

DSD Contract DC/2005/02 Construction of Sewers, Rising Mains
& Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long
Monthly EM&A Report (December 2006) for Designated Elements

AUES

DRAINAGE SERVICES DEPARTMENT (DSD)
CONTRACT NO. DC/2005/02

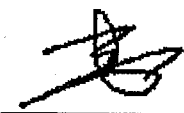

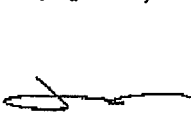
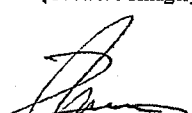
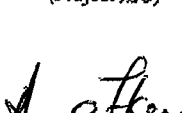
CONSTRUCTION OF SEWERS, RISING MAINS
& SEWAGE PUMPING STATION AT KAM TIN, NAM SANG
WAI AND AU TAU IN YUEN LONG

9th Monthly Construction Phase EM&A Report for
December 2006
(Designated Elements)

PREPARED FOR

Leader Civil Engineering Corporation Ltd

Quality Index

Date	Reference No.			
02 January 2007	TCS/00310/06/600/R0196			
Prepared by	Reviewed by	Certified by	Approved by	Verified by
Ben Tam (Project Supervisor)	Ken Wong (Deputy Project ETL)	David Yeung (Project ETL)	TW Tam (General Manager)	Dr Anne F Kerr (Project JEC)
				

This report has been prepared by Action-United Environmental Services & Consulting with all reasonable skill, care and diligence within the terms of the Agreement with the client, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

TABLE OF CONTENTS

1.0 BASIC PROJECT INFORMATION.....	1
Project Organization.....	1
Construction Program of the Reporting Period.....	1
Management Structure	1
Works Undertaken in the Reporting Period.....	1
2.0 ENVIRONMENTAL STATUS	2
Work Undertaken in the Reporting Period with Illustrations	2
Project Drawings	2
3.0 SUMMARY OF EM&A REQUIREMENTS.....	4
Monitoring Parameters	4
Environmental Quality Performance Limits	4
Event and Action Plans	4
Environmental Mitigation Measures	4
Environmental Requirements in Contract Documents	4
4.0 IMPLEMENTATION STATUS	5
5.0 MONITORING RESULTS.....	6
6.0 REPORT ON NON-COMPLIANCE (NC), COMPLAINTS, NOTIFICATIONS OF SUMMONS (NOS) AND SUCCESSFUL PROSECUTIONS	11
7.0 OTHERS.....	11

List of Tables

Table 2-1	Work Undertaken in the Reporting Period with Illustrations of Mitigation Measures
Table 3-1	Summary of EM&A Requirements
Table 3-2	Action and Limit Levels for Air Quality
Table 3-3	Action and Limit Levels for Construction Noise
Table 4-1	Status of Environmental Permits and Licenses
Table 5-1	Monitoring Equipment Used in EM&A Program
Table 5-2	Locations of Air Quality and Noise Monitoring Stations
Table 5-3	Summary of Air Quality Monitoring Results
Table 5-4	Summary of Noise Monitoring Results at NM3
Table 5-5	Summary of Noise Monitoring Results at NM4
Table 5-6	Summary of Noise Monitoring Results at NM6
Table 5-7	Summary of Noise Monitoring Results at NM7
Table 7-1	Summary of Quantities for Waste Disposal
Table 7-1	Summary of Quantities for Waste Disposal
Table 7-2	Summary of Quantities for Recycling Materials

List of Annexes

Annex A	Project Site Layout
Annex B	Project Organization and Management Structure
Annex C	Construction Program
Annex D	Photographical Records – Noise Barrier On-Site
Annex E	Locations of Monitoring Stations
Annex F	Event and Action Plan
Annex G	Mitigation Implementation Schedule
Annex H	Equipment Calibration Certificates
Annex I	Meteorological Data in the Reporting Month
Annex J	Graphical Plots of Air Quality and Noise Monitoring Results
Annex K	Proforma of Site Inspection and IEC Audit in the Reporting Period

Executive Summary

- ES.01 Leader Civil Engineering Corporation Ltd (the Contractor) has been awarded the DSD Contract DC/2005/02 Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long (the Project). The Project requires an Environmental Monitoring and Audit (EM&A) program to be implemented by an Environmental Team (ET) throughout the contract period in compliance with the requirements as stated in the project Environmental Permit (EP-220/2005) and the project's Updated EM&A (Designated Elements) Manual.
- ES.02 This is the 9th Monthly Construction Phase EM&A Report (December 2006, Report No. 9) reporting the environmental impact monitoring and audit (EM&A) conducted from 01 to 31 December 2006. The EM&A in December 2006 covered air quality, noise and waste management.
- ES.03 As inform by the Contractor, works activities at the Sha Po Pumping Station were commenced on 04 December 2006. Impact monitoring of AM5 (air quality) and NM7 (construction noise) were commenced on 05 and 06 December 2006.

Breach of Action and Limit (AL) Levels

- ES.04 No Action/Limit Level exceedance was recorded in this reporting month. All the monitoring results were complied with standard.

Complaint Log

- ES.05 No environmental complaint was received in this reporting period.

Notification of Any Summons and Successful Prosecution

- ES.06 There was no environmental summon or prosecution in this reporting period.

Reporting Changes

- ES.07 There are no changes to be reported in this reporting period.

Future Key Issues

- ES.09 Construction activities to be undertaken in January 2007 include sheet piling work and footing construction at Kam Tin pumping station, hoarding erection at Sha Po pumping station, pipe jacking at Nam Sang Wai pumping station, pipe jacking works at S5 and S6, drilling and grouting works for receiving pit at S4. Potential environmental impacts arising from the works include air quality, noise and water quality (particularly site runoff). Environmental mitigation measures will be properly implemented and maintained as per the Mitigation Implementation Schedule to ensure site environmental performance is acceptable.

1.0 BASIC PROJECT INFORMATION

1.01 Leader Civil Engineering Corporation Ltd (the Contractor) has been awarded the DSD Contract DC/2005/02 Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long (the Project). The Project is part of the Yuen Long and Kam Tin Sewerage and Sewage Disposal (YLKTSSD) Scheme. A site layout map showing the site boundary and the work areas is shown in **Annex A**.

1.02 This 9th Monthly Construction Phase EM&A Report (December 2006, Report No. 9) summarizes the impact monitoring results and audit findings in the reporting period from 01 to 31 December 2006.

Project Organization

1.03 The organization chart and lines of communication with respect to the on-site environmental management and monitoring program are shown in **Annex B**.

Construction Program of the Reporting Period

1.04 A construction program showing the construction work undertaken in this reporting period was shown in **Annex C**. Environmental mitigation measures implemented are shown in **Table 2-1**.

Management Structure

1.05 The management structure of the Project is shown in **Annex B**.

Works Undertaken in the Reporting Period

1.06 The construction works undertaken during the reporting period under the Environmental Permit (EP-220/2005) were shown as follows:

Kam Tin Pumping Station (P1)

- Sheet piling
- Gate footing construction

Sha Po Pumping Station (P2)

- Hoarding erection

Nam Sang Wai Pumping Station (P3)

- Pipe jacking

Nam Sang Wai Road (S4)

- Drilling and grouting

Pok Wai South Road (S5 and S6)

- Pipe jacking

2.0 ENVIRONMENTAL STATUS

Work Undertaken in the Reporting Period with Illustrations

2.01 A summary of the work undertaken in this reporting period with illustrations and environmental mitigation measures implemented is shown in **Table 2-1**.

Table 2-1 Work Undertaken in the Reporting Period with Illustrations of Mitigation Measures

Location	Description of Construction Activities	Environmental Mitigation Measures	EM&A Ref.
P1 (Kam Tin Pumping Station)	<ul style="list-style-type: none"> Sheet piling Footing construction 	<ul style="list-style-type: none"> Erect 2.4m high noise barrier hoarding around the works area at P1, P2 and P3 Remove dust and spray water at the construction access Cover the stockpiles of dusty material properly Spray water to all dusty materials immediately before loading and unloading Wash the wheels of vehicles before leaving the site 	A1 & F6 A2 A3 A4 A5
P2 (Sha Po Pumping Station)	<ul style="list-style-type: none"> Hoarding erection 	<ul style="list-style-type: none"> Wash the wheels of vehicles before leaving the site 	A6 A7 A8
P3 (Nam Sang Wai Pumping Station)	<ul style="list-style-type: none"> Pipe jacking 	<ul style="list-style-type: none"> Install and use power-operated cover at the dump trucks Spray water at the pavement breaking locations Spray the working area of excavation frequently Maximize the use of quiet PME on site 	B1, B2 & F5 D1
S4 (Nam Sang Wai Road)	<ul style="list-style-type: none"> Drilling and grouting 	<ul style="list-style-type: none"> Apply and obtain appropriate waste disposal licenses Handle, store and dispose of chemical wastes as per relevant regulations Implement trip-ticket system for waste disposal Restrict open fires and provide fire fighting equipment in the works area 	D2, D3 & D4 D5 F9
S5 & S6 (Pok Wai South Road)	<ul style="list-style-type: none"> Pipe jacking 	<ul style="list-style-type: none"> Perform weekly inspection with ET and monthly audit with IEC Conduct noise and dust monitoring as per EM&A manual during construction Provide sedimentation tanks for treating site discharge. Recycle wheel washing water and provide sedimentation tanks for treating site discharge. 	H1 I1 & I2 - -

2.02 Photographic records showing the implemented 2.4m high noise barrier at the pumping station (S3) are shown in **Annex D**.

Project Drawings

2.03 Drawings showing the work areas under EP-220/2005 and the locations of the designated monitoring stations are presented in **Annex E**.

2.04 There are four designated air quality and four noise monitoring stations under the project EP. In this reporting period, the monitoring was carried out at four designated air (AM1, AM5, AM6 & AM7) and four noise (NM3, NM4, NM6 & NM7) monitoring stations.

Station ID	Nature of Premise	Site Work Description	Station Coordinates
AM1	Site Boundary in NSW	Sheet piling and trench excavation.	835829 N 822910 E
AM5	Site Boundary in FKH		835121 N 823515 E
AM6	Site Boundary in KT		833308 N 823987 E
AM7	Site Boundary in NSW		836171 N 822586 E
NM3	Village House in NSW		835808 N 822817 E
NM4	Village House in NSW		835282 N 822811 E
NM6	Village House in KT		833288 N 823999 E
NM7	Village House in FKH		835121 N 823495 E

2.05 The baseline monitoring report of AM5 and NM7 had been certified by ETL and verified by IEC and submitted to EPD on 27 November 2006. The impact monitoring of AM5 (air quality) and NM7 (construction noise) were commenced on 05 and 06 December 2006.

3.0 SUMMARY OF EM&A REQUIREMENTS

Monitoring Parameters

- 3.01 Environmental monitoring and audit requirements are set out in the Updated EM&A manual. Air quality and construction noise have been identified to be the key monitoring parameters during the impact phase for the construction of the project.
- 3.02 A summary of the impact EM&A requirements for air quality and construction noise as per the project Updated EM&A Manual are shown in **Table 3-1**.

Table 3-1 Summary of EM&A Requirements

Environmental Aspect	Monitoring Parameters
Air Quality	24-Hr TSP
Construction Noise	Leq 30min during day time 07:00 to 19:00 Supplementary L10 and L90 for reference.

Environmental Quality Performance Limits

- 3.03 A summary of the Action/Limit (A/L) Levels for air quality and construction noise is shown in **Tables 3-2** and **3-3**.

Table 3-2 Action and Limit Levels for Air Quality Monitoring

Monitoring Location	Action Level ($\mu\text{g}/\text{m}^3$)		Limit Level ($\mu\text{g}/\text{m}^3$)	
	1-Hr TSP	24-Hr TSP	1-Hr TSP	24-Hr TSP
AM1	391	184	500	260
AM5	353	237	500	260
AM6	329	183	500	260
AM7	383	204	500	260

Table 3-3 Action and Limit Levels for Construction Noise

Parameter	Action Level in dB(A)	Limit Level in dB(A)
0700-1900 hrs on normal weekdays	When one or more documented complaints are received	> 75 dB(A)

Event and Action Plans

- 3.04 An Event Action Plan for air quality and construction noise has been implemented for this project. Details of the Event Action Plan are presented in **Annex F**.

Environmental Mitigation Measures

- 3.05 The project EIA report has recommended environmental mitigation measures to minimize potential environmental impacts arising from the construction of the project. A full list of the mitigation measures is detailed in **Annex G**.

Environmental Requirements in Contract Documents

- 3.06 The environmental requirements in the contract documents generally refer to the compliance of the requirements as stipulated in the project EP and the updated EM&A Manual.

4.0 IMPLEMENTATION STATUS

4.01 The implementation status of environmental protection and pollution control/mitigation measures as recommended in the project EIA report is summarized in **Table 2-1** and the implementation schedule as shown in **Annex G**.

4.02 A summary status of the permits, licences, and/or notifications on environmental protection for this Project in this reporting period is presented in **Table 4-1**.

Table 4-1 Status of Environmental Licenses and Permits

Item	Item Description	Permit Status
1	Environmental Permit No.: EP-220/2005	Issued in June 2005
2	Air Pollution Control (Construction Dust)	Notified EPD on 24 Dec 2005
3	Chemical Waste Producer Registration (No. 5213-528-L2544-08)	Registration on 27 Jan 2006
4	Water Pollution Control (Discharge License No. 1U434/1)	Issued on 08 May 2006
5	Account for Disposal of Construction Waste No. 5004959	Registration on 27 Dec 2005
6	Construction Noise Permit (CNP No. PP-RN0036-06)	Valid (8 Dec 2006 to 07 Apr 2007)
7	Construction Noise Permit (CNP No. GW-RN0591-06)	Valid (8 Dec 2006 to 07 Apr 2007)

5.0 MONITORING RESULTS

MONITORING METHODOLOGY OF AIR QUALITY MONITORING

- 5.01 The 24-Hr TSP monitoring was carried out by a High volume sampler (HVS) in compliance with the updated EM&A Manual. The HVS employed complied with the PS specifications including.
- Power supply of 220v/50 hz for 24-hour continuous operation;
 - 0.6-1.7 m³/min (20-60 SCFM) adjustable flow rate;
 - A 7-day mechanical timer for 24-hour operation;
 - An elapsed time indicator with ± 2 minutes accuracy for 24-Hr operation;
 - Minimum exposed area of 63 in²;
 - Flow control accuracy of $\pm 2.5\%$ deviation over 24-Hr operation;
 - An anodized aluminum shelter to protect the filter and sampler;
 - A motor speed-voltage control to control mass flow rate with accuracy of $\pm 2.5\%$ deviation over 24-hr sampling period;
 - Provision of a flow recorder for continuous monitoring;
 - Provision of a peaked roof inlet;
 - Incorporation with a manometer; and
 - An 8"x10" stainless steel filter holder to hold, seal and easy to change the filter paper.
- 5.02 The filter papers used in 24-Hr TSP monitoring were of size 8"x10" and provided by a local HOKLAS-accredited laboratory, ALS Techichem Pty (HK) Limited (HOKLAS No. 66). The filters papers after measurements were returned to the laboratory for the required treatment and analysis. In house QA/QC procedures for all monitoring practices to ensure the validity of monitoring data. Blank filters samples were collected and delivered to the HOKLAS-accredited laboratory for QA/QC check.
- 5.03 The meteorological information during the reporting period was obtained from Lau Fau Shan Station of the Hong Kong Observatory (HKO).

MONITORING METHODOLOGY OF CONSTRUCTION NOISE MONITORING

- 5.04 Noise measurements were taken in terms of the A-weighted equivalent sound pressure level (Leq) measured in decibels (dB). Supplementary statistical results (L₁₀ and L₉₀) were also obtained for reference.
- 5.05 Hand-held sound level meters (B&K Model 2238) and associated acoustical calibrators in compliance with the International Electrotechnical Commission (IEC) Publication 651:1979 (Type 1) and 804:1985 (Type 1) specification were used for taking the baseline noise measurements.
- 5.06 Windshield was fitted in all measurements. All noise measurements were made with the meter set to FAST response and on the A-weighted equivalent continuous sound pressure level (Leq).
- 5.07 No noise measurement was made in the presence of fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s.

LABORATORY AND MONITORING EQUIPMENT USED

- 5.08 A local HOKLAS-accredited laboratory, ALS Technichem (HK) Pty Ltd (HOKLAS No. 66), is responsible for the analytical testing of the 24-Hr TSP filter papers.
- 5.09 The monitoring equipment used in the impact EM&A program is presented in **Table 5-1**:

Table 5-1 Monitoring Equipment Used in Impact EM&A Program

Parameters	Monitoring Equipment	
Air Quality	24-Hr TSP	Tisch High Volume Sampler 515N
Noise	Leq30min	B&K Type 2238
	On-site Calibration	B&K Type 4231

EQUIPMENT CALIBRATION

- 5.10 Initial calibration of the HVS was performed upon installation and thereafter at a six month intervals in accordance with the manufacturer's instruction using the NIST-certified standard calibrator (Tisch Calibration Kit Model TE-5025A). The calibration data are properly documented and the records are maintained by ET for future reference.
- 5.11 The sound level meters were calibrated using an acoustic calibrator prior to and after measurements. The meters are regularly calibrated in accordance with the manufacturer's instructions. Prior to and following each noise measurement, the accuracy of the sound level meter was checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements were considered valid only if the calibration levels before and after the noise measurement agree to within 1.0 dB.
- 5.12 The renew calibration certificates of the monitoring equipment used during the impact monitoring program in this month are attached in **Annex H**.

PARAMETERS MONITORED

- 5.13 The environmental parameters monitoring in this reporting period were compliance with the monitoring requirements as in **Table 3-1**.

MONITORING LOCATIONS

- 5.14 There are four designated air quality and four noise monitoring stations under the project EP. For this reporting month, monitoring was carried out at four designated air (AM1, AM5, AM6 & AM7) and four noise (NM3, NM4, NM6 & NM7) monitoring stations. As inform by the Contractor, construction work at the Sha Po Pumping Station were commenced on 04 December 2006. Impact monitoring of AM5 and NM7 were commenced on 05 and 06 December 2006 respectively. The locations of the designated monitoring stations are shown in **Table 5-2** and geographically in **Annex E**.

Table 5-2 Location of Air Quality and Construction Noise Monitoring Stations

Air Quality (4 Stations)	
AM1	Worksite boundary facing scattered house in Nam Sang Wai
AM5*	Worksite boundary facing Fung Kat Heung
AM6	Worksite boundary facing scattered near Route 3
AM7	Worksite boundary facing scattered house in Nam Sang Wai
Construction Noise (4 Stations)	
NM3	Village House in Nam Sang Wai
NM4	Village House in Nam Sang Wai
NM6	Scattered House near Route 3
NM7*	Fung Kat Heung

Remarks: *Impact monitoring of AM5 & NM7 were commenced on 05 and 06 December 2006 respectively.

MONITORING FREQUENCY AND PERIOD

- 5.15 The impact 24-Hr TSP monitoring was conducted at the designated stations once every 6 days in compliance with the updated EM&A manual. A total of 20 monitoring events were carried out in this reporting period.
- 5.16 The impact noise monitoring was conducted at the designated stations once every 6 days in compliance with the updated EM&A manual. A total of 20 monitoring events were carried out in this reporting period.

MONITORING RESULTS WITH DATE AND TIME

- 5.17 The air quality monitoring data for this reporting period were summarized in **Table 5-3**.

Table 5-3 Summary of Air Quality Monitoring Results

Date	24-Hr TSP ($\mu\text{g}/\text{m}^3$)			
	AM1	AM5 [#]	AM6	AM7
5-Dec-06	121	217	86	99
11-Dec-06	67	136	150	93
16-Dec-06	67	174	78	83
22-Dec-06	66	231	92	66
28-Dec-06	67	227	181	101
Average (Range)	80 (66-121)	197 (136-231)	117 (78-181)	88 (66-101)

All 24-Hr TSP monitoring were preset to start at 00:00 on each monitoring date.

