mitigation Measures on Waste Management			Implementation Stages*			Remark
	Yes	No	N/A			
<b>Water Quality</b>						
<b>General Construction Activities</b>						
▪ Temporary ditches shall be provided to facilitate runoff discharge into appropriate watercourses, via a sediment trap / sedimentation tanks, prior to discharge.	✓					
▪ Permanent drainage channels shall incorporate sediment basins / traps, and baffles.	✓					
▪ All traps shall incorporate oil and grease removal facilities.	✓					
▪ Sediment traps / sedimentation tanks shall be regular cleaned and maintained regularly.	✓					
▪ All drainage facilities should be adequate for controlled release of storm flows.	✓					
▪ Minimizing of exposed soil areas to reduce the potential for increased siltation and contamination of runoff.	✓					
▪ Open stockpiles of more than 50m <sup>2</sup> should be covered.	✓					
▪ Temporary stockpiles of excavated materials should be covered during rainstorms.	✓					
▪ Manholes should be covered and sealed.	✓					
▪ All chemical stores shall be contained (bunded) such that spills are not allowed to gain access to water bodies.	✓					
▪ Vehicles and plant should be cleaned of earth, mud and debris before leaving the site.	✓					
▪ Vehicle washing facilities should be provided at every site exit.	✓					
▪ Vehicle washing facilities should be adequate to settle out the sand and silt.	✓					
▪ Washing area and road exiting from washing facility should be paved.	✓					
▪ Access road should have sufficient back fall toward washing facility.	✓					
<b>Dredging Activities</b>						
▪ Dredging of designated contaminated marine mud shall only be undertaken by a suitable grab dredger using a close grab.	✓					
▪ Mechanical grabs shall be designed and maintained to avoid spillage and shall be seal tightly while being lifted.	✓					
▪ All vessels shall be sized such that adequate clearance is maintained between vessel and the sea bed and under water pipelines at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller on the water within the site.	✓					
▪ The works shall cause no visible foam, oil, grease, scum litter or other objectionable matter to be present on the water within the site.	✓					
▪ All barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of materials.	✓					
▪ Excess material shall be cleaned from the decks and exposed fittings of the barges before the vessels are moved.	✓					
▪ Loading of barges shall be controlled to prevent splashing of dredging material to the surrounding water and the barges shall not be filled to a level which will cause overflowing of material or polluted water during loading or transportation.	✓					
▪ Adequate freeboard shall be maintained on barges to ensure that decks are not washed by wave action.	✓					

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Filling Activities	Mitigation Measures on Waste Management			Implementation Stages*	Remark
	Yes	No	N/A		
▪ Use of silt screen around the filling face to reduce the losses to the surrounding.				✓	①
▪ All vessels shall be sized such that adequate clearance is maintained between vessel and the sea bed and under water pipeline at all states of the tide to ensure that undue turbidity is not generated by turbulence from vessel movement or propeller wash or pipelines damaged.	✓				
▪ The works shall cause no visible foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the site.	✓				
▪ All barges shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material.	✓				
▪ Loading of barges shall be controlled to prevent splashing of dredged material to the surrounding water and barges shall not be filled to a level which will cause overflowing of material or polluted water during loading transportation.	✓				
<b>Waste Management</b>					
<b>Marine Dredged Sediment</b>					
▪ Relevant licence / permits for disposal of marine dredged sediment are available for inspection.					
▪ Bottom opening of barges is fitted with tight fitting seals to prevent leakage of material. Excess material is cleaned from the decks and exposed fittings of barges and hopper dredgers before the vessel is moved.	✓				
▪ Monitoring of the barging loading is conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels are equipped with automatic self-monitoring devices as specified by the EPD.	✓				
▪ Transport of dredged marine sediments to the disposal site is by split barge of not less than 750m <sup>3</sup> capacity, well maintained and capable of rapid opening and discharge at the disposal site.	✓				
▪ Inspection of the barge loading to ensure that loss of material does not take place during transportation.	✓				
<b>Construction and Demolition (C&amp;D) Waste</b>					
▪ Most of the C&D materials generated from the construction are sorted immediately in-situ to find out if they can be re-used for this job site or for other job sites.					
▪ Sufficient spaces are identified and provided during the construction stage for the collection, temporary storage and on-site sorting of C&D materials.	✓				
▪ Proper protective measures, such as fences and tarpaulin, are provided, in order to protective the temporary stockpiled materials for later reuse / recycle.	✓				
▪ Avoiding cross contamination to reusable and / or recyclable materials collected (e.g. covering the reusable materials)					
▪ In order to reduce the impacts to the public, except for those sorted inert C&D materials to be reused on site, all other sorted non-inert materials (e.g. general refuse and waste frameworks) shall be removed off site as soon as practicable in order to optimise the use of the on-site storage space. If the non-inert materials need to be stored on site for a short period, the materials shall be centralized and stored at specific areas far away the sensitive receptors.					
▪ All Public Fill arising from the demolition works shall be limited to a size not more than 250mm and free of reinforcement bars, timber, etc. before re-using it.					
▪ Recyclable materials sorted from the site should be collected by potential recycling contractors under the Contractor's arrangement.					
▪ Trip ticket system will be implemented to ensure proper waste disposal at public filling and landfills					
▪ Appropriate measures should be employed to minimise windblown litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers.					
▪ Proper resource planning and calculations before ordering the construction materials to be used will ensure that the wastage of the materials can be minimized					

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

Mitigation Measures on Waste Management	Implementation Stages*			Remark
	Yes	No	N/A	
• Proper storage will minimize the damage and thus the wastage of the materials				
• Training of site personnel in proper waste management procedures. The workers shall be constantly educated for the awareness of the proper handling of waste and to reduce the amount of waste while Site Agent shall be constantly met to discuss the effectiveness of the implementation of the waste management plan. Information to promote the waste management and the reduction concept shall be posted at the site to raise alertness of the personnel concerned.			✓	
• Chemical Waste				
• It is required to register as a chemical waste producer if chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	✓			
• After use, chemical wastes (e.g. cleaning fluids, solvents, lubrication oil and fuel) should be handled according to the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.	✓			
• Chemical wastes should be stored and collected by an approved operator for disposal at the Chemical Waste Treatment Facility or other licensed facility in accordance with the Chemical Waste (General) Regulation.				
• Containers used for the storage of chemical wastes				
• Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed	✓			
• Have a capacity of less than 450L unless the specification have been approved by the EPD	✓			
• Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Chemical Waste (General) Regulations and Codes of Practice	✓			
• Labelling	✓			
• Every container of chemical waste would bear an appropriate label, which would contain the particulars details.	✓			
• The waste produced would ensure that the information contained on the label is accurate and sufficient so as to enable proper and safe handling, storage and transport of the chemical waste	✓			
• Storage Area				
• Be clearly labeled and used solely for the storage of chemical waste				
• Be enclosed on at least 3 sides				
• Have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste stored in that area, whichever is the greatest	✓			
• Have adequate ventilation				
• Be covered to prevent rainfall entering				
• Be arranged so that incompatible materials are adequately separated				
• Be clean and maintain regularly				
• Disposal				
• Be via a licensed waste collector				✓
• To a licensed disposal facility, such as Chemical Waste Treatment Centre				✓
• Be a reuser of the waste, under approval from the EPD				✓

## SITE INSPECTION CHECKLIST ON THE IMPLEMENTATION OF ENVIRONMENTAL MITIGATION MEASURES

	Mitigation Measures on Waste Management	Implementation Stages*			Remark
		Yes	No	N/A	
• Spillage					
• Establish source of spill or discharge and determine nature of material where possible halt discharge		✓			
• Commencing at the source of the spill, establish all current and potential impacted areas		✓			
• Commerce containment of spill using blinds made from available materials and ground water cut-off trenches where necessary		✓			
• After spill is contained remove material (including contaminated soil where necessary) using pumps and/or absorbent materials		✓			
• Dispose of materials as chemical wastes		✓			
• General Refuse					
• General refuse generated on-site is in enclosed bins or compaction units separate from construction and chemical waste		✓			
• A reputable waste collector is employed by the Contractor to remove general refuse from the site, separately from the construction and chemical waste.		✓			
• General refuse generated is removed on daily or every second day basis to minimise odour, pest and litter impacts		✓			
• Aluminium cans are recovered from the waste stream by individual collectors if they are segregated or easily accessible, so separate, labelled bins for their deposit should be provided if feasible.		✓			
• Office wastes are reduced through recycling of paper if volumes are large enough to warrant collection.		✓			
• Site Practice					
• Good site practices should be adopted to clean the rubbish and litter on the construction sites so as to prevent the rubbish and litter from dropping into the nearby environment.		✓			
• Construction sites should be cleaned on a regular basis.		✓			
• The Contractor assigned worker is responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site.		✓			
• Proper storage and site practices to minimise the potential for damage or contamination of construction materials.		✓			
• The Environmental Permit should be displaced conspicuously on site		✓			
• Plan and stock construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste.		✓			
• Any unused chemicals or those with remaining functional capacity should be recycled.		✓			
• A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) should be used, e.g. trip ticket system for chemical waste disposal. Quantities could be determined by weighing each load or other suitable methods.		✓			
• Suitable collection sites around site offices will be required. For environmental hygiene reasons and to minimize odor, refuse should not be stored for a period exceeding 48 hours, however, removal every 24 hours is preferable.		✓			
• Minimize windblown litter and dust during transportation by either covering trucks or transporting wastes in enclosed container.		✓			
• All generators, fuel and oil storage are within bundle areas.		✓			
• Oil leakage from machinery, vehicle and plant is prevented.		✓			
• Chemical storage area, drainage systems, silt traps, sumps and oil interceptors are cleaned and maintained regularly.		✓			