From the Contractor information, construction work at the Sha Po Pumping Station area was commenced on 04 December 2006. The impact monitoring of AM5 and NM7 were commenced on 05 and 06 December 2006 respectively.

* Action/Limit Level exceedances were recorded.

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

5.19 The impact noise monitoring results are summarized in **Tables 5-4 to 5-7**.

Table 5-4 Summary of Noise Monitoring Results at NM3

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected * Leq30
06-Dec-06	10:56	54.7	61.2	62.3	55.9	54.6	56.8	58.7	61.7
12-Dec-06	11:16	44.6	43.7	44.2	43.1	45.4	44.0	44.2	47.2
18-Dec-06	10:31	50.1	49.6	49	49.7	49.2	50.3	49.7	52.7
23-Dec-06	10:22	47.3	47.3	47.6	46.6	46.1	44.5	46.7	49.7
29-Dec-06	10:43	46.8	47.6	47.2	45.7	46.0	45.4	46.5	49.5
Limit Level									75

* A façade correction of +3 dB(A) has been added according to acoustical principles and EPD guidelines.

Table 5-5 Summary of Noise Monitoring Results at NM4

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected * Leq30
6-Dec-06	9:00	48.1	49.6	48.8	50.2	47.3	49.2	49.0	52.0
12-Dec-06	8:51	48.1	47.4	48.3	47.8	48.5	47.3	47.9	50.9
18-Dec-06	9:04	48.3	47.7	48.6	47.4	48.3	47.6	48.0	51.0
23-Dec-06	9:02	51.2	52.7	50.8	52.6	51.7	52.0	51.9	54.9
29-Dec-06	9:04	50.8	52.1	51.7	52.6	52.3	51.8	51.9	54.9
Limit Level									75

* A façade correction of +3 dB(A) has been added according to acoustical principles and EPD guidelines.

Table 5-6 Summary of Noise Monitoring Results at NM6

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected * Leq30
6-Dec-06	15:20	58.6	58.0	59.5	56.2	58.2	63.6	59.7	No
12-Dec-06	15:41	62.7	64.9	65.6	64.2	63.8	64.6	64.4	Correction
18-Dec-06	15:17	74.8	70.9	71.3	73.7	74.2	73.9	73.4	
23-Dec-06	15:16	74.6	74.6	75.2	75.1	73.8	74.1	74.6	Required
29-Dec-06	13:02	61.4	62.1	61.8	63.6	64.2	62.8	62.8	
Limit Level									75

* Noise monitoring was undertaken at the façade, correction was not necessary.

Table 5-7 Summary of Noise Monitoring Results at NM7

Date	Start Time	1st Leq5	2nd Leq5	3rd Leq5	4th Leq5	5th Leq5	6th Leq5	Leq30	Corrected * Leq30
6-Dec-06	10:22	55.7	55.5	58.2	54.2	53.3	54.6	55.5	No
12-Dec-06	10:31	53.2	52.8	53.7	52.1	54.2	53.6	53.3	Correction
18-Dec-06	11:14	54.8	53.1	53.6	52.7	54.2	53.4	53.7	
23-Dec-06	11:24	54.4	54.9	54.6	55.9	52.6	53.8	54.5	Required
29-Dec-06	11:29	53.6	54.2	53.9	53.4	52.8	53.1	53.5	
Limit Level									75

* Noise monitoring was undertaken at the façade, correction was not necessary.

From the Contractor information, construction work at the Sha Po Pumping Station area was commenced on 04 December 2006. The impact monitoring of NM7 was commenced on 06 December 2006.

WEATHER CONDITIONS DURING THE MONITORING PERIOD

- 5.20 The meteorological data on the monitoring dates are summarized in **Annex I**.

GRAPHICAL PLOTS OF TRENDS OF MONITORED PARAMETERS

- 5.21 The graphical plots of air quality and construction noise monitoring data are presented in **Annex J**.

MAJOR ACTIVITY CARRIED OUT DURING THE MONITORING PERIOD

- 5.22 There were construction activities of sheet piling and trench excavation undertaken during the monitoring period.

WEATHER CONDITIONS THAT AUGUST AFFECT THE MONITORING RESULTS

- 5.23 The weather conditions at the time of monitoring were considered acceptable for monitoring activities and did not have significant impact on the monitoring results obtained.

OTHER FACTORS INFLUENCING THE MONITORING RESULTS

- 5.24 There were no other noticeable external factors generally affecting the monitoring results in this reporting period.

QA/QC RESULTS AND DETECTION LIMITS

- 5.25 Not applicable.

6.0 REPORT ON NON-COMPLIANCE (NC), COMPLAINTS, NOTIFICATIONS OF SUMMONS (NoS) AND SUCCESSFUL PROSECUTIONS

RECORD OF NON-COMPLIANCE OF ACTION AND LIMIT LEVELS

6.01 There was no Action or Limit Level exceedance in this reporting period.

RECORD OF ENVIRONMENTAL COMPLAINTS RECEIVED

6.02 There was no environmental complaint received in this reporting period.

RECORD OF NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTION

6.03 There was no notification of summon or prosecution received in this reporting period.

REVIEW OF REASONS FOR AND IMPLICATIONS OF NC, COMPLAINTS AND NOS

6.04 No NC, complaints or NoS received in this reporting period.

DESCRIPTION OF FOLLOW-UP ACTIONS TAKEN

6.05 No NC, complaints or NoS received in this reporting period.

7.0 OTHERS

FUTURE KEY ISSUES

7.01 Construction activities to be undertaken in January 2007 include sheet piling work and footing construction at Kam Tin pumping station, hoarding erection at Sha Po pumping station, pipe jacking at Nam Sang Wai pumping station, pipe jacking works at S5 and S6, drilling and grouting works for receiving pit at S4. Potential environmental impacts arising from the works include air quality, noise and water quality (particularly site runoff). Environmental mitigation measures will be properly implemented and maintained as per the Mitigation Implementation Schedule to ensure site environmental performance is acceptable.

SOLID AND LIQUID WASTE MANAGEMENT STATUS

7.02 The quantities of waste for disposal or reuse in this reporting period are summarized in **Tables 7-1** and **7-2**.

Table 7-1 Summary of Quantities of Waste for Disposal

Type of Waste	Quantity	Disposal Location
C&D Materials (Inert) (tons) – Disposed	3,010	Tuen Mun 38 Fill Bank
C&D Materials (Inert) (tons) – Reused	2,900	DSD Contract DC/2005/0
C&D Materials (Non-Inert) (tons)	-	NA
Chemical Waste (Litres)	-	NA
General Refuse (tons)	30	Refuse Collector

Table 7-2 Summary of Quantities of Waste for Reuse/Recycling

Type of Waste	Quantity	Disposal Location
Metals for Recycling (kg)	0	NA
Paper for Recycling (kg)	0	NA
Plastics for Recycling (kg)	0	NA

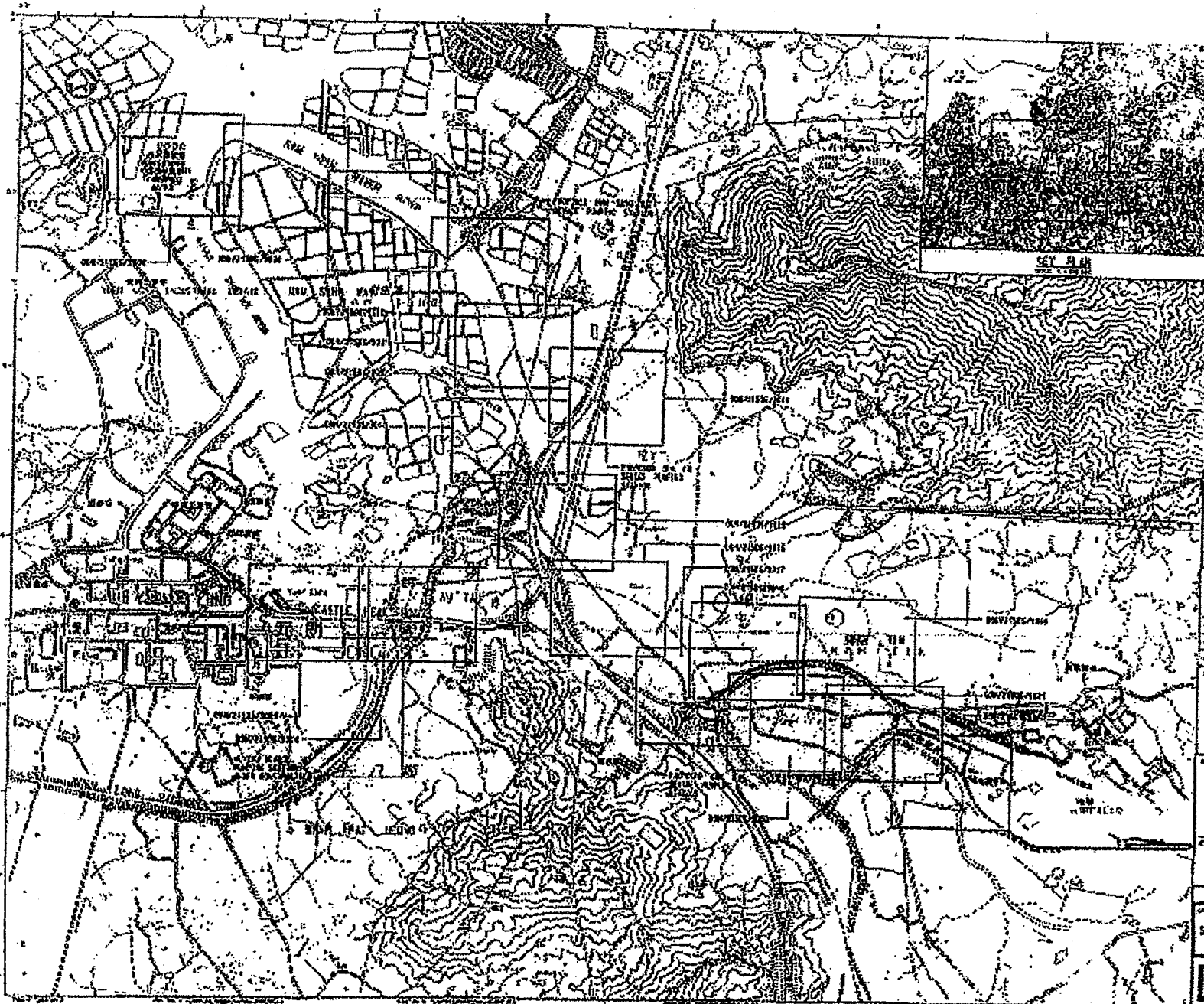
7.03 There was no site effluent discharged but an estimated volume of less than 50m³ of surface runoff was discharged in the reporting period.

SUBMISSION OF PROFORMA

7.04 Representatives of the Engineer, the Contractor and ET carried out regular weekly joint site inspection on 08, 15, 22 and 30 December 2006 to evaluate the site environmental performance. No non-compliance was noted and five observations were recorded in weekly site inspection. In this reporting period, no IEC monthly joint site inspection with RE, Contractor and ET was carried out.

7.05 Proforma of the weekly ET site inspection activities are presented in **Annex K**.

Annex A
Project Site Layout



SERIES 1
 1:50,000
 1:50,000
 1:50,000



SERIES 2
 1:50,000
 1:50,000

FIRE TENDER PROJECTS ONLY

PROJECT	DATE	STATUS
1000	10/1/50	PLANNED
1001	10/2/50	PLANNED
1002	10/3/50	PLANNED
1003	10/4/50	PLANNED

1000
 1001
 1002
 1003

1000
 1001
 1002
 1003

1000
 1001
 1002
 1003

1000
 1001
 1002
 1003

1000
 1001
 1002
 1003

1000
 1001
 1002
 1003

1000
 1001
 1002
 1003

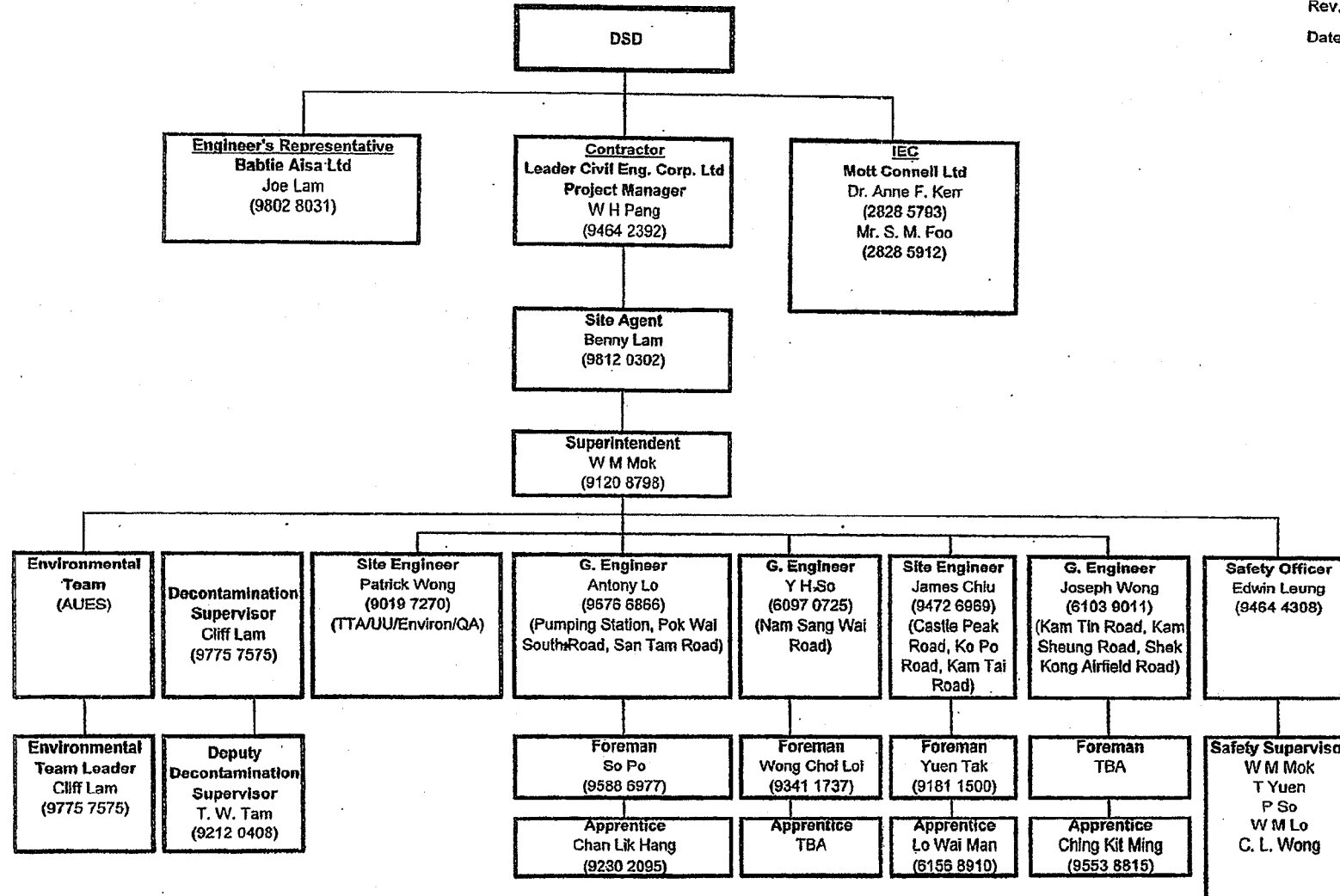
Annex B

Project Organization and Management Structure

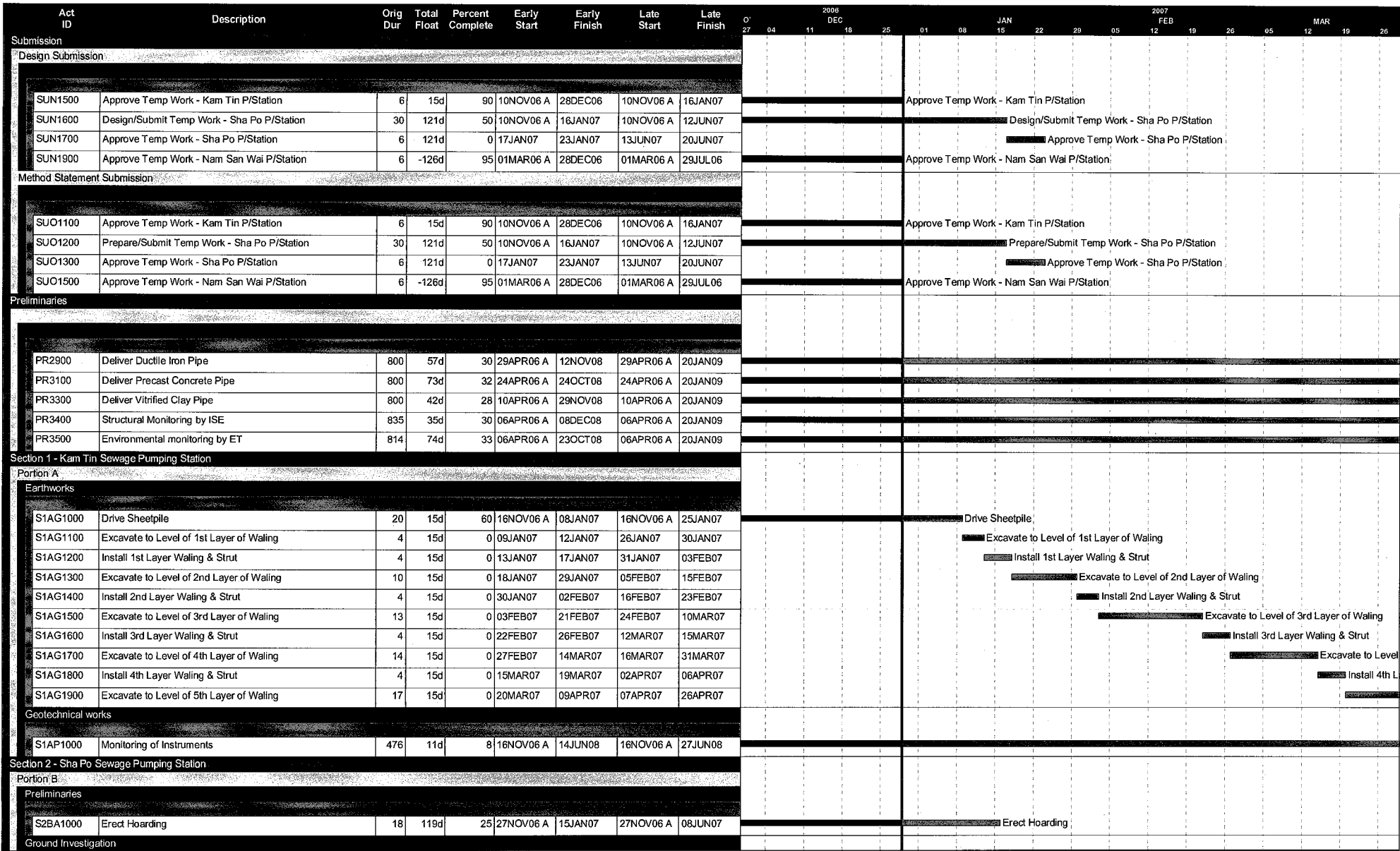
DSD Contract No. DC/2005/02
Construction of Sewers, Rising Mains and Sewage Pumping Station at Kam Tin,
Nam Sang Wai and Au Tau in Yuen Long
Project Environmental Organization Chart

Rev. : 01

Date : 12-May-06



Annex C
Construction Program



Start date	19DEC05
Finish date	29AUG09
Data date	29DEC06
Run date	04JAN07
Page number	1A
c Primavera Systems, Inc.	