## Table for follow-up Action:

Item	Details of defective works or observations	Location	Further action to be taken (Included persons / party to take action)	Expected Date for Action taken
# 1	Follow up the site inspection on 18-6-05, the stockpile at "Road 14" was removed.	Road 14	Follow up action has completed. no further action to be taken.	N/A
# 2	Follow up the site inspection on 18-6-05.	Landscape Node 1	Follow up action was completed. no further action to be taken.	N/A
# 3	Follow up the site inspection on 18-6-05. the site runoff still direct discharge into the sea.	SA 14	The contract should be accepted any effector treatment process before discharge.	30 - 6 - 05
Remark	No mitigation measure for controlled release of ① runoff	Between Node 2 & Node 3	The contractor was recommended to provide curtain for working area.	30 - 6 - 05
Signature:	RSS	LWKJV	ET	
Name:	Sunny Yang			
Date:	23/6/2005			23 - 6 - 2005



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

## Appendix I

### **Wastewater Monitoring**

#### **Test Report of Wastewater Sample from Discharge Point**



# ENVIRO LABS LIMITED

環境化驗有限公司

## TEST REPORT

JOB NO. : A-05173-1A

DATE OF ISSUE : 6 Jun 2005

PAGE : 1 of 1

### 1. Client

Leader - Wai Kee (C&T) Joint Venture  
Unit 1001-1005, 10/F., Grand Central Plaza, Tower 1, 138 Shatin Rural Committee Road, Sha Tin, N.T., HK  
Attn.: Mr. Ben Yip

### 2. Sample Identification

Sample Description : One set of water sample said to be wastewater  
Sampling : Conducted by the Enviro Labs Ltd.  
Sampling Point : Outlet of sedimentation tank at  
Construction Site of Remaining Engineering/Infrastructure Works for Pak Shek Kok  
Development Package 2A, Pak Shek Kok, N.T. (Contract No. TP 37/03)  
Preservation : Delivered and stored under refrigerated condition  
Sampling Date & Time : 27 May 2005 10:30  
Received Date & Time : 27 May 2005 12:00

### 3. Test Method

Parameter	Reference Method	Testing Period
(i) Total Suspended Solids (TSS) Dried at 103-105°C	APHA <sup>1</sup> 17e 2540 D	27 May 2005

1. APHA Standard Methods for the Examination of Water and Wastewater

### 4. Test Result\*

Sample Label	Test Parameter	Sample No.	Test Result	Discharge Limit **	Unit
Pak Shek Kok	Total Suspended Solids	505177	9.2	≤30	mg/L

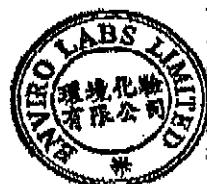
\* Test results relate only to the items received.

\*\* Information provided by the client. (It is not a test result, information for reference only).

### 5. Remark

This report supersedes test report job number A-05173-1 dated 30 May 05.

--- END OF REPORT ---



APPROVED/SIGNATORY:

Kenneth Lam  
(Laboratory Manager)



# ENVIRO LABS LIMITED

環境化驗有限公司

## TEST REPORT

JOB NO. : A-05173-2A

DATE OF ISSUE : 6 Jun 2005

PAGE : 1 of 1

### 1. Client

Leader - Wai Kee (C&T) Joint Venture  
Unit 1001-1005, 10/F, Grand Central Plaza, Tower 1, 138 Shatin Rural Committee Road, Sha Tin, N.T., HK  
Attn.: Mr. Ben Yip

### 2. Sample Identification

Sample Description : One set of water sample said to be wastewater  
 Sampling : Conducted by the Enviro Labs Ltd.  
 Sampling Point : Outlet of sedimentation tank at  
     Construction Site of Remaining Engineering Infrastructure Works for Pak Shek Kok  
     Development Package 2A, Pak Shek Kok, N.T. (Contract No. TP 37/03)  
 Preservation : Delivered and stored under refrigerated condition  
     COD: conc.  $H_2SO_4$  was added to pH < 2  
 Sampling Date & Time : 27 May 2005 10:30  
 Received Date & Time : 27 May 2005 12:00