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 December 2006

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

Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	2006												2007											
									0	27	04	11	18	25	01	08	15	22	29	05	12	19	26	02	09	16	23	30	06	13	20	27
S2BB1000	Trial Pits	20	119d	75	02SEP06 A	20JAN07	02SEP06 A	14JUN07	Trial Pits																							
S2BB1100	Drill Boreholes	11	119d	75	05SEP06 A	24JAN07	05SEP06 A	18JUN07	Drill Boreholes																							
S2BB1200	Install Inclinometers	2	119d	75	06SEP06 A	25JAN07	06SEP06 A	20JUN07	Install Inclinometers																							
S2BB1300	Install Settlement Markers	1	127d	0	16JAN07	16JAN07	20JUN07	20JUN07	Install Settlement Markers																							
Section 3 - Nam Sang Wai Sewage Pumping Station																																
Portion C																																
Pipework - Rising Main																																
Trenches & Manholes																																
S3CFA1000	Twin Rising Main DN900	6	223d	0	10FEB07	16FEB07	09NOV07	15NOV07	Twin Rising Main DN900																							
Earthworks																																
S3CG1500	Excavate to Level of 3rd Layer of Waling	14	-126d	0	29DEC06	15JAN07	31JUL06	15AUG06	Excavate to Level of 3rd Layer of Waling																							
S3CG1600	Install 3rd Layer of Waling & Strut	4	-126d	0	16JAN07	19JAN07	16AUG06	19AUG06	Install 3rd Layer of Waling & Strut																							
S3CG1700	Excavate to Level of 4th Layer of Waling	18	-126d	0	20JAN07	09FEB07	21AUG06	09SEP06	Excavate to Level of 4th Layer of Waling																							
S3CG1800	Install 4th Layer of Waling & Strut	4	-126d	0	10FEB07	14FEB07	11SEP06	14SEP06	Install 4th Layer of Waling & Strut																							
S3CG1900	Excavate to Level of 5th Layer of Waling	22	-126d	0	15FEB07	15MAR07	15SEP06	12OCT06	Excavate to Level of 5th Layer of Waling																							
S3CG2000	Install 5th Layer of Waling & Strut	4	-126d	0	16MAR07	20MAR07	13OCT06	17OCT06	Install 5th Layer of Waling & Strut																							
S3CG2100	Excavate to Level of 6th Layer of Waling	22	-126d	0	21MAR07	16APR07	18OCT06	13NOV06	Excavate to Level of 6th Layer of Waling																							
Geotechnical works																																
S3CP1000	Monitoring of Instruments	632	38d	41	06APR06 A	26MAR08	06APR06 A	12MAY08	Monitoring of Instruments																							
Section 4 - Sewers & RM in Portion D, F, G, H, I																																
Portion D																																
Ground Investigation																																
S4DB1010	Boreholes & Instrumentation (WOIC1 - ChA2095)	12		100	23AUG06 A	20DEC06 A	23AUG06 A	20DEC06 A	Boreholes & Instrumentation (WOIC1 - ChA2095)																							
S4DB1300	Install Settlement Markers	579	269d	39	31OCT06 A	01MAR08	31OCT06 A	20JAN09	Install Settlement Markers																							
Pipework - Rising Main																																
Trenches & Manholes																																
S4DFA1000	Twin Rising Main DN900 (ChA1750 - ChA1850)	124	97d	63	02NOV06 A	24FEB07	02NOV06 A	21JUN07	Twin Rising Main DN900 (ChA1750 - ChA1850)																							
Trenches & Manholes																																
S4DFB1000	Construct Jack/Receive Pits (WOIC1 - ChA2095)	72	91d	40	02DEC06 A	28FEB07	02DEC06 A	16JUN07	Construct Jack/Receive Pits (WOIC1 - ChA2095)																							
S4DFB1020	Jacking Twin DN900 (WOIC1 - ChA2095)	131	91d	0	01MAR07	04AUG07	18JUN07	22NOV07	Jacking Twin DN900 (WOIC1 - ChA2095)																							
Geotechnical works																																
S4DP1000	Monitoring of Instruments	567	199d	27	02NOV06 A	13MAY08	02NOV06 A	08JAN09	Monitoring of Instruments																							
Portion F																																
Ground Investigation																																
S4FB1500	Install Settlement Markers	720	128d	32	27APR06 A	18AUG08	27APR06 A	20JAN09	Install Settlement Markers																							
Drainage and Ducts																																
Trenches & Manholes																																
S4FEB1200	Construct Jack/Receive Pits (H4 - H3)	30		100	22NOV06 A	06DEC06 A	22NOV06 A	06DEC06 A	Construct Jack/Receive Pits (H4 - H3)																							
S4FEB1300	Construct Jack/Receive Pits (H5 - H4)	30		100	15NOV06 A	06DEC06 A	15NOV06 A	06DEC06 A	Construct Jack/Receive Pits (H5 - H4)																							
S4FEB1420	Jacking DN1200 (H6 - H5)	36	10d	0	31JAN07	16MAR07	12FEB07	28MAR07	Jacking DN1200																							
S4FEB1440	Construct Manhole H6	27	10d	0	17MAR07	18APR07	29MAR07	30APR07	Construct Manhole H6																							

Start date 19DEC05
 Finish date 29AUG09
 Data date 29DEC06
 Run date 04JAN07
 Page number 2A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 29 December 2006

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



Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	2006												2007						
									0'	04	11	18	25	01	08	15	22	29	05	12	19	26	05	12	19	26	
S4FEB1520	Jacking DN1200 (H7 - H6)	42		100	06OCT06 A	05DEC06 A	06OCT06 A	05DEC06 A	Jacking DN1200 (H7 - H6)																		
S4FEB1540	Construct Manhole H7	27	10d	0	29DEC06	30JAN07	11JAN07	10FEB07	Construct Manhole H7																		
Pipework - Rising Main																											
S4FFB1020	Jacking Twin DN700 (WOIC4 - ChC2639)	139	8d	47	25NOV06 A	29MAR07	25NOV06 A	09APR07																			
Geotechnical works																											
S4FP1000	Monitoring of Instruments	803	21d	27	05JUN06 A	12DEC08	05JUN06 A	08JAN09																			
Portion G																											
Ground Investigation																											
S4GB1500	Install Settlement Markers	738	110d	31	21APR06 A	08SEP08	21APR06 A	20JAN09																			
Pipework - Rising Main																											
S4GFA1200	Twin Rising Main DN500 (ChB350 - ChB450)	89	471d	95	05SEP06 A	04JAN07	05SEP06 A	29JUL08	Twin Rising Main DN500 (ChB350 - ChB450)																		
S4GFA1300	Twin Rising Main DN500 (ChB450 - ChB550)	84	471d	0	05JAN07	17APR07	30JUL08	07NOV08																			
S4GFA1500	Twin Rising Main DN500 (ChB650 - ChB750)	130	534d	80	14OCT06 A	29JAN07	14OCT06 A	07NOV08	Twin Rising Main DN500 (ChB650 - ChB750)																		
S4GFA1600	Construct AVIC2	30	534d	0	30JAN07	08MAR07	08NOV08	12DEC08	Construct AVIC2																		
S4GFA1800	Construct AVIC3	30		100	20SEP06 A	07DEC06 A	20SEP06 A	07DEC06 A	Construct AVIC3																		
Geotechnical works																											
S4GP1000	Monitoring of Instruments	729	61d	25	22APR06 A	27OCT08	22APR06 A	08JAN09																			
Portion H																											
Ground Investigation																											
S4HB1300	Install Settlement Markers	717	131d	32	26MAY06 A	14AUG08	26MAY06 A	20JAN09																			
Drainage and Ducts																											
S4HEA1200	DN500 Pipe & Manhole (A9 - A12)	90	46d	71	03JUL06 A	29JAN07	03JUL06 A	27MAR07	DN500 Pipe & Manhole (A9 - A12)																		
S4HEA1300	DN500 Pipe & Manhole (A12 - A14)	54	46d	0	15FEB07	23APR07	14APR07	16JUN07																			
S4HEA1500	DN400 Pipe & Manhole (A16 - A18)	73	268d	0	29DEC06	28MAR07	20NOV07	18FEB08																			
S4HEA1600	DN400 Pipe & Manhole (A18 - A21)	74		100	19JUL06 A	27DEC06 A	19JUL06 A	27DEC06 A	DN400 Pipe & Manhole (A18 - A21)																		
Pipework - Rising Main																											
S4HFA1200	Twin Rising Main DN700 (ChC290 - ChC410)	45	46d	69	03JUL06 A	14FEB07	03JUL06 A	13APR07	Twin Rising Main DN700 (ChC290 - ChC410)																		
S4HFA1600	Twin Rising Main DN700 (ChC660 - ChC780)	37		100	19JUL06 A	27DEC06 A	19JUL06 A	27DEC06 A	Twin Rising Main DN700 (ChC660 - ChC780)																		
S4HFA2000	Twin Rising Main DN700 (ChC1050 - ChC1150)	94	6d	10	20DEC06 A	12APR07	20DEC06 A	19APR07																			
S4HFA2500	Twin Rising Main DN700 (ChC1550 - ChC1650)	223	63d	0	16FEB07	14NOV07	07MAY07	29JAN08																			
S4HFA2600	Twin Rising Main DN700 (ChC1650 - ChC1750)	124	63d	67	19JUN06 A	15FEB07	19JUN06 A	05MAY07	Twin Rising Main DN700 (ChC1650 - ChC1750)																		
S4HFA3300	Construct AVIC7	20	266d	0	16FEB07	14MAR07	07JAN08	29JAN08	Construct AVIC7																		
S4HFA3400	Construct WOIC6	20	266d	0	16FEB07	14MAR07	07JAN08	29JAN08	Construct WOIC6																		
Geotechnical works																											
S4HP1000	Monitoring of Instruments	764	59d	28	26MAY06 A	29OCT08	26MAY06 A	08JAN09																			
Portion I																											
Ground Investigation																											

Start date	19DEC05
Finish date	29AUG09
Data date	29DEC06
Run date	04JAN07
Page number	3A
c Primavera Systems, Inc.	

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 December 2006

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



Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	2006												2007																																		
									07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22
S4IB1040	Boreholes & Instrumentation (ChD0 to ChD55)	8	368d	0	10FEB07	22FEB07	05MAY08	13MAY08	Boreholes & Instrumentation (ChD0 to ChD55)																																														
S4IB1300	Install Settlement Markers	726	122d	31	26JUN06 A	25AUG08	26JUN06 A	20JAN09																																															
Drainage and Ducts																																																							
S4IEA1100	DN500 Pipe & Manhole (C5 - C8)	81	136d	0	22MAR07	27JUN07	01SEP07	07DEC07																																															
S4IEA1200	DN400 Pipe & Manhole (C7a - C7)	47	136d	0	23JAN07	21MAR07	09JUL07	31AUG07	DN400 P																																														
S4IEA1300	DN500 Pipe & Manhole (C8 - C11)	63	136d	68	21JUL06 A	22JAN07	21JUL06 A	07JUL07	DN500 Pipe & Manhole (C8 - C11)																																														
S4IEA1400	DN500 Pipe & Manhole (C11 - C13)	71	348d	28	05DEC06 A	26MAR07	05DEC06 A	21MAY08	DN																																														
S4IEA1500	DN500 Pipe & Manhole (C13 - C14)	70	348d	0	27MAR07	18JUN07	22MAY08	13AUG08																																															
S4IEA1900	DN500 Pipe & Manhole (C20 - C22)	71	414d	0	21FEB07	16MAY07	07JUL08	27SEP08																																															
S4IEA2000	DN500 Pipe & Manhole (C22 - C25)	70	414d	40	19DEC06 A	16FEB07	19DEC06 A	05JUL08	DN500 Pipe & Manhole (C22 - C25)																																														
S4IEA2200	DN500 Pipe & Manhole (C27 - C29)	62	253d	60	18OCT06 A	27JAN07	18OCT06 A	30NOV07	DN500 Pipe & Manhole (C27 - C29)																																														
S4IEA2300	DN500 Pipe & Manhole (C29 - C32)	79	253d	0	29JAN07	05MAY07	01DEC07	07MAR08																																															
Geotechnical works																																																							
S4IP1000	Monitoring of Instruments	795	35d	28	28JUN06 A	26NOV08	28JUN06 A	08JAN09																																															
Section 5 - Sewers & RM in Portion E																																																							
Portion E																																																							
Preliminaries																																																							
S5EA1100	Non Work Period 01 Nov 06 - 31 Mar 07	125	0	39	28NOV06 A	31MAR07	28NOV06 A	31MAR07 *																																															
Pipework - Rising Main																																																							
S5EFA2500	Twin Rising Main DN900 (ChA950 - ChA1000)	24		100	26OCT06 A	12DEC06 A	26OCT06 A	12DEC06 A	Twin Rising Main DN900 (ChA950 - ChA1000)																																														
S5EFA2600	Twin Rising Main DN900 (ChA1000 - ChA1050)	24		100	09SEP06 A	12DEC06 A	09SEP06 A	12DEC06 A	Twin Rising Main DN900 (ChA1000 - ChA1050)																																														
S5EFA4200	Construct AVIC1	25		100	16OCT06 A	01DEC06 A	16OCT06 A	01DEC06 A	Construct AVIC1																																														
Jacking & Well																																																							
S5EFB1020	Jacking DN1350 Conc Casing (ChA18 - ChA208)	107	64d	94	05OCT06 A	05JAN07	05OCT06 A	24MAR07	Jacking DN1350 Conc Casing (ChA18 - ChA208)																																														
S5EFB1040	Install Twin DN900 (ChA18 - ChA208)	30	64d	0	06JAN07	09FEB07	26MAR07	30APR07	Install Twin DN900 (ChA18 - ChA208)																																														
Geotechnical works																																																							
S5EP1000	Monitoring of Instruments	629	42d	35	01AUG06 A	10MAY08	01AUG06 A	30JUN08																																															
Section 6 - Sewers in Portion J																																																							
Portion J																																																							
Ground Investigation																																																							
S6JB1040	Boreholes & Instrumentation (D6 - D7)	13	36d	50	13JUN06 A	29MAR07	13JUN06 A	12MAY07																																															
S6JB1500	Install Settlement Marker 1st Stage	741	107d	31	20APR06 A	11SEP08	20APR06 A	20JAN09																																															
S6JB2100	Install Settlement Markers 2nd Stage	589	182d	26	07JUL06 A	14JUN08	07JUL06 A	20JAN09																																															
Drainage and Ducts																																																							
S6JEA1100	DN1050 Pipe & Manhole (D2 - D4)	62	52d	61	31AUG06 A	26JAN07	31AUG06 A	31MAR07	DN1050 Pipe & Manhole (D2 - D4)																																														
S6JEA1200	DN1050 Pipe & Manhole (D4 - D6)	100		100	21APR06 A	28DEC06 A	21APR06 A	28DEC06 A	DN1050 Pipe & Manhole (D4 - D6)																																														
S6JEA1300	DN1050 Pipe & Manhole (D8 - D9)	62	52d	0	27JAN07	13APR07	02APR07	14JUN07																																															
S6JEA1900	DN400 Pipe & Manhole (D19 - D21)	124	-134d	2	04AUG06 A	26MAY07	04AUG06 A	13DEC06																																															
S6JEA2600	DN400 Pipe (D32 - D33) Stage 1	47	270d	0	24MAR07	19MAY07	16FEB08	11APR08																																															

Start date 19DEC05
 Finish date 29AUG09
 Data date 29DEC06
 Run date 04JAN07
 Page number 4A
 Primavera Systems, Inc.

Leader Civil Engineering Corp. Ltd.
 DSD Contract No. DC/2005/02
 3-Month Rolling Programme - 3M01 at 29 December 2006

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



Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	2006													
									07	04	11	18	25	01	08	15	22	29	05	12	19	26
S6JEA2900	DN400 Pipe & Manhole (D33 - D35)	65	270d	85	06JUL06 A	10JAN07	06JUL06 A	03DEC07	DN400 Pipe & Manhole (D33 - D35)													
S6JEA3000	DN400 Pipe & Manhole (D35 - D38)	78	270d	24	25NOV06 A	23MAR07	25NOV06 A	15FEB08	DN400 Pipe & Manhole (D35 - D38)													
S6JEA3500	DN300 Pipe & Manhole (D47 - D51)	45	389d	59	29NOV06 A	31MAR07	29NOV06 A	16JUL08	DN300 Pipe & Manhole (D47 - D51)													
S6JEA3600	DN300 Pipe & Manhole (D51 - D55)	40	389d	0	19JAN07	09MAR07	07MAY08	23JUN08	DN300 Pipe & Manhole (D51 - D55)													
S6JEA3700	DN300 Pipe & Manhole (D55 - D57)	31	389d	46	10OCT06 A	18JAN07	10OCT06 A	06MAY08	DN300 Pipe & Manhole (D55 - D57)													
S6JEA3900	DN750 Pipe & Manhole (D12 - E3)	88	-183d	2	24JUL06 A	13APR07	24JUL06 A	01SEP06	DN750 Pipe & Manhole (D12 - E3)													
Geotechnical works																						
S6JP1000	Monitoring of Instruments	791	51d	28	04MAY06 A	19NOV08	04MAY06 A	20JAN09	Monitoring of Instruments													
Section 7 - Sewers in Portion K																						
Portion K																						
Ground Investigation																						
S7KB1020	Boreholes & Instrumentation (M4 - M19)	16	-75d	0	26FEB07	15MAR07	24NOV06	12DEC06	Boreholes & Instrumentation (M4 - M19)													
S7KB1500	Install Settlement Markers	402	86d	57	08MAY06 A	30JUL07	08MAY06 A	10NOV07	Install Settlement Markers													
Drainage and Ducts																						
S7KEA1200	DN750 Pipe & Manhole (M4 - M6)	126	102d	0	01FEB07	05JUL07	06JUN07	05NOV07	DN750 Pipe & Manhole (M4 - M6)													
S7KEA1300	DN750 Pipe & Manhole (M6 - M8)	79	102d	65	19MAY06 A	31JAN07	19MAY06 A	05JUN07	DN750 Pipe & Manhole (M6 - M8)													
S7KEA1500	DN900 Pipe & Manhole (M10 - M11)	54	89d	0	02MAR07	05MAY07	16JUN07	20AUG07	DN900 Pipe & Manhole (M10 - M11)													
S7KEA1600	DN900 Pipe & Manhole (M11 - M12)	90	89d	45	06JUN06 A	01MAR07	06JUN06 A	15JUN07	DN900 Pipe & Manhole (M11 - M12)													
S7KEA1700	DN900 Pipe & Manhole (M12 - M13)	79	25d	72	06JUN06 A	24JAN07	06JUN06 A	26FEB07	DN900 Pipe & Manhole (M12 - M13)													
S7KEA1800	DN900 Pipe & Manhole (M14 - M15)	51	11d	17	27DEC06 A	07MAY07	27DEC06 A	19MAY07	DN900 Pipe & Manhole (M14 - M15)													
S7KEA2500	Demolish Ext Sewer Adj. M4 - M6	30	198d	0	01FEB07	10MAR07	29SEP07	05NOV07	Demolish Ext Sewer Adj. M4 - M6													
Trenchless Installation																						
S7KEB1000	Construct Jack/Receive Pits (M4 - M19)	30	-75d	0	16MAR07	20APR07	13DEC06	18JAN07	Construct Jack/Receive Pits (M4 - M19)													
S7KEB1100	Construct Jack/Receive Pits (M8 - M20)	30		100	13OCT06 A	27DEC06 A	13OCT06 A	27DEC06 A	Construct Jack/Receive Pits (M8 - M20)													
S7KEB1120	Jacking DN450 (M8 - M20)	76	-75d	40	08NOV06 A	24FEB07	08NOV06 A	23NOV06	Jacking DN450 (M8 - M20)													
S7KEB1140	Construct Manholes M8 & M20	27	120d	0	26FEB07	28MAR07	20JUL07	20AUG07	Construct Manholes M8 & M20													
S7KEB1220	Jacking DN900 (M13 - M14)	43	11d	17	02DEC06 A	09FEB07	02DEC06 A	26FEB07	Jacking DN900 (M13 - M14)													
S7KEB1240	Construct Manholes M13 & M14	27	11d	0	10FEB07	16MAR07	27FEB07	29MAR07	Construct Manholes M13 & M14													
Geotechnical works																						
S7KP1000	Monitoring of Instruments	427	54d	52	27MAY06 A	05SEP07	27MAY06 A	10NOV07	Monitoring of Instruments													
Section 8 - Preservation and Protection of Trees																						
All Portions																						
Landscape Softworks and Establishment Works																						
S8QR1100	Preservation & Protection of Preserved Trees	861	19d	30	29JUL06 A	27DEC08	29JUL06 A	20JAN09	Preservation & Protection of Preserved Trees													
Decontamination Works																						
General Submission																						
S9L1100	Approve of CAR & RAP - Portion A/B	12	22d	90	28NOV06 A	29DEC06	28NOV06 A	25JAN07	Approve of CAR & RAP - Portion A/B													
S9L1300	Approve Excavation Plan - Portion A/B	12	22d	90	28NOV06 A	29DEC06	28NOV06 A	25JAN07	Approve Excavation Plan - Portion A/B													
S9L1500	Approve of CAR & RAP - Portion F/G/H	12	90d	90	08AUG06 A	29DEC06	08AUG06 A	19APR07	Approve of CAR & RAP - Portion F/G/H													

Start date	19DEC05
Finish date	29AUG09
Data date	29DEC06
Run date	04JAN07
Page number	5A
© Primavera Systems, Inc.	

Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 December 2006

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



Act ID	Description	Orig Dur	Total Float	Percent Complete	Early Start	Early Finish	Late Start	Late Finish	Gantt Chart											
S9L1700	Approve Excavation Plan - Portion F/G/H	12	90d	90	08AUG06 A	29DEC06	08AUG06 A	19APR07												

Start date	19DEC05
Finish date	29AUG09
Data date	29DEC06
Run date	04JAN07
Page number	6A
© Primavera Systems, Inc.	

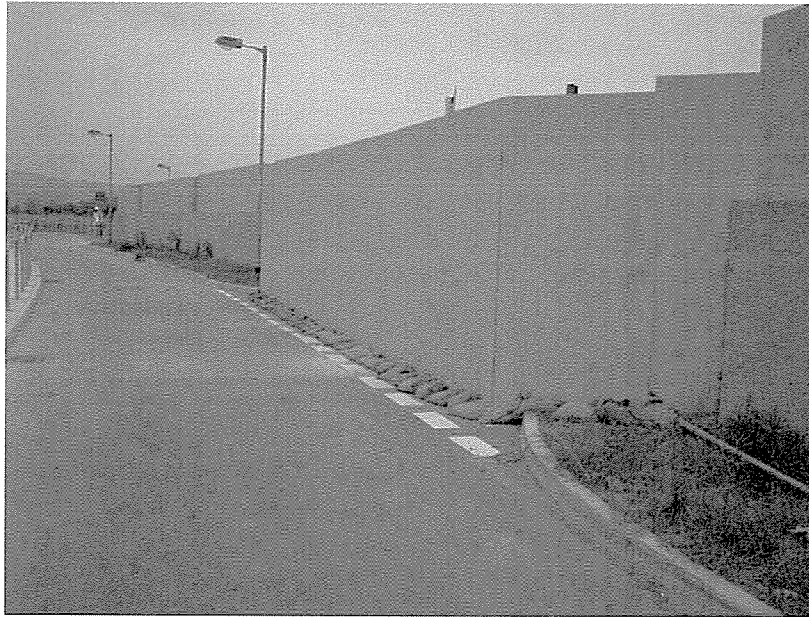
Leader Civil Engineering Corp. Ltd.
DSD Contract No. DC/2005/02
3-Month Rolling Programme - 3M01 at 29 December 2006

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



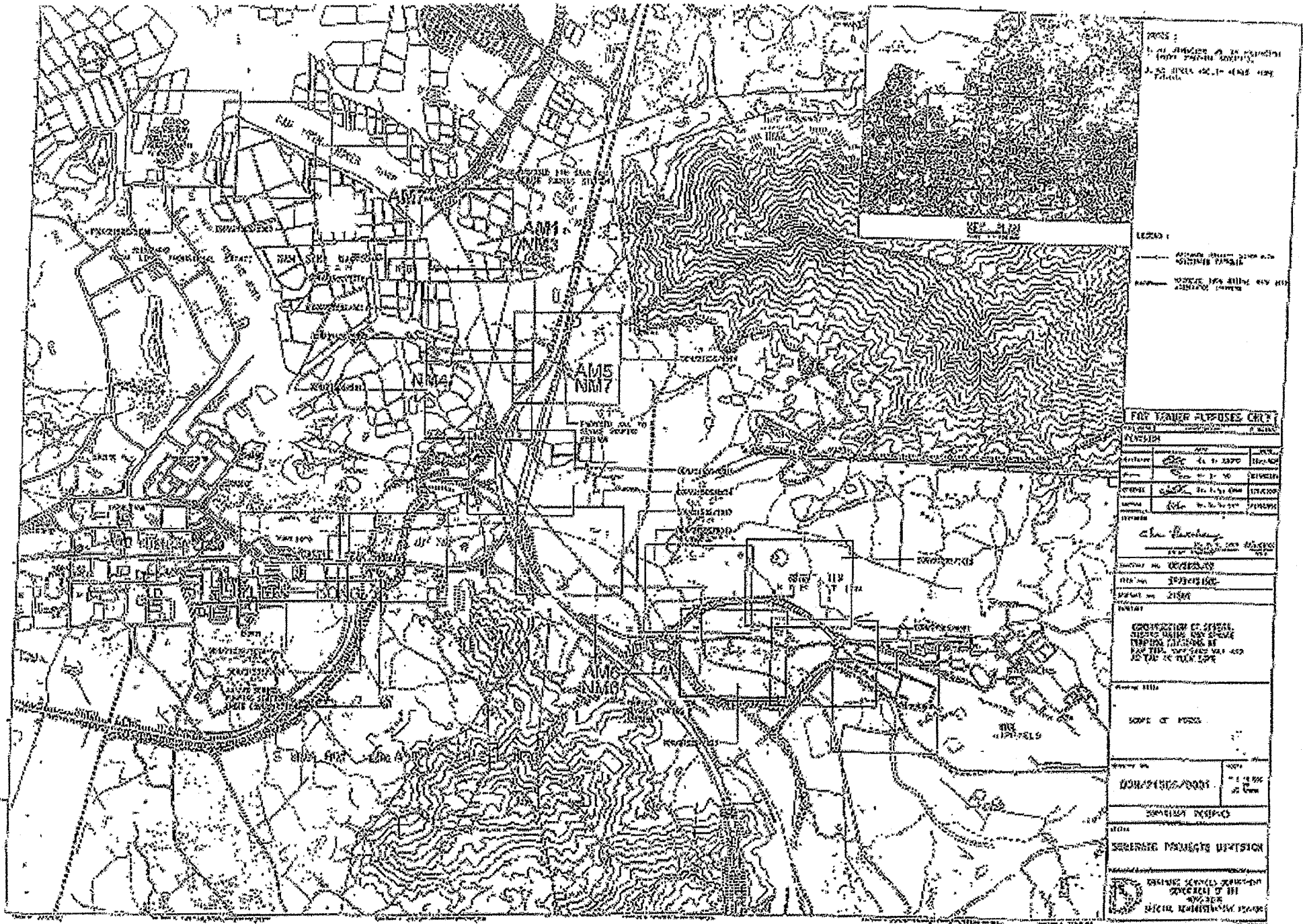
Annex D

Photographical Records – Noise Barrier On-Site



Annex E

Locations of Monitoring Stations



TITLE :
 1. OF ...
 2. ...
 3. ...

LEGEND :
 --- ROAD
 --- RAILROAD

FOR WATER PURPOSES ONLY

DATE	21 SEP 1954
BY	...
FOR	...
SCALE	...
Chas. R. ...	
PROJECT NO.	...
FILE NO.	...
DATE	...

CONSTRUCTION OF ...
 ...
 ...

NAME OF ...
 ...

DATE ...
 ...

FEDERAL BUREAU OF INVESTIGATION
 ...
 ...

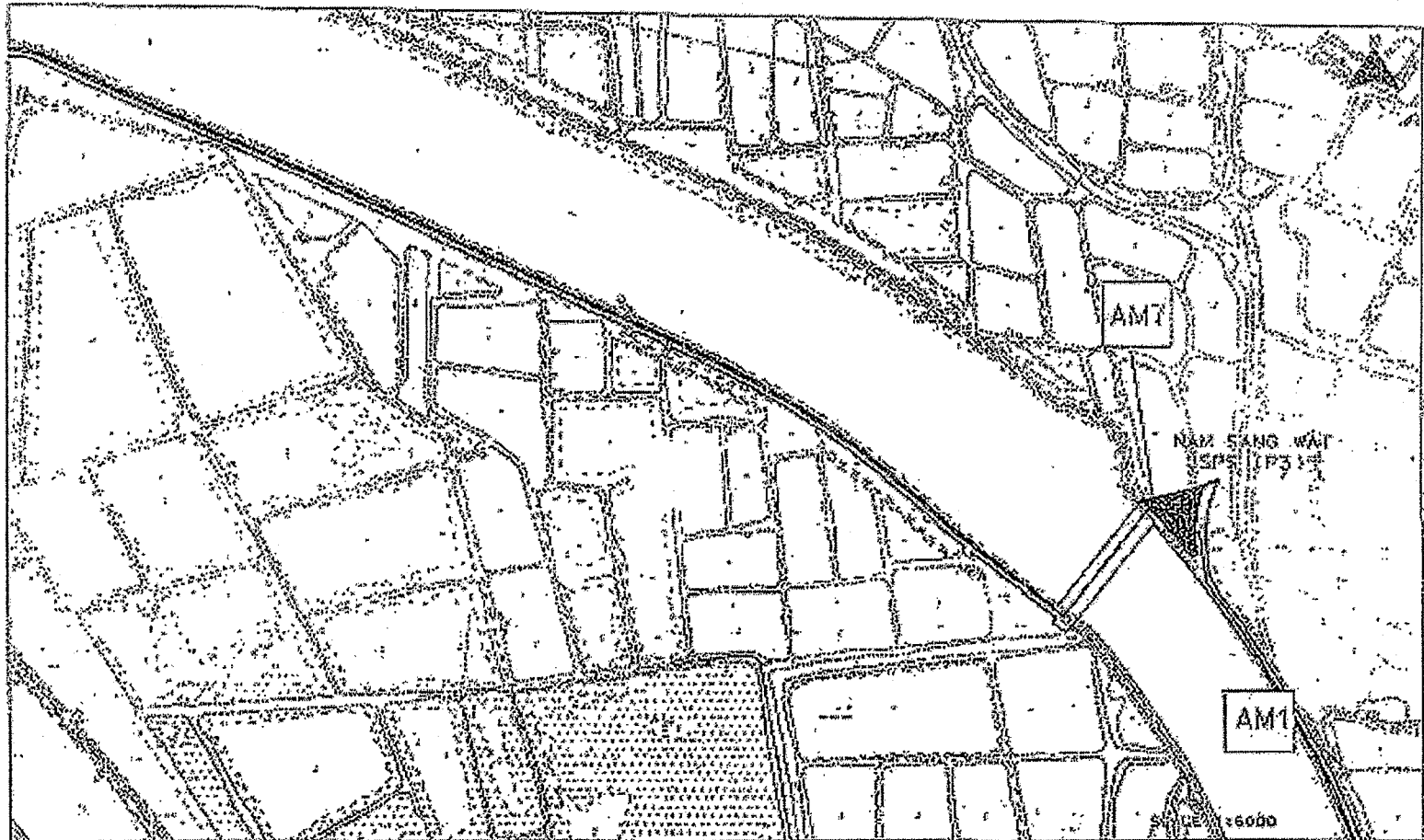


FIGURE 01

LOCATION OF BUSY MONITORING STATIONS (AM1, AM2 & AM3)

DATE: 1975
 DRAWN BY: [illegible]

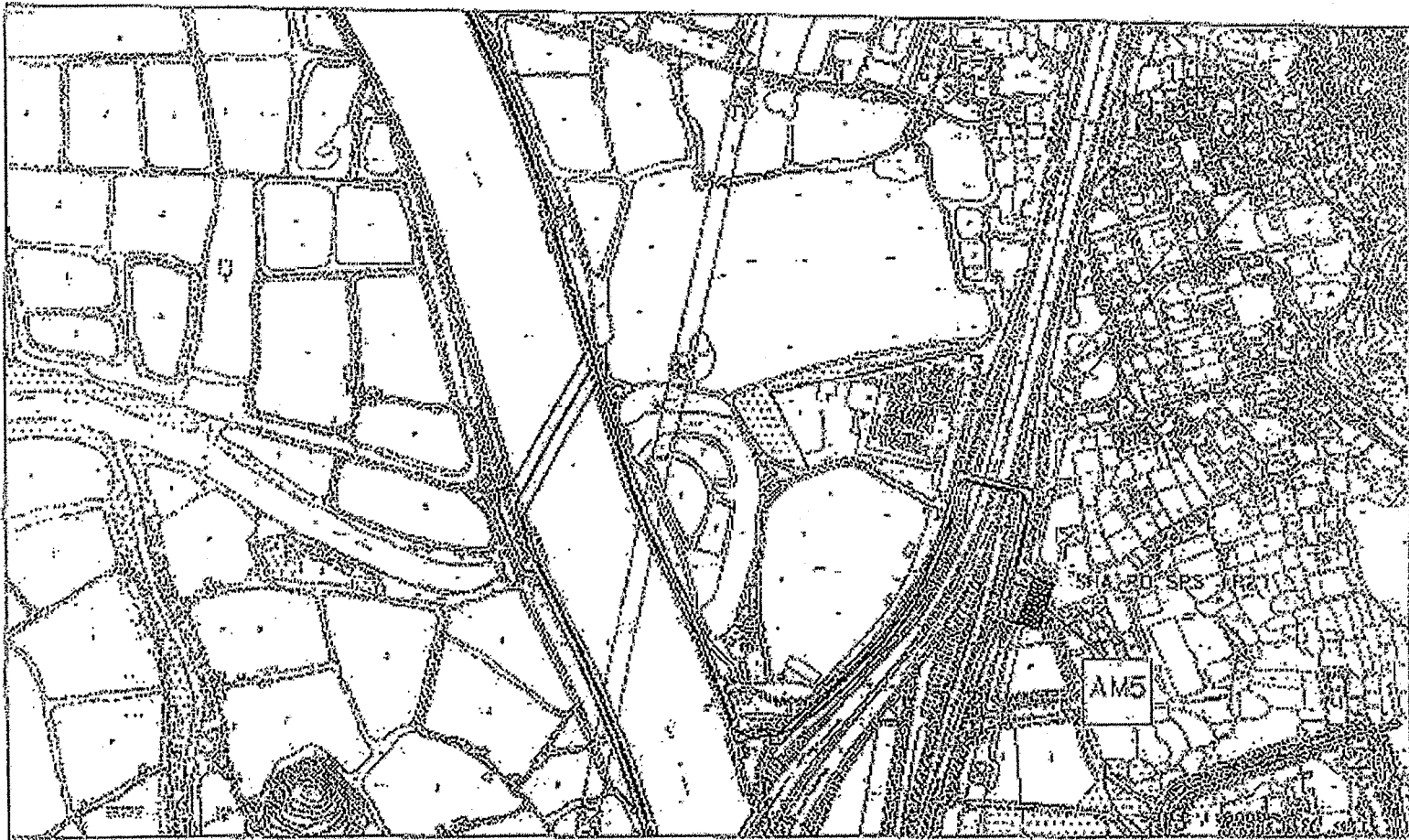


FIGURE G2

LOCATION OF DUST MONITORING STATION LABEL:

APPROXIMATE
SCALE 1:10,000

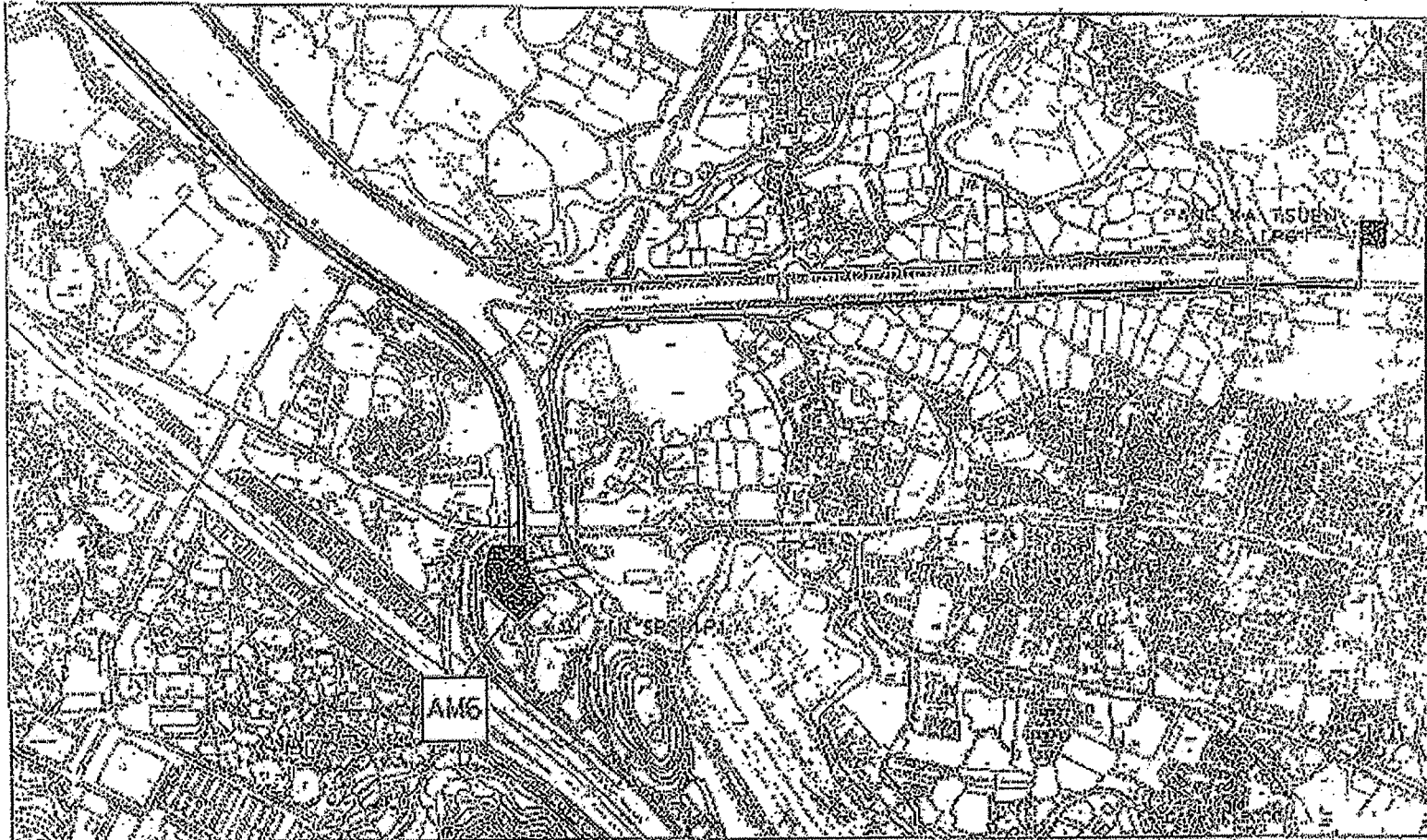


FIGURE 60

LOCATION OF DUST MONITORING STATIONS (AM4, AMS & AM10)

Map Scale: 1:25,000
Date: 1980

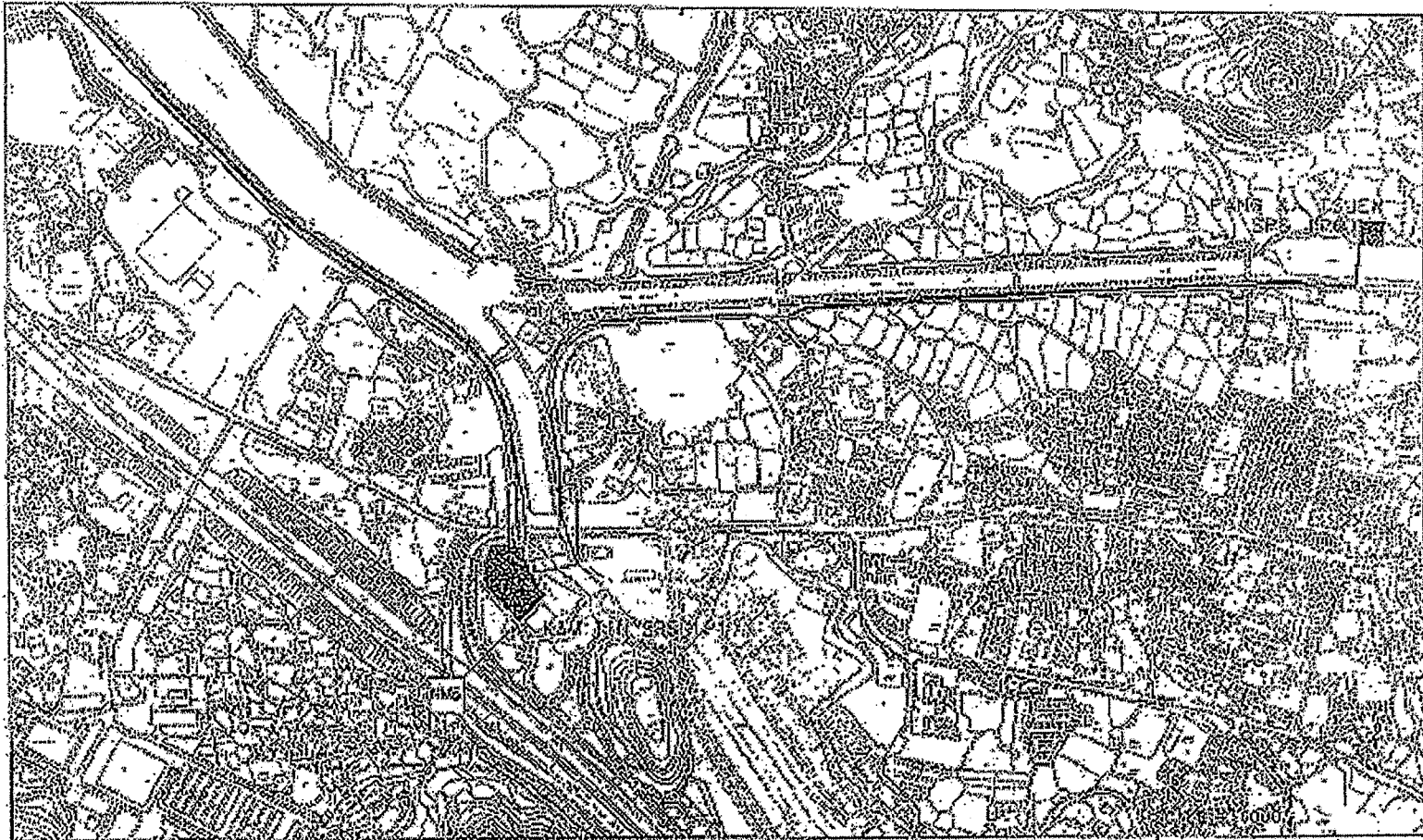


FIGURE 2

LOCATION OF WQSE MONITORING STATIONS 1801, 1802, AND 1803

U.S. GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

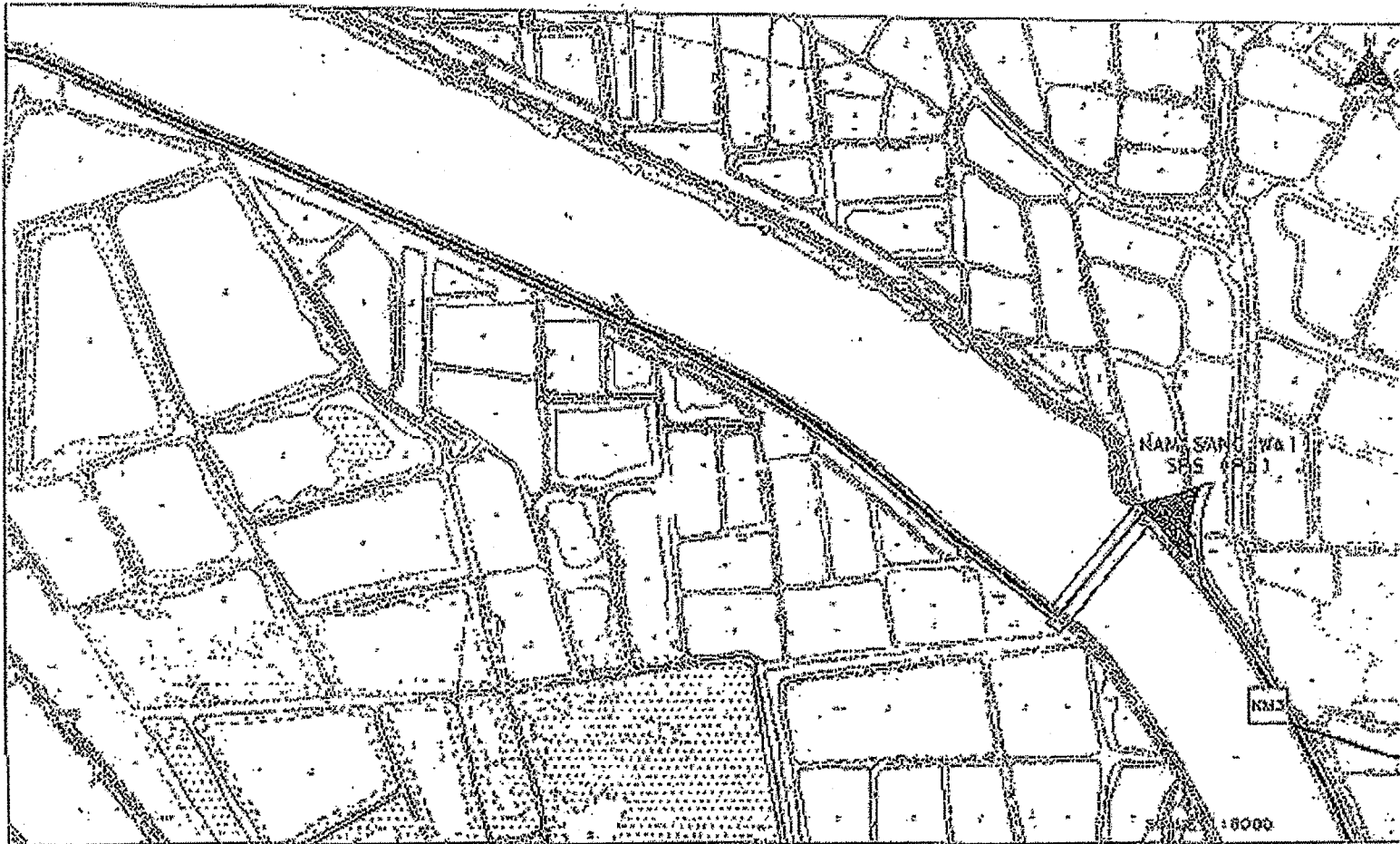


FIGURE C8

LOCATION OF NOISE MONITORING STATIONS INNO. RNS1

UNIVERSITY OF CALIFORNIA
SAN DIEGO

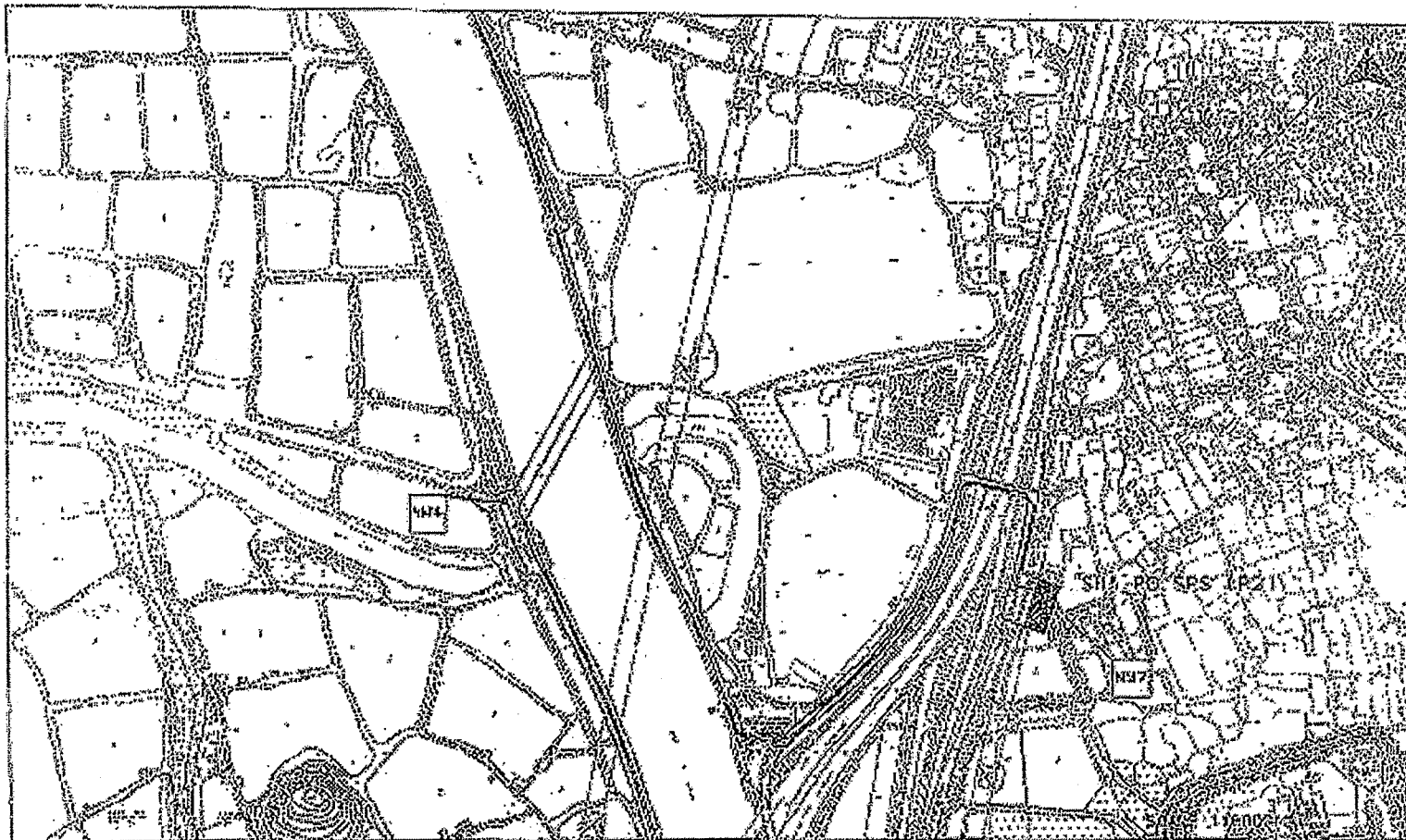


FIGURE 29.

LOCATION OF NOISE MONITORING STATIONS (NS14, NS17)

ENV. FILE # 2000-0000-11
DATE: 2/20/2001

Annex F

Event and Action Plan

Event and Action Plan for Construction Phase Air Quality

EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
Action Level				
Exceedance for one sample	<ol style="list-style-type: none"> Identify source (s) of exceedance and inform IEC, Contractor and Engineer Repeat dust measurements to confirm findings Increase monitoring frequency to daily Assess efficacy of remedial measures and keep the Contractor, IEC, and Engineer informed 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check monitoring data trends and Contractors working methods Check and confirm Contractors proposed remedial actions and working methods are appropriate 	<ol style="list-style-type: none"> Confirm receipt of notification of exceedance in writing Remind the Contractor of his contractual obligations and review the Contractor's working methods Discuss remedial actions with the Contractor and IEC Inform complainant of actions taken, if necessary 	<ol style="list-style-type: none"> Rectify any unacceptable practice Liaise with Engineer and IEC to develop appropriate remedial measures to reduce dust impact Amend working methods and remedial proposals if required by the Engineer or IEC Implement the agreed remedial actions upon instruction from the Engineer and IEC
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Identify source (s) of exceedance and inform IEC, Contractor and Engineer Repeat measurements to confirm findings Increase the monitoring frequency to daily to assess the efficacy of remedial measures and keep the Contractor informed Discuss remedial actions with IEC and Contractor If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions If exceedance stops, inform the Contractor and cease additional monitoring 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check monitoring data trends and Contractors working methods Discuss with Contractor and Engineer on possible remedial measures Check and confirm Contractors proposed remedial measures are appropriate Determine the efficacy of remedial actions and keep the Engineer informed 	<ol style="list-style-type: none"> Confirm receipt of notification of exceedance in writing Remind the Contractor of his contractual obligations and review the Contractor's working methods Discuss remedial actions with the Contractor and IEC Ensure remedial measures are properly implemented Inform complainant of actions taken, if necessary. 	<ol style="list-style-type: none"> Rectify any unacceptable practice, if possible Submit proposals for remedial actions to Engineer and IEC within three working days of notification Discuss and amend remedial actions, if required, by the Engineer and IEC Implement the remedial action (s) immediately upon instruction from the Engineer Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions
Limit Level				

Event and Action Plan for Construction Phase Air Quality

EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat dust measurements to confirm findings 3. Increase monitoring frequency to daily 4. Assess efficacy of remedial measures and keep the Contractor, IEC, Engineer and EPD informed 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Check and confirm Contractors proposed remedial actions and working methods are appropriate 4. Check and confirm Contractors proposed remedial measures are appropriate 5. Determine the efficacy of remedial actions and keep the Engineer informed 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC, 4. Ensure remedial measures are properly implemented 5. Inform complainant of actions taken, if necessary. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat measurements to confirm findings 3. Increase the monitoring frequency to daily to assess the efficacy of remedial measures and keep the Contractor informed 4. Discuss remedial actions with IEC and Contractor 5. If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions 6. If exceedance stops, inform the Contractor and cease additional monitoring. 	<ol style="list-style-type: none"> 1. Discuss with Contractor and Engineer on possible remedial measures 2. Check and confirm Contractors proposed remedial measures are appropriate 3. Determine the efficacy of remedial actions and keep the Engineer informed 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Ensure remedial measures are properly implemented 5. If exceedance continues, instruct the Contractor to stop the relevant portion of work until the exceedance is abated 6. Inform complainant of actions taken, if necessary. 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice, if possible 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions

Event and Action Plan for Construction Noise				
EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
Limit Level				
Exceedance for one sample	<ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat dust measurements to confirm findings 3. If repeat measurements confirm exceedance, increase monitoring frequency to daily 4. Assess efficacy of remedial measures and keep the Contractor, IEC, and Engineer informed 5. If exceedance stops, inform Contractor and cease additional noise monitoring 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Check and confirm Contractors proposed remedial actions and working methods are appropriate 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Inform complainant of actions taken, if necessary 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice 2. Liaise with Engineer and IEC to develop appropriate remedial measures to reduce noise impact 3. Amend working methods and remedial proposals if required by the Engineer or IEC 4. Implement the agreed remedial actions upon instruction from the Engineer and IEC
Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> 1. Identify source (s) of exceedance and inform IEC, Contractor and Engineer 2. Repeat measurements to confirm findings 3. Increase the monitoring frequency to daily 4. Discuss remedial actions with IEC, Engineer and the EPD 5. Assess the efficacy of remedial measures and keep the Contractor informed 6. If exceedance continues, arrange meeting with Engineer, IEC and Contractor to review working practices and identify further remedial actions 7. If exceedance stops, inform the Contractor and cease additional monitoring. 	<ol style="list-style-type: none"> 1. Check monitoring data submitted by ET 2. Check monitoring data trends and Contractors working methods 3. Discuss with Contractor and Engineer on possible remedial measures 4. Check and confirm Contractors proposed remedial measures are appropriate 5. Determine the efficacy of remedial actions and keep the Engineer Informed 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of exceedance in writing 2. Remind the Contractor of his contractual obligations and review the Contractor's working methods 3. Discuss remedial actions with the Contractor and IEC 4. Ensure remedial measures are properly implemented 5. If exceedance continues, instruct the Contractor to stop the relevant portion of work until the exceedance is abated 6. Inform complainant of actions taken, if necessary. 	<ol style="list-style-type: none"> 1. Rectify any unacceptable practice, if possible 2. Submit proposals for remedial actions to Engineer and IEC within three working days of notification 3. Discuss and amend remedial actions, if required, by the Engineer and IEC 4. Implement the remedial action (s) immediately upon instruction from the Engineer 5. Discuss with Engineer and IEC, to optimise the effectiveness of the agreed remedial actions 6. Stop the relevant portion of work as determined by the Engineer until the exceedance is abated

Annex G

Mitigation Implementation Schedule

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concern	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des.	C.	O.	De.	
CONSTRUCTION PHASE										
AIR QUALITY - Construction Phase										
		The following measures are enforceable under the <i>Air Pollution Control (Construction Dust) Regulations</i>								
3.5	A1	Site boundary and entrance <ul style="list-style-type: none"> where a site boundary adjoins a road, street, service lane or other area accessible to the public, hoarding of not less than 2.4 m high from ground level should be provided along the boundaries of the seven pumping stations sites and the works area where the Engineer's site office and the Contractor's site office erected; 	To prevent access to the site, and control potential dust impacts from construction works.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Part III, Clause 13 (c), <i>Air Pollution Control (Construction Dust) Regulations</i>
3.5	A2	Access Road <ul style="list-style-type: none"> the portion of any road leading only to a construction site that is within 30 m of a discernible or designated vehicle entrance or exit should be kept clear of dusty materials; 	To control potential dust impacts from vehicle movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Part III, Clause 14, (b), <i>Air Pollution Control (Construction Dust) Regulations</i>
3.5	A3	Stockpiling of Dusty Materials <ul style="list-style-type: none"> any stockpile of dusty materials should be either covered entirely by impervious sheeting and placed in an area sheltered on the top and the 3 sides or sprayed with water so as to maintain the entire surface wet; 	To control potential dust impacts during excavation and stockpiling activities.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Part IV, Clause 18, (a, b & c), <i>Air Pollution Control (Construction Dust) Regulations</i>
3.5	A4	Loading, unloading or transfer of dusty materials <ul style="list-style-type: none"> all dusty materials should be sprayed with water or a dust suppression chemical immediately prior to any loading and unloading so as to maintain the dusty materials wet; 	To control potential dust impacts during material handling and truck movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Part IV, Clause 19, <i>Air Pollution Control (Construction Dust) Regulations</i>
3.5	A5	Use of vehicles <ul style="list-style-type: none"> every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving a construction site; 	To control potential dust impacts from vehicle movements.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Part IV, Clause 21, (1), <i>Air Pollution Control (Construction</i>

DSD Contract DC/2005/02 Construction of Sewers, Rising Mains
& Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long
Updated Environmental Monitoring and Audit (Designated Elements) Manual