### 3. Test Method

Parameter	Reference Method	Testing Period
(I) pH	APHA <sup>1</sup> 20e 4500 H <sup>2</sup> B	On-site
(II) Chemical Oxygen Demand (COD)	APHA <sup>1</sup> 20e 5220 C	27 May 2005

1. APHA Standard Methods for the Examination of Water and Wastewater

### 4. Test Result\*

Sample Label	Test Parameter	Sample No.	Test Result	Discharge Limit **	Unit
Pak Shek Kok	pH at 25 °C	-	7.7	6 - 9	--
	Chemical Oxygen Demand	805173	< 60	< 60	mgO <sub>2</sub> /L

\* Test results relate only to the items received.  
 \*\* Information provided by the client. (It is not a test result, information for reference only).

### 5. Remark

This report supersedes test report job number A-05173-2 dated 31 May 05.



— END OF REPORT —

APPROVED SIGNATORY :

Kenneth Lam  
(Laboratory Manager)



東集德勤測試顧問有限公司  
ETS-TESTCONSULT LIMITED

## Appendix J

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

**May 2005**

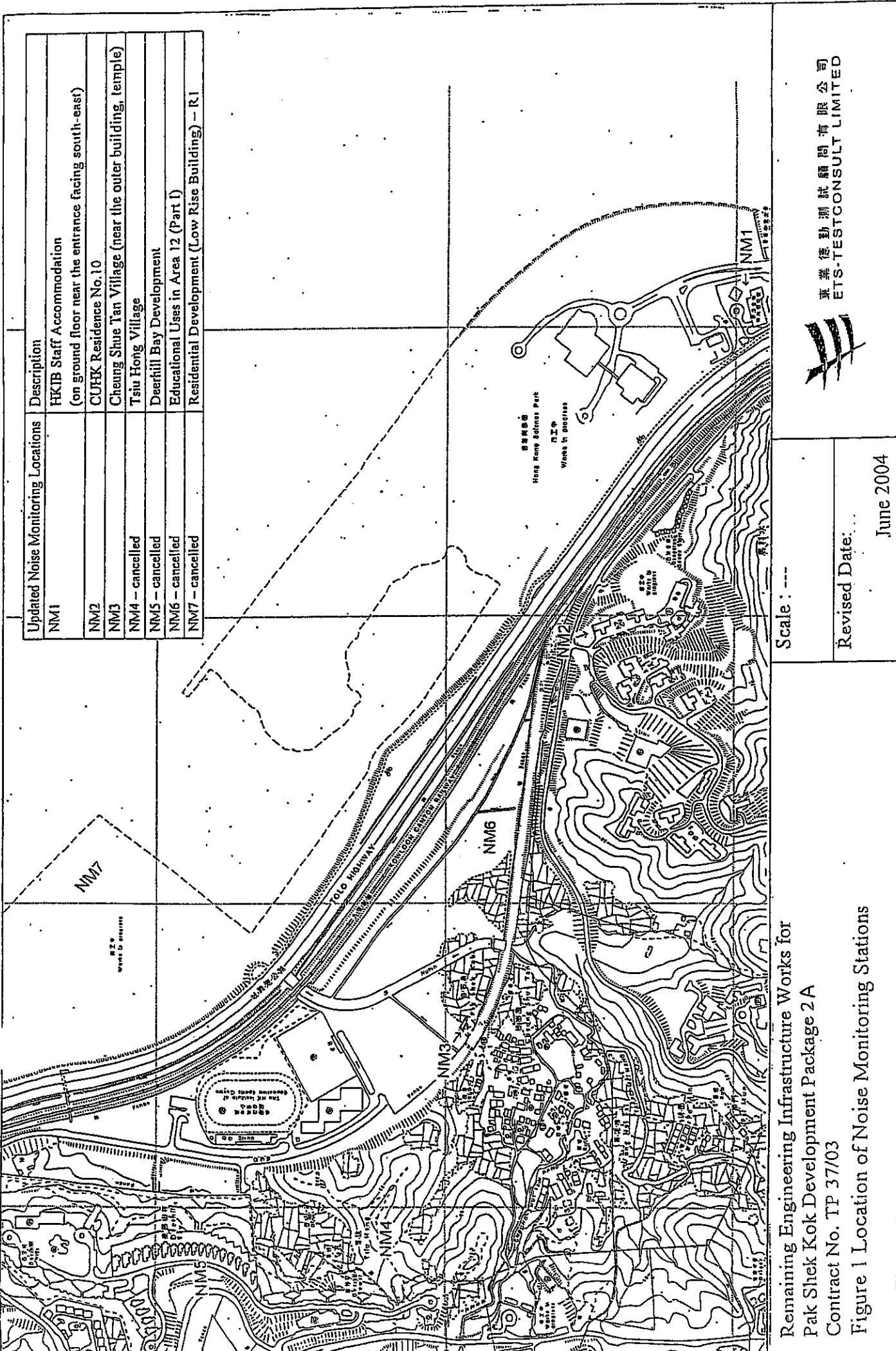


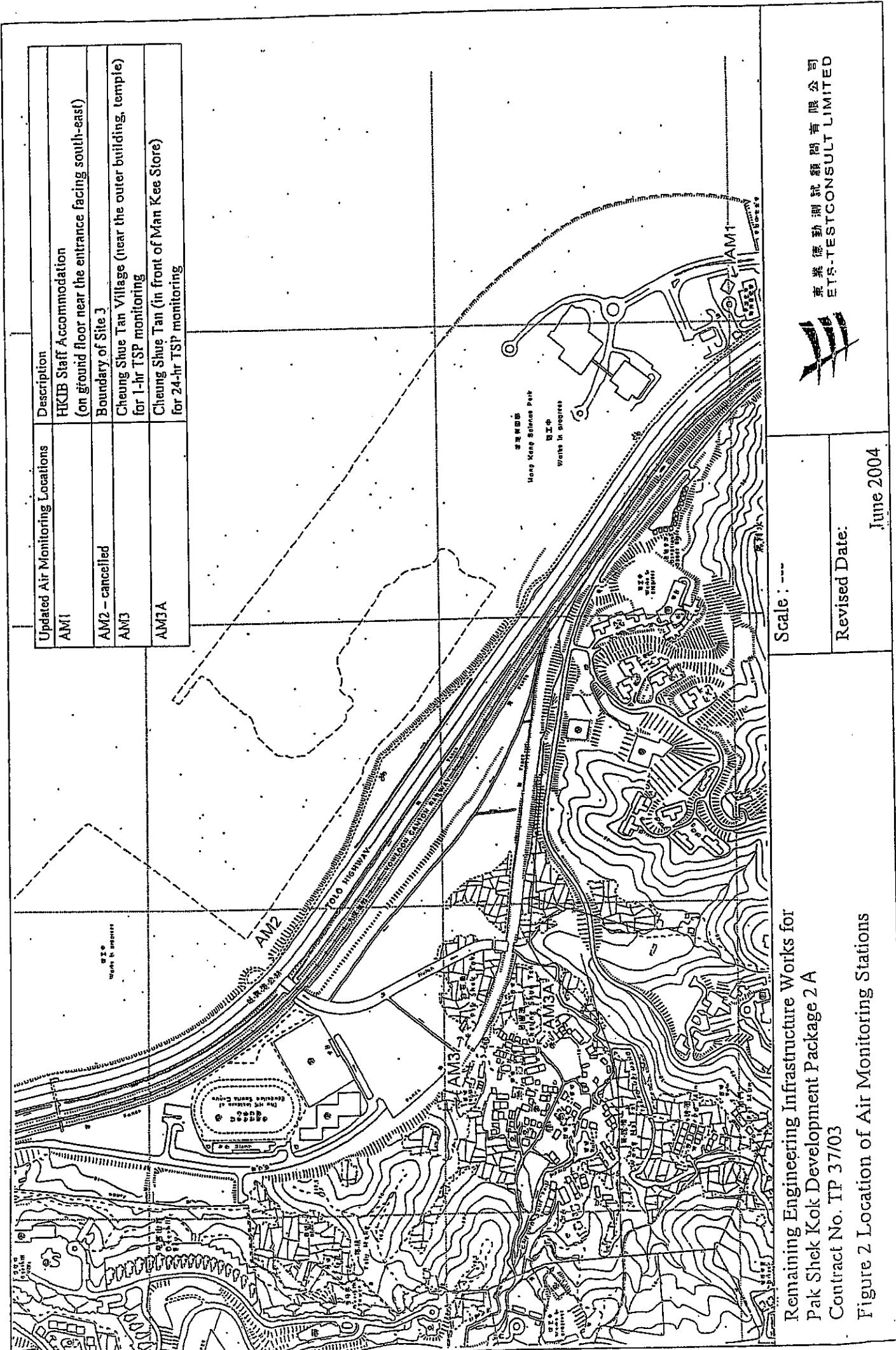
## IEC and RE Comments on Monthly Environmental Monitoring and Audit Report – May 2005