AUES

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des.	C	O	Dec.	
3.5	A6	<ul style="list-style-type: none"> where a vehicle leaving a construction site is carrying a load of dusty materials, the load should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle; 	To control potential dust impacts during material transportation.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Dust) Regulations Part IV, Clause 21, (2), Air Pollution Control (Construction Dust) Regulations
3.5	A7	<p>Power-driven drilling, and cutting</p> <ul style="list-style-type: none"> water should be continuously sprayed on the surface where any mechanical breaking operation that causes dust emission is carried out, unless the process is accompanied by the operation of an effective dusty extraction and filtering device; 	To control potential dust impacts during mechanical breaking.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Part IV, Clause 22, Air Pollution Control (Construction Dust) Regulations
3.5	A8	<p>Excavation and earth moving</p> <ul style="list-style-type: none"> the working area of excavation should be sprayed with water immediately before, during and immediately after the operation so as to maintain the entire surface wet; 	To control potential dust impacts arising from excavation works.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Part IV, Clause 24, Air Pollution Control (Construction Dust) Regulations
3.5	A9	<p>Construction of the superstructure of a building</p> <ul style="list-style-type: none"> where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the round floor level of the SPS, or if a canopy is provided at the first floor level, from the first floor level, up to the highest level of the scaffolding; and 	To control potential dust impacts from SPS building construction works.	Full duration of SPS construction contract.	The Contractor		✓			Part I, Clause 6, (a), Air Pollution Control (Construction Dust) Regulations
3.5	A10	<ul style="list-style-type: none"> any skip hoist for material transport should be totally enclosed by the impervious sheeting. 	To control potential dust impacts during material transportation.	Full duration of SPS construction contract.	The Contractor		✓			Part I, Clause 6, (b), Air Pollution Control (Construction Dust) Regulations

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objective of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des.	CG	O	Dec	
		NOISE - Construction Phase								
4.7.1	B1	General Site Clearance - Demolition Works <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i> (Examples of these PME are shown in Table F2), 	To control potential noise impacts during site clearance and demolition works	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Annex 5 of EIAO-TM
4.7.1	B2	Construction of Sewage Pumping Stations P1, P2 & P3 <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i>, Adoption of temporary noise barrier, in the form of a site hoarding (with a superficial density of at least 20kg/m², with no substantial gaps), along the site boundary of the pumping station sites. 	To minimise potential noise impacts arising during the construction of P1, P2 & P3	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Annex 5 of EIAO-TM
4.7.1	B3	Sewers and Rising Mains using Open Trench Method <ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i>, 	To minimise potential noise impacts arising during the construction of P1, P2 & P3	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Annex 5 of EIAO-TM
4.7.1	B4	<ul style="list-style-type: none"> Use of quiet PME which meet the SWLs taken from British Standard, <i>Noise and Vibration Control on Construction Open Sites, BS 5228: Part 1: 1997</i>, 	To control potential noise impacts during excavation works.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Annex 5 of EIAO-TM
4.7.1	B5	<ul style="list-style-type: none"> Use of handheld breakers for all initial road opening activities, when breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached. 	To control potential noise impacts during road opening activities.	Where there are NSRs located within 50m of the line of sight. Throughout the full duration of the road opening activities.	The Contractor		✓			Annex 5 of EIAO-TM
4.7.1	B5	<ul style="list-style-type: none"> Use of movable noise barriers or 3 sided enclosures for all initial road opening activities 	To control potential noise impacts during road opening	Where there are NSRs located within 50m of the	The Contractor		✓			Annex 5 of EIAO-TM

EIA Ref	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures or Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des	Con	Op	De	
4.7.1	B6	enclosures for all initial road opening activities (breaking tarmac/concrete road surface to a depth of 300mm or when granular material is reached), where there are NSRs located within 50m of the line of sight from the works area. Sewers and Rising Mains using Pipe Jacking Method	activities.	line of sight. Throughout the full duration of the road opening activities.	The Contractor		✓			Annex 5 of EIAO-TM
4.7.1	B7	Road Pavement and Finishes	To control potential noise impacts from PME during construction works	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Annex 5 of EIAO-TM
		WATER QUALITY - Construction Phase								
		No water quality monitoring is required under this study.								
6.6.2	D1	WASTE - Construction Phase	To monitor the collection, handling and disposal of chemical waste and C&D waste, and in compliance with relevant Hong Kong Standards and Regulations.	Site wide and throughout the full duration of the construction contract.	The Contractor	✓	✓			Waste Disposal Ordinance (Cap 354), Waste Disposal (Chemical Waste)(General) Regulation (Cap 354), the Land (Miscellaneous Provisions) Ordinance (Cap 28))

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des	C	O	Dec	
6.6.2	D2	<p>Chemical Waste Chemical waste that is produced, as defined by Schedule 1 of the <i>Waste Disposal (Chemical Waste) (General) Regulation</i>, should be handled in accordance with the regulations and Code of Practice on the Packaging, Handling and Storage of Chemical Wastes as follows. All chemical waste producers should be registered with the EPD.</p>	To control the handling, storage and disposal of chemical waste, in order to minimise potential spillages/leakages and human health and environmental impacts.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			<i>Part II, (6) Waste Disposal (Chemical Waste) (General) Regulation</i>
6.6.2	D3	<p>Storage, Packaging and Labelling of Chemical Waste Containers used for storage of chemical wastes should:</p> <ul style="list-style-type: none"> 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 450 L unless the specifications have been approved by the EPD; and display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations. 	To ensure the proper storage, packaging and labelling of chemical waste in accordance with the Regulations.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			<i>Part IV, (9, 10, 11 & 12) Waste Disposal (Chemical Waste) (General) Regulation</i>
6.6.2	D4	<p>Storage of chemical waste The storage area for chemical wastes should:</p> <ul style="list-style-type: none"> be clearly labelled and used solely for the storage of chemical waste; be enclosed on at least 3 sides; have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; have adequate ventilation; be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste, if necessary); and be arranged so that incompatible materials are 	To ensure the proper storage of chemical waste in accordance with the Regulations.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			<i>Part IV, (13, 14, 15, 16, 17, & 18) Waste Disposal (Chemical Waste) (General) Regulation</i>

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des	C	O	Dec	
		adequately separate								
		<p>Disposal of chemical waste</p> <ul style="list-style-type: none"> The Contractor should ensure that the disposal of chemical waste is via a licensed Waste Collector and in accordance with the <i>Waste Disposal (Chemical Waste) (General) Regulations</i>. 	To control the disposal of chemical waste in accordance with the Regulations.	To be implemented at all worksites throughout the full duration of the construction phase.	The Contractor		✓			<i>Part IV, (20 -25) Waste Disposal (Chemical Waste) (General) Regulation</i>
6.6.2	D5	<p><i>Management of Waste Disposal</i></p> <p>A trip-ticket system should be established which monitors the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping, in accordance with <i>Land (Miscellaneous Provisions) Ordinance (Cap28)</i> and the <i>Works Bureau Technical Circular No. 5/99</i>.</p>	To monitor the disposal of C&DM and solid wastes at public filling facilities and landfills and to control fly-tipping.	To be implemented at all worksites throughout the full duration of the construction phase.	The Engineer/ Contractor		✓			<i>Land (Miscellaneous Provisions) Ordinance (Cap 295) and Works Bureau Technical Circular No. 5/99.</i>
7.5.6	E1	<p>LAND CONTAMINATION- Construction Phase</p> <p>A revised CAP should be submitted to the EPD for approval before the commencement of the construction works. Following receipt of the EPD's approval, the CAP shall be implemented and the findings of the investigations will be reported in the Contaminated Assessment Report (CAR), before ground disturbance is allowed at the concerned sites.</p> <p>If land contamination is confirmed, a Remediation Action Plan (RAP) shall be prepared, and both the CAR and the RAP shall be submitted as a combined report to the EPD for approval before disturbing the ground of the concerned sites. If applicable and required in consultation with the</p>	To determine the presence of soil and groundwater contamination and remedy any potential concerns to acceptable levels.	To be implemented before the commencement of the construction works.	To be implemented by DSD or their sub-consultants at the Detailed Design Stage, depending upon when site access can be gained.	✓				<i>EIAO TM Annex 19/3.1.1 & 3.1.2</i>

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Dec	C	O	Dec	
		EPD, the contaminated site(s) shall be remediated in accordance with the approved CAR/RAP.								
8.7.1	F1	<p>ECOLOGY - Construction Phase Mitigation Measures Adopted - Avoidance Construction activities shall be prohibited during the winter season (November to March) along the section of the proposed sewerage alignment, which fall within the Deep Bay Wetland Conservation Area and the Deep Bay Wetland Buffer Area (WCA and WBA) and close to the locations of ecologically sensitive species (including Intermediate Egret, Black-faced Spoonbill, Buzzard, Imperial Eagle and Avocet). (See Figure 8.7a attached). Regular site inspections (at least twice a month) should be conducted by the Environmental Team during the winter season (November to March) to ensure proper implementation of this restriction</p>	To schedule construction works in order to minimise potential impacts to winter visiting birds. To be confirmed by regular site inspections.	At identified location (Figure 8.7a) for the full duration of the construction contract.	The Contractor		✓			
8.7.2	F2	<p>Mitigation Measures Adopted - Minimisation Pipe jacking method should be used instead of dredging where sewers and rising mains cross over existing MDC within the WCA and WBA.</p>	To minimise potential construction noise impacts to ecological sensitive receivers within the WCA/WBA.	For the full duration of the construction contract.	The Contractor		✓			
8.7.2	F4	<p>Regular inspections (at least twice a month) should be conducted by the ET during the winter season (November to March) for the remaining sections of the proposed sewerage alignment (including parts of S4, S5 and S6) within the WCA and WBA, where construction activities cannot be rescheduled.</p> <p>The site inspections shall check and report the number of workfronts and implementation of</p>	To schedule noisy construction activities to minimise potential impacts to winter visiting birds.	Work fronts other than identified sections within WBA & WCA (see Figure 8.7a attached) throughout the full duration of the construction contract.	The Contractor		✓			

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des.	C	O	Dec.	
8.7.3	F5	mitigation measures (i.e. erection of movable noise barriers with a suitable footing along the sites) in the monthly EM&A reports. Mitigation Measures Adopted Quietened construction plant and equipment (as shown in <i>Table F2</i>) should be used for the construction of pumping stations (P3 and P2) and sewerage alignment (S4, S5 and S6) located within the WCA and WBA.	Quiet construction plant shall minimise potential noise impacts to the wildlife, particularly rare birds including Black-faced Spoonbill, Buzzard, Hobby, Imperial Eagle, Intermediate Egret, Avocet and Black-eared Kite	At described locations and throughout the full duration of the construction contract.	The Contractor		✓			
8.7.4	F6	Erection of fences along the boundary of pumping station construction sites (P1 to P3) before the commencement of construction works to prevent tipping, vehicle movements, and encroachment of personnel into adjacent areas, and P2 to avoid disturbance to the remaining pond areas (0.7 ha);	To erect fences to prevent encroachment of construction activities onto adjacent areas.	At P1 to P3 for full duration of the construction contract.	The Contractor		✓			
8.7.4	F7	No filling and dumping to the remaining abandoned fishpond at P2.	To avoid disturbance to abandoned fishponds from construction activities and illegal dumping.	At P2 for full duration of the construction contract	The Contractor		✓			
8.7.4	F8	Installation and operation of silt removal facilities at construction sites of P1 to P3. The silt removal facilities should be designed in accordance with Appendix A1 of ProPECC Note PN1/94 Construction Site Drainage. The minimal total combined volume of the silt removal facilities at Nam Sang Wai SPS (P3) should be 15m ³ .	To install silt removal facilities in potentially impact streams and ponds to prevent sedimentation.	At P1 to P3 for full duration of the construction contract.	The Contractor		✓			
8.7.4	F9	No open fires within the site boundary during	To prohibit open fires, thereby	Site wide and throughout	The Contractor		✓			Air Pollution Control

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des	O	O	Dec	
8.7.4	F7	construction and provide temporary fire fighting equipment in the work areas. No filling and dumping to the remaining abandoned fishpond at P2.	minimising potential damage to trees and shrubs. To avoid disturbance to abandoned fishponds from construction activities and illegal dumping.	the full duration of the construction contract. At P2 for full duration of the construction contract	The Contractor		✓			(Open Burning) Regulation
8.7.4	F8	Installation and operation of silt removal facilities at construction sites of P1 to P3. The silt removal facilities should be designed in accordance with Appendix A1 of ProPECC Note PN1/94 Construction Site Drainage.	To install silt removal facilities in potentially impact streams and ponds to prevent sedimentation.	At P1 to P3 for full duration of the construction contract.	The Contractor		✓			
8.7.4	F9	No open fires within the site boundary during construction and provide temporary fire fighting equipment in the work areas.	To prohibit open fires, thereby minimising potential damage to trees and shrubs.	Site wide and throughout the full duration of the construction contract.	The Contractor		✓			Air Pollution Control (Open Burning) Regulation
		FISHERIES - Construction Phase No specific mitigation measures are required for inclusion in the EP.								
		CULTURAL HERITAGE - Not Applicable for Package 1A-1T (DC/2005/02)								
		LANDSCAPE AND VISUAL - Construction Phase								
	H1	The site inspections shall check and report the implementation of mitigation measures (i.e. top-soil are reused and new compensatory planting works are carried out immediately after the construction of the civil structure) in the monthly EM&A reports. The first monthly EM&A Report should also report the appearance of the temporary hoarding barriers.	To minimise potential landscape and visual impacts.	To be implemented during the construction phases of the project.	The Contractor		✓			
	H2	Prior to application for an Environmental Permit, a set of landscape plans and building elevations of the proposed pumping stations should be	To minimise potential landscape and visual impacts.	To be implemented during the design and construction phases of the	DSD and The Contractor	✓	✓			

EIA Ref	EM&A Ref	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des	IC	O	De	
		submitted for approval by the EPD. The landscape plans and pumping station elevations should demonstrate that the following elements are considered: <ul style="list-style-type: none"> existing landscape elements (such as mature trees), transplantation of valuable trees, new compensatory planting 		project.						
		<ul style="list-style-type: none"> incorporate information on materials, details and textures so as to be as visually recessive as possible and in a style that fits with the surrounding village buildings. colour should be of low chromatic intensity to reduce the potential contrast between the structures and their background. The external finishing of the Pumping Stations shall be designed in conjunction with the landscape scheme. a minimum screen planting of 3m width and use of trees with a dense canopy of up to 5 m in height subject to constraints such as engineering and land availability. felling of mature trees are kept to a minimum. 								
3.7	11	EM&A REQUIEMENTS - Construction Phase Air Quality Subject to the Environmental Protection Departments (EPDs) agreement, construction phase dust monitoring shall be undertaken at the following locations in accordance with the recommendations of the EIA. <ul style="list-style-type: none"> Worksite boundary facing Scattered house in Nam Sang Wai (AM1); Worksite boundary facing Fung Kat Heung (AM5); Worksite boundary facing Scattered House near Route 3 (AM6); 	Installations of the dust monitoring stations to ensure the action and limit levels are not exceeded.	At specified dust monitoring locations for the duration of the construction works.	To be undertaken by the Environmental Team (ET) and reviewed and audited by the Engineer /DSD		✓			Air Pollution Control (Construction Dust) Regulations

EIA Ref.	EM&A Ref.	Environmental Protection Measures	Objectives of the Recommended Measures & Main Concerns	Location of the measure	Implementation Agent	Implementation Stage				Relevant Legislation & Guidelines
						Des	C	O	Dec	
4.9.1	12	<ul style="list-style-type: none"> at any additional locations, where considered necessary, in agreement with EPD. <p>Construction Noise Subject to the Environmental Protection Departments (EPDs) agreement, construction phase noise monitoring shall be undertaken at the following locations in accordance with the recommendations of the EIA.</p> <ul style="list-style-type: none"> (NM3) Scattered House in Nam San Wai (D12); (NM4) Scattered House in Nam San Wai (D11); (NM6) Scattered House near Route 3 (D17); (NM7) Fung Kat Heung (D19); and at any additional locations, where considered necessary, in agreement with EPD 	Installations of the noise monitoring stations to ensure the action and limit levels are not exceeded.	At specified noise monitoring locations throughout the duration of the construction works.	To be undertaken by the Environmental Team (ET) and reviewed and audited by the Engineer		✓			Noise Control Ordinance

Des = Design, C = Construction, O = Operation, Dec = Decommissioning

Annex H

Equipment Calibration Certificates

Equipment Calibration List for Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long Project

Item	Aspect	Description of Equipment	Serial No.	Date of Calibration	Date of Next Calibration
1	Air	Greasby Anderson GMWS2310 High Volume Sampler	0329 (AM1)	20 Nov 06	20 Feb 07
2		Greasby Anderson GMWS2310 High Volume Sampler	0355 (AM5)	16 Oct 06	16 Jan 07
3		Greasby Anderson GMWS2310 High Volume Sampler	10394 (AM6)	03 Oct 06	03 Jan 07
4		Greasby Anderson GMWS2310 High Volume Sampler	1283 (AM7)	20 Nov 06	20 Feb 07
5	Noise	Bruel & Kjaer 4231 Acoustical Calibrator	2292167	13 Apr 06	13 Apr 07
6		Bruel & Kjaer 2238 Integrating Sound Level Meter	2285721	24 Apr 06	24 Apr 07

Note: Calibration certificates will only be provided if monitoring equipment is re-calibrated or new.

* Calibration done in this reporting month, see calibration certificate attached.

Annex I

Meteorological Data in the Reporting Month

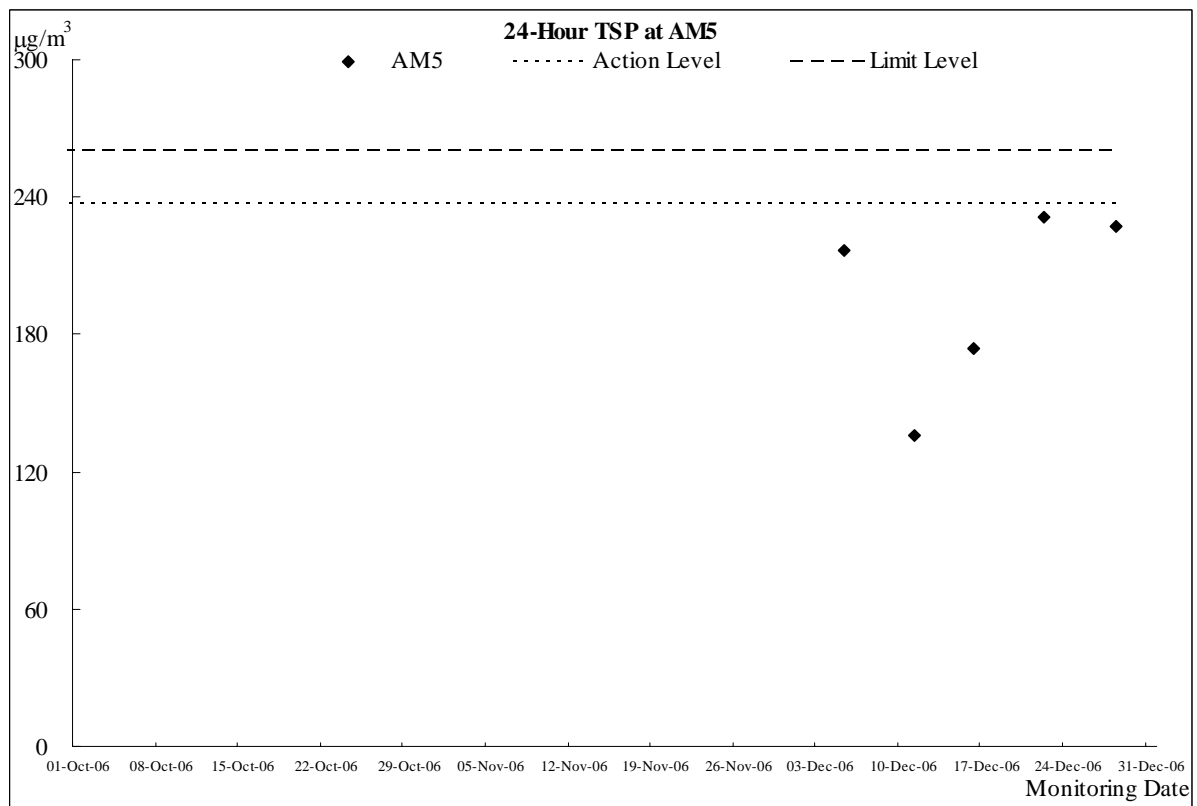
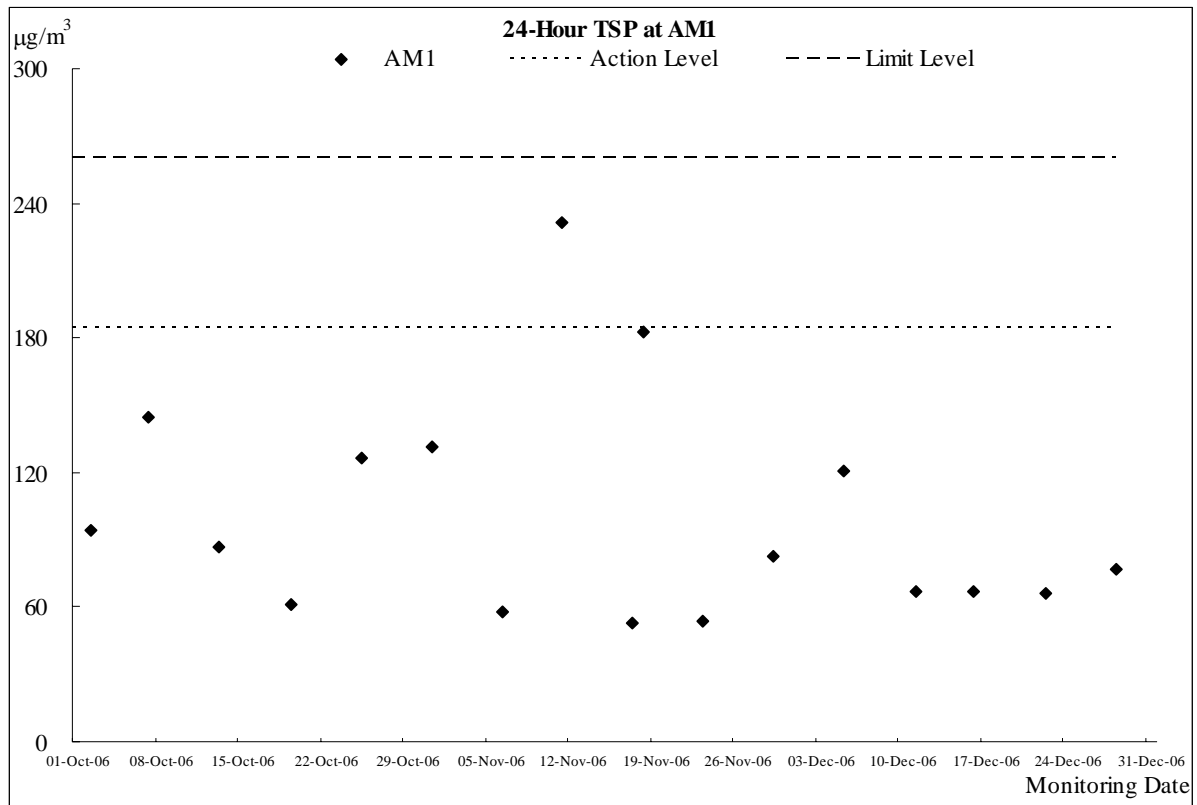
Meteorological Data Extracted From the HK Observatory at Lau Fau Shan Weather Station

Date		Weather	Lau Fau Shan Station				
			Total Rainfall (mm)	Mean Air Temperature (°C)	Wind Speed (km/h)	Mean Relative Humidity (%)	Wind Direction
1-Dec-06	Fri	fine/ dry/ moderate	-	18.2	17	65	NE/E
2-Dec-06	Sat	fine/ dry/ moderate	-	16.4	16	75	NE
3-Dec-06	Sun	fine/ dry	-	18.9	12	60	NE/E
4-Dec-06	Mon	fine/ dry/ moderate	-	18.6	16	70	NE/E
5-Dec-06	Tue	fine/ haze/ moderate	-	19.8	9	80	E
6-Dec-06	Wed	fine/ moderate	-	22.1	12	80	E
7-Dec-06	Thu	sunny/ moderate	0.3	22.8	12	80	NE/E
8-Dec-06	Fri	fine/ haze/ moderate	-	25.1	9	90	E/SE
9-Dec-06	Sat	cloudy/ sunny/ hazy/ moderate	-	20.4	12	90	NE
10-Dec-06	Sun	sunny	-	17.1	11	60	NE/E
11-Dec-06	Mon	fine/ moderate	Trace	18	11	75	NE/E
12-Dec-06	Tue	sunny/ haze/ cloudy/ moderate	Trace	20.5	9	75	NE/E
13-Dec-06	Wed	cloudy/ rain/ moderate	13	18.2	12	90	NE/E
14-Dec-06	Thu	cloudy/ rain/ moderate	5.8	15.1	18	85	NE
15-Dec-06	Fri	cloudy/ cool/ rain/ moderate	9.3	14.8	15	75	N/NE
16-Dec-06	Sat	cool, very dry, fine	1.5	15.7	15	85	NE/E
17-Dec-06	Sun	fine/ very dry	-	14.6	17	25	NE
18-Dec-06	Mon	fine/ very dry/ moderate	-	13.6	20	45	NE/E
19-Dec-06	Tue	fine/ dry/ moderate	Trace	15	16	50	NE/E
20-Dec-06	Wed	fine/ dry/ moderate	-	16.2	15	50	NE/E
21-Dec-06	Thu	fine/ dry/ moderate	-	16.1	17	45	NE/E
22-Dec-06	Fri	fine/ very dry/ moderate	-	17.1	15	45	NE/E
23-Dec-06	Sat	fine/ dry	-	16.9	-		
24-Dec-06	Sun	fine/ dry	-	17.7	Holiday		
25-Dec-06	Mon	fine	-	17.7	Holiday		
26-Dec-06	Tue	fine/ haze	-	16	9	60	SE
27-Dec-06	Wed	fine/ dry/ haze/ moderate	-	17.5	9	75	E/SE
28-Dec-06	Thu	fine/ dry/ moderate	-	17.4	19	35	NE/E
29-Dec-06	Fri	fine/ dry/ haze/ moderate	-	13.9	16	60	NE/E
30-Dec-06	Sat	fine/ dry/ haze/ moderate	-	15.9	15	80	NE/E
31-Dec-06	Sun	sunny	-	17.7	Holiday		

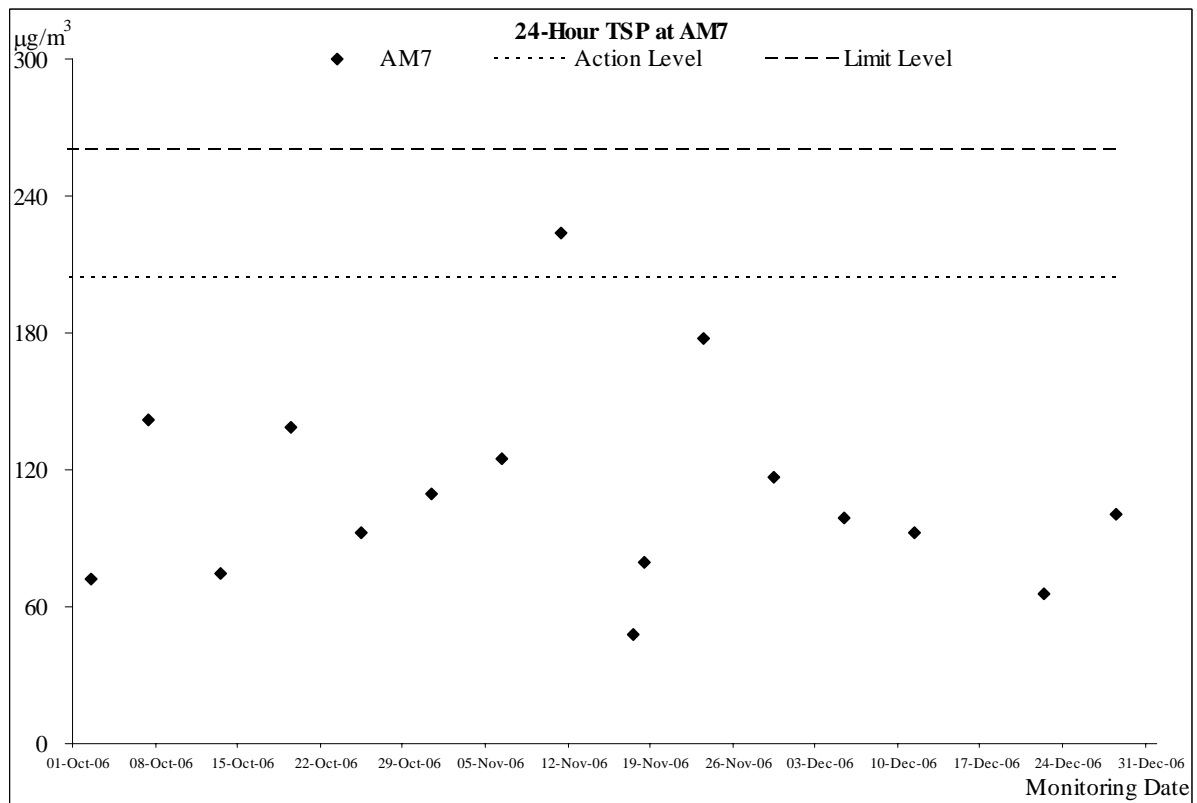
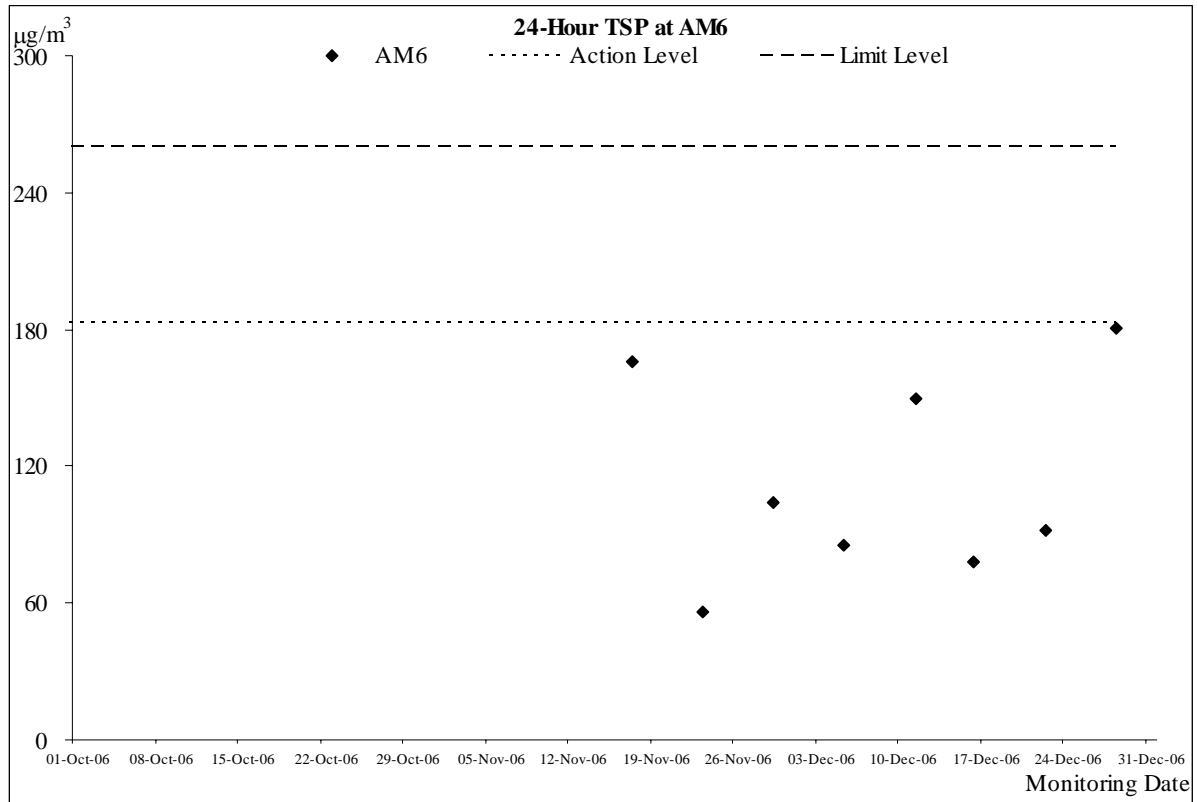
Annex J

**Graphical Plots of Air Quality
&
Noise Monitoring Results**

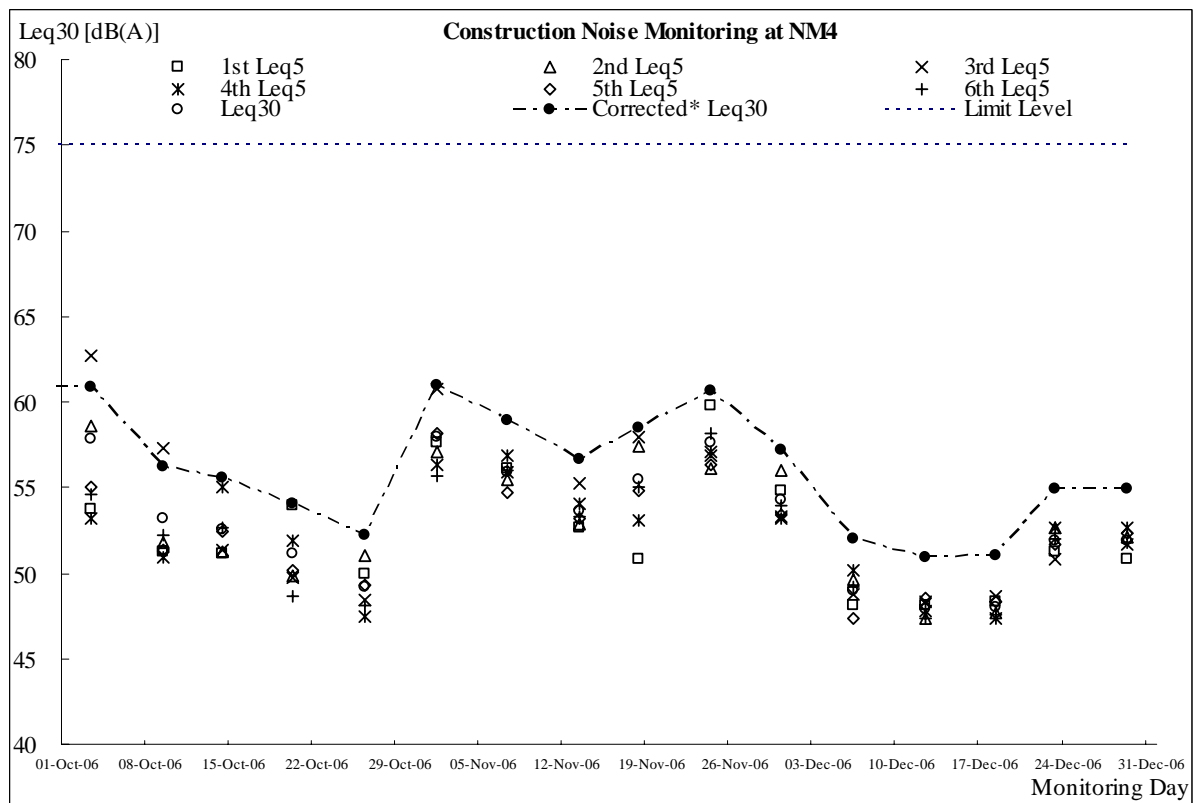
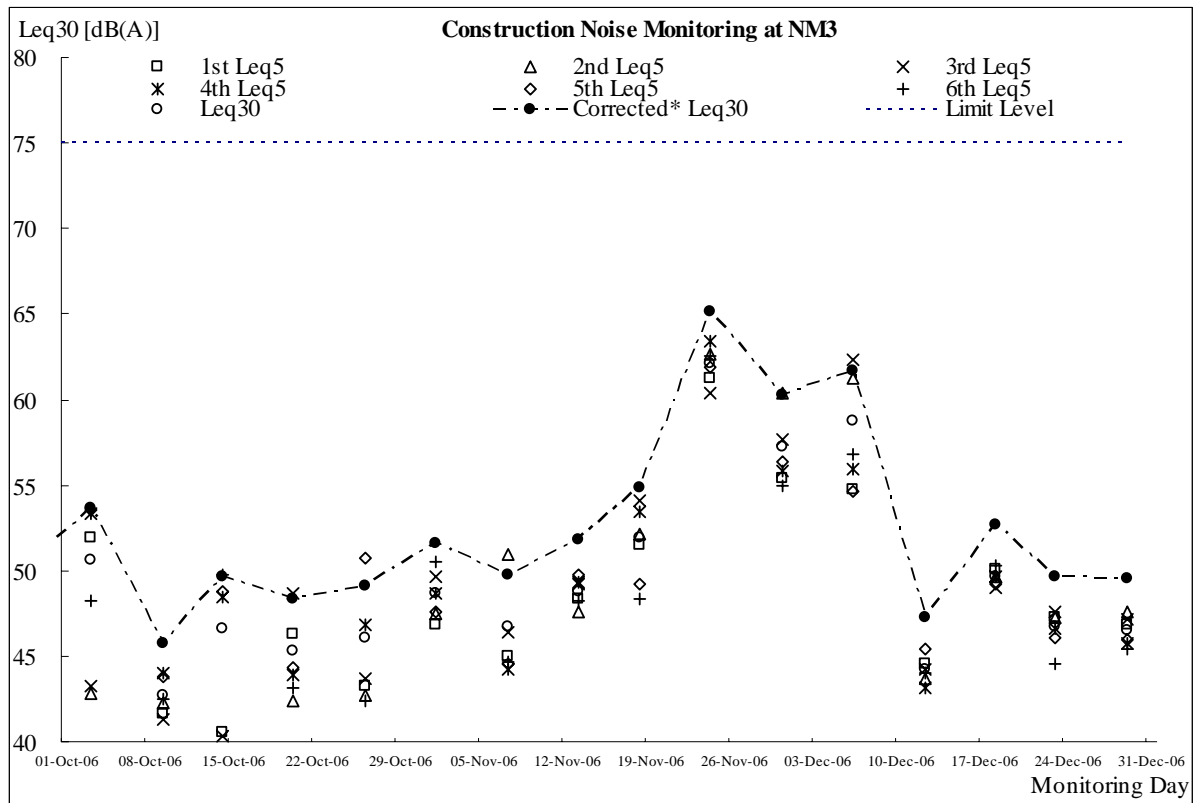
Air Quality Monitoring Results