Item No.	Document Reference	Comment	ET Response
1	ES and Section 8	IEC site audit for April was also conducted on 28 April 2005.	Monthly site audit for April was conducted by Engineer's Representative, IEC, LWKJV and ET on 28 April 2005. (ES and Section 8)
2	Section 3	The identified sections and works areas in Table 3.1 should be indicated in the plans.  Brief description (e.g. excavation, pipe laying and breaking) of the major construction activities should be provided.	It will be revised and incorporated. (Table 3.1 and Appendix G)
3	Table 4.4 and Appendix B2	Please explain why the power supply was disconnected on 06 May 2005.	The power supply of HVS at AM5 was found disconnected on 06 May 2005 due to short socket.
4	Section 10.1	The EPM referred to in this section is not correct. Please amend.	It will be revised and incorporated. (Section 10.1)
5	Wastewater monitoring	The test report was issued on 6 June 2005 but the result was submitted to EPD on 1 June 2005. Please clarify.	Since some typo errors were found at the test report submitted to EPD on 01 June 2005, the Contractor request the laboratory to revise the test report. The test report had been amended at 06 June 2005 and attached at the EM&A report of the captioned. The amended test report had also been submitted to EPD at 05 July 2005.



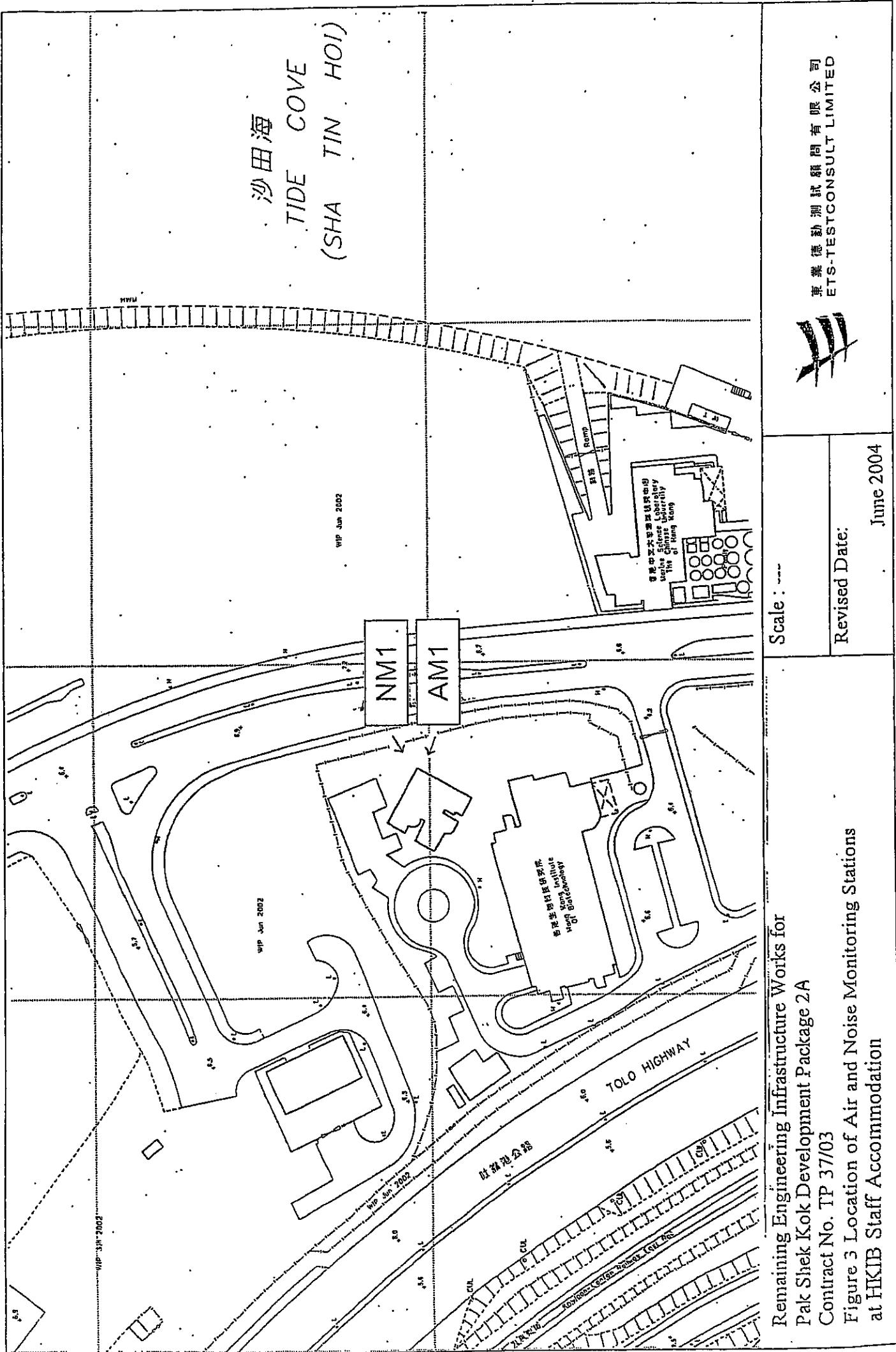
## Figures



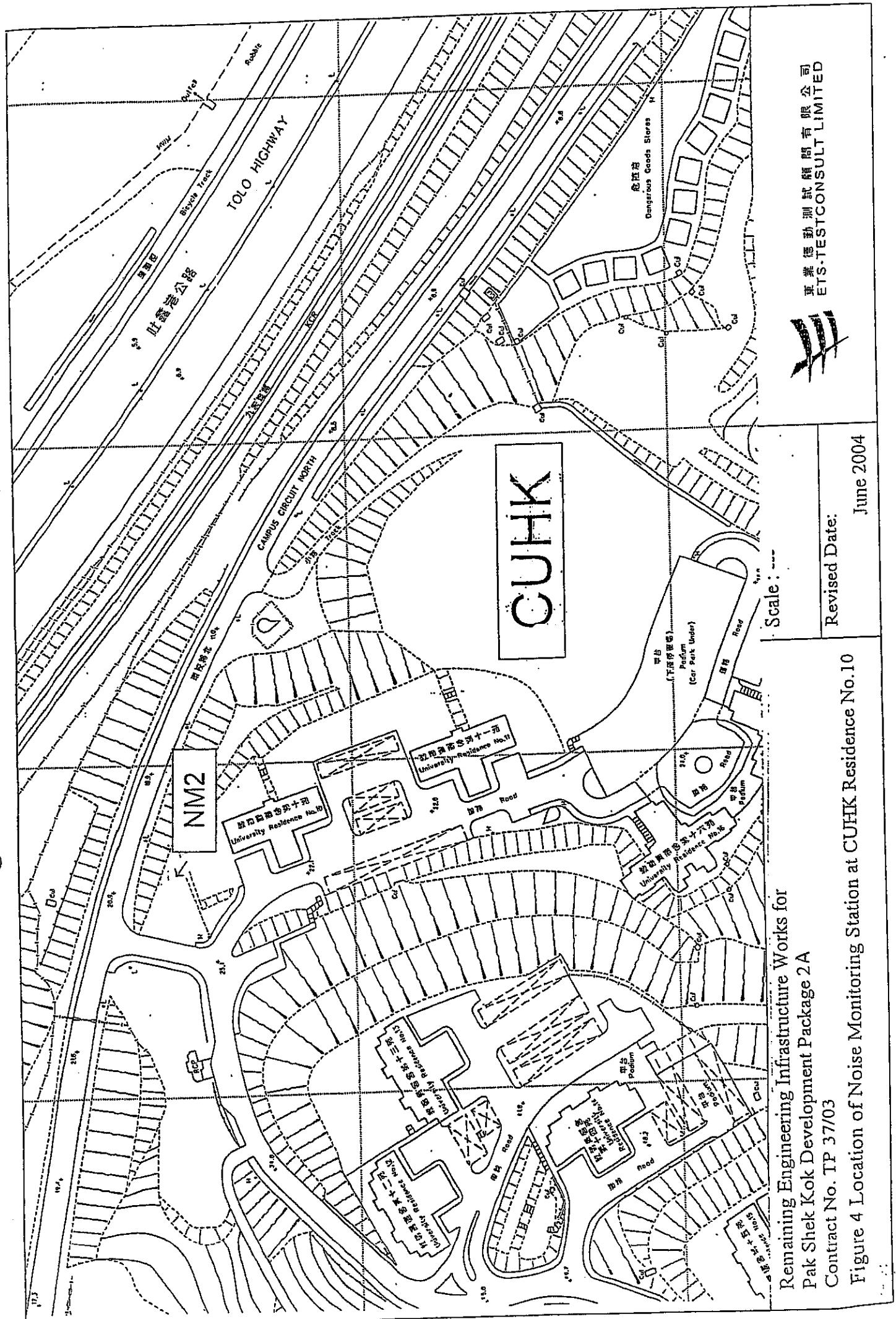


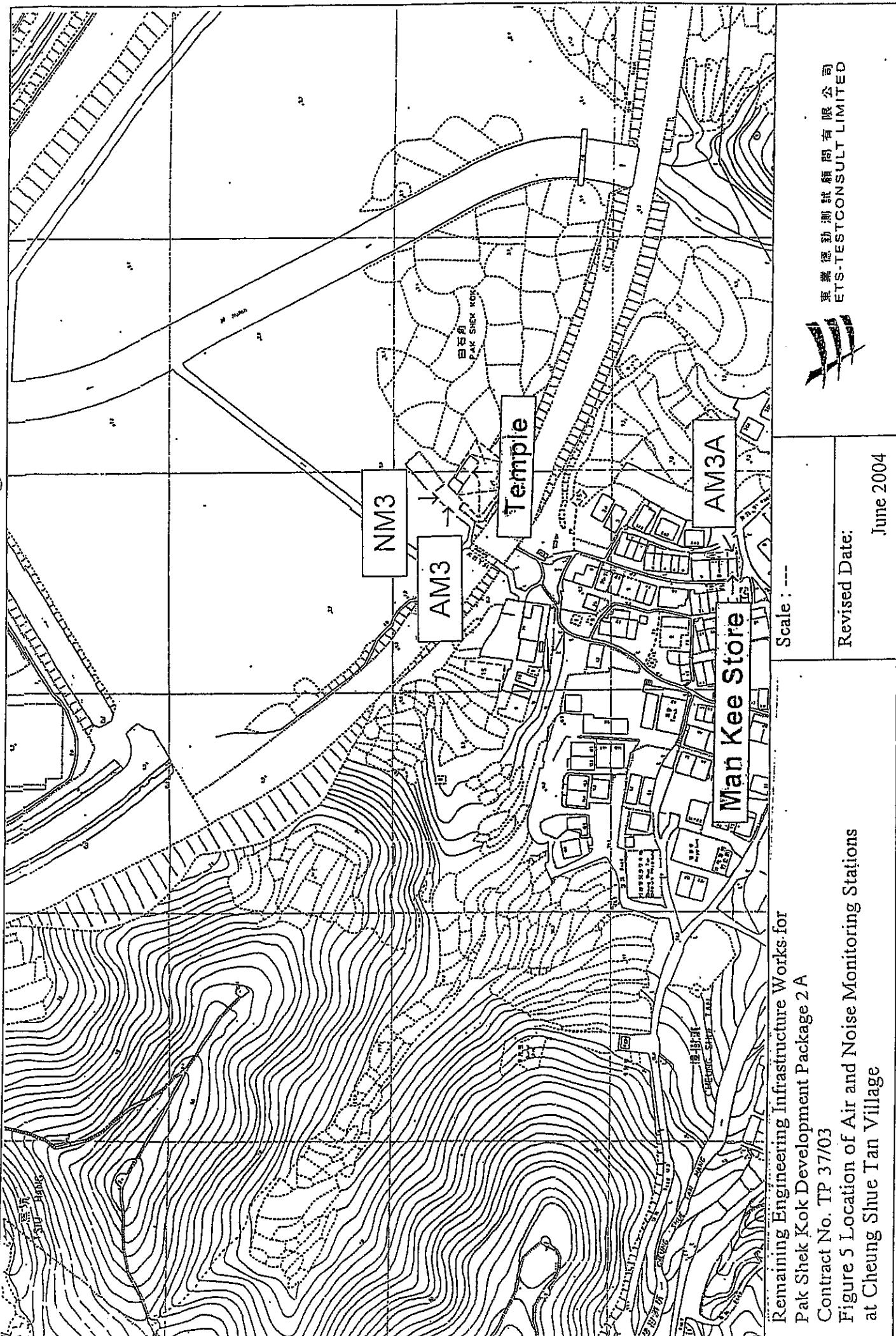
Remaining Engineering Infrastructure Works for  
Pak Shek Kok Development Package 2 A  
Contract No. TP 37/03

Figure 2 Location of Air Monitoring Stations



Remaining Infrastructure Works for  
Pak Shek Kok Development Package 2A  
Contract No. TP 37/03  
Figure 3 Location of Air and Noise Monitoring Stations  
at HKIB Staff Accommodation





Engineering Infrastructure Works for  
Pak Shek Kok Development Package 2A  
Contract No. TP 37/03

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

Scale : ---

Revised Date: ---

June 2004

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