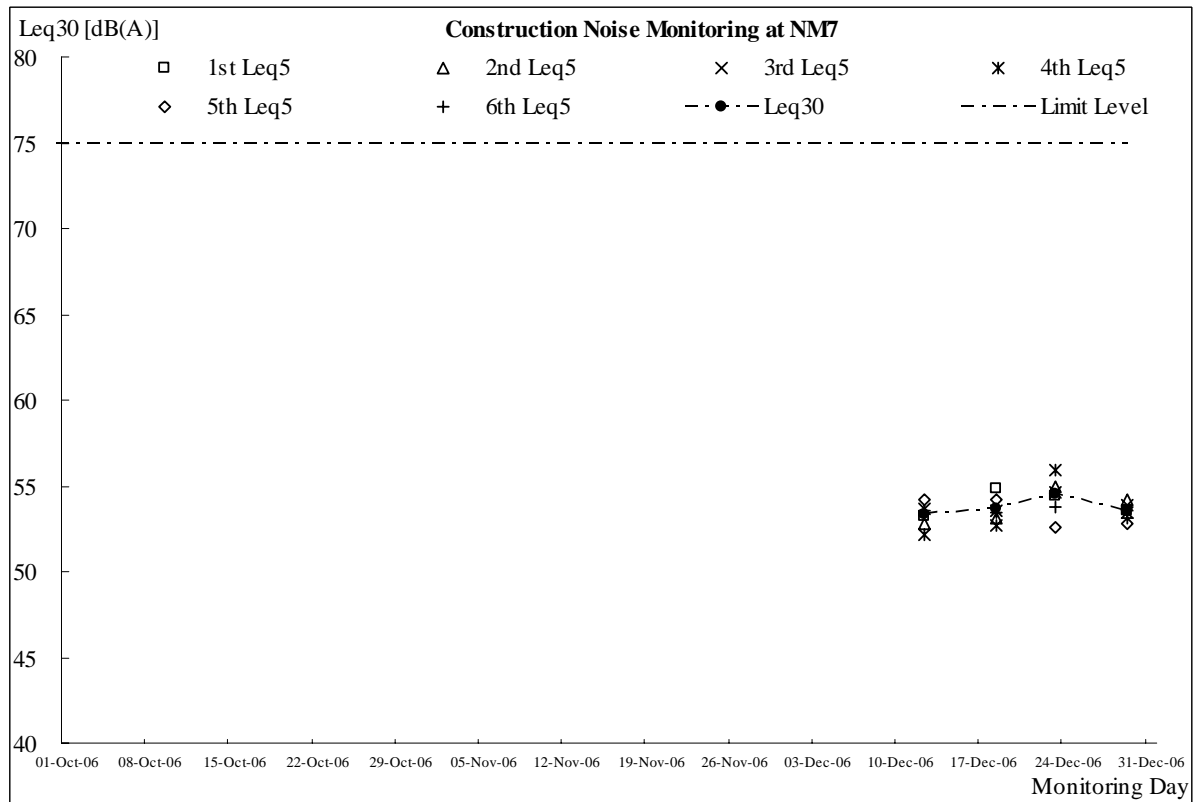
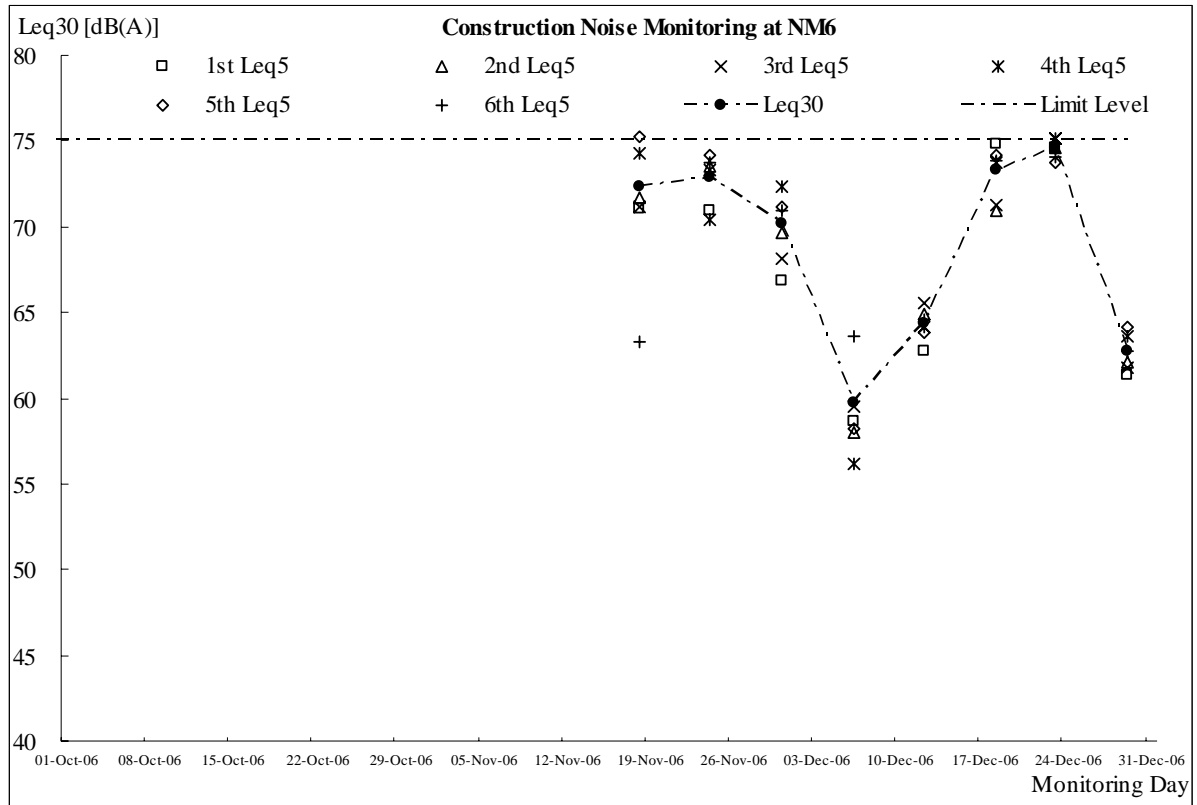


Note: 24-hour TSP impact monitoring was commenced on 17 November 2006.



Construction Noise Monitoring Results





Annex K

**Proforma of Site Inspection and IEC Audit
in the Reporting Period**

Project DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long

Inspected by: **ET Auditor:** Ken Wong

Contractor Rep: Benny Lam / Edwin

IEC's Rep: Nil

RE's Rep: Mr. S L Hui

Contractor: Leader Civil Engineering Corp. Ltd

Engineer: Babtie Asia Ltd

IEC: Mott Connell Ltd

Environmental Team: Action-United Env. Services & Consulting

Inspection Date & Time: 08 December 2006

Checklist Reference No.: DSD-AT081206

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy

Temp: °C

Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)

Wind: Calm Light Breeze Strong

Air Quality

	Yes	No	NA	NC	Follow-up	Remarks
Is hoarding of not less than 2.4m provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles traveling within controlled speed limit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles movement confined to designated haul roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are public roads outside site exits kept clean and free from dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are haul roads and unpaved surfaces watered regularly to avoid dust generation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there wheel washing facilities provided at site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is water spraying used during the main dust-generating activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the excavated or stockpile of dusty materials kept wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is exposed area of ground covered or watered frequently?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are load on vehicles covered by clean impervious sheeting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and equipment switched off while not in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is smoky emissions from plants/equipment avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Observable dust sources	<input type="checkbox"/> Wind erosion		<input type="checkbox"/> Vehicle/equipment movements			
	<input type="checkbox"/> Loading/unloading of materials		<input checked="" type="checkbox"/> Others Nil			

Construction Noise

Are the construction works scheduled to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the works or equipment sited to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is powered mechanical equipment covered or shielded by appropriate acoustic materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is silenced equipment used where appropriate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are noise enclosures or noise barriers used where necessary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does specified equipment has valid noise label?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Construction Noise Permits (CNP) available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Major Noise Source	<input type="checkbox"/> Traffic		<input checked="" type="checkbox"/> Construction activities inside of site			
	<input type="checkbox"/> Construction activities outside of site		<input type="checkbox"/> Others			

		Yes	No	NA	NC	Follow-up	Remarks
Water Quality & Drainage							
	Is a wastewater discharge license obtained for the Project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is site effluent discharged in accordance with the discharge license?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is the discharge of silty water avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is drainage adequate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is drainage system well maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are there temporary ditches for runoff discharge into appropriate watercourse?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are there sedimentation tanks for settling runoff prior to discharge?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are the sedimentation tanks: Constructed of pre-formed individual cells?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	With adequate capacity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Free from silt and sediment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are there neutralization tanks for concrete batching/mixing discharge?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are there oil interceptors in drainage system?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is wheel wash facility provided at every site exit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are vehicles and plant cleaned of earth, mud & debris before leaving the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are wheel washing facilities regularly inspected and maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are toilets provided on site? If so, are they properly maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are manholes covered and sealed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is oil leakage or spillage avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Waste Management and Potential Land Contamination							
General Refuse:	Are receptacles (rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is there regular and proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is proper sorting and recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Construction Waste:	Is generation of construction waste minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is waste sorting implemented on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is construction waste reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is construction waste properly disposed of?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chemical waste/waste oil	Is there designated storage area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is chemical waste stored properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is there proper disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is chemical waste license available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Excavated Materials	Do excavated materials appear uncontaminated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are appropriate procedures followed if contaminated materials exist?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Chemical/Fuel	Is chemical/fuel stored in bunded area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Remarks 1 & 2
	Is bund capacity adequate (>110% of the largest tank)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Are storage areas lockable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Remarks:

Previous Audit Follow-up:

1. Oil drum without drip tray placed on bare ground still observed at Portion J, the Contractor was reminded to provide drip tray for any temporary storage of oil drums.
2. Stagnant water was cumulated in the drip tray at Portion K, Contractor was reminded to clean as soon as possible.

Observations Recorded in this Site Inspection:

Signatures:

Env. Auditor

Contractor's Representative

IC(E) Auditor

Resident Site Staff

Name :Ben Tam

Name:

Name:

Name:

Project	DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long	Contractor:	Leader Civil Engineering Corp. Ltd
Inspected by:	ET Auditor: Ken Wong	Engineer:	Babtie Asia Ltd
	Contractor Rep: Benny Lam / Edwin	IEC:	Mott Connell Ltd
	IEC's Rep: Nil	Environmental Team:	Action-United Env. Services & Consulting
	RE's Rep: Mr. S L Hui	Inspection Date & Time:	15 December 2006 at 14:00
		Checklist Reference No.:	DSD-AT151206

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality

	Yes	No	NA	NC	Follow-up	Remarks
Is hoarding of not less than 2.4m provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles traveling within controlled speed limit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles movement confined to designated haul roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are public roads outside site exits kept clean and free from dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are haul roads and unpaved surfaces watered regularly to avoid dust generation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are there wheel washing facilities provided at site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is water spraying used during the main dust-generating activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the excavated or stockpile of dusty materials kept wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is exposed area of ground covered or watered frequently?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are load on vehicles covered by clean impervious sheeting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and equipment switched off while not in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is smoky emissions from plants/equipment avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Observable dust sources	<input type="checkbox"/> Wind erosion <input type="checkbox"/> Vehicle/equipment movements <input type="checkbox"/> Loading/unloading of materials <input checked="" type="checkbox"/> Others Nil					

Construction Noise

Are the construction works scheduled to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the works or equipment sited to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is powered mechanical equipment covered or shielded by appropriate acoustic materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is silenced equipment used where appropriate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are noise enclosures or noise barriers used where necessary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does specified equipment has valid noise label?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Construction Noise Permits (CNPs) available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Major Noise Source	<input type="checkbox"/> Traffic <input checked="" type="checkbox"/> Construction activities inside of site <input type="checkbox"/> Construction activities outside of site <input type="checkbox"/> Others					

Water Quality & Drainage		Yes	No	NA	NC	Follow-up	Remarks
Is a wastewater discharge license obtained for the Project?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is site effluent discharged in accordance with the discharge license?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is the discharge of silty water avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage adequate?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage system well maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there temporary ditches for runoff discharge into appropriate watercourse?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there sedimentation tanks for settling runoff prior to discharge?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the sedimentation tanks:	Constructed of pre-formed individual cells?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	With adequate capacity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Free from silt and sediment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there neutralization tanks for concrete batching/mixing discharge?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there oil interceptors in drainage system?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is wheel wash facility provided at every site exit?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are vehicles and plant cleaned of earth, mud & debris before leaving the site?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are wheel washing facilities regularly inspected and maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are toilets provided on site? If so, are they properly maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are manholes covered and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is oil leakage or spillage avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Waste Management and Potential Land Contamination							
General Refuse:	Are receptacles (rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there regular and proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is proper sorting and recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Construction Waste:	Is generation of construction waste minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is waste sorting implemented on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste properly disposed of?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical waste/waste oil	Is there designated storage area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste stored properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there proper disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste license available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Excavated Materials	Do excavated materials appear uncontaminated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are appropriate procedures followed if contaminated materials exist?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical/Fuel	Is chemical/fuel stored in bunded area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is bund capacity adequate (>110% of the largest tank)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are storage areas lockable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks:

Previous Audit Follow-up:

1. Drip tray had been provided for the free standing oil drum at Portion J.
2. Stagnant water in the drip tray at Portion K had been clean up accordingly.

Observations Recorded in this Site Inspection:

1. The site was keep clean and tidy, no environmental issue was recorded.

Signatures:

Env. Auditor

Contractor's Representative

IC(E) Auditor

Resident Site Staff

Name :Ken Wong

Name:

Name:

Name:

Project	DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long	Contractor:	Leader Civil Engineering Corp. Ltd
Inspected by:	ET Auditor: Ken Wong	Engineer:	Babtie Asia Ltd
	Contractor Rep: Benny Lam / Edwin	IEC:	Mott Connell Ltd
	IEC's Rep: Nil	Environmental Team:	Action-United Env. Services & Consulting
	RE's Rep: Mr. S L Hui	Inspection Date & Time:	22 December 2006
		Checklist Reference No.:	DSD-AT221206

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality	Yes	No	NA	NC	Follow-up	Remarks
Is hoarding of not less than 2.4m provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are site vehicles traveling within controlled speed limit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are site vehicles movement confined to designated haul roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are public roads outside site exits kept clean and free from dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are haul roads and unpaved surfaces watered regularly to avoid dust generation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there wheel washing facilities provided at site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is water spraying used during the main dust-generating activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the excavated or stockpile of dusty materials kept wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is exposed area of ground covered or watered frequently?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are load on vehicles covered by clean impervious sheeting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are vehicles and equipment switched off while not in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is smoky emissions from plants/equipment avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Observable dust sources	<input type="checkbox"/> Wind erosion <input type="checkbox"/> Vehicle/equipment movements <input type="checkbox"/> Loading/unloading of materials <input checked="" type="checkbox"/> Others <u>Nil</u>					

Construction Noise

Are the construction works scheduled to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the works or equipment sited to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is powered mechanical equipment covered or shielded by appropriate acoustic materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is silenced equipment used where appropriate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are noise enclosures or noise barriers used where necessary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Does specified equipment has valid noise label?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are Construction Noise Permits (CNPs) available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Major Noise Source	<input type="checkbox"/> Traffic <input checked="" type="checkbox"/> Construction activities inside of site <input type="checkbox"/> Construction activities outside of site <input type="checkbox"/> Others _____					

Water Quality & Drainage		Yes	No	NA	NC	Follow-up	Remarks
Is a wastewater discharge license obtained for the Project?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is site effluent discharged in accordance with the discharge license?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is the discharge of silty water avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage adequate?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage system well maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there temporary ditches for runoff discharge into appropriate watercourse?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there sedimentation tanks for settling runoff prior to discharge?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the sedimentation tanks:	Constructed of pre-formed individual cells?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	With adequate capacity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Free from silt and sediment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there neutralization tanks for concrete batching/mixing discharge?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there oil interceptors in drainage system?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is wheel wash facility provided at every site exit?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are vehicles and plant cleaned of earth, mud & debris before leaving the site?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are wheel washing facilities regularly inspected and maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are toilets provided on site? If so, are they properly maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are manholes covered and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is oil leakage or spillage avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Waste Management and Potential Land Contamination							
General Refuse:	Are receptacles (rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there regular and proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is proper sorting and recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Construction Waste:	Is generation of construction waste minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is waste sorting implemented on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste properly disposed of?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical waste/waste oil	Is there designated storage area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste stored properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there proper disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste license available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Excavated Materials	Do excavated materials appear uncontaminated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are appropriate procedures followed if contaminated materials exist?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical/Fuel	Is chemical/fuel stored in bunded area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is bund capacity adequate (>110% of the largest tank)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are storage areas lockable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks:

Previous Audit Follow-up:

Observations Recorded in this Site Inspection:

1. The works area was keep clean and tidy, no environmental issue was recorded.

Signatures:

Env. Auditor

Contractor's Representative

IC(E) Auditor

Resident Site Staff

Name :Ken Wong

Name:

Name:

Name:

Project	DC/2005/02 Construction of Sewers, Rising Mains & Sewage Pumping Station at Kam Tin, Nam Sang Wai and Au Tau in Yuen Long	Contractor:	Leader Civil Engineering Corp. Ltd
Inspected by:	ET Auditor: Ben Tam	Engineer:	Babtie Asia Ltd
	Contractor Rep: Benny Lam / Edwin	IEC:	Mott Connell Ltd
	IEC's Rep: Nil	Environmental Team:	Action-United Env. Services & Consulting
	RE's Rep: Mr. S L Hui	Inspection Date & Time:	30 December 2006 at 09:30
		Checklist Reference No.:	DSD-AT301206

General Meteorological Information

Weather Sunny Fine Cloudy Overcast Drizzle Rain Hazy
Temp: °C
Humidity: High (RH > 90%) Moderate (90% > RH > 50%) Low (RH < 50%)
Wind: Calm Light Breeze Strong

Air Quality	Yes	No	NA	NC	Follow-up	Remarks
Is hoarding of not less than 2.4m provided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles traveling within controlled speed limit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are site vehicles movement confined to designated haul roads?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are public roads outside site exits kept clean and free from dust?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are haul roads and unpaved surfaces watered regularly to avoid dust generation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Remarks 1
Are there wheel washing facilities provided at site exits?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is water spraying used during the main dust-generating activities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the excavated or stockpile of dusty materials kept wet?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is exposed area of ground covered or watered frequently?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are load on vehicles covered by clean impervious sheeting?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and equipment switched off while not in use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is smoky emissions from plants/equipment avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is open burning avoided?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Observable dust sources	<input type="checkbox"/> Wind erosion <input type="checkbox"/> Vehicle/equipment movements <input type="checkbox"/> Loading/unloading of materials <input checked="" type="checkbox"/> Others <u>Nil</u>					

Construction Noise

Are the construction works scheduled to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are the works or equipment sited to minimize noise nuisance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are all plant and equipment well maintained and in good operating condition?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is idle equipment turned off or throttled down?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is powered mechanical equipment covered or shielded by appropriate acoustic materials?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Is silenced equipment used where appropriate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are noise enclosures or noise barriers used where necessary?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Does specified equipment has valid noise label?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Are Construction Noise Permits (CNPs) available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Major Noise Source	<input type="checkbox"/> Traffic <input checked="" type="checkbox"/> Construction activities inside of site <input type="checkbox"/> Construction activities outside of site <input type="checkbox"/> Others _____					

Water Quality & Drainage		Yes	No	NA	NC	Follow-up	Remarks
Is a wastewater discharge license obtained for the Project?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is site effluent discharged in accordance with the discharge license?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is the discharge of silty water avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage adequate?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is drainage system well maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there temporary ditches for runoff discharge into appropriate watercourse?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there sedimentation tanks for settling runoff prior to discharge?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are the sedimentation tanks:	Constructed of pre-formed individual cells?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	With adequate capacity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Free from silt and sediment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there neutralization tanks for concrete batching/mixing discharge?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are there oil interceptors in drainage system?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is wheel wash facility provided at every site exit?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are vehicles and plant cleaned of earth, mud & debris before leaving the site?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are wheel washing facilities regularly inspected and maintained?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are toilets provided on site? If so, are they properly maintained?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Are manholes covered and sealed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is oil leakage or spillage avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Waste Management and Potential Land Contamination							
General Refuse:	Are receptacles (rubbish bins) available?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there regular and proper disposal?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is proper sorting and recycling implemented?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Construction Waste:	Is generation of construction waste minimized?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is waste sorting implemented on site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste reused where practicable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is construction waste properly disposed of?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical waste/waste oil	Is there designated storage area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste stored properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is there proper disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is chemical waste license available for inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Excavated Materials	Do excavated materials appear uncontaminated?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are appropriate procedures followed if contaminated materials exist?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are disposal records available for inspection?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Chemical/Fuel	Is chemical/fuel stored in bunded area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Is bund capacity adequate (>110% of the largest tank)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
	Are storage areas lockable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
Is foam, oil, grease or other objectionable matters in water or nearby drains of sewer avoided?		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

Remarks:

Previous Audit Follow-up:

Observations Recorded in this Site Inspection:

1. Water spraying was needed during the dry season to minimize the dust generation in Ko Po Road.

Signatures:

Env. Auditor

Contractor's Representative

IC(E) Auditor

Resident Site Staff

Name :Ken Wong

Name:

Name:

Name: