Maeda Corporation

Castle Peak Road Improvement between Sham Tseng and Ka Loon Tsuen, Tsuen Wan West Contract No. HY/99/18

Monthly Environmental Monitoring and Audit Report
August 2005

Second Issue

Maeda Corporation

West Contract No. HY/99/18
Castle Peak Road Improvement between Sham Tseng and Ka Loon Tsuen, Tsuen Wan

Environmental Monitoring and Audit

Monthly Environmental Monitoring and Audit Report – August 2005

September 2005

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15 September 2005

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Your Ref:

Our Ref: 910-06/E05-66369

For attention of: Mr. Sam Tsoi

Dear Mr. Tsoi

Contract HY/99/18 West Contract
Castle Peak Road Improvement between Sham Tseng and Ka Loon Tsuen, Tsuen Wan
Monthly EM&A Report (August 2005)

We refer to the electronic version of the captioned report submitted by your Mr. Fredrick Leong via e-mail on 9 September 2005 and subsequent revised report on 15 September 2005. We do not have further comment and endorsed the report.

Yours sincerely

Coleman Ng
Independent Checker (Environmental)
HYDER CONSULTING LIMITED

cc MHJV Attention: Mr. Jeff Yu (Fax: 2417-0134)
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CN/LKY/yys

ARUP

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ABBREVIATIONS AND ACTONYMS

A/L	Action or Limit Levels
AQO	Air Quality Objectives
Arup	Ove Arup & Partners Hong Kong Limited
ASR	Area Sensitive Rating
BOD	Biochemical Oxygen Demand
B&K	Brüel & Kjær
CFM	Cubic Feet per Minute
CNP	Construction Noise Permit
CT	Contractor
C&D	Construction & Demolition
DO	Dissolved Oxygen
DGPS	Differential Global Positioning System
EA	Environmental Auditor
EIA	Environmental Impact Assessment
EM&A	Environmental Monitoring and Audit
EP	Environmental Permit
EPD	Environmental Protection Department
ER	Engineer / Engineer's Representative
ET	Environmental Team
HKPSG	Hong Kong Planning Standards and Guidelines
HKSAR	Hong Kong Special Administrative Region
HOKLAS	The Hong Kong Laboratory accreditation Scheme
HVS	High Volume Sampler
IC(E)	Independent Checker (Environment)
IEC	International Electrotechnical Commission Publications
K	Degrees Kelvin
MC	Maeda Corporation
MHJV	Mouchel Halcrow Joint Venture
NAMAS	National Measurement accreditation Service
NTU	Nephelometric Turbidity Unit
NSR	Noise Sensitive Receiver
SCFM	Standard Cubic Feet per Minute
SS	Suspended Solids
TSP	Total Suspended Particulates
Tby	Turbidity

EXECUTIVE SUMMARY

This is the 43rd monthly environmental monitoring and audit (EM&A) report presenting the progress of environmental monitoring and audit works for the period between 1 to 31 August 2005, including air quality monitoring and noise monitoring. Air quality was measured in terms of 1-hour Total Suspended Particulates (TSP) and 24-hour TSP. Noise was measured in terms of $Leq_{(30min)}$ with L_{10} and L_{90} measurements as references. Environmental works included the weekly environmental audit and the bi-weekly landscape and visual monitoring and audit.

Air Quality

A total of 6 sets of 3 consecutive 1-hour TSP measurements were conducted during the reporting month. The highest 1-hour TSP level of 346.4μg/m^3 was recorded on 31 August 2005 while the lowest 1-hour TSP level of 34.0μg/m^3 was recorded on 15 August 2005, both recorded on G/F, Carpark, Lido Garden Tower 1 of Lido Garden (WA11). There was no exceedance of the A/L Levels during the monitoring period.

The highest 24-hour TSP level of 166.2μg/m^3 was recorded on 30 August 2005 on G/F, Carpark, Lido Garden Tower 1, Lido Garden (WA11), while the lowest 24-hour TSP level of 27.2 μg/m^3 was recorded on 18 August 2005 at G/F, Tsing Lung Tau Tin Hau Temple (WA6). There was no exceedance of the A/L Levels during the monitoring period.

There is no 1-hour and 24-hours exceedance of the Action and Limit (A/L) Levels registered during the monitoring period.

Noise

A total of 5 sets of daytime (0700 – 1900 hours) noise monitoring were conducted during the reporting month. The highest noise level of 73.3dB(A) was recorded at Sea Crest Villa (WN13) on 25 August 2005 while the lowest noise level of 65.1dB(A) was recorded at House No.3 of Ka Loon Tsuen (WN1) on 8 August 2005.

No exceedance of the noise A/L Levels was recorded during the monitoring period.

Marine Water Quality

No marine water quality monitoring was conducted in August 2005.

Environmental Auditing

A total of 4 environmental site audits were conducted on a weekly basis in August 2005. No non-compliance with the environmental requirements was identified during the reporting period. The improvement actions against observations of the site audits for the Contractor included:

- **Water quality:** Clearing of mud trails on public road, proper maintenance of wheel washing facilities and control of overflow and seepage of muddy water off-site;
- **Air quality:** No major non-conformance was observed;

- **Waste Management:** Frequent removal of general refuse and good housekeeping should be maintained;
- **Mosquito Control:** Removal of stagnant water within the site.

Landscape and Visual

A total of 2 landscape and visual monitoring and audits were carried out on a biweekly basis in August 2005. The Registered Landscape Architect had recommended as follows:

- The Contractor was reminded to clear away all scattered litter and garbage observed on site, and keep the site in a tidy condition at all times.
- The Contractor was reminded to carry out more frequent watering of the site during dry periods to prevent dust nuisance.
- The Contractor was reminded to carry out grass cutting, clearance of overgrown weeds and invasive plants on hydroseeded slopes prior to planting, and to carry out regular watering after the planting works.

Waste Disposal

A total of 30 loads of Construction & Demolition (C&D) waste materials and a total of 1,120 loads of C&D materials (Public Fill) were disposed of at WENT Landfills and Public Filling Area in Tuen Mun respectively in August 2005. No chemical waste was disposed of in the reporting period.

Complaint Record

There was one complaint on odour small from Sea Crest Villa Phase 3. Investigation by contractor confirmed the source was not originated from the site, and might have been originated from the rubbish collection point at the bus stop near Sea Crest Villa Phase 1 and 2, where the refuse from the nearby public barbeque area was also collected. The contractor has since put up a notice to warn people against littering the area.

Non-compliances

There was no non-compliance for TSP air quality and noise monitoring during the reporting month.

Notification of Summons and Successful Prosecution

There was neither notification of summon nor prosecution received during the reporting month.

Environmental Licenses

There was no new CNP was granted during the reporting month.

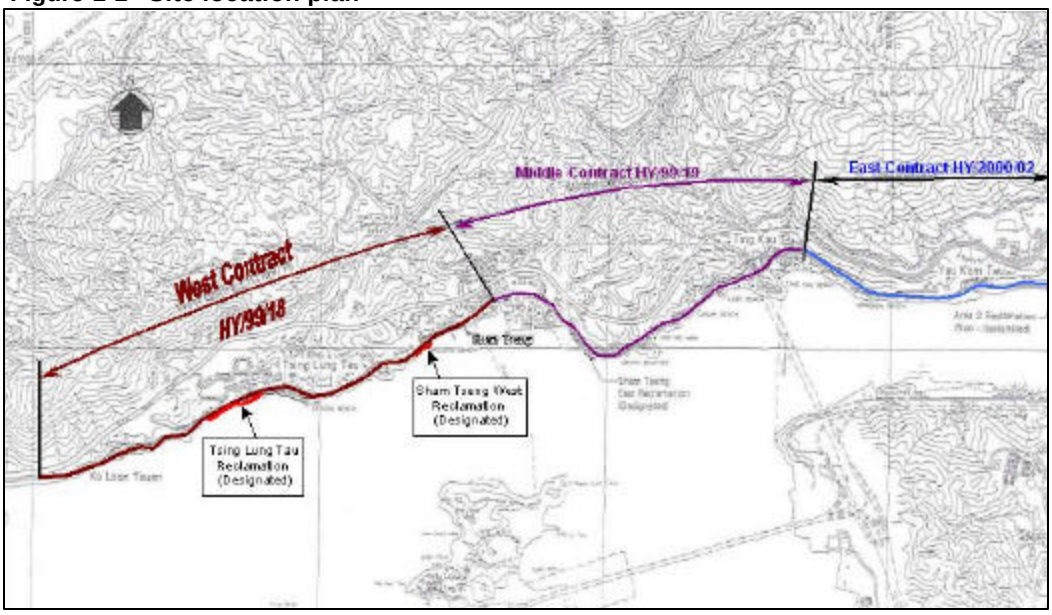
1. INTRODUCTION

Ove Arup & Partners Hong Kong Limited (Arup) was appointed by the Contractor - Maeda Corporation (MC) as the Environmental Team (ET) for *Contract No. HY/99/18 Castle Peak Road Improvements between Sham Tseng and Ka Loon Tsuen, Tsuen Wan* (hereafter called the "Project"). Environmental parameters including air quality, construction noise, water quality and landscape & visual issues were selected for impact monitoring for the Project. The major construction period of the Project are anticipated as 45 months from December 2001 to August 2005.

1.1 Project Background

The Castle Peak Road improvements works consists of upgrading the existing Castle Peak Road to provide a dual two-lane carriageway of "Rural Road A" classification between Area 2, Tsuen Wan and Ka Loon Tsuen, and all associated utility, junction and pedestrian facilities. The Castle Peak Improvement project is divided into three contracts. This Environmental Monitoring and Audit (EM&A) exercise only concerns the West Contract No. HY/99/18 between Sham Tseng and Ka Loon Tsuen, Tsuen Wan. Figure 1-1 shows the site location plan and the detailed site layout plans are provided in Appendix A.

Figure 1-1 Site location plan



The scope of the construction work includes:

- Improvement to Castle Peak Road between Area 2 and Ka Loon Tsuen, Tsuen Wan to a dual two-lane carriageway;
- Provision of pedestrian facilities in the form of footpaths, subways, footbridges and Crossings;
- Road junction and signal design and the re-provision of access roads and connections to existing road networks;
- Construction of associated drainage and landscaping works;
- Environmental mitigation measures;
- Design and construction of watermains;
- Construction of entrusted sewerage works; and
- Dredging and reclamation (designated project – see also Section 1.2)

1.2 Designated Project

The marine reclamation and the construction of the associated seawall at Tsing Lung Tau and Sham Tseng West within Contract No. HY/99/18 had been classified as designated projects under the Environmental Permits No. EP-093/2001 and EP-094/2001 respectively.

1.3 Impact EM&A Requirements

The impact environmental monitoring and audit included air quality monitoring (both 1-hour and 24-hour TSP), noise, water quality, landscape and visual monitoring, and environmental audit.

1.4 Purpose of the Report

The purpose of the monthly EM&A report is to provide the information on monitoring methodology, monitoring results, environmental permit status, site audit findings, recommendations and conclusions.

This is the forty-third monthly EM&A report prepared by Arup for the submission to Maeda Corporation summarising the monitoring methodology, locations, periods, frequencies, results and any observation from the air quality, noise, marine water quality, and landscape and visual monitoring and audit from 1 to 31 August 2005.

2. ENVIRONMENTAL STATUS

2.1 Construction Programme

The construction work was commenced in February 2002. An up-to-date construction programme is given in Appendix B.

2.2 Construction Activities of the Month

The major construction activities carried out by the Contractor (CT) in August 2005 included:

- Construction of footbridge FB01, FB02, FB03, FB11 and FB12;
- Construction of noise barriers NM01, NM02, NM03 and NM04;
- Construction of culverts and outfalls;
- Construction of retaining wall RW01, RWC and
- Construction of utility and water mains works.

The major sea works at level below +2.5mPD had been completed in July 2003 and sand placement activities at Seawall B completed on 13 August 2004.

3. SUMMARY OF EM&A REQUIREMENTS

Air quality, construction noise, marine water quality and landscape issues are significant environmental impacts identified for the construction period of the project. In accordance with the Project specific EM&A Manual[1], air quality, noise, water quality, landscape and visual monitoring and audit shall be performed by an ET at all specified monitoring locations during the construction and operational stages. As instructed by the Contractor, the marine monitoring was suspended since 10 October 2003 as the major sea works at level below +2.5mPD had been completed in July 2003. Marine monitoring was resumed in August from 2 August to 27 August 2004 during and after beach reinstatement activity took place in August 2004.

The monitoring schedule for August 2005 and the tentative schedule for September 2005 are attached in Appendix C.

3.1 Air Quality Monitoring

3.1.1 Monitoring Parameters

Air monitoring was measured in terms of the TSP levels for both 24-hour and 1-hour periods.

3.1.2 Monitoring Frequency

24-hour TSP and 1-hour TSP levels were monitored during the course of construction in accordance with the EM&A Manual. The monitoring parameters and frequency are specified in Table 3-1.

Table 3-1 TSP monitoring parameters and frequency

Parameters	Monitoring Frequency	Time Period	No. of measurement for each monitoring
24-hour TSP	Once every six days	0000 - 2400	1
1-hour TSP	Three times per every six days	0700 - 1900	1

3.1.3 Monitoring Locations

A total of eleven locations had been specified for the air quality monitoring and they are given in Table 3-2 and presented in Figures 3-1a to 3-1d.

Table 3-2 Air quality monitoring locations

Air Monitoring Station No.	Location	Location description
~~WA1~~	~~Bayside Villas~~	~~G/F, Bayside Villas~~ (Temporary Suspended)
~~WA2~~	~~Grand Bay Villas~~	~~G/F, Grand Bay Villas~~ (Temporary Suspended)
WA3	Hong Kong Garden	G/F, Hong Kong Garden (Regent Heights)
WA4	Hong Kong Garden	G/F, Hong Kong Garden (Between Blk 1 & 2)

Air Monitoring Station No.	Location	Location description
WA5	Hong Kong Garden	G/F, Hong Kong Garden (Block 4)
WA6	Tsing Lung Tau Tin Hau Temple	G/F, Tsing Lung Tau Tin Hau Temple
WA7	Sea Crest Villa	Podium, Sea Crest Villa (Phase 4 Block 12)
WA8	Sea Crest Villa	Podium, Sea Crest Villa (Phase 3 Block 8)
WA9	Sea Crest Villa	Car Park (L3), Sea Crest Villa (Phase 2 Block 6)
WA10	Sea Crest Villa	Podium, Sea Crest Villa (Phase 1 Block 1)
WA11	Lido Garden	G/F, Carpark, Lido Garden Tower 1

Note: Bayside Villas (WA1) and Grand Bay Villas (WA2) are no longer the air sensitive receivers as all residents of Bayside Villas and Grand Bay Villas were moved out since September 2002. Therefore, the air quality monitoring at Bayside Villas and Grand Bay Villas were temporary suspended since October 2002 after approval from IC(E) and EPD.

3.1.4 Wind Monitoring

Wind monitoring data, which included the wind speed and wind directions are extracted from Hong Kong Observatory – Tsing Yi Wind Monitoring Station.

3.2 Construction Noise Monitoring

3.2.1 Monitoring Parameters

Construction noise monitoring was measured in terms of the A-weighted equivalent continuous sound pressure level (L_{eq}). L_{10} and L_{90} will also be recorded as supplementary reference information for data auditing.

3.2.2 Monitoring Frequency

Construction noise measurements were required to be taken on a weekly basis in accordance with the EM&A Manual. The monitoring time periods, monitoring parameters and frequency are specified in Table 3-3.

Table 3-3 Construction noise monitoring parameters and frequency

Time Period (when construction activity is found)	Parameters	Monitoring Frequency	No. of Measurements for Each Monitoring
Between 0700-1900 hours on normal weekdays	$L_{eq(30\ min)}$	Once per week	1
Between 1900-2300 hours on normal weekdays	$L_{eq(5\ min)}$*		3 (consecutive)
Between 2300-0700 hours of next day			
Between 0700-1900 hours on holidays			

Remarks: * The $L_{eq(5\ min)}$ will only be measured if construction activities are conducted in holidays and between the period of 1900 and 0700 hours during normal weekdays.

3.2.3 Monitoring Locations

A total of sixteen noise monitoring locations had been specified. They are given in Table 3-4 and presented in Figures 3-1a to 3-1d. The measurements were taken at a position 1m from the exterior of building façade and at a position of 1.2m above ground.

Table 3-4 Construction noise monitoring locations

Noise Monitoring Station No.	Location	Monitoring Point
WN1	Ka Loon Tsuen	House No.3, Ka Loon Tsuen
WN2	Ka Loon Tsuen	House No.15, Ka Loon Tsuen
~~WN3~~	~~Bayside Villas~~	~~Upper G/F, Bayside Villas~~ (Temporary Suspended)
WN4	Bayside Villas	Lower G/F, Bayside Villas (Temporary Suspended)
~~WN5~~	~~Grand Bay Villas~~	~~G/F, Grand Bay Villas~~ (Temporary Suspended)
WN6	Hong Kong Garden	G/F, Hong Kong Garden (Regent Heights)
WN7	Hong Kong Garden	G/F, Hong Kong Garden (Between Blk 1 & 2)
WN8	Hong Kong Garden	G/F, Hong Kong Garden (Block 4)
WN9	Tsing Lung Tau Village	House 1,Tsing Lung Tau Village
WN10	Tsing Lung Tau Village	House 60-64,Tsing Lung Tau Village
WN11	Villa Alfavista	G/F, Villa Alfavista
WN12	Sea Crest Villa	Podium, Sea Crest Villa (Phase 4 Block 12)
WN13	Sea Crest Villa	Podium, Sea Crest Villa (Phase 3 Block 8)
WN14	Sea Crest Villa	Car Park (L3), Sea Crest Villa (Phase 2 Block 6)
WN15	Sea Crest Villa	Podium, Sea Crest Villa (Phase 1 Block 1)
WN16	Lido Garden	G/F, Carpark, Lido Garden Tower 1

Note: Bayside Villas (WN3 and WN4) and Grand Bay Villas (WN5) are no longer the noise sensitive receivers as all residents of Bayside Villas and Grand Bay Villas were moved out since September 2002. Therefore, the noise monitoring at Bayside Villas and Grand Bay Villas were temporary suspended since October 2002 after approval from IC(E) and EPD.

3.3 Water Quality (Designated Project)

3.3.1 Monitoring Parameters

Water quality monitoring includes Turbidity (Tby) in the unit of NTU, Dissolved Oxygen (DO) in the unit of mg/L and Suspended Solids (SS) in the unit of mg/L. In addition to the water quality parameters, other relevant data, such as monitoring location/position, time, water depth, water temperature, salinity, DO saturation, weather conditions, sea conditions, tidal stage will be recorded including any special phenomena, work underway at the construction site, etc.

3.3.2 Monitoring Frequency

Water quality monitoring during the impact stage was conducted three times per week, during mid-flood and mid-ebb tides and at sixteen designated sampling. The interval between two sets of monitoring will not be less than 36 hours except where exceedances above the Action Level or Limit Level were detected (see also Section 3.5). In these cases, the monitoring frequency will be increased.

3.3.3 Monitoring Locations

A total of sixteen locations, 9 for impact and 7 for control were originally selected for marine water quality monitoring and the locations are given in Table 3-5a and presented in Figure 3-1b to 3-1e.

The new marine water quality monitoring programme, was commenced on 12 February 2003 and suspended on 10 October 2003, as agreed by the IC(E) and EPD. A total of twelve locations, 8 for impact and 4 for control were selected for the new marine water quality monitoring programme and the locations are given in Table 3-5b and presented in Figure 3-1b to Figure 3-1e.

Table 3-5a Water quality monitoring locations (Original)

Water Monitoring Station No.		Location	
		Eastings	Northings
Tsing Lung Tau	WW1 (Impact Station)	822260	824491
	WR1 (Control Station)	822278	824459
Tsing Lung Tau	WW2 (Impact Station)	822352	824538
	WR2 (Control Station)	822363	824505
Tsing Lung Tau	WW3 (Impact Station)	822506	824609
	WR3 (Control Station)	822518	824578
Tsing Lung Tau	WW4 (Impact Station)	822820	824640
	WR4 (Control Station)	822800	824603
Angler's Beach: Sham Tseung	WW5 (Impact Station)	823697	824937
	WR5 (Control Station)	823700	824905
Angler's Beach: Sham Tseung	WW6 (Impact Station)	823775	824991
	WW7 (Impact Station)	823797	825042
	WR6/WR7 (Control Station)	823797	824964
Angler's Beach	WW8 (Impact station)	823994	825141
	WR8 (Control Station)	824006	825107
Ma Wan Fish Culture Zone	FCZ1 (Impact Station)	823500	823870

Table 3-5b Water quality monitoring locations (New)

Water Monitoring Station No.		Location	
		Eastings	Northings
Tsing Lung Tau	WW1 (Impact Station)	822306	824405
	WW2 (Impact Station)	822377	824462
	WW3 (Impact Station)	822529	824500
	WW4 (Impact Station)	822775	824560
	WR-E-1234 (Control Station for Mid-Ebb Tide)	822204	824312
	WR-F-1234 (Control Station for Mid-Flood Tide)	822850	824519
Angler's Beach: Sham Tseung West	WW5 (Impact Station)	823700	824905
	WW6/7 (Impact Station)	823797	824964
	WW8 (Impact Station)	823900	825023
	WR-E-5678 (Control Station for Mid-Ebb Tide)	823590	824830
	WR-F-5678 (Control Station for Mid-Flood Tide)	823994	825034
Ma Wan Fish Culture Zone	FCZ1 (Impact Station)	823500	823870

Figure 3-1a Monitoring locations

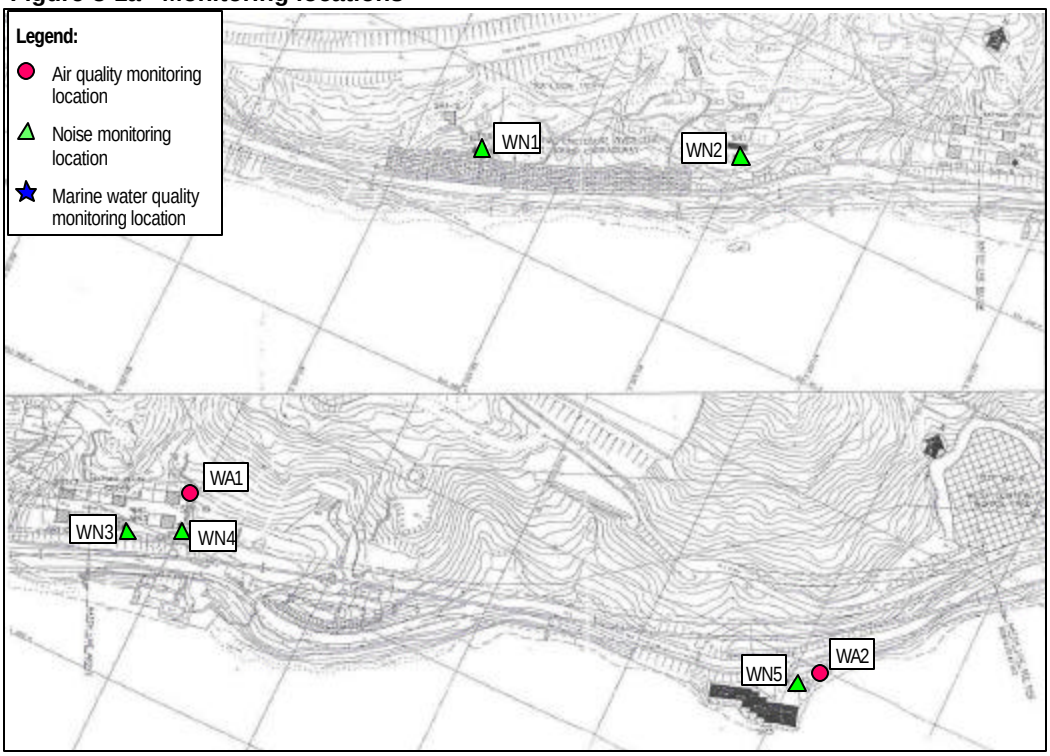


Figure 3-1b Monitoring locations

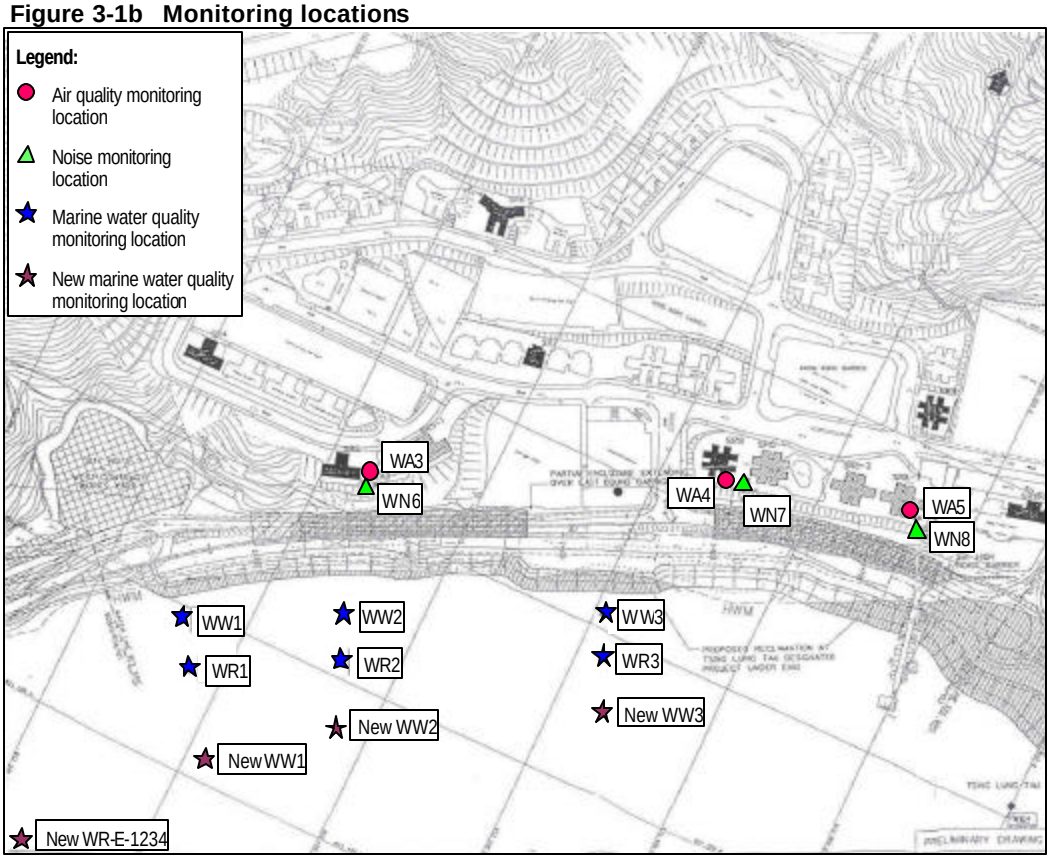


Figure 3-1c Monitoring locations

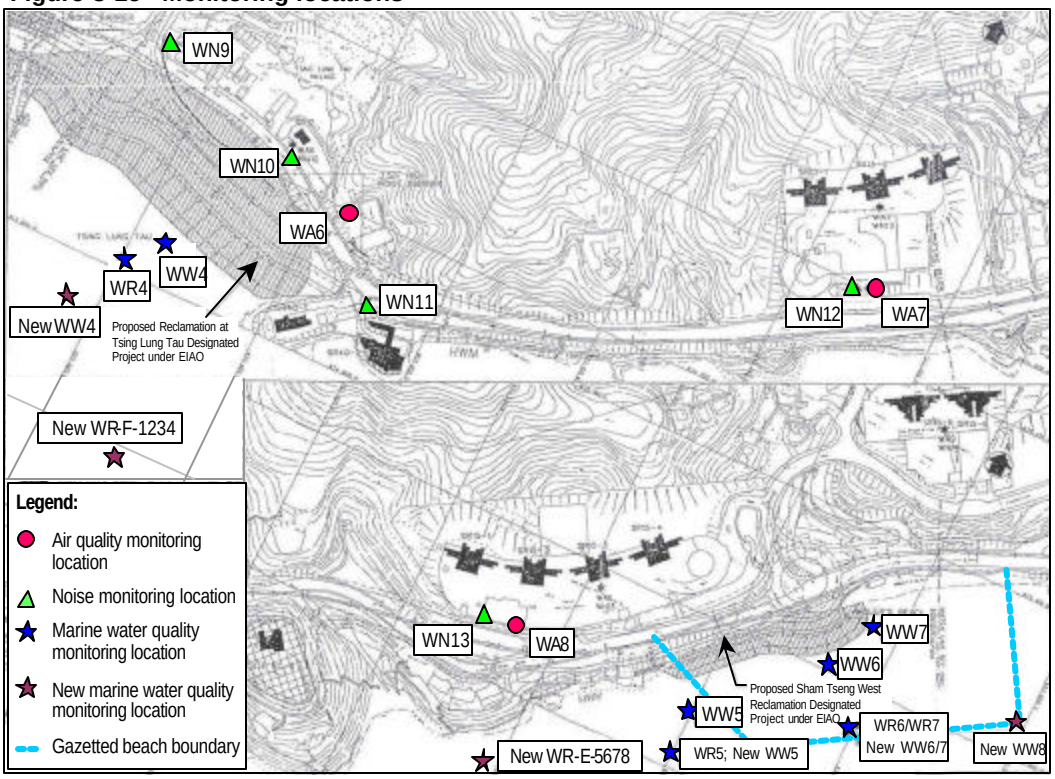


Figure 3-1d Monitoring locations

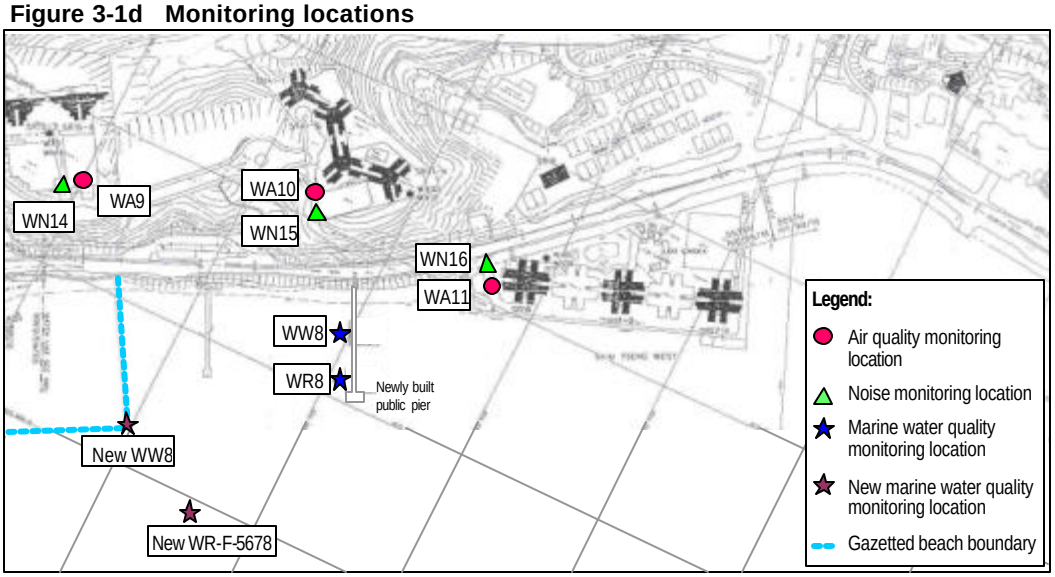
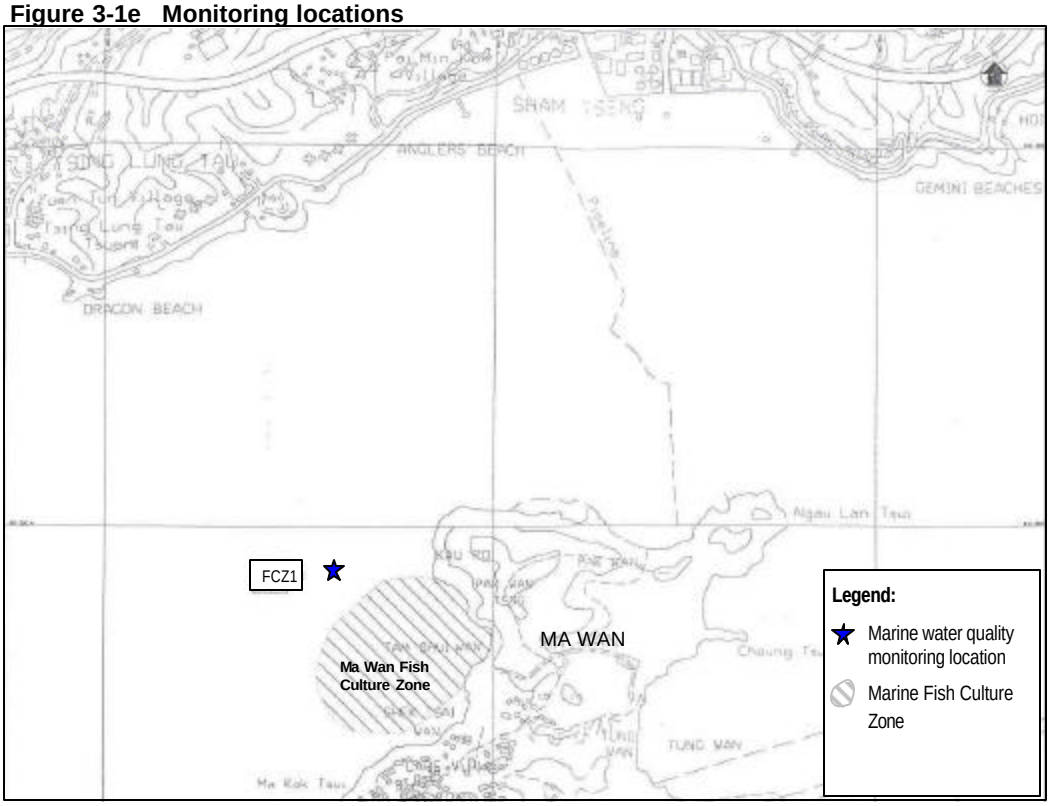


Figure 3-1e Monitoring locations



3.4 Landscape and Visual Monitoring and Audit

3.4.1 Audit Parameters

All landscape and visual mitigation measures undertaken by both the CT and the Landscape Contractor during the construction phase and during the first year of the operational phase shall be audited by a Registered Landscape Architect, to ensure compliance with the intended aims of the mitigation measures.

3.4.2 Audit Frequency

The landscape and visual monitoring and audit shall be undertaken at least once every two weeks throughout the construction period and once every two months during the operational phase.

3.4.3 Audit Location

The landscape and visual monitoring and audit shall be conducted throughout the entire site area.

3.5 3.5 Performance Limits and Event-Action Plans

The monitoring results shall be checked against appropriate standards and requirements. A two-tier system performance limits have been established in the Project specific EM&A Manual. The "Action Level" and the "Limit Level" (A/L) are established according to the EPD requirements. ET, ER, IC(E), and CT will take corresponding actions in accordance with the Event-Action Plans if the monitoring results exceed the performance limits.

3.5.1 Air Quality

The action and limit levels for air quality have been established during the baseline monitoring and are provided in Table 3-6.

Table 3-6 Action and Limit Level for air quality

Air Monitoring Station No.	1-hour TSP Level in μg/m³		24-hour TSP Level in μg/m³	
	Action Level	Limit Level	Action Level	Limit Level
WA1	350	500	187	260
WA2	362		192	
WA3	353		190	
WA4	362		187	
WA5	346		185	
WA6	362		204	
WA7	351		187	
WA8	347		188	
WA9	345		182	
WA10	352		183	
WA11	357		195	

Table 3-7 details the actions required to be carried out by different parties in case of an exceedance of performance limits being detected.

3.5.2 Construction Noise Impact

The action and limit levels for the construction noise extracted from the Baseline Monitoring Report[2] are tabulated in Table 3-8.

Table 3-8 Action and Limit Levels for construction noise

Time Period	Action	Limit
0700 - 1900 hours on any day not being a Sunday or public holiday	When one documented complaint is received	75dB(A)(1)
19:00 - 23:00 hours on all days and 07:00 - 23:00 on general holidays (including Sundays)		55(2) / 70(3)
23:00 - 07:00 hours on all days		40(2) / 55(3)

Remarks:
(1) For educational establishments the limit level shall be 70dB(A) and reduced to 65dB(A) during examination periods.
(2) Refers to the types of Plant regulated under the Technical Memorandum on Noise from Construction Work in Designated Areas (DA-TM).
(3) Refers to the types of Plant regulated under the Technical Memorandum on Noise Other than Percussive Piling (GW-TM).
(4) Owing to the high background noise level recorded at WN5, WN9, and WN10, the noise impact monitoring results at these 3 locations will be corrected by its background using the following background correction equation: $L_{eq(30min)} = 10 \log (10^{m/10} - 10^{b/10})$ as m= Measured $L_{eq(30min)}$, b=Average Baseline $L_{eq(30min)}$.
Only up to the maximum of 3dB(A) is allowed to be deducted after the background correction.

Table 3-9 details the actions required to be carried out by different parties in the case of an exceedance of performance limits being detected.

Table 3-7 Event/Action plan for air quality

Event	Action			
	ET Leader	IC(E)	ER	Contractor
Action Level				
1. Exceedance for one sample	1. Identify the source. 2. Inform the IC(E) and the ER. 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily.	1. Check monitoring data submitted by the ET Leader. 2. Check Contractor's working method.	1. Notify the Contractor.	1. Rectify any unacceptable practice. 2. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	1. Identify the source. 2. Inform the IC(E) and the ER. 3. Repeat measurements to confirm findings. 4. Increase monitoring frequency to daily. 5. Discuss with the IC(E) and the Contractor on remedial actions required. 6. If exceedance continues, arrange meeting with the IC(E) and the ER. 7. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET Leader. 2. Check the Contractor's working method. 3. Discuss with the ET Leader and the Contractor on possible remedial measures. 4. Advise the ER on the effectiveness of the proposed remedial measures. 5. Supervisor implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures properly implemented.	1. Submit proposals for remedial actions to IC(E) within 3 working days of notification. 2. Implement the agreed proposals. 3. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	1. Identify the source. 2. Inform the ER and the EPD. 3. Repeat measurement to confirm finding. 4. Increase monitoring frequency to daily. 5. Assess effectiveness of Contractor's remedial actions and keep the IC(E), the EPD and the ER informed of the results.	1. Check monitoring data submitted by the ET Leader. 2. Check the Contractor's working method. 3. Discuss with the ET Leader and the Contractor on possible remedial measures. 4. Advise the ER on the effectiveness of the proposed remedial measures. 5. Supervisor implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Ensure remedial measures properly implemented.	1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification. 3. Implement the agreed proposals. 4. Amend proposal if appropriate.
2. Exceedance for two or more consecutive samples	1. Notify the IC(E), the ER, the EPD and the Contractor. 2. Identify the source. 3. Repeat measurements to confirm findings. 4. Increase monitoring frequency to daily. 5. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. 6. Arrange meeting the IC(E) and the ER to discuss the remedial actions to be taken. 7. Assess effectiveness of the Contractor's remedial actions and keep the IC(E), the EPD and the ER informed of the results. 8. If exceedance stops, cease additional monitoring.	1. Discuss amongst the ER, the ET Leader and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary and advise the ER accordingly. 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. In consultation with the IC(E), agree with the remedial measures to be implemented. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

Table 3-9 Event/Action plan for construction noise

Event	Action			
	ET Leader	IC(E)	ER	Contractor
Action Level	1. Notify the IC(E) and the Contractor. 2. Carry out investigation. 3. Report the results of investigation to the IC(E) and the Contractor. 4. Discuss with the Contractor and formulate remedial measures. 5. Increase monitoring frequency to check mitigation measures.	1. Review with analysed results submitted by the ET. 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly. 3. Supervise the implement of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented.	1. Submit noise mitigation proposals to IC(E). 2. Implement noise mitigation proposals.
Limit Level	1. Notify the IC(E), the ER, the EPD and the Contractor. 2. Identify the source. 3. Repeat measurement to confirm findings. 4. Increase monitoring frequency. 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. 6. Inform the IC(E), the ER, and the EPD the causes & actions taken for the exceedances. 7. Assess effectiveness of the contractor's remedial actions and keep the IC(E), the EPD and the ER informed of the results. 8. If exceedance stops, cease additional monitoring	1. Discuss amongst the ER, the ET Leader and the Contractor on the potential remedial actions. 2. Review the Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly. 3. Supervise the implementation of remedial measures.	1. Confirm receipt of notification of failure in writing. 2. Notify the Contractor. 3. Require the Contractor to propose remedial measures for the analysed noise problem. 4. Ensure remedial measures are properly implemented. 5. If exceedance continues, consider what activity of the work is responsible and instruct the Contractor to stop that activity of work until the exceedance is abated.	1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

3.5.3 Water Quality (Designated Project)

The action and limit levels for the water quality have been established in accordance with the EM&A Manual and approved by EPD on 15 October 2002. EPD and IC(E) had agreed on 10 April 2003 to apply the "Direct Comparison" method for evaluation of the marine water quality exceedance. The A/L levels had been revised in April 2003 and are presented in Table 3-10.

Table 3-10 Action and Limit Levels of water quality

Parameters		Monitoring Location			
		WW1 to WW8		FCZ1	
		Action Level	Limit Level	Action Level	Limit Level
Mid-Ebb					
DO (mg/L)	Surface & Middle	**4.9**	**4.8**	**4.7**	**4.6**
	Bottom	**4.8**	**4.8**	**4.0**	**4.0**
SS (mg/L) (Depth-averaged)		**17.0**	**23.4**	For EPD: **12.9** For AFCD: **12.9 and 120%** of upstream control station's SS at the same tide of the same day	For EPD: **14.0** For AFCD: **14.0 and 130%** of upstream control station's SS at the same tide of the same day
Tby (NTU) (Depth-averaged)		**12.0**	**13.6**	For EPD: **9.1** For AFCD: **9.1 and 120%** of upstream control station's Tby at the same tide of the same day	For EPD: **10.3** For AFCD: **10.3 and 130%** of upstream control station's Tby at the same tide of the same day.
Mid-Flood					
DO (mg/L)	Surface & Middle	**4.3**	**4.2**	**4.5**	**4.4**
	Bottom	**4.3**	**4.1**	**4.1**	**4.1**
SS (mg/L) (Depth-averaged)		**25.3**	**28.7**	For EPD: **23.3** For AFCD: **23.3 and 120%** of upstream control station's SS at the same tide of the same day	For EPD: **25.9** For AFCD: **25.9 and 130%** of upstream control station's SS at the same tide of the same
Tby (NTU) (Depth-averaged)		**25.2**	**31.5**	For EPD: **18.7** For AFCD: **18.7 and 120%** of upstream control station's Tby at the same tide of the same day	For EPD: **22.3** For AFCD: **22.3 and 130%** of upstream control station's Tby at the same tide of the same day.

Notes: "Depth-averaged" is calculated by taking the arithmetic means of reading of all three depths.
For DO, non-compliance of the water quality limits occurs when monitoring result is lower than the limits.

In order to better differentiate between exceedance caused by the contract works and elevated readings arising from causes unrelated to contract works, all parties had agreed to introduce a term "Reaching of Trigger Value" to represent the scenario where the A/L levels were exceeded by the "Direct Comparison" evaluation method. Upon the detection of "Reaching of Trigger Value", an initial analysis would be

carried out to determine whether it was caused by contract works. Exceedance and non-compliance should only be recorded in case where the "Reaching of Trigger Value" was caused by the contract works.

Table 3-11 details the actions required to be carried out by different parties in the case of water quality exceedance of performance limits being detected. The revised Event/Action Plan for water quality has been endorsed by IC(E) in June 2003, and will be finalised subject to agreement with EPD.

3.5.4 Landscape and Visual

The Final Tree Survey Report[3] approved in April 2001 was adopted as the framework of the baseline landscape condition of this road section. In addition, a supplementary tree survey has been carried out in December 2001. The Supplementary Tree Survey Report (Revision A)[4] completed in March 2002 is also adopted to provide supplementary information of the baseline landscape condition of this road section.

If any non-conformity on landscape and visual issue is observed, the actions in accordance with Event/Action Plan shown in Table 3-12 shall be carried out.

Table 3-12 Event/Action plan for landscape and visual impact

Event	Action			
	ET Leader	IC(E)	ER	Contractor
Non-conformity on one occasion	1. Identify Source(s). 2. Inform the IC(E) and the ER. 3. Discuss mitigation actions with the IC(E), the ER and the Contractor. 4. Monitor remedial actions until rectification has been completed.	1. Check report. 2. Check the Contractor's working method. 3. Discuss with the ET Leader and the Contractor on possible remedial measures. 4. Advise the ER on effectiveness of proposed remedial measures. 5. Check implementation of remedial measures.	1. Notify the Contractor. 2. Ensure remedial measures are properly implemented.	1. Amend working method. 2. Rectify damage and undertaken any necessary replacement.
Repeated Non-conformity	1. Identify Source(s). 2. Inform the IC(E) and the ER. 3. Increase monitoring frequency 4. Discuss mitigation actions with the IC(E), the ER and the Contractor. 5. Monitor remedial actions until rectification has been completed. 6. If exceedance stops, cease additional monitoring	1. Check monitoring report 2. Check the Contractor's working method 3. Discuss with the ET Leader and the Contractor on possible remedial measures. 4. Advise the ER on effectiveness of proposed remedial measures. 5. Supervise implementation of remedial measures.	1. Notify the Contractor. 2. Ensure remedial measures are properly implemented.	1. Amend working method. 2. Rectify damage and undertaken any necessary replacement.

Table 3-11 Event/Action plan for water quality

Event	Action			
	ET Leader	IC(E)	ER	Contractor
Trigger Value				
1. Trigger Value being surpassed for one sampling day	1. Repeat in-situ measurement to confirm findings. 2. Conduct investigation to identify the source(s) of impact. 3. Check monitoring data, all plant, equipment, mitigation measures and the Contractor's working methods. 4. Inform the IC(E), ER, EPD, HyD, Contractor and AFCD (if required) the investigation results. 5. If exceedance is confirmed as caused by the construction works, take relevant actions as detailed in "**Action Level**" and "**Limit Level**"	1. If exceedance is confirmed as caused by the construction works, take relevant actions as detailed in "**Action Level**" and "**Limit Level**"	1. If exceedance is confirmed as caused by the construction works, take relevant actions as detailed in "**Action Level**" and "**Limit Level**"	1. If exceedance is confirmed as caused by the construction works, take relevant actions as detailed in "**Action Level**" and "**Limit Level**"
Action Level				
1. Action level being exceeded by one sampling day and is caused by the construction works	1. Discuss the current mitigation measures with the IC(E) and the Contractor. 2. Pay attention on the monitoring results collected on the subsequent scheduled monitoring date to see if an exceedance, caused by the same or related construction works, is recurring.	1. Discuss with the ET Leader and the Contractor on the current mitigation measures. 2. Assess the effectiveness of the current mitigation measures and advised the ER accordingly.	1. Discuss with the IC(E) on the current mitigation measures.	1. Inform the ER and confirm notification of the exceedance in writing. 2. Rectify unacceptable practice. 3. Check all plants and equipment. 4. Consider changes of working methods. 5. Discuss with the ET Leader and the IC(E) on the current mitigation measures.
2. Action level being exceeded by more than one consecutive days and is cause by the construction works	1. Discuss mitigation measures with the IC(E) and the Contractor. 2. Ensure the proposed mitigation measures are implemented. 3. Further evaluation of the monitoring results on the next scheduled monitoring day and report to all concerned parties, if the affected monitoring stations are still being affected (or are no longer affected) by the construction works. 4. Prepare to increase the monitoring frequency to daily, if the Limit Level is exceeded as below.	1. Discuss with the ET Leader and the Contractor on the proposed mitigation measures. 2. Review proposals on mitigation measures submitted by the Contractor and advised the ER accordingly. 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IC(E), the ET Leader and the Contractor on the proposed mitigation measures. 2. Make agreement on the proposed mitigation measures to be implemented. 3. Assess the effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the consecutive exceedance in writing. 2. Rectify unacceptable practice. 3. Check all plants and equipment. 4. Consider changes of working methods. 5. Discuss with the ET Leader and the IC(E) and propose mitigation measures to the IC(E) and the ER within 3 working day. 6. Implement the agreed mitigation measures.
Limit Level				
1. Limit level being exceeded by one sampling day and is cause by the construction works	1. Discuss mitigation measures with the IC(E), the ER and the Contractor. 2. Ensure the proposed mitigation measures are implemented. 3. Prepare to increase the monitoring frequency to daily if further exceedances of the Limit Level are detected on the next sampling day.	1. Discuss with the ET Leader and the Contractor on the proposed mitigation measures. 2. Review proposals on mitigation measures submitted by the Contractor and advised the ER accordingly. 3. Assess the effectiveness of the implemented mitigation measures.	1. Discuss with IC(E), the ET Leader and the Contractor on the proposed mitigation measures. 2. Request the Contractor to Critically review the working methods. 3. Make agreement on the proposed mitigation measures to be implemented. 4. Assess the effectiveness of the implemented mitigation measures.	1. Inform the ER and confirm notification of the exceedance in writing. 2. Rectify unacceptable practice. 3. Check all plants and equipment. 4. Consider changes of working methods. 5. Discuss with the ET Leader, the IC(E) and the ER, and propose mitigation measures to the IC(E) and the ER within 3 working days. 6. Implement the agreed mitigation measures.

Event	Action			
	ET Leader	IC(E)	ER	Contractor
2. Limit level being exceeded by more than one consecutive days and is cause by the construction works	1. Discuss further mitigation measures with the IC(E), the ER and the Contractor. 2. Ensure the proposed further mitigation measures are implemented. 3. Increase the monitoring frequency to daily until no exceedance of the Limit Level.	1. Discuss with the ET Leader and the Contractor on the proposed further mitigation measures. 2. Review proposals on further mitigation measures submitted by the Contractor and advised the ER accordingly. 3. Assess the effectiveness of the implemented further mitigation measures.	1. Discuss with IC(E), the ET Leader and the Contractor on the proposed further mitigation measures. 2. Request the Contractor to Critically review the working methods. 3. Make agreement on the further mitigation measures to be implemented. 4. Assess the effectiveness of the implemented further mitigation measures. 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit Level.	1. Inform the ER and confirm notification of the consecutive exceedance in writing. 2. Rectify unacceptable practice. 3. Check all plants and equipment. 4. Consider changes of working methods. 5. Discuss with the ET Leader, the IC(E) and the ER, and propose further mitigation measures to the IC(E) and the ER within 3 working days. 6. Implement the agreed further mitigation measures. 7. As directed by the ER, slow down or stop all or part of the construction activities.

3.6 Site Inspection and Environmental Complaint Handling

3.6.1 Site Inspection Frequency and Areas Covered

Regular site inspections shall be carried out on a weekly basis. The areas of inspection cover the different environmental impacts, such as air, noise, water and waste, and their pollution controls and mitigation measures for both within and outside the site area. Site inspection for landscape and visual impact shall be carried out on a bi-weekly basis.

Ad hoc site inspection will be carried out if significant environmental non-compliance is identified. Inspections June also be carried out subsequent to receipt of any environmental complaints, or as part of the investigation work, as specified in the Event-Action Plans.

3.6.2 Site Inspection Procedures

a) The CT and/or ER will advise the Environmental Auditor (EA) for all information on any environmental related aspects.

b) The EA will conduct discussion with the CT and/or ER to sort out and forecast any potential environmental impact.

c) The EA will conduct a site walk with the CT and/or ER, particularly the areas with extensive construction works.

d) The EA will conduct inspection for the main environmental facilities and measures such as the wheel washing facilities located at the site exits, water spraying truck, temporary noise barrier, and the internal noise-reducing measures of the heavy equipment etc, to ensure that these environmental facilities operate normally and effectively.

e) The EA will fill up a site inspection checklist during the site inspection for recording of any special observations.

f) The EA will conduct post-discussion with the CT and/or ER for the establishment of additional/special measures if any non-conformance is found. The completion date for such additional measures will be confirmed during the post-discussion.

g) The EA will propose a reasonable timeframe together with the CT and/or ER, for the preparation of the proposal for the remediation of environmental non-compliance.

h) The completed site inspection checklist will be signed by the EA, the CT and/or ER, for reference and for taking actions in accordance with the agreed procedures, reporting systems and time frame.

3.6.3 Environmental Complaints

In accordance with the EM&A Manual, environmental complaints will be referred to the ET for initiation of the complaint investigation procedures. The ET will undertake the following procedures upon receipt of the complaints:

a) The ET will record the details of the complaint and the date of receipt onto the complaint database, and inform ER immediately.

b) The ET will perform compliant investigation to determine its validity, and to assess whether the source of the problem is due to work activities.

c) The ER will instruct the CT to identify mitigation measures in consultation with the ET, if the compliant is valid and due to works.

d) The ET will liaise with the CT on their mitigation measure proposals and implementation, if required.

e) The ET will conduct review of the CT's response on the identified mitigation measures, and of the updated situation.

f) The ET will submit interim report to EPD if the complaint is received via EPD. The interim report will clearly state the status of the complaint investigation and the follow-up action within the time frame assigned by EPD.

g) The ET will undertake additional monitoring and audit to verify the situation if necessary, and ensure that any valid reason for complaint does not recur.

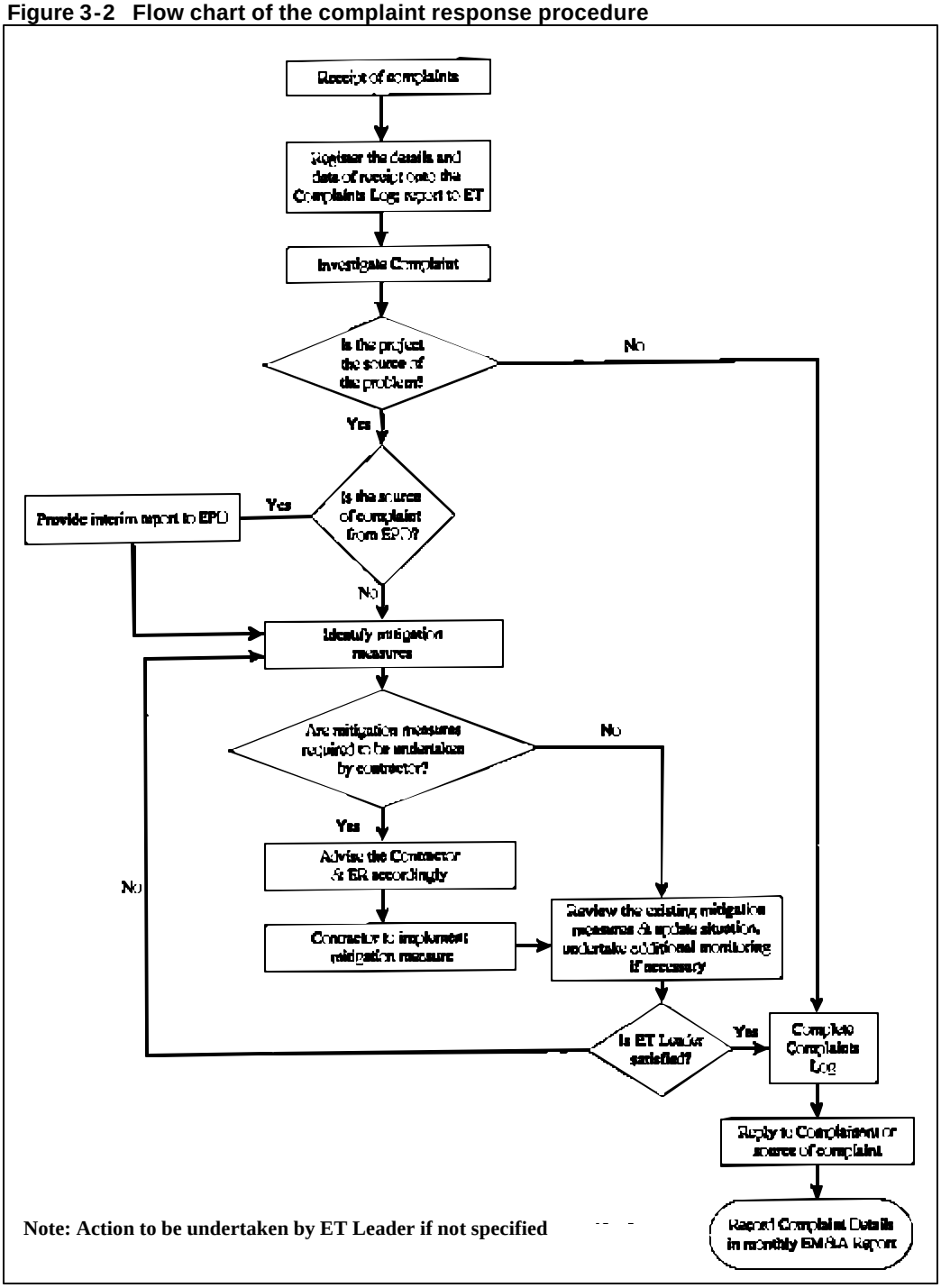
h) The ET will report on the investigation results and the subsequent actions to the source of complaint for responding to the complainant (If the source of complaint is via EPD, the results will be reported within the time frame assigned by EPD).

i) The ET will record the details of the complaint, investigation, subsequent actions and results in the monthly EM&A reports.

During the complaint investigation work undertaken by the ET, the CT and ER shall cooperate with the ET on providing all the necessary information and assistance for completion of the investigation. If mitigation measures are identified as necessary after the investigation, the CT shall promptly carry out the required mitigation to the satisfaction of ET. The ER shall ensure that the CT has carried out such identified measures.

A flow chart of the complaint response procedures is shown in Figure 3-2 for reference.

Figure 3-2 Flow chart of the complaint response procedure



4. AIR QUALITY

4.1 Monitoring Parameters and Equipment

Impact air quality monitoring was conducted in terms of both 1-hour and 24-hour TSP using a direct reading meter, MIE Data-RAM Portable Real Time Aerosol Monitor (MIE) and High Volume Sampler (HVS) respectively. Table 4-1 shows the equipment list for air quality monitoring.

Table 4-1 Equipment list for air quality monitoring

Equipment	Manufacturer & Model No.	Measurement Parameter	Qty.
High Volume Sampler	GS-2310105 & TE-5170	24-hour TSP	11
Fibreglass Filter	G810		--
HVS Calibration Kit	GMW-2535		1
Photometric Aerosol Monitor	MIE *personal*DataRAM	1-hour TSP	10
Hand Held Barometer	Cole-Parmer EB833	Pa, Temperature	2

4.2 Methodology

4.2.1 1-hour TSP Monitoring

The procedure for 1-hour TSP monitoring is described as follows:

The MIE monitor was switched on by pressing the ON/OFF button. The NEXT button was pressed to select Run or Ready mode.

The NEXT button was pressed subsequently to check the following settings:

i. data logging function: on
ii. log period: 5 minutes
iii. tag number: storage
iv. analogue output: 0-4.000mg/m^3
v. calibration factor:1.0
vi. averaging time: 10s
vii. battery charge: $\geq$50%
viii. remaining memory: $\geq$10%

The monitoring was started by pressing ENTER. The real-time concentration would display "CONC" and the time-averaged concentration would display "TWA".

The monitoring was stopped by pressing EXIT and ENTER buttons.

The date and start time, weather, site condition and the downloaded monitoring results were recorded on specified field record sheet.

4.2.2 24-hour TSP Monitoring

24-hour TSP by using a High Volume Sampler (HVS). The HVS should be in compliance with the following specifications:

- 0.6 – 1.7 m^3/min (20 – 60SCFM);
- equipped with a timing/control device with +/- 5 minutes accuracy for 24 hours operation;
- installed with elapsed time meter with +/- 2 minutes accuracy for 24 hours operation;
- capable of providing a minimum exposed area of 406 cm^2(63in^2);
- flow control accuracy: +/-2.5% deviation over 24-hr sampling period;
- equipped with a shelter to protect the filter and sampler;
- incorporated with an electronic mass flow rate controller or other equivalent devices;
- equipped with a flow recorder for continuous monitoring;
- provided with a peaked roof inlet;
- incorporated with a manometer;
- able to hold and seal the filter paper to the sampler housing at horizontal position;
- easy to change the filter; and
- capable of operating continuously for a 24-hour period.

4.2.3 Maintenance and Calibration

The HVS and their accessories were frequently checked and maintained in accordance with the manufacturer's operation & maintenance manual. Maintenance includes the checking of the supporting screen and the gasket, and routine replacement of motor carbon brushes for the blower motor. The power cords and power supply were checked each time before sampling to ensure proper operation.

The HVS are calibrated at 2-month intervals using GMW-2535 Calibration Kit. The calibration kit will be re-calibrated by the manufacturer after one year of use. The calibration certificates of the HVS and the calibration kit are provided in Appendix D. The next calibration will be conducted on or before 31 July 2005 for the HVS and 10 February 2006 for the GMW-2535.

The MIE monitor and its accessories were frequently checked and maintained in accordance with the manufacturer's operation & maintenance manual to ensure proper operation. Maintenance includes the checking of batteries, zero and sensitive adjustment and filter replacement.

The MIE monitor is returned to the manufacturer for calibration bi-annually. The calibration certificates are provided in Appendix E. The next calibration dates for the MIE monitors are given in Table 4-2.

Table 4-2 Calibration dates of 1-hour TSP monitoring equipment

1-hour TPS monitoring equipment	Serial number	Last calibration date	Next calibration date (on or before)
MIE Data-RAM Portable Real Time Aerosol Monitor	4496	25-Sep-03	25-Sep-05
	4715	21-Nov-03	21-Nov-05
	4615	15-Jan-04	15-Jan-06
	4705	15-Jan-04	15-Jan-06
	4492	27-Jul-04	27-Jul-06
	4736	27-Jul-04	27-Jul-06
	3809	06-Oct-04	06-Oct-06
	3893	06-Oct-04	06-Oct-06
	4243	06-Oct-04	06-Oct-06
	4239	03-Feb-05	03-Feb-07

4.3 Results and Observations

4.3.1 Weather conditions and other factors

No adverse weather conditions, in particular adverse wind speed and wind direction that may significantly affect or invalidate the collected air quality monitoring data, were registered during the reporting period.

Neither unusual operation of the construction site nor abnormal TSP source was observed during the reporting period.

4.3.2 Summary of Results

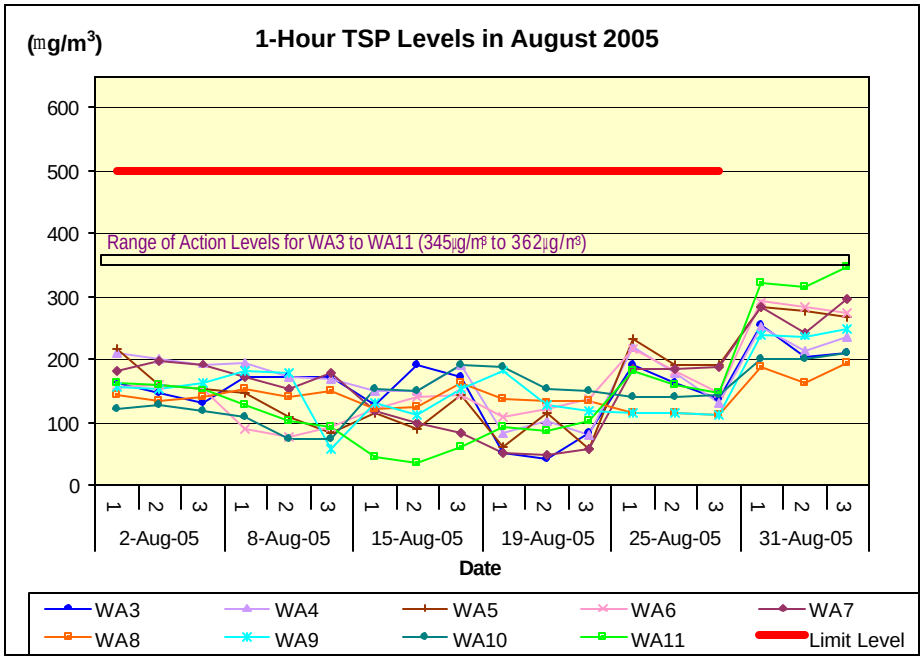
1-hour TSP

A total of 6 sets of 3 consecutive 1-hour TSP measurements were conducted on 2, 8, 15, 19, 25 and 31 August 2005.

The highest 1-hour TSP level of 346.4μg/m^3 was recorded on 31 August 2005 while the lowest 1-hour TSP level of 34.0μg/m^3 was recorded on 15 August 2005, both recorded on G/F, Carpark, Lido Garden Tower 1 of Lido Garden (WA11). There was no exceedance of the A/L Levels during the monitoring period.

Detailed monitoring results of 1-hour TSP are given in Appendix F and graphical presentation of the 1-hour TSP levels at each monitoring location is illustrated in Figure 4-1.

Figure 4-1 Graphical Presentation of 1-Hour TSP Levels for August 2005



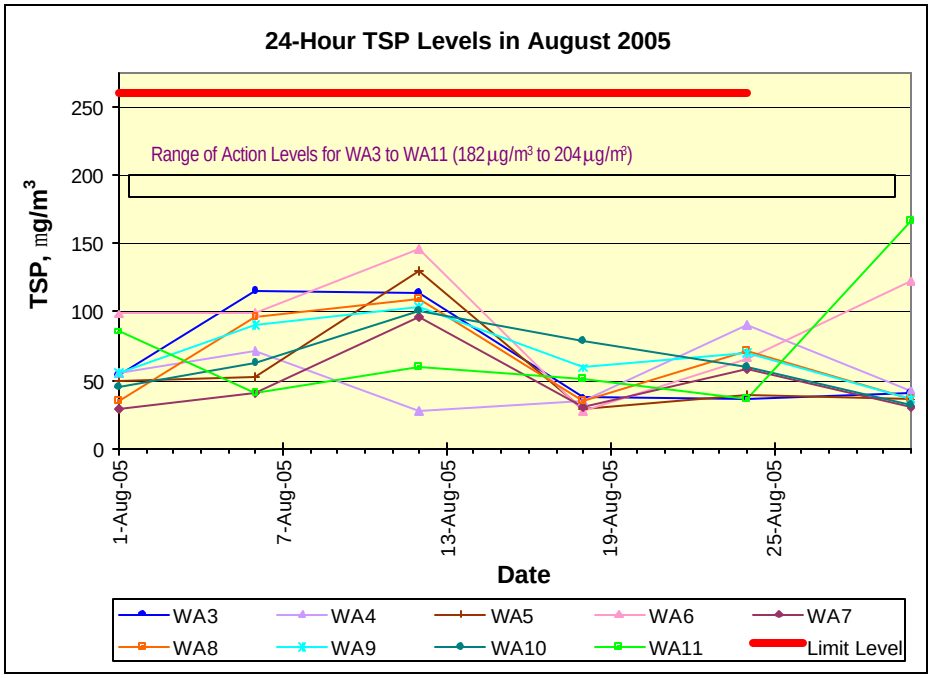
24-hourTSP

A total of 5 sets of 24-hour TSP measurement had been taken on 1, 6, 12, 18, 24 and 30 August 2005.

The highest 24-hour TSP level of 166.2μg/m^3 was recorded on 30 August 2005 on G/F, Carpark, Lido Garden Tower 1, Lido Garden (WA11), while the lowest 24-hour TSP level of 27.2 μg/m^3 was recorded on 18 August 2005 at G/F, Tsing Lung Tau Tin Hau Temple (WA6). There was no exceedance of the A/L Levels during the monitoring period.

Detailed monitoring results of 24-hour TSP are given in Appendix F and graphical presentation of the 24-hour TSP levels at each monitoring location is illustrated in Figure 4-2.

Figure 4-2 Graphical Presentation of 24-Hour TSP Levels in August 2005



4.3.3 Wind Monitoring Data

Detailed wind monitoring data for the August 2005 are extracted from Hong Kong Observatory – Tsing Yi Wind Monitoring Station and presented in Appendix H.

5. NOISE

5.1 Monitoring Equipment

Details of the integrating sound level meters used in the noise monitoring are shown in Table 5-1.

Table 5-1 Equipment list for construction noise monitoring

Equipment	Manufacturer & Model No.	Precision Grade	Qty.
Integrating sound level meter	Brüel & Kjær 2231	IEC 651 Type 1 IEC 804 Type 1	2
Integrating sound level meter	Brüel & Kjær 2238		3
Windshield	Brüel & Kjær UA0237		6
Acoustical calibrator	Brüel & Kjær 4230	IEC 942 Type 1	2
Acoustical calibrator	Brüel & Kjær 4226		1
LCD wind speed indicator	Kestrel Vane Anemometer	--	2

5.2 Methodology

5.2.1 Field Measurement

- The sound level meter and the battery were checked to ensure that they were in proper condition.
- The sound level meter was set on a tripod at 1.2m above ground and at 1m from the exterior of the building façade.
- Before conducting the measurement, the sound level meter was calibrated by an acoustical calibrator.
- The measurement parameter was set to A-weighted sound pressure level. The time weighting was set in fast response and the time period of measurement at 30 minutes.
- The wind speed was checked during noise monitoring to ensure the steady wind speed did not exceed 5m/s, or wind with gusts did not exceed 10m/s.
- Any abnormal conditions that generated intrusive noise during the measurement were recorded on the field record sheet.
- After each measurement, the equivalent continuous sound pressure level (L_{eq}), L_{10} and L_{90} were recorded on the field record sheet.
- The sound level meter was re-calibrated by the acoustical calibrator to confirm that there was no significant drift of reading.

5.2.2 Equipment Maintenance and Calibration

The sound level meter complies with the standards of IEC 651 (Fast, Slow, Impulse rms detector tests) and IEC 804 (L_{eq} functions). The acoustical calibrator model no. 4230 is in compliance with IEC 942. Both equipment are calibrated annually in-house using Brüel & Kjær (B&K) calibrator model no. 4226.

The National Physical Laboratory in Teddington, London, which is accredited by National Measurement accreditation Service (NAMAS), annually calibrates the B&K calibrator model no. 4226. All in-house calibrations that are undertaken can be traced back to the National Physical Laboratory. The calibration certificates of the noise monitoring equipment are given Appendix I. The next calibration will be conducted on or before 15 July 2006 for the sound level meters and the acoustical calibrators.

5.3 Results and Observations

5.3.1 Weather Conditions and Other Factors

No adverse weather conditions, in particular adverse wind speed & wind direction and fog & rain that may significantly affect or invalidate the collected noise monitoring data, were registered during the reporting period.

Neither unusual operation of the construction site nor abnormal noise source was observed during the reporting period.

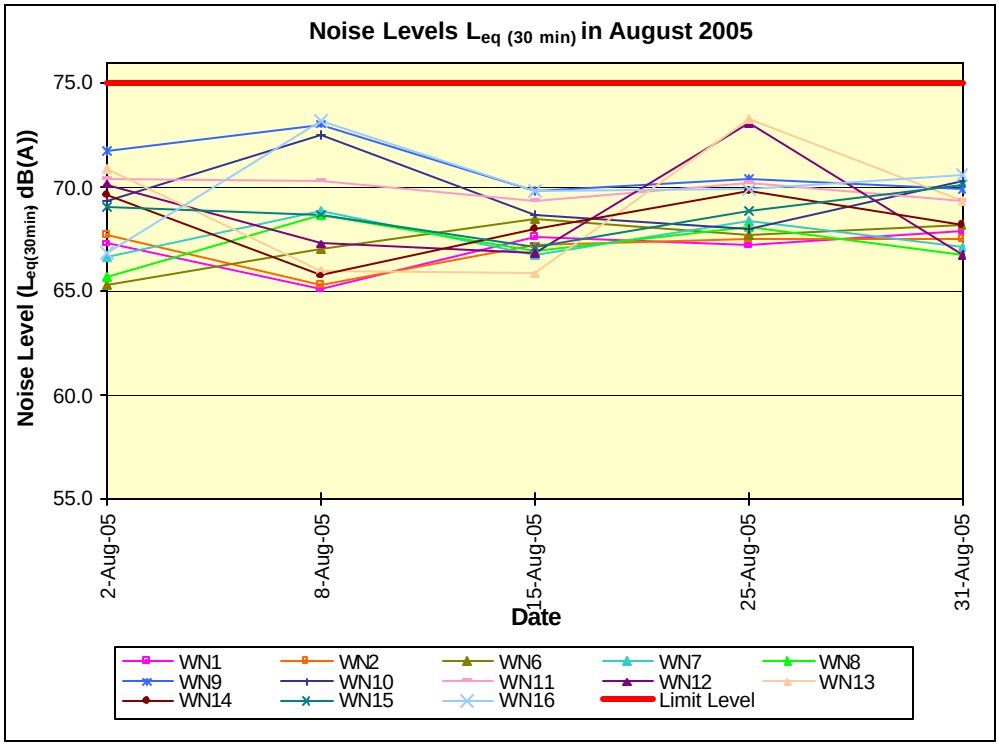
5.3.2 Summary of Results

A total of 5 set of noise measurement had been conducted between 0700-1900 hours on 2, 8, 15, 25 and 31 August 2005.

The highest noise level of 73.3dB(A) was recorded at Sea Crest Villa (WN13) on 25 August 2005 while the lowest noise level of 65.1dB(A) was recorded at House No.3 of Ka Loon Tsuen (WN1) on 8 August 2005. There was no exceedance of A/L levels during the monitoring period.

Detailed construction noise monitoring results are given in Appendix J and graphical presentation of the noise levels at each monitoring location is illustrated in Figure 5-1.

Figure 5-1 Graphical Presentation of Day-time Noise Levels in August 2005



6. WATER QUALITY (DESGINATED PROJECT)

6.1 Water Quality Equipment

Monitoring of Turbidity (Tby) in NTU, Dissolved Oxygen (DO) in mg/L and Suspended Solids (SS) in mg/L was carried out by the ET to ensure that any deteriorating water quality could be readily detected and timely action be taken to rectify the situation. Tby and DO were measured in-situ while SS was determined in the laboratory. A summary of the water quality monitoring equipment is provided in Table 6-1.

Table 6-1 Water quality monitoring equipment

Equipment	Manufacturer & Model No.	Qty
Handheld Salinity, Conductivity & Temperature System	YSI Model 30	1
Dissolved Oxygen Meter	YSI Model 52	1
pH meter	Hanna	1
Turbidimeter	HACH 2100P	1
Nephelometer	Analite Model 156	1

6.2 Methodology

Dissolved Oxygen and Temperature Measuring Equipment

The equipment to measure DO and temperature complies with the following:

i. The instrument shall be a portable, weatherproof dissolved oxygen measuring instrument equipped with a cable and use a DC power source. It shall be capable of measuring:

- A dissolved oxygen level in the range of 0-20 mg/L and 0-200% saturation; and
- A temperature of 0-45^{o}C.

ii. It shall have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables shall be available for replacement where necessary (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).

iii. Should salinity compensation not be integrated in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

Turbidity Measurement Instrument

The instrument is a portable, weatherproof turbidity-measuring instrument completed with comprehensive operations manual. The equipment shall use a DC power source. It shall have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be completed with a cable (e.g. Hach model 2100P or an approved similar instrument).

Suspended Solids

The following equipment is required to monitor the SS:

i. A water sampler comprising a transparent PVC cylinder, with a capacity of not less than 2 litres and which can be effectively sealed with latex cups at both ends. The sampler shall have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (e.g. Kahlsico Water Sampler or an approved similar instrument).

ii. Water samples for SS measurement of both the marine and freshwater environment shall be collected in high density polythene bottles, packed in ice (cooled at 4^{o}C without being frozen) and delivered to the laboratory as soon as possible after collection.

Water Depth Detector

A portable, battery-operated echo sounder was used for the determination of water depth at each designated monitoring. This unit can either be handheld or affixed to the bottom of the monitoring boat, if the same vessel is to be used throughout the monitoring programme.

Salinity

A portable salinity meter capable of measuring salinity in the range of 0-40 ppt shall be provided for measuring salin ity of the water at each monitoring location and setting salinity compensation on the DO Meter.

Location of the Monitoring Site

A hand-held or boat-fixed type Differential Global Positioning System (DGPS) or other equivalent instrument of similar accuracy shall be provided and used during monitoring to ensure the monitoring vessel is at the correct location before taking measurements. For the monitoring locations in the water courses a hand-held DGPS, together with a suitably scaled map shall be used.

6.2.1 Calibration and Accuracy of Instrumentation

All in-situ monitoring instruments were checked, calibrated and certified by a laboratory accredited under HOKLAS or any other international accreditation scheme before use, and subsequently re-calibrated at 3 monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes were checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.

For the on site calibration of field equipment, the BS 1427:1993, "Guide to Field and on-site test methods for the analysis of waters" shall be followed.

6.3 Marine Monitoring

As reported by the Contractor, major sea works at level below +2.5mPD had been completed in July 2003. The proposal on suspension of marine monitoring was submitted to IC(E), HyD, EPD and AFCD for comments on 25 September 2003. It was confirmed with IC(E) and AFCD that suspension of marine monitoring was acceptable if there is no "active" marine work being carried out. In future, if there is any marine work on or below +2.5mPD, the Contractor shall notify the relevant parties one month in advance and resume the marine monitoring. Subsequently, as instructed by the Contractor/ HyD, the marine monitoring was suspended since during the period from October 2003 to 31 July 2004. However, as instructed by the Contractor, the planned sand placement activities were conducted at Seawall B. Marine impact monitoring near Seawall B (i.e. WW1, WW2, WW3, WW4, WR-E-1234, WR-F-1234 and FCZ1) was resumed from 2 August to 27 August 2004. Since sand placement activities at Seawall B were ceased in August 2004, marine water monitoring was again suspended since September 2004.

7. LANDSCAPE AND VISUAL MONITORING AND AUDIT

The landscape and visual monitoring and audits were carried out on 4 and 18 August 2005 by a Registered Landscape Architect.

The audit findings and recommendations are summarised in the following paragraphs.

7.1 Summary of Inspection – 4 August 2005

7.1.1 Matters Arising from Previous Inspections

- The Contractor had cleared away the scrap-wood and garbage piles found at NM-01 area. However, new scattered rubbish was found, and the Contractor was reminded to clear it away as soon as possible.
- The Contractor had cleared away the construction waste and scrap wood piles found at NM-03 and FB-03 areas.
- The Contractor had cleared away the garbage found at the temporary collection area at Slope 6.
- The Contractor had cleared away the construction waste piles found at NM-02 area. However, new construction waste and scrap wood piles were found, and the Contractor was reminded to clear it away as soon as possible.
- Untidy site condition was still observed at NM-04 area. The Contractor was reminded to carry out housekeeping of the site area as soon as possible.
- Dry surface condition was observed at various areas on site, including the areas at FB-11, NM-02 and NM-03. The Contractor was reminded to carry out more frequent watering to prevent dust nuisance.

7.1.2 Site Clearance and Formation Works

- Construction waste piles were found at FB-01 and RW-14 areas. The Contractor was requested to clear it away as soon as possible.
- Woodland planting works were carried out on slope areas at Slope Nos. 9 and 11, and BPRW70. It was found that the condition of the plants were poor, with some wilted due to the dry surface. Also, it was found that no grass cutting, removal of overgrown weeds, and clearance of invasive plants was carried out prior to planting. The Contractor was requested to properly prepare the slope surfaces prior to planting, and to carry out regular watering after planting.

7.1.3 Tree Felling and Transplanting Works

- No tree transplanting work was carried out during the inspection period.

7.1.4 Recommendations

- The Contractor was reminded to clear away all scattered litter and garbage obsevred on site, and keep the site in a tidy condition at all times.
- The Contractor was reminded to carry out more frequent watering of the site during dry periods to prevent dust nuisance.
- The Contractor was reminded to carry out grass cutting, clearance of overgrown weeds and invasive plants on hydroseeded slopes prior to planting, and to carry out regular watering after planting works.

7.2 Summary of Inspection – 18 August 2005

7.2.1 Matters Arising from Previous Inspections

- The Contractor had cleared away the scattered rubbish found at NM-01 area.
- The Contractor had cleared away the construction waste and scrap wood piles found at NM-02 area. However, new construction waste piles were found, and the Contractor was reminded to clear it away as soon as possible.
- The Contractor had generally tidied up the site area at NM-04. However, full garbage drums were still found, and the Contractor was reminded to clear it away as soon as possible.
- The Contractor had cleared away the construction waste piles found at FB-01 and RW-14 areas. However, new construction waste pile was found at FB-01 area, and the Contractor was reminded to cleared it away as soon as possible.
- Some woodland plants were found dead at Slope Nos. 9 & 11 areas. The Contractor was requested to carry out replacement of the dead plants as soon as possible.
- No dry surface condition was observed during the inspection.

7.2.2 Site Clearance and Formation Works

- Construction waste pile was found at retaining wall RW-C area. The Contractor was requested to clear it away as soon as possible.
- Woodland planting works was found commencing at Slope 6 area. The Contractor was reminded to carry out grass cutting, clearance of overgrown weeds and invasive plants on hydroseeded slopes prior to planting.

7.2.3 Tree Felling and Transplanting Works

- No tree transplanting work was carried out during the inspection period.

7.2.4 Recommendations

- The Contractor was reminded to clear away all scattered litter and garbage observed on site, and keep the site in a tidy condition at all times.

- The Contractor was reminded to carry out grass cutting, clearance of overgrown weeds and invasive plants on hydroseeded slopes prior to planting, and to carry out regular watering after planting works.

7.3 Tree Transplanting Survival Rate

7.3.1 Tree Transplanting Survival Rate

- The tree transplanting survival rate as reported by the Contractor for the period up to the end of August 2005 was 100%.

7.4 Audit Schedule

7.4.1 Audit Schedule for September 2005

- The next audits are scheduled on 1, 15 and 29 September 2005.

8. SITE INSPECTION, WASTE DISOSPAL, ENVIRONMENTAL COMPLAINTS, ENVIRONMENTAL LICENSES AND NON-COMPLIANCE RECORDS

8.1 Site Audit Findings

Four occasions of weekly environmental site audits were carried out on 4, 11, 18 and 25 August 2005. Findings of the site audits are summarised in Table 8-1.

Table 8-1 Findings of weekly environmental site audit in August 2005

Date of Issue Raised	Observation	Advice from EA	CT's Response / Environmental Outcomes	Closing Date
4 August 2005 (WC172)	1. General refuse was occasionally observed scattered at workshop area of Portion 6 Genesis Workshop and beside noise barrier of FB02.	Regular clearing of work sites should be maintained.	Agreed with the ET's advice.	11 August 2005
11 August 2005 (WC173)	1. Turbid water was observed discharging from wheel washing bay at Portion 9B to storm drain without adequate treatment.	Contractor should improve sedimentation of wheel washing facilities.	Agreed with the ET's advice.	18 August 2005
	2. Turbid effluent overflowed from sedimentation tank at Portion 6 near Sea Crest Phase 3.	Contractor should urge the wastewater treatment plant supplier to fix the defects.	Agreed with the ET's advice.	
18 August 2005 (WC174)	1. Seawater at REV05 was observed turbid due to seepage from adjacent site.	Contractor should promptly implement rectification works.	Agreed with the ET's advice.	25 August 2005
	2. Stagnant water was observed along the site.	Mosquito pills were sprayed to control mosquito breeding.	Agreed with the ET's advice.	

Date of Issue Raised	Observation	Advice from EA	CT's Response / Environmental Outcomes	Closing Date
	3. General refuse was occasionally observed along the site.	Regular clearing is required.	Agreed with the ET's advice.	
25 August 2005 (WC175)	1. Stagnant water was observed along the site.	Mosquito pills were sprayed to control mosquito breeding.	Agreed with the ET's advice.	1 September 2005
	2. Seawater at RE13 was observed turbid due to seepage from adjacent site.	Contractor should promptly implement rectification works.	Agreed with the ET's advice.	

8.2 Waste Disposal

Disposal of waste material in the reporting month complied in general with the corresponding waste disposal requirements. The waste disposal quantity in the reporting month is summarised in Table 8-2.

Table 8-2 Waste disposal quantity in August 2005

Type of waste or material		Disposal at	No. of loads or quantities	Remarks
C&D waste		WENT Landfill	30 loads	–
C&D material		Public Filling Area in Tuen Mun	1,120 loads	–
Grease trap waste		Interim Grease Trap Waste Treatment Facility at WENT Landfill	0	–
Chemical waste	Spent lube oil	Collected by licensed collector	0	–

8.3 Complaint Record

There was one complaint on odour small from Sea Crest Villa Phase 3. Investigation by contractor confirmed the source was not originated from the site, and might have been originated from the rubbish collection point at the bus stop near Sea Crest Villa Phase 1 and 2, where the refuse from the nearby public barbeque area was also collected. The contractor has since put up a notice to warn people against littering the area.

Detail of the complaint is given in Appendix L. A log record on the environmental complaints is given in Appendix M and a cumulative statistics on environmental complaints is given in Table 8-3.

Table 8-3 Cumulative statistics on environmental complaints

No. of complaints received in the reporting month	No. of outstanding complaints	Cumulative no. of complaints received since the commencement of project

1	0	38

8.4 Non-compliances

There was no non-compliance for TSP air quality and noise monitoring during the reporting month.

8.5 Notification of Summons and Successful Prosecution

Neither notification of summons nor prosecution was received during the reporting month.

8.6 Environmental Licenses

There was no new CNP was granted during the reporting month.

9. REFERENCES

[1] Mouchel Halcrow Joint Venture. 2001. Castle Peak Road Improvement between Area 2 and Ka Loon Tsuen, Tsuen Wan West Contract No. HY/99/18, Environmental Monitoring & Audit Manual.

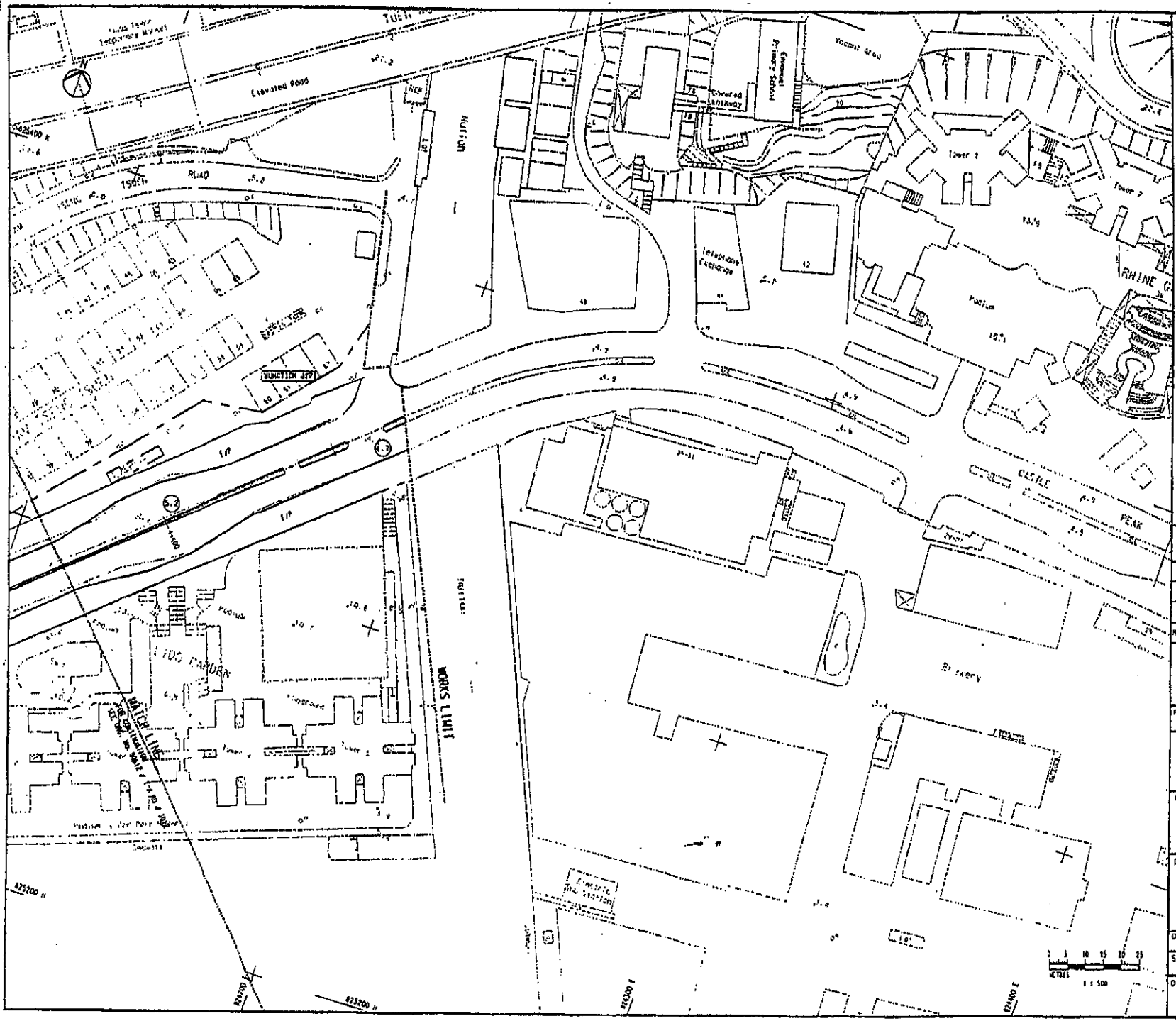
[2] Ove Arup & Partners Hong Kong Limited. July 2002. Contract No. HY/99/18 Castle Peak Road Improvement between Shem Tseng and Ka Lung Tsuen, Tsuen Wan, Environmental Baseline Monitoring Report (Second Issue).

[3] Mouchel Halcrow Joint Venture. 2001. D&C Consultancy Agreement No. CE 1/96 Castle Peak Road Improvement between Area 2 and Ka Loon Tsuen, Tsuen Wan, Tree Survey Report & Tree Felling Application Revision D.

[4] Mouchel Halcrow Joint Venture. Contract No. HY/99/18 March 2002. D&C Consultancy Agreement No. CE 1/96 Castle Peak Road Improvement between Area 2 and Ka Loon Tsuen, Tsuen Wan, Supplementary Tree Survey Report & Tree Felling Application Revision A.

APPENDIX A

Detailed site layout plans



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ACL Asia, MVA Asia Ltd.,
Townland Consultants Ltd., Chesterton Petty Ltd.

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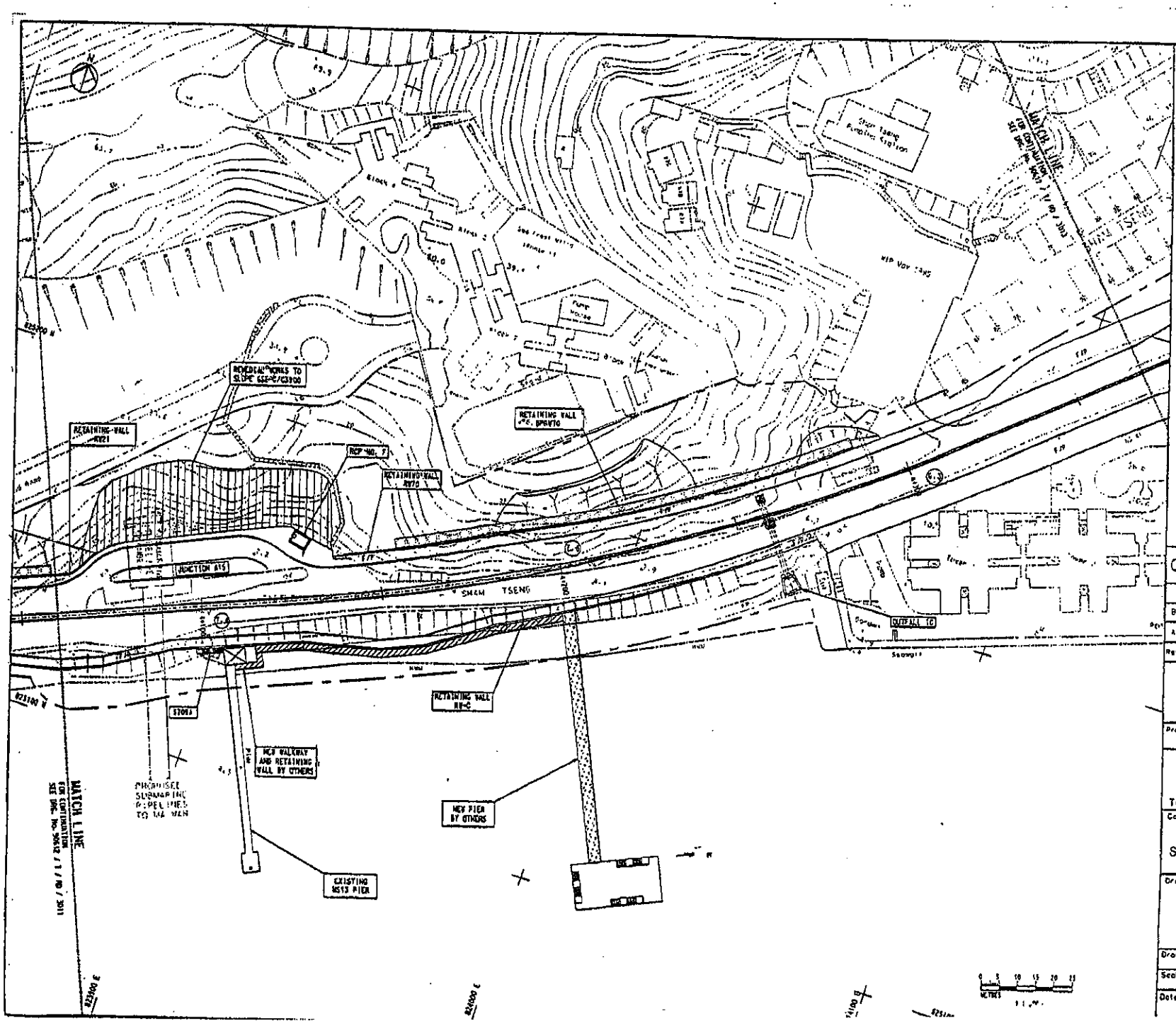

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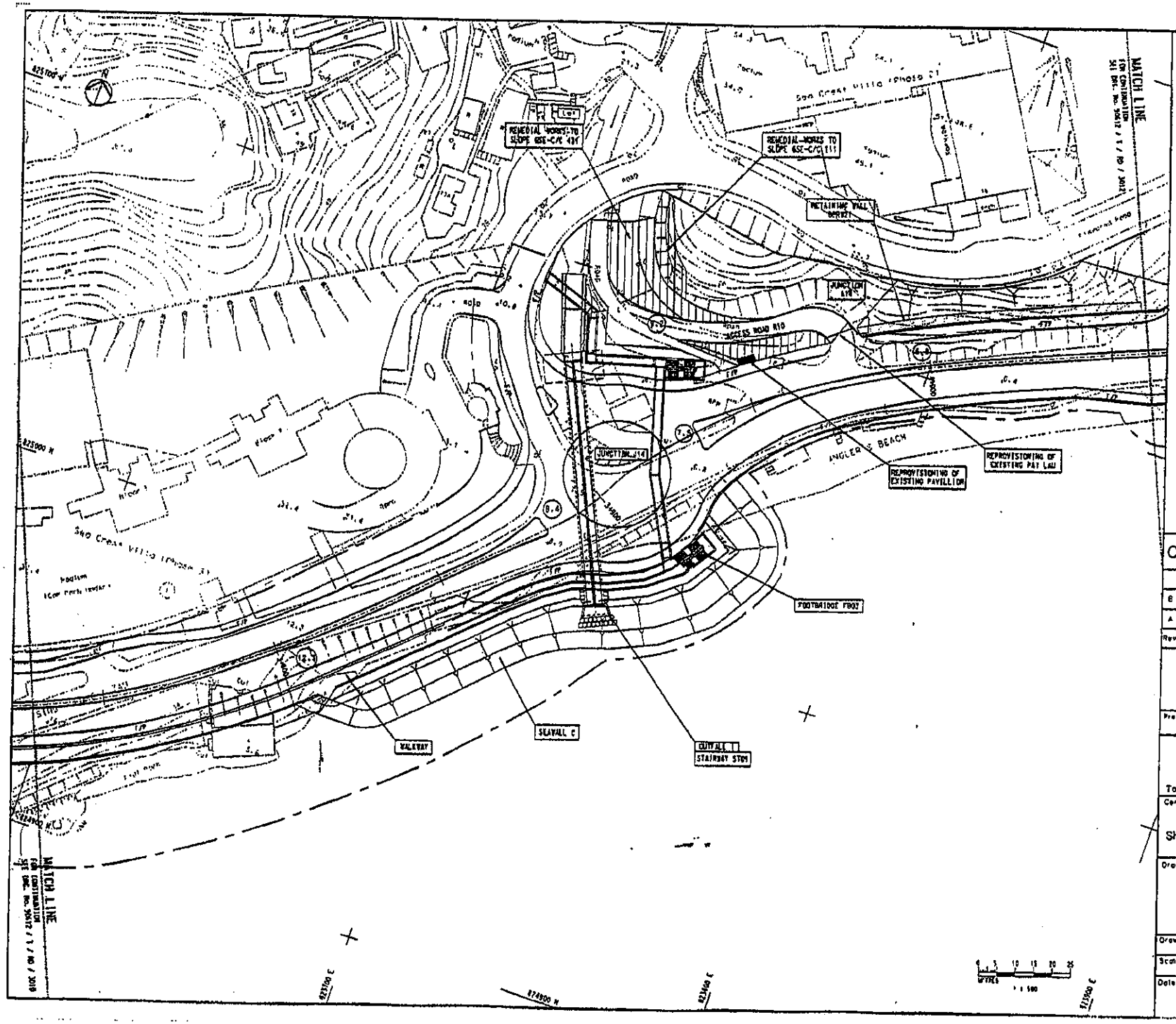

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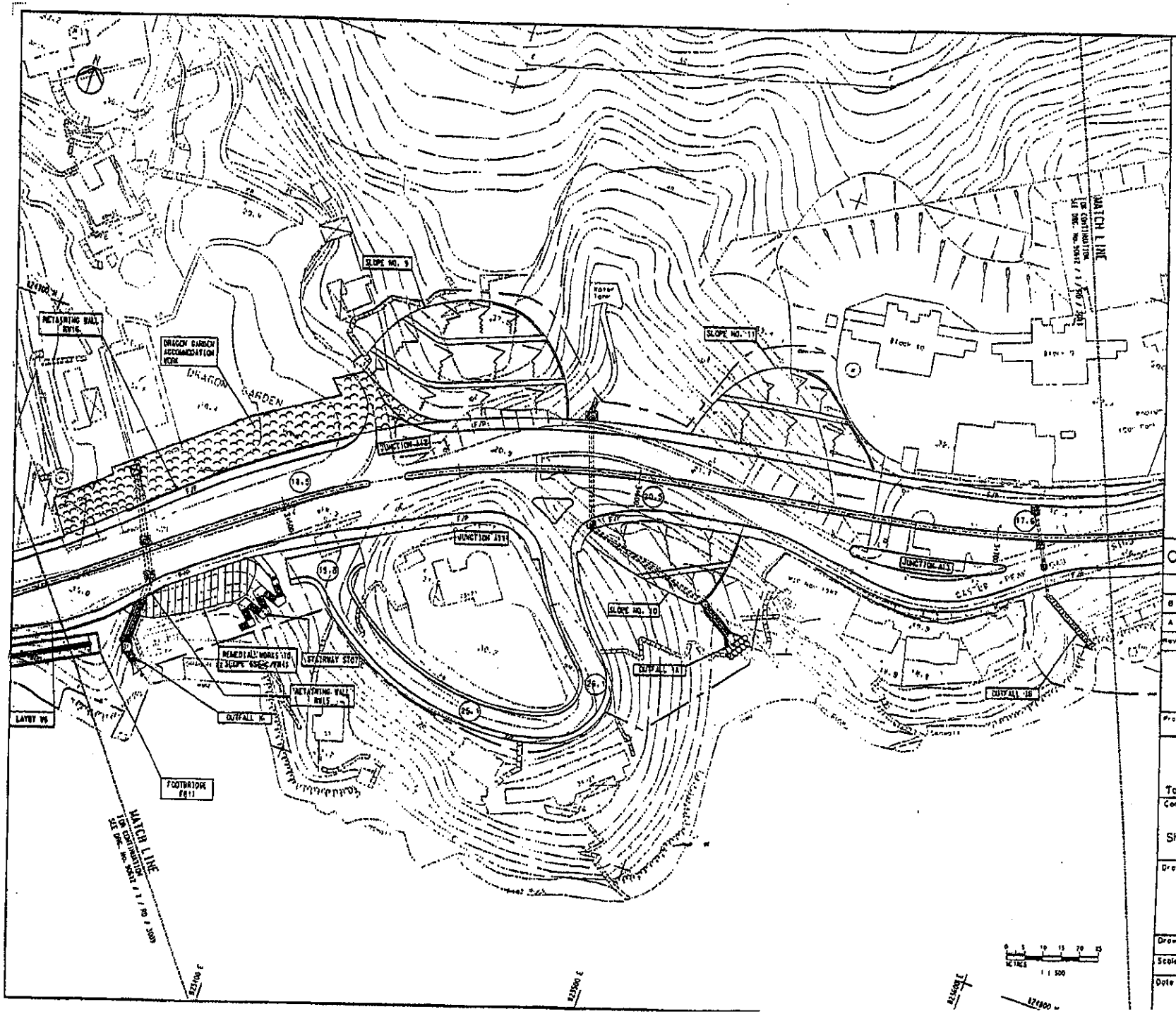

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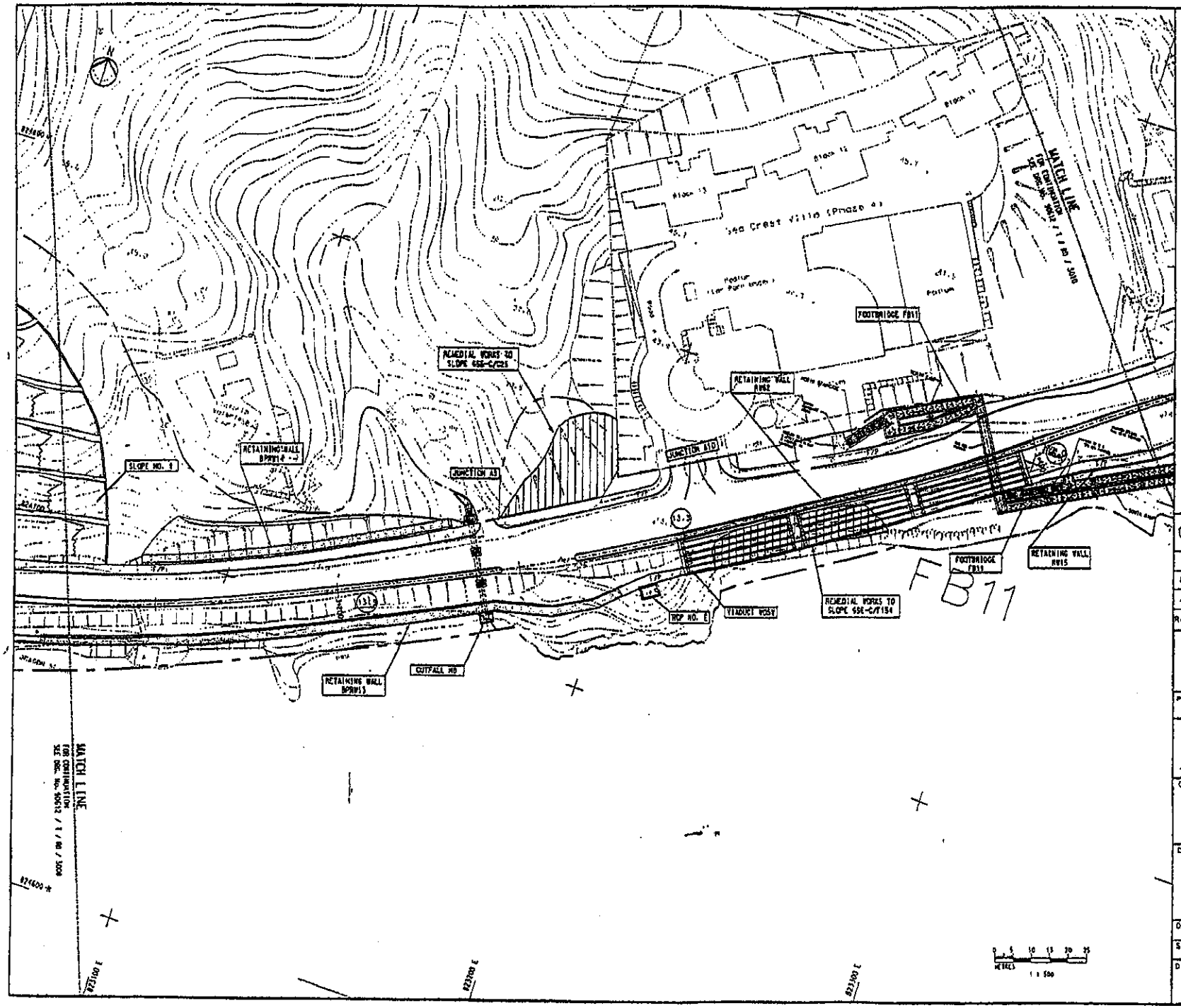

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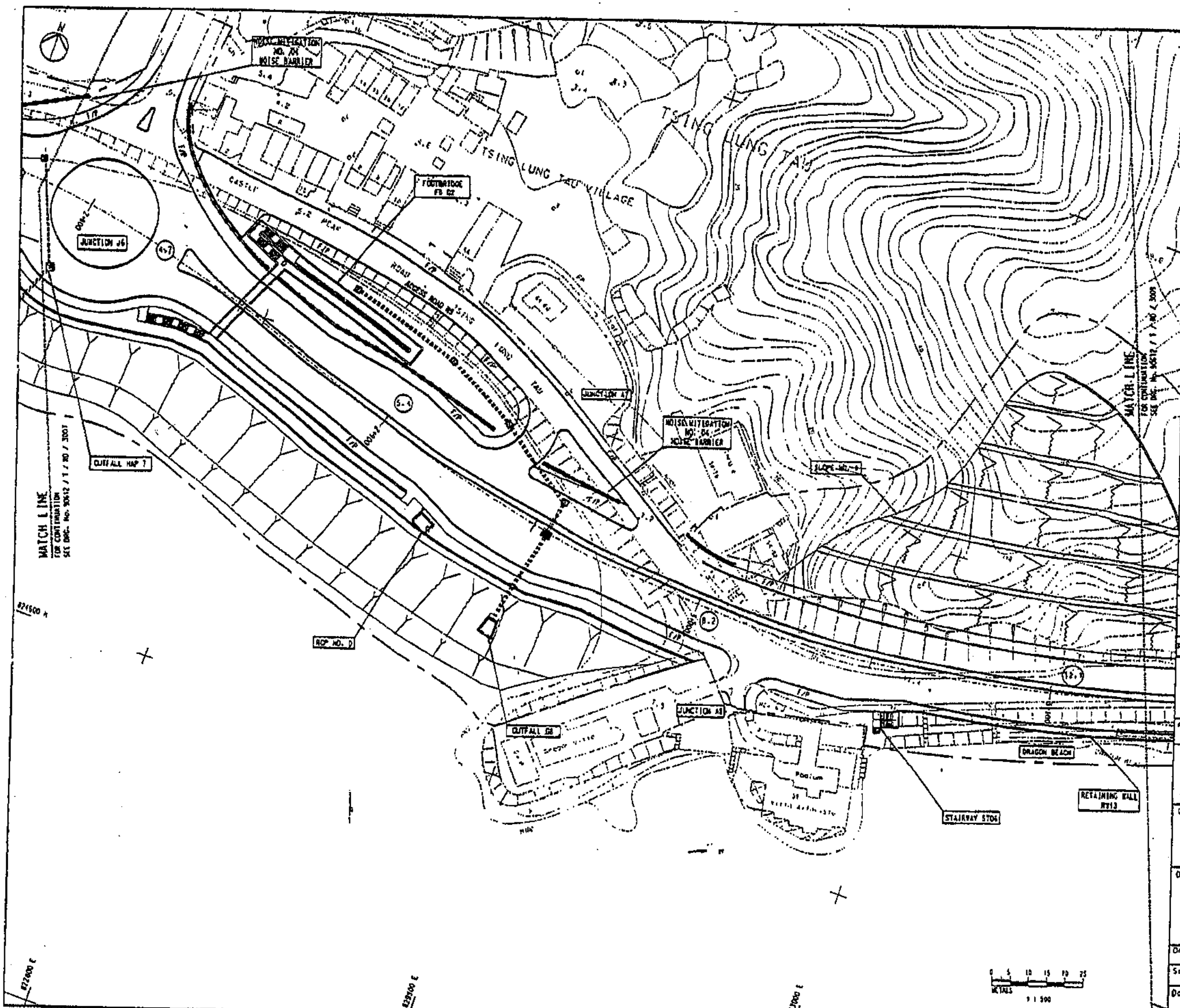

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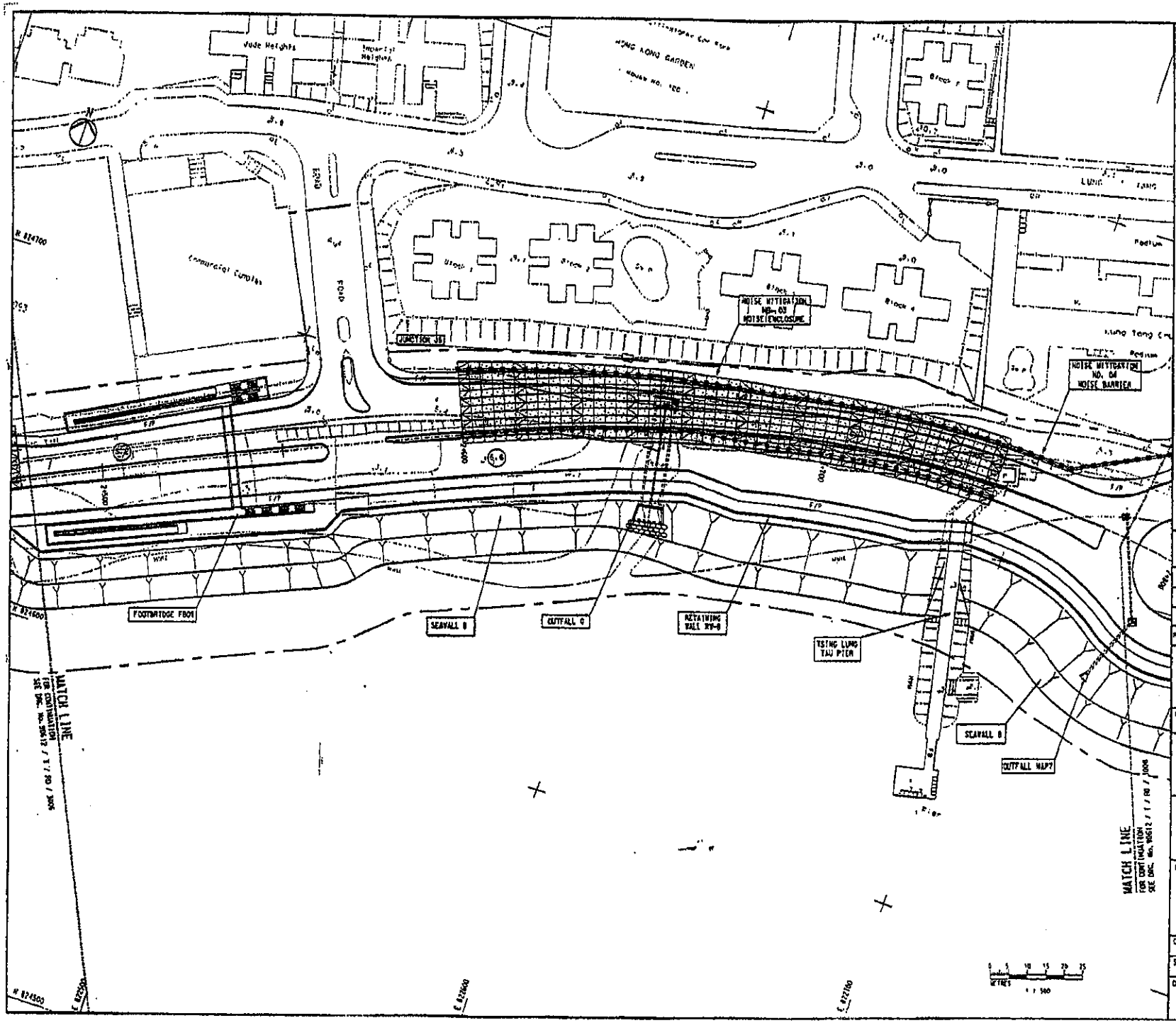

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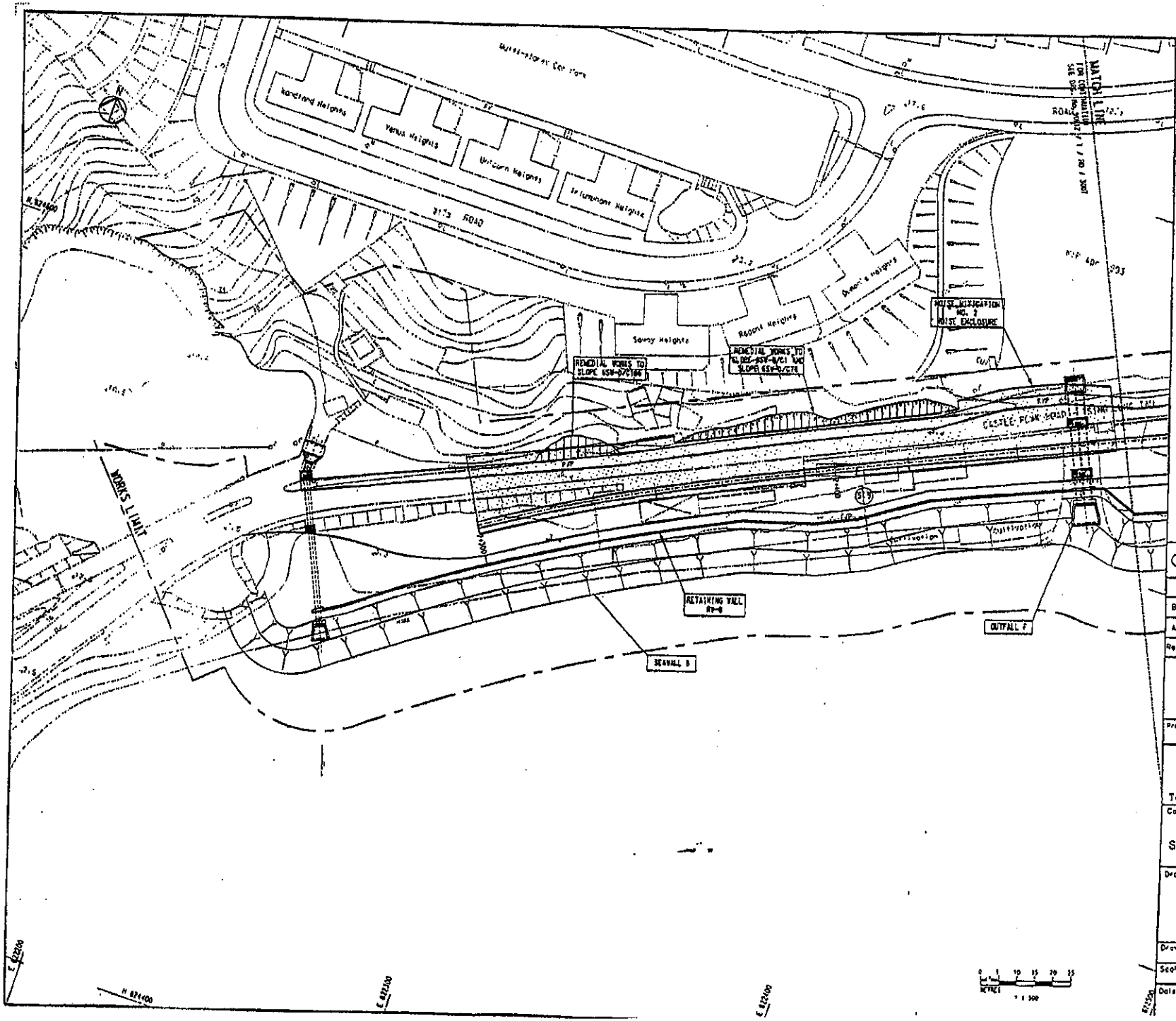

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SCHEME GENERAL ARRANGEMENT
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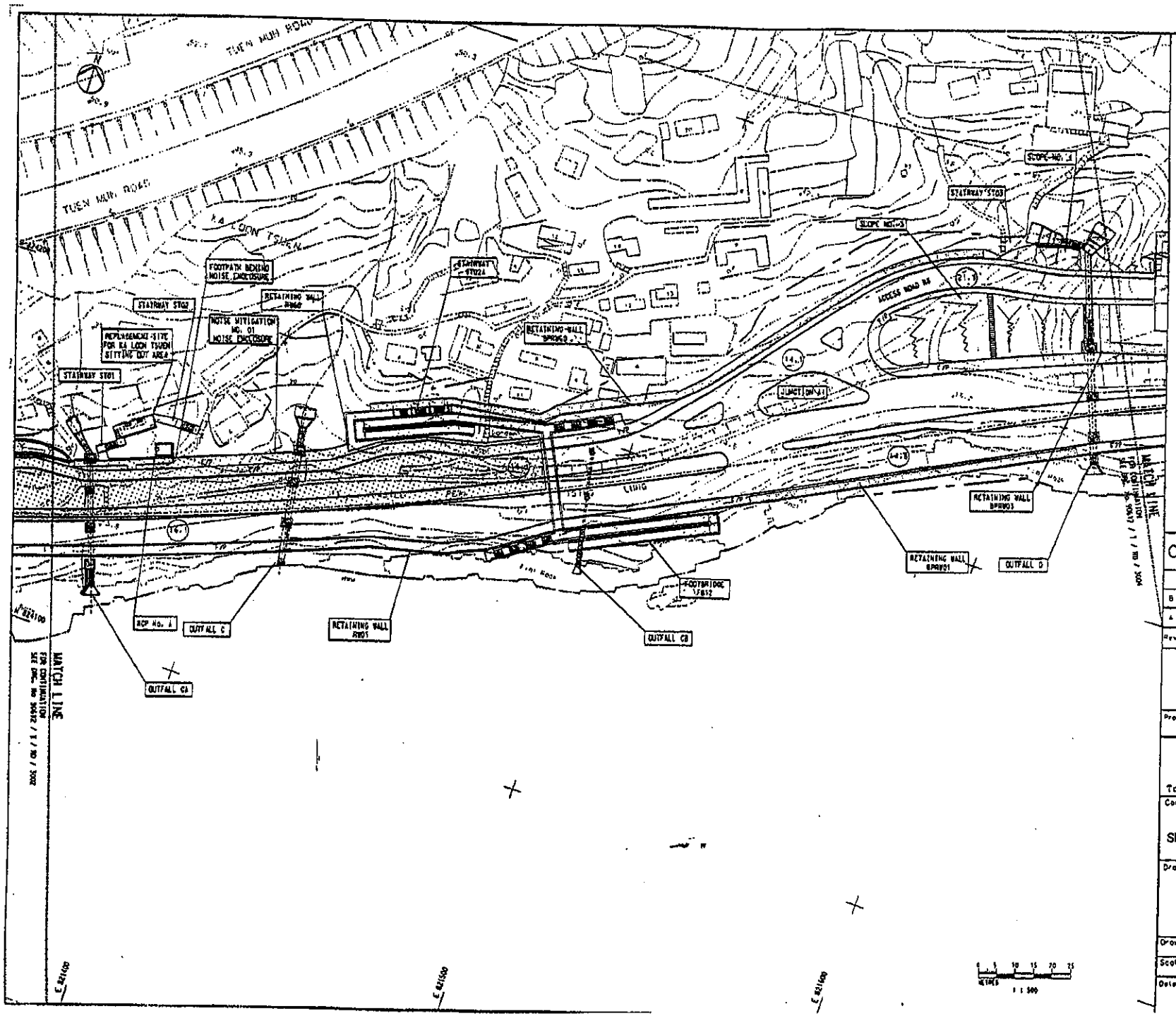

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Drawing Title
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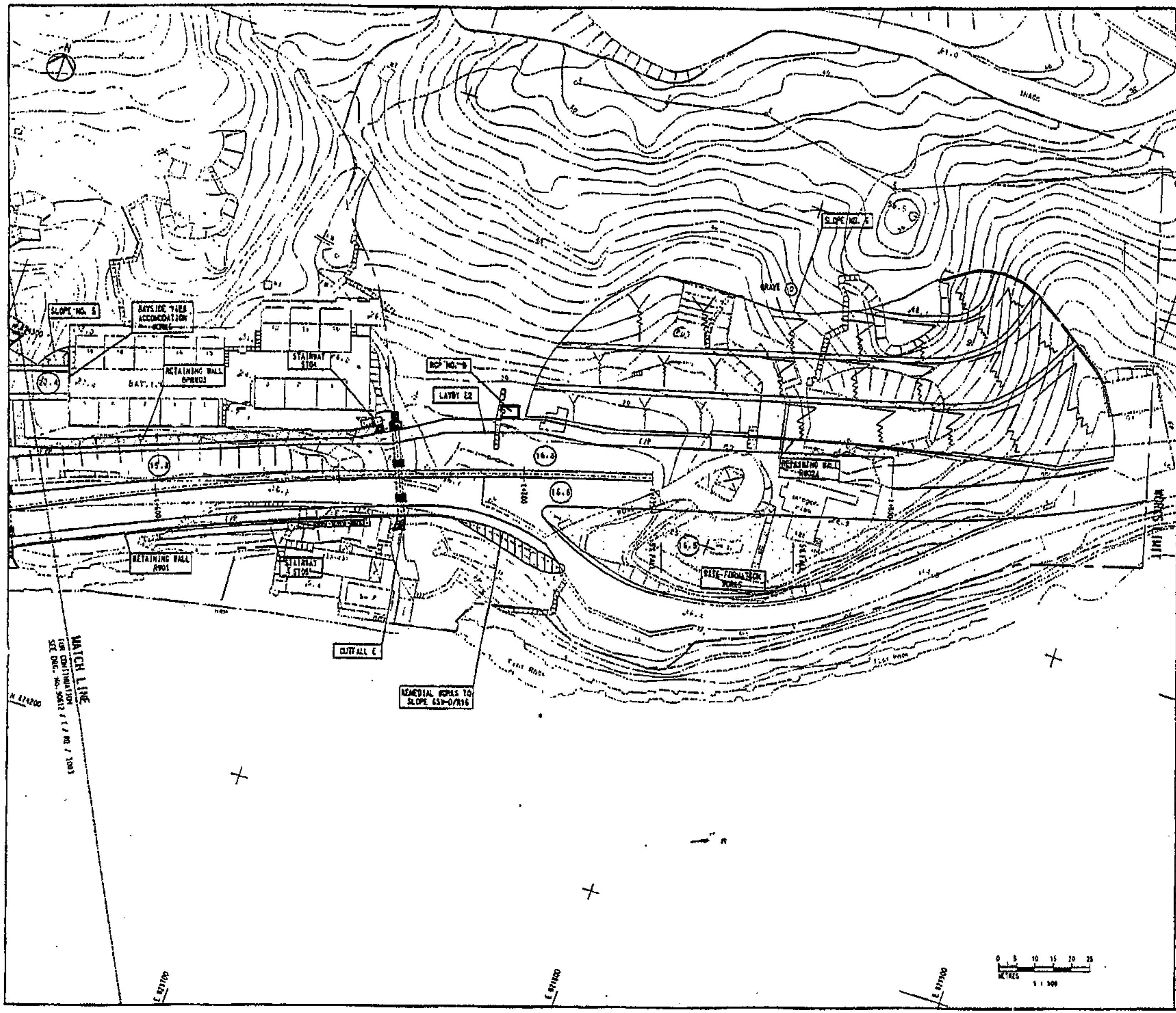

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Project No.	Contract No.
6553TH	HY / 99 / 18

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Contract Title
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Drawing Title
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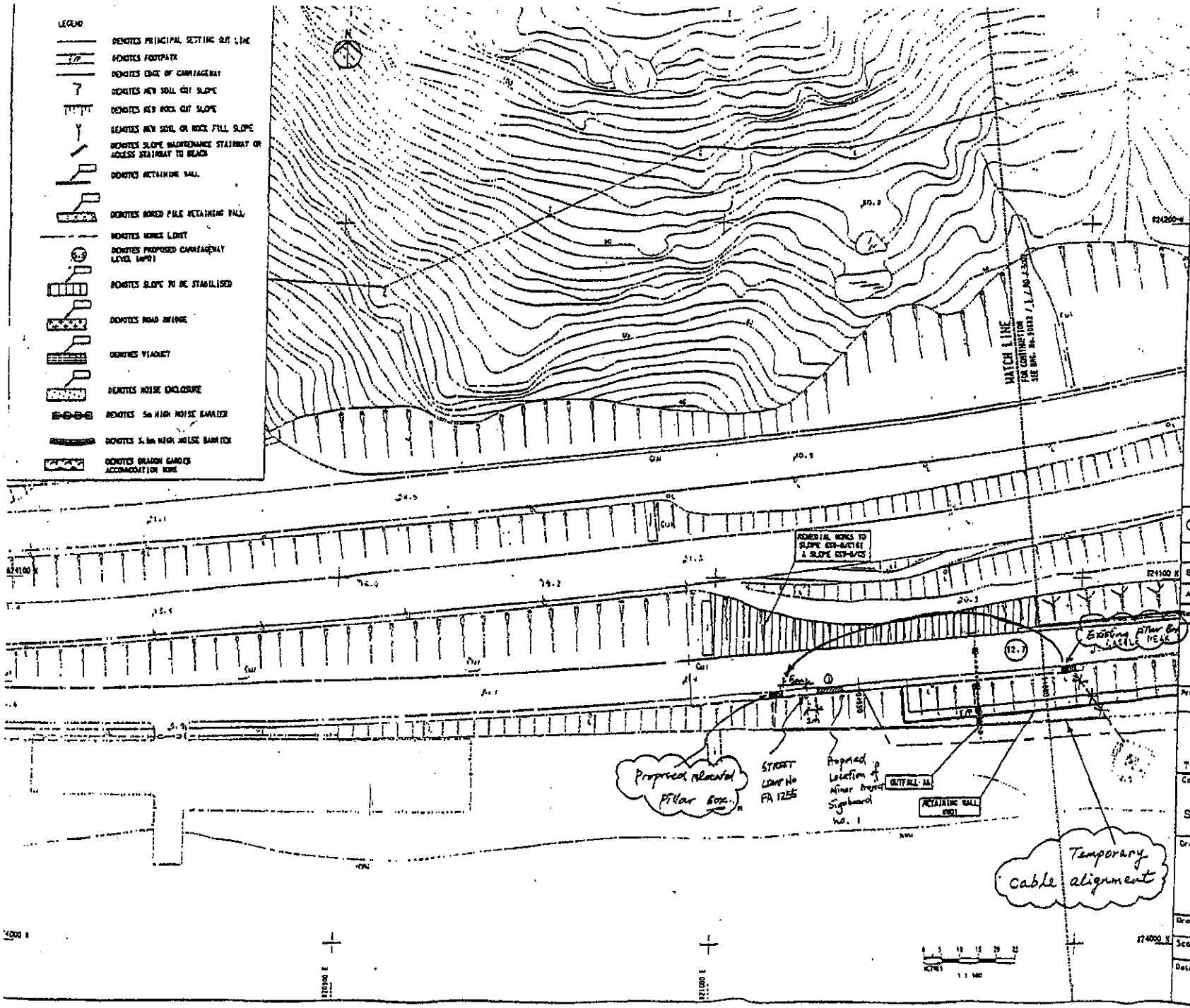


NOTES :

1. ALL CO-ORDINATES ARE IN ACCORDANCE WITH THE 1980 HONG KONG METRIC GRID SYSTEM.
2. ALL LEVELS ARE IN METRES ABOVE THE PRINCIPAL DATUM (mPD) AND RELATE TO THE SETTING OUT LINES.

Legend :

▨ - Minor signboard (size : 7.2m (L) X 1.5m (width))

CONTRACT DRAWING

Rev	Issue Started	Amendment	By	Chk	App	Date
B	2nd Issue	Contract Issue	SP	RC		26/6/01
A	First Issue	Tender Issue	SP	OC	PS	JUN 01

Major Works Project Management Office, Highways Department, Hong Kong

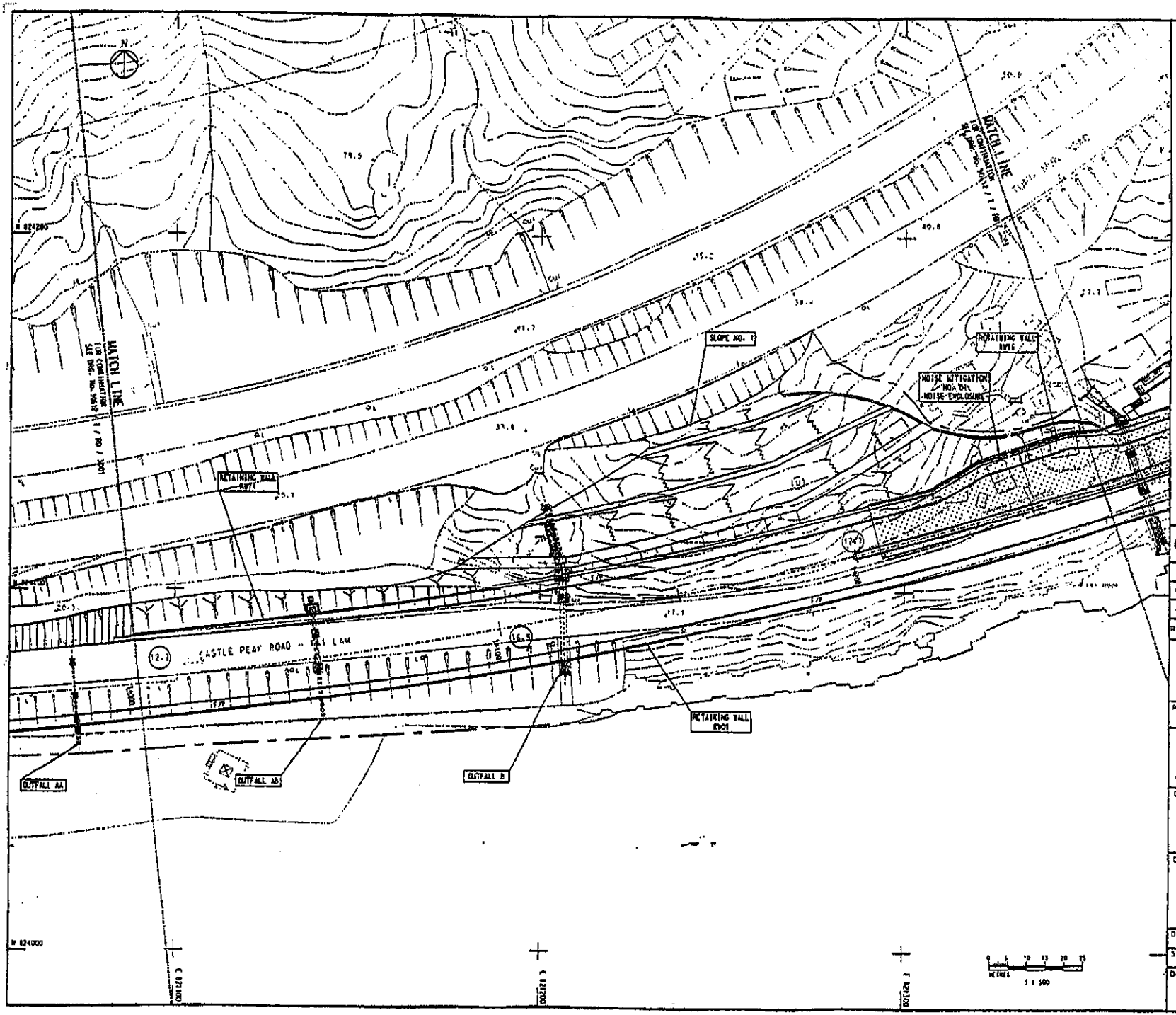
Project No. 6553TH | Contract No. HY/99/18

Mouchel Halcrow JV
Sub-Consultants
ACL Asia, MVA Asia Ltd.
Townland Consultants Ltd., Chesterton Petty Ltd.

Contract Title
Castle Peak Road Improvement Between Sham Tseng and Ka Loon Tsuen, Tsuen Wan

Drawing Title
SCHEME GENERAL ARRANGEMENT CHAINAGE 960 TO 1000

Drawn	WDD	Checked	JWTL	Approved	PS
Scale	1:1000	CAD File No.	RD3001.DGN	Date	JUNE 2001
Date Issued	JUNE 2001	Drawing No.	90612/T/RD/3001	Rev	B



NOTES :

1. FOR GENERAL NOTES AND LEGEND REFER TO DRAWING No. 90612 / T / RD / 3001.

CONTRACT DRAWING

Rev	Issue Status	Amendment	By	Chk.	App	Dat
B	2nd Issue	Contract Issue	SP	DC	PS	JUN
A	First Issue	Tender Issue	SP	DC	PS	JUN

Major Works Project Management Office,
Highways Department,
Hong Kong

Project No. 6553TH | Contract No. HY / 99 / 18

Mouchel Halcrow . JV
Sub-Consultants
ACE Asia, MVA Asia Ltd.,
Townland Consultants Ltd., Chesterton Petty Ltd

Contract Title

Castle Peak Road Improvement Between Sham Tseng and Ka Loon Tsuen, Tsuen Wan

Drawing Title

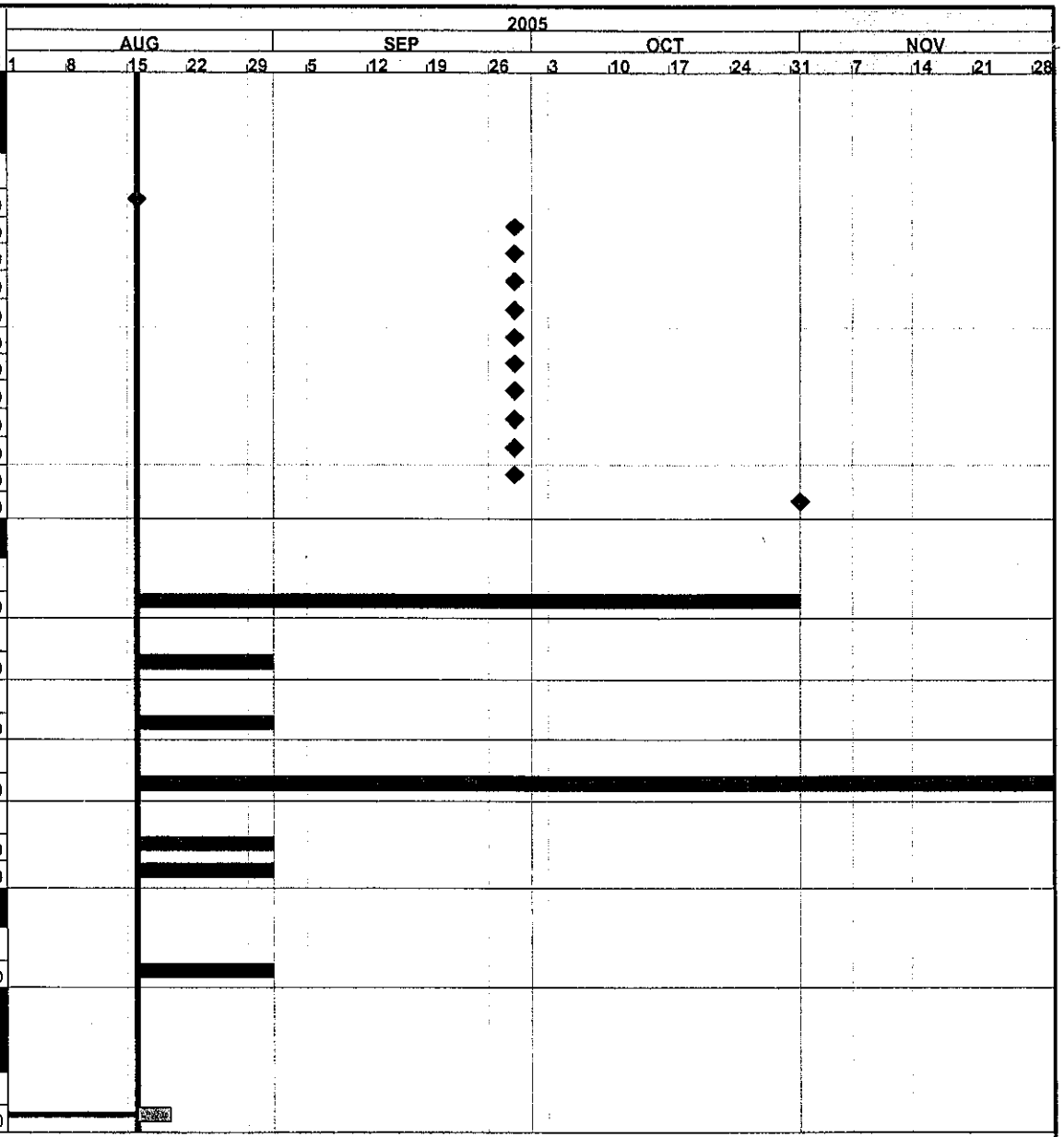
SCHEME GENERAL ARRANGEMENT
CHAINAGE 1000 TO 1270

Drawn	WDO	Checked	JWTL	Approved	PS
Scale	1 : 500	CAD File No.	RD3002.DGN	Date	JUNE 2001
Date Issued	JUNE 2001	Drawing No.	90612/T/RD/3002	Rev.	B

APPENDIX B

Construction programme

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
CPR Improvement bet Sham Tseng & Ka Loon Tsuen					
Important Dates					
Portions Handover Dates					
00-VD6	Handover Portion No. 6 to Employer	0		15AUG05*	0
00-VD0W1	Handover Portion No. W1 to Employer	0		28SEP05*	0
00-VD0W3	Handover Portion No. W3 to Employer	0		28SEP05*	0
00-VD0W5	Handover Portion No. W5 to Employer	0		28SEP05*	0
00-VD0W6	Handover Portion No. W6 to Employer	0		28SEP05*	0
00-VD0W7	Handover Portion No. W7 to Employer	0		28SEP05*	0
00-VDW10	Handover Portion No. W10 to Employer	0		28SEP05*	0
00-VDW22	Handover Portion No. W22 to Employer	0		28SEP05*	0
00-VDW28	Handover Portion No. W28 to Employer	0		28SEP05*	0
00-VDW30	Handover Portion No. W30 to Employer	0		28SEP05*	0
00-VDW42	Handover Portion No. W42 to Employer	0		28SEP05*	0
00-VD9B	Handover Portion No. 9B to Employer	0		31OCT05*	0
1. Preliminaries					
Planning & Programming					
01-0108	Maintain Programming & Submit Progress Reports	1,236	24NOV01A	31OCT05	0
Waste Management					
01-1166	Implement & Monitor WMP	1,171	21DEC01A	31AUG05	0
Maintenance of Traffic Flow					
01-1153	Maintain Traffic Flow	1,171	24NOV01A	31AUG05	0
Environmental Monitoring & Audit					
01-11702	Implement & Maintin Impact Monitor & Audit	1,601	08MAR02A	31OCT06	0
Interfacing and Coordination					
01-1173	Coordination/Integration with Interfacing Works	1,171	01DEC01A	31AUG05	0
01-1174	Provide Reasonable Access to Other Contractors	1,171	01DEC01A	31AUG05	0
16. Site Safety					
Safety Management System					
16-1612	Implement & Maintain Safety Management System	1,151	14DEC01A	31AUG05	0
CPR from Chainage 0+900 to Chainage 1+870					
1. Preliminaries					
Proposed Utility Works					
01-120256	Proposed CATV on E/B C,way CH1800-1860	8	05AUG04A	19AUG05	10



Start Date 23NOV01
Finish Date 22FEB07
Data Date 16AUG05
Run Date 02SEP05 16:22

Early Bar
Progress Bar
Critical Activity

W44C Sheet 1 of 12

Maeda Corporation

HY/99/18 - Castle Peak Road Improvement

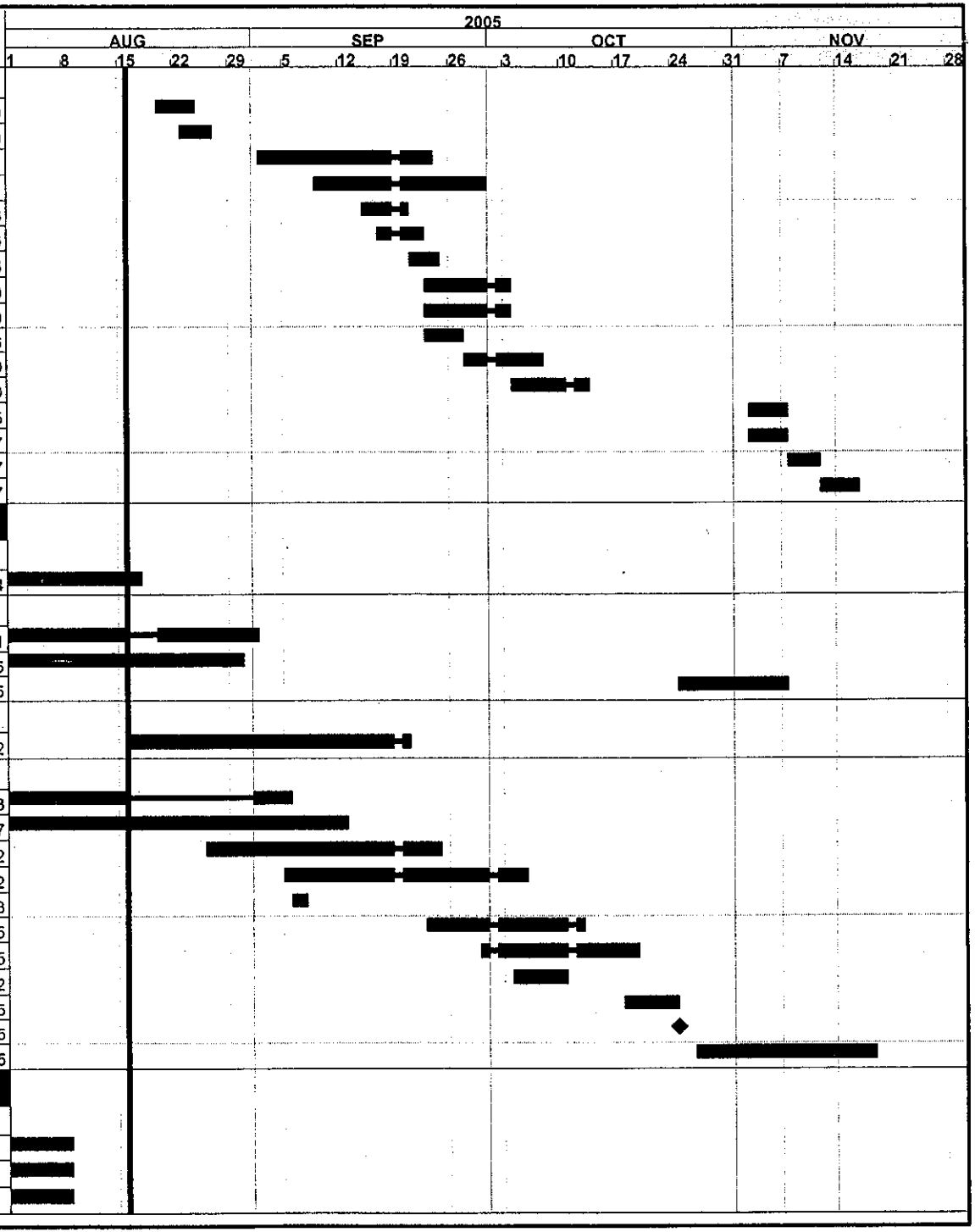
3 - Month Rolling Progamme

MAEDA

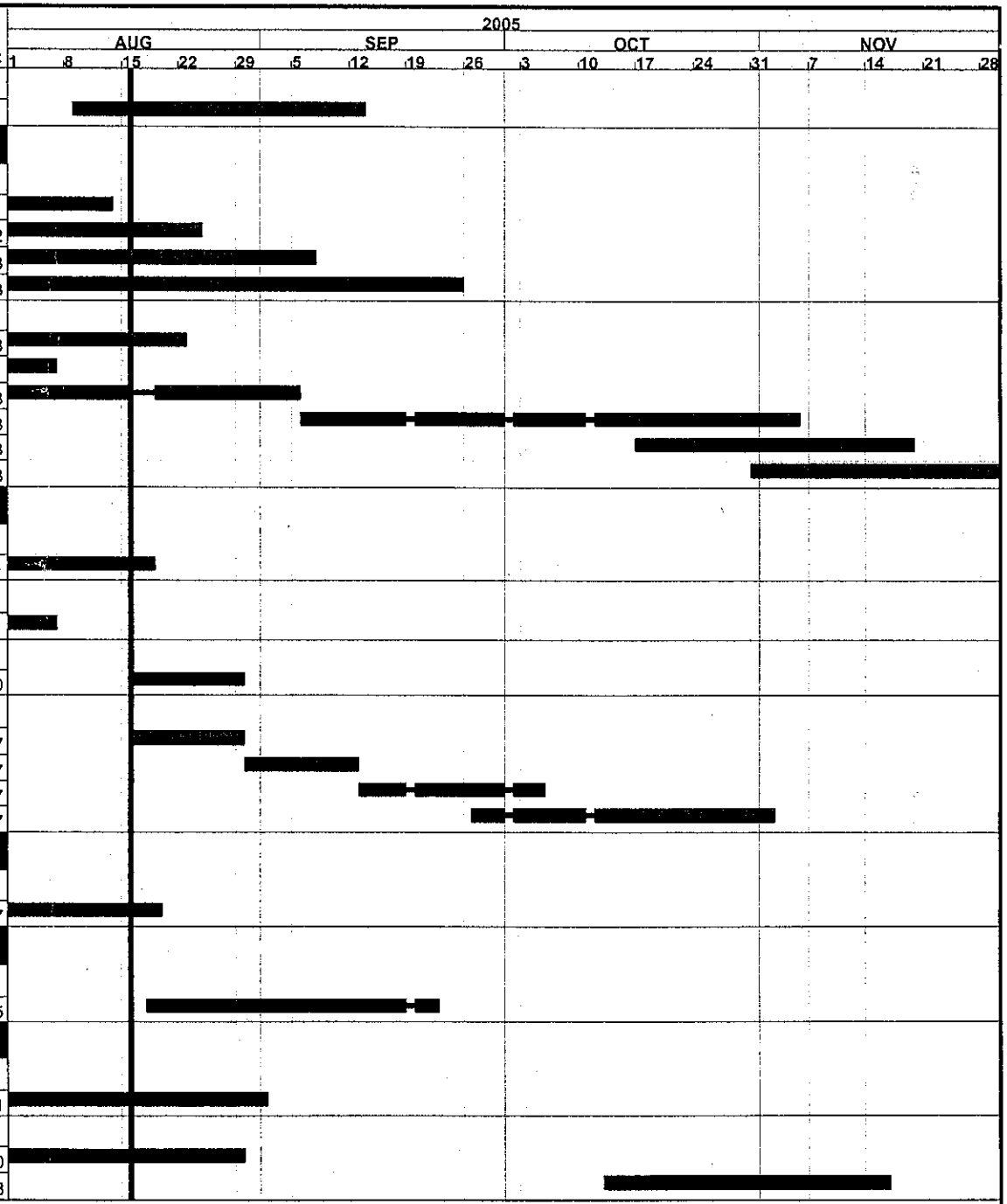
August 2005

Date	Revision	Checked	Approved
30JUL03	revision 01		
17SEP03	revision 02		
22MAR04	revision 03		
28SEP04	revision 03A		
05JAN05	revision 03B		
25APR05	revision 03C		

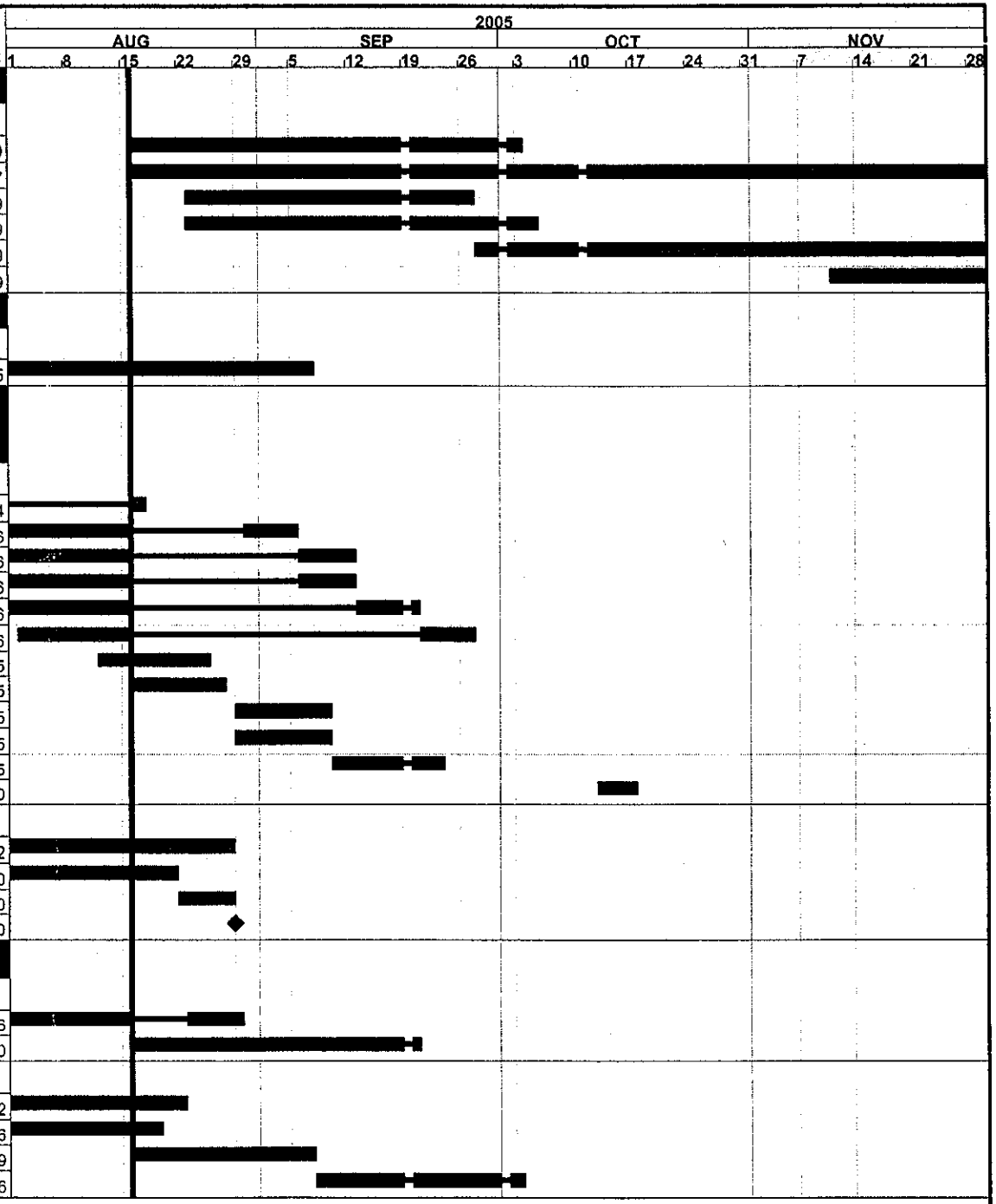
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
Proposed Utility Works					
01-120714	HKT Cross Rd. Ducts at E/B CH1285	4	20AUG05	24AUG05	-20
01-120724	CLP Cross Rd. Ducts at E/B CH1345	4	23AUG05	26AUG05	-20
01-12054	Proposed HT on E/B C.way CH1205-1470	18	02SEP05	23SEP05	-31
01-12056	Proposed CLP on E/B C.way CH1205-1470	18	09SEP05	30SEP05	-31
01-121922	CLP Cross Rd. Ducts at W/B CH1555	4	15SEP05	20SEP05	-66
01-121932	HKT Cross Rd. Ducts at W/B CH1670	4	17SEP05	22SEP05	-66
01-121933	HKBN Cross Rd. Ducts at W/B CH1680	4	21SEP05	24SEP05	-66
01-12193	Proposed HKT on W/B C.way CH1550-1700	8	23SEP05	03OCT05	-70
01-12195	Proposed HKBN on W/B C.way CH1550-1700	8	23SEP05	03OCT05	-70
01-12197	CATV Cross Rd. Ducts at W/B CH1680	4	23SEP05	27SEP05	-66
01-12192	Proposed CLP on W/B C.way CH1550-1700	8	28SEP05	07OCT05	-70
01-12194	Proposed CATV on W/B C.way CH1550-1680	8	04OCT05	13OCT05	-70
01-120752	CATV Cross Rd. Ducts at E/B CH1502	4	03NOV05	07NOV05	-75
01-12196	Proposed CATV on E/B C.way CH1680-1700	4	03NOV05	07NOV05	-67
01-12025	Proposed HKT on E/B C.way CH1680-1700	4	08NOV05	11NOV05	-67
01-120257	Proposed HKBN on E/B C.way CH1680-1700	4	12NOV05	16NOV05	-67
3. Roadworks					
Earthworks					
03-3013	Backfill behind RW01; CH1554-1700	30	02APR05A	17AUG05	-74
Drainage Works					
03-3131	Drainage along E/B C'way bet CH1280-1464	40	09JUL05A	01SEP05	-31
03-3126	Drainage along W/B C'way bet CH1550-1700	30	21JUL05A	30AUG05	-75
03-31332	Remaining Drainage E/B CH1500-1575	12	25OCT05	07NOV05	-75
Pipe Works (Local Supply Watermains)					
03-3151	Pipe Works on E/B C'way bet CH1280-1500	30	16AUG05	20SEP05	-32
Road Works					
03-32182	Construct rd pave & f/p; Access Rd R8	12	22NOV04A	05SEP05	-63
03-32180	Accommodation Works at Bayside Villas; VO442	200	10JAN05A	12SEP05	-67
03-3216	Formation/sub-base, kerbs; E/B CH1205-1500	25	26AUG05	24SEP05	-32
03-32162	Construct rd pave & f/p; E/B CH1205-1500	25	05SEP05	05OCT05	-32
03-32184	Rd finishes, marking & lighting; Access Rd R8	2	06SEP05	07SEP05	-63
03-3115	Formation, sub-base & edgings; W/B CH1500-1700	15	23SEP05	12OCT05	-75
03-31152	Construct rd pave & f/p; W/B CH1500-1700	15	30SEP05	19OCT05	-75
03-31114	Rd finishes, marking & lighting; E/B CH1205-1500	6	04OCT05	10OCT05	-32
03-31154	Rd finishes, marking & lighting; W/B CH1500-1700	6	18OCT05	24OCT05	-75
03-3116	Divert Traffic to W/B Perma C'way CH1500 -1700	0		24OCT05	-75
03-3105	Kerb/central bearer/footpath; E/B CH1500-1700	20	27OCT05	18NOV05	-75
5. Footbridges					
Footbridge FB12					
05-53606	Erect Steelwork & Roofing for FB12 (North)	30	06JAN05A	08AUG05A	
05-53506	Erect Steelwork & Roofing for FB12 (South)	30	02JUN05A	08AUG05A	
05-53402	Erect Steelwork & Roofing of Main Span for FB12	45	20JUN05A	08AUG05A	



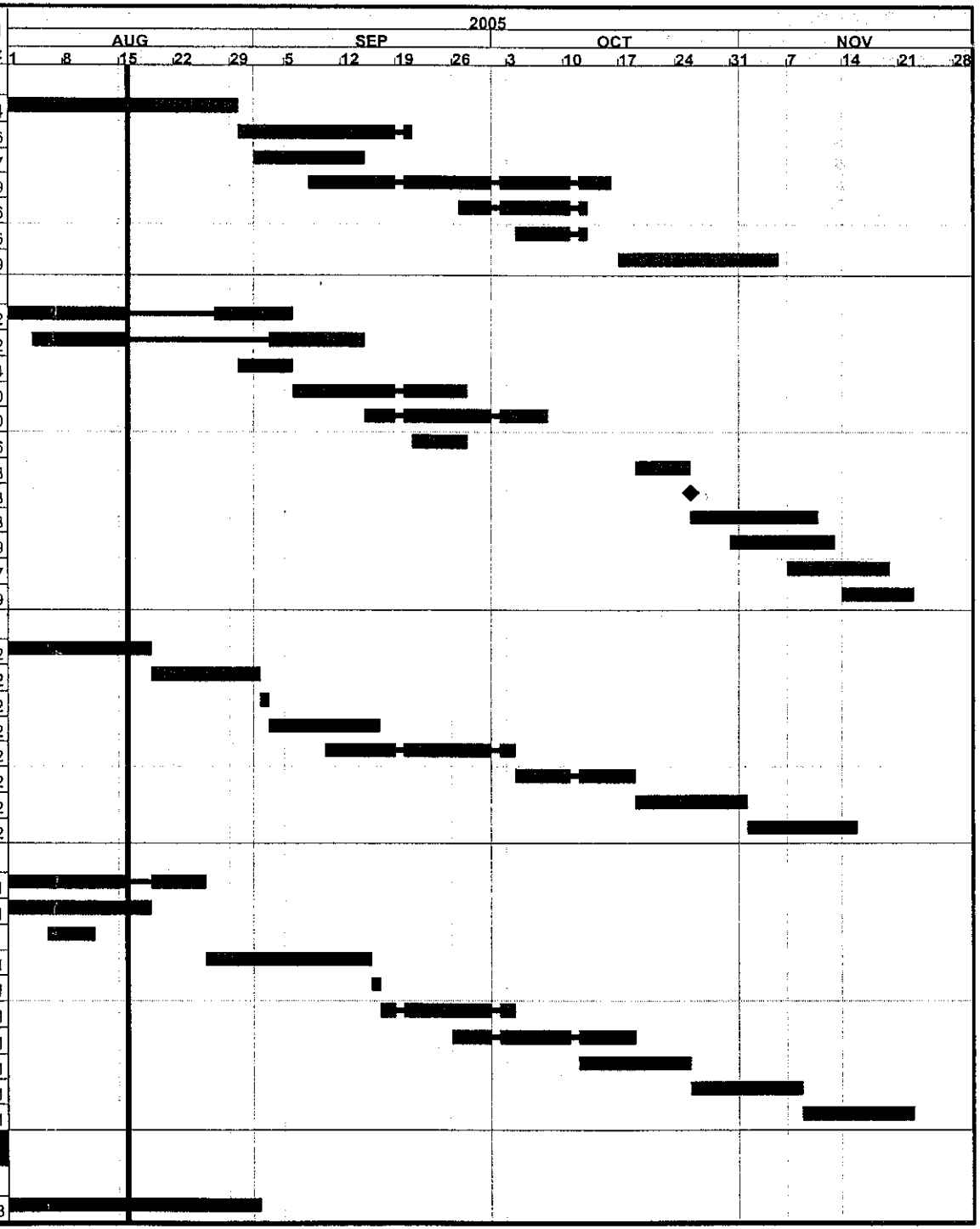
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
Footbridge FB12					
05-5370	E&M and Finishing Works for Footbridge FB12	30	09AUG05A	13SEP05	-11
7. Noise Structures					
Procurement of Noise Barrier					
07-7060	Fabrication of Steel Members for Noise Barrier	120	17MAY04A	13AUG05A	
07-7080	Delivery of Steel Members for Noise Barrier	90	19JUL04A	24AUG05	-102
07-7070	Fabrication of Panels for Noise Barrier	100	16MAR05A	07SEP05	-33
07-7090	Delivery of Panels for Noise Barrier	90	27MAY05A	25SEP05	-33
Noise Mitigation No. 01					
07-7114	Erect Steel Members at North Supports for NM01	30	14OCT04A	22AUG05	-78
07-7111	Foundation of NM01 (N): CH1300-1350 (bays 8-10)	40	29JUN05A	06AUG05A	
07-7130	Erect Roof Steel Members for NM01	50	02JUL05A	05SEP05	-78
07-7150	Erect Roof Panels for NM01	50	06SEP05	05NOV05	-78
07-7115	Erect Wall Panels at North Supports for NM01	30	17OCT05	19NOV05	-78
07-7170	E&M and Finishing Works for NM01	30	31OCT05	03DEC05	-78
8. Culverts and Outfalls					
Culvert-Outfall C					
08-84032	Const. Culvert-Outfall C (within Exist CPR)	6	01AUG05A	18AUG05	-31
Culvert-Outfall CB					
08-816012	Const. Culvert-Outfall CB (North of Exist CPR)	12	08JUL05A	06AUG05A	
Culvert-Outfall D					
08-85033	Const. 1.5m Stepped Channel & Outlet (South)	12	16AUG05	29AUG05	-40
Culvert-Outfall E					
08-86022	Outfall E (S) Outlet	12	16AUG05	29AUG05	-67
08-86023	Const. 1.5m Stepped Channel (South)	12	30AUG05	12SEP05	-67
08-8603	Exc. Culvert-Outfall E (SMHE1-Inlet)	18	13SEP05	05OCT05	-67
08-86032	Const. Culvert-Outfall E (SMHE1-Inlet)	30	27SEP05	02NOV05	-67
10. Geotechnical & Slope Works					
Existing Slope Works					
10-102112	Remedial Works to Slope No. D/R16 (skin wall)	30	04APR05A	19AUG05	-47
12. Entrusted Watermains					
Entrusted Water Mains					
12-1205	DN1000FW/Associated Wks (W/B C'way	30	18AUG05	22SEP05	-75
13. Reprovisioning of LCSD & FEHD Facilities					
FEHD Facilities					
13-1340	Reprovision of Sitting Out Area at Ka Loon Tsuen	75	13SEP03A	01SEP05	-1
Stairways					
13-1315	Construct Stairway ST05 & Ramp ST05A	40	18JUL05A	29AUG05	-40
13-1314	Construct Stairway ST04	30	13OCT05	16NOV05	-63



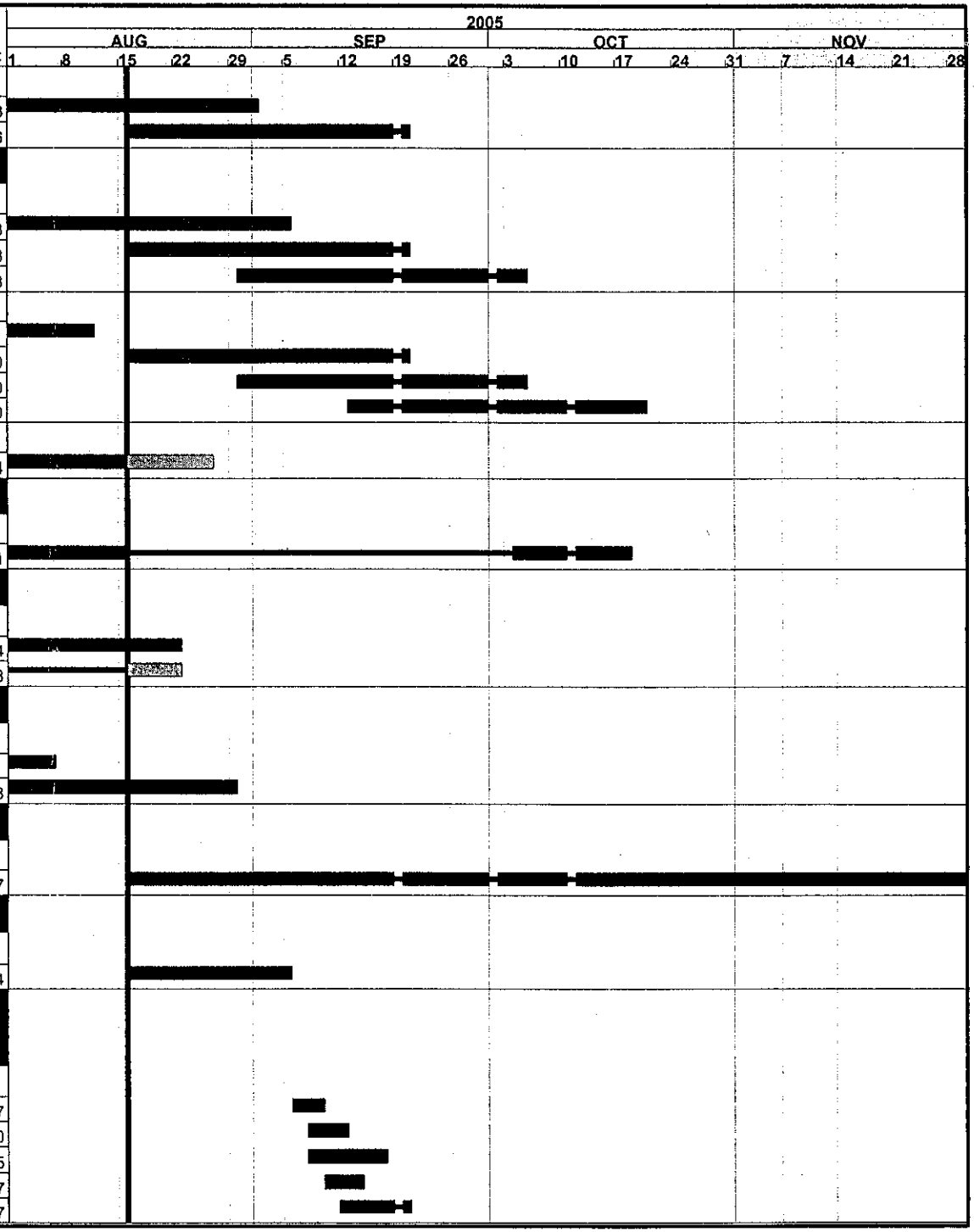
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
14. Landscape Works					
Landscape Softworks					
14-14115	L'scape Works in Slope No. 6	40	16AUG05	03OCT05	-49
14-14119	L'scape Works bet CPR CH1205-1705	150	16AUG05	15FEB06	-87
14-14114	L'scape Works in Slope No. 1	30	23AUG05	27SEP05	-49
14-14116	L'scape Works in Slopes C161 & D/C5	36	23AUG05	05OCT05	-39
14-14118	L'scape Works bet CPR CH0900-1205	76	28SEP05	29DEC05	-49
14-14117	L'scape Works bet CPR CH1705 & 1870	40	11NOV05	29DEC05	-49
18. Variation Works					
Vehicular Parapets					
VO-24940	Additional Vehicular Parapets at CH 1555-1685	30	01AUG05A	07SEP05	-75
CPR from Chainage 2+210 to Chainage 3+010					
1. Preliminaries					
Proposed Utility Works					
01-12124	Proposed CATV at E/B CH2830-2950	6	17MAY04A	17AUG05	-84
01-12146	Proposed CLP on E/B C,way CH2300-2580	14	02JUL05A	05SEP05	-36
01-12145	Proposed HKT on E/B C,way CH2300-2580	14	04JUL05A	12SEP05	-36
01-12147	Proposed HKBN on E/B C,way CH2300-2580	14	04JUL05A	12SEP05	-36
01-12143	Proposed CATV on E/B C,way CH2300-2580	14	01AUG05A	20SEP05	-36
01-12144	Proposed HT on E/B C,way CH2300-2580	14	02AUG05A	27SEP05	-36
01-12153	Proposed CATV on E/B C,way CH2580-2800	11	12AUG05A	25AUG05	-45
01-12154	Proposed HT on E/B C,way CH2580-2800	11	16AUG05	27AUG05	-45
01-12155	Proposed HKT on E/B C,way CH2580-2800	11	29AUG05	09SEP05	-45
01-12157	Proposed HKBN on E/B C,way CH2580-2800	11	29AUG05	09SEP05	-45
01-12156	Proposed CLP on E/B C,way CH2580-2800	11	10SEP05	23SEP05	-45
01-1216	Proposed CLP at Access Road R9	4	13OCT05	17OCT05	-40
Programme for SA No. 3					
01-0110	Programme for SA No. 3	700*	29SEP03A	28AUG05	-102
01-0118	Prepare final SA	12	25NOV03A	21AUG05	0
01-0119	Prepare formal copies of SA for execution SA	7	22AUG05	28AUG05	0
01-01110	Execute SA	0		28AUG05	0
3. Roadworks					
Earthworks					
03-3204	Backfill/Road formation at E/B CH2300-2580	30	06APR05A	29AUG05	-36
03-3205	Road formation at E/B C'way CH2580-2800	30	16AUG05	20SEP05	-50
Drainage Works					
03-32262	Drainage Works at Access Road R9 at East	20	01APR05A	22AUG05	-62
03-32243	Drainage(F4.1-4.3) at E/B CH2480-2580	25	11APR05A	19AUG05	-36
03-3226	Drainage Works at Access Road R9 at West	20	16AUG05	07SEP05	-79
03-32263	Drainage Works at Access Road R9 at Middle	20	08SEP05	03OCT05	-76



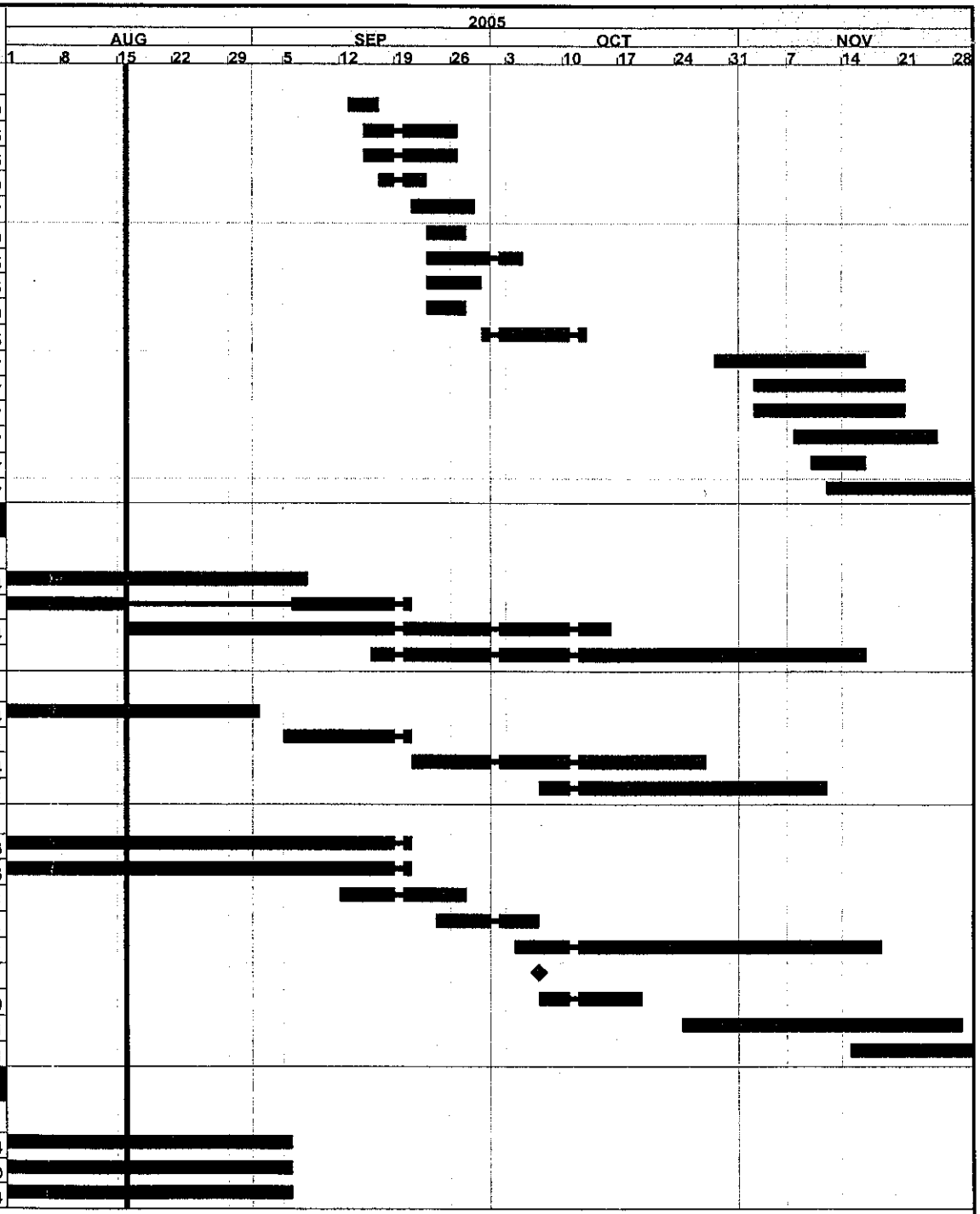
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
Pipe Works (Local Supply Watermains)					
03-32352	Testing & Connection of Pipeworks at CH2610-2720	18	01AUG05A	29AUG05	-34
03-32366	Testing & Connection for add. DN600 at J6	18	30AUG05	20SEP05	-66
03-3236	Pipe Works on at Access Road R9 at West	12	01SEP05	14SEP05	-67
03-32365	Additional DN600 Watermain along Access Road R9	30	08SEP05	15OCT05	-79
03-32362	Pipe Works on at Access Road R9 at East	12	27SEP05	12OCT05	-76
03-3233	Water Works at Portion W10	7	04OCT05	12OCT05	-76
03-32364	Testing & Connection Pipe Works at Road R9	18	17OCT05	05NOV05	-79
Road Works					
03-3148	Lay sub-base, kerbs & edgings; E/B CH2300-2580	18	25APR05A	05SEP05	-32
03-31482	Construct rd pave & f/p; E/B CH2300-2580	18	04AUG05A	14SEP05	-32
03-31448	Reinstate E/B carriageway at CH2210-2300	6	30AUG05	05SEP05	-24
03-3149	Lay sub-base, kerbs & edgings; E/B CH2580-2800	18	06SEP05	27SEP05	-50
03-31492	Construct rd pave & f/p; E/B CH2580-2800	18	15SEP05	07OCT05	-50
03-31484	Rd finishes, marking & lighting; E/B CH2300-2580	6	21SEP05	27SEP05	-36
03-31494	Rd finishes, marking & lighting; E/B CH2580-3010	6	19OCT05	25OCT05	-58
03-3143	Divert Traffic to E/B Perm. C'way CH2210 - 3010	0		25OCT05	-58
03-31454	Rd finishes, marking & lighting; W/B CH2300-3010	14	26OCT05	10NOV05	-58
03-3160	Formation/ sub-base, kerbs; Access Rd R9 at West	12	31OCT05	12NOV05	-79
03-31601	Formation/ sub-base, kerbs; Access Rd R9 at East	12	07NOV05	19NOV05	-77
03-31602	Construct rd pave & f/p; Access Rd R9 at West	8	14NOV05	22NOV05	-79
Junction J5 (at Hong Kong Garden)					
J5-08	Lay UU cross rd	12	18JUL05A	18AUG05	-62
J5-09	Const. temporary eastern lane of slip rd	12	19AUG05	01SEP05	-62
J5-12	Close western lane of slip road to HK Garden	1	02SEP05	02SEP05	-62
J5-14	Expose existing UUs at western lane of slip rd	12	03SEP05	16SEP05	-62
J5-16	Const. drainage both storm & sewer at west lane	18	10SEP05	03OCT05	-62
J5-18	Lay UU cross rd	12	04OCT05	18OCT05	-62
J5-20	Const. western lane of slip rd	12	19OCT05	01NOV05	-62
J5-10	Const. eastern lane of slip rd	12	02NOV05	15NOV05	-62
Junction J6 (at Lung Yu Road)					
J6-06	Const. drainage both storm & sewer at east lane	18	21FEB05A	25AUG05	-71
J6-07	Additional Watermain works at Lung Yue Rd	18	11MAY05A	18AUG05	-71
J6-08	Lay UU cross rd	12	06AUG05A	11AUG05A	
J6-09	Const. temporary eastern lane of Lung Yue Rd	18	26AUG05	15SEP05	-71
J6-12	Close western lane of Lung Yue Rd	1	16SEP05	16SEP05	-71
J6-14	Expose existing UUs at western lane	12	17SEP05	03OCT05	-71
J6-16	Const. drainage both storm & sewer at west lane	18	26SEP05	18OCT05	-71
J6-18	Lay UU cross rd	12	12OCT05	25OCT05	-71
J6-20	Const. western lane of Lung Yue Rd	12	26OCT05	08NOV05	-71
J6-10	Const. eastern lane of Lung Yue Rd	12	09NOV05	22NOV05	-71
5. Footbridges					
Footbridge FB01					
05-51402	Erect Steelwork & Roofing of Main Span for FB01	30	23JUL05A	01SEP05	-13



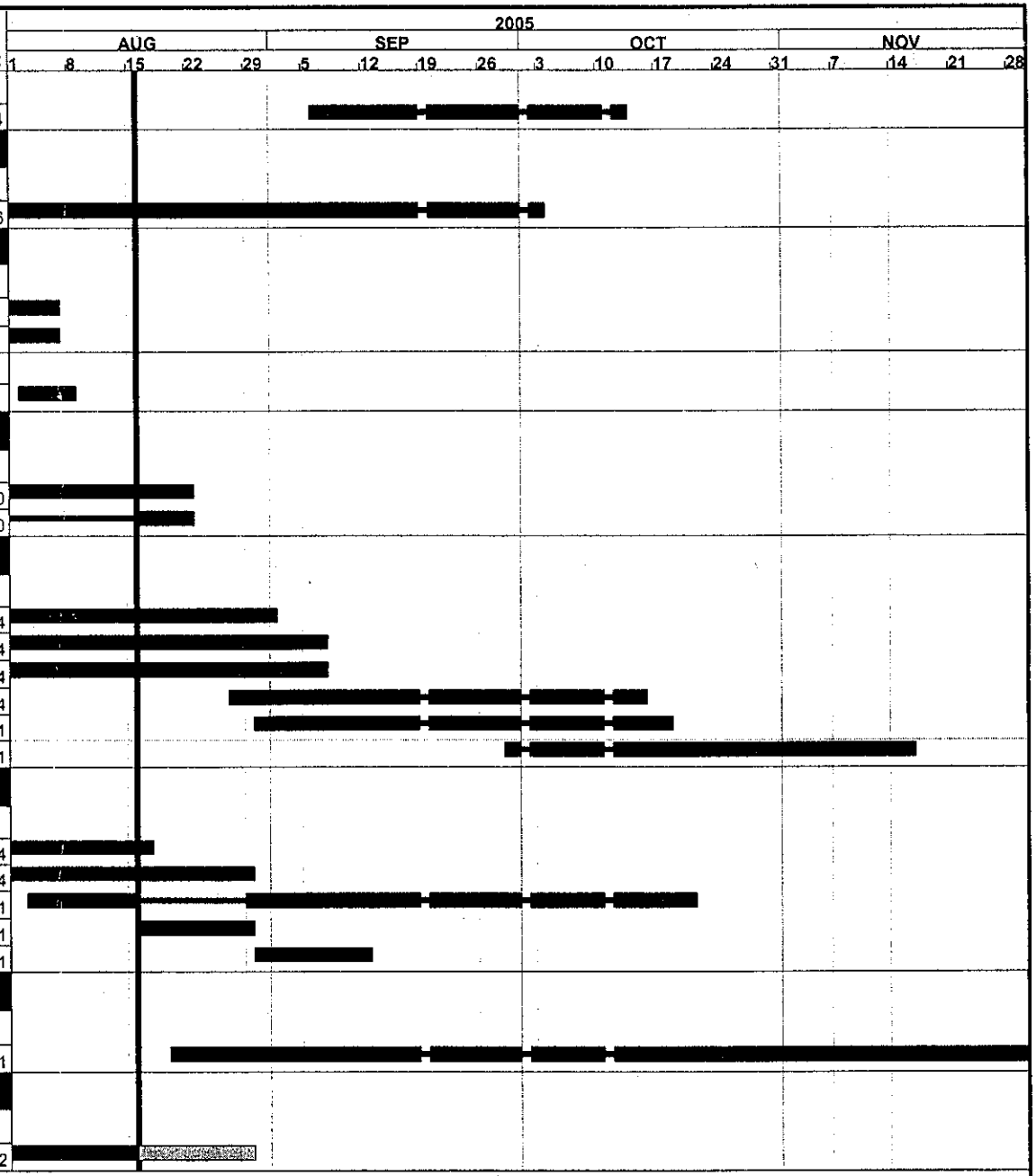
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
Footbridge FB01					
05-51606	Erect Steelwork & Roofing for FB01 (North)	30	23JUL05A	01SEP05	-13
05-5170	E&M and Finishing Works for Footbridge FB01	30	16AUG05	20SEP05	-16
7. Noise Structures					
Noise Mitigation No. 02					
07-7240	Erect Roof Panels for NM02	30	17JUN05A	05SEP05	-28
07-7213	Erect Wall Panels at North Supports for NM02	30	16AUG05	20SEP05	-28
07-7250	E&M and Finishing Works for NM02	30	30AUG05	05OCT05	-28
Noise Mitigation No. 03					
07-7330	Erect Roof Steel Members for NM03	30	12JUL05A	11AUG05A	
07-7340	Erect Roof Panels for NM03	30	16AUG05	20SEP05	-40
07-7313	Erect Wall Panels at North Supports for NM03	30	30AUG05	05OCT05	-40
07-7350	E&M and Finishing Works for NM03	30	13SEP05	20OCT05	-40
Noise Mitigation No. 04					
07-74072	Erect Panels for NM04	30	04JUN05A	26AUG05	4
8. Culverts and Outfalls					
Culvert-Outfall GB					
08-89202	Culvert-Outfall GB (remaining); VO165	25	19MAY05A	18OCT05	-41
9. Seawalls and Marine Works					
L-Shaped Walls					
09-91331	Reprovision of Pavillion at Sea Wall B	646*	19JUN03A	22AUG05	-84
09-91333	Roofing/staircase/flooring & finishings	40	07JUN04A	22AUG05	8
11. Entrusted Sewerage Works					
Entrusted Sewers/Drains					
11-1131	Sewer Works at CPR CH2650-2750	25	05MAY05A	06AUG05A	
11-11323	Sewer Works at Access Road R9 at Middle	20	04JUN05A	29AUG05	-68
14. Landscape Works					
Landscape Softworks					
14-14111	Landscape Works CH2300-3010	150	16AUG05	15FEB06	-87
18. Variation Works					
Add. Fishermen's Access Staircase at Sewall B					
VO-35600	Construct Fishermen's Access Staircase; VO356	18	16AUG05	05SEP05	-4
CPR from Chainage 3+010 to Chainage 3+730					
1. Preliminaries					
Proposed Utility Works					
01-125544	HKT Cross Rd. Ducts at W/B CH3470	4	06SEP05	09SEP05	-87
01-121264	HKT Cross Rd. Ducts at E/B CH2995	4	08SEP05	12SEP05	-60
01-12433	Proposed CATV on E/B C.way CH2950-3130	9	08SEP05	17SEP05	-65
01-125563	CLP Cross Rd. Ducts at W/B CH3480	4	10SEP05	14SEP05	-87
01-1241	Proposed CLP on W/B C.way CH3400-3530	7	12SEP05	20SEP05	-87



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
Proposed Utility Works					
01-124022	CATV Cross Rd. Ducts at E/B CH3030	4	13SEP05	16SEP05	-60
01-12435	Proposed HKT on E/B C.way CH2950-3130	9	15SEP05	26SEP05	-65
01-12437	Proposed HKBN on E/B C.way CH2950-3130	9	15SEP05	26SEP05	-65
01-124023	HT Cross Rd. Ducts at E/B CH3035	4	17SEP05	22SEP05	-60
01-12412	Proposed HKT on W/B C.way CH3400-3530	7	21SEP05	28SEP05	-87
01-124002	CLP Cross Rd. Ducts at E/B CH3080	4	23SEP05	27SEP05	-60
01-12434	Proposed HT on E/B C.way CH2950-3130	9	23SEP05	04OCT05	-65
01-12438	NWT Cross Rd. Ducts at E/B CH3290-3310	6	23SEP05	29SEP05	-65
01-125562	CLP Cross Rd. Ducts at E/B CH3415	4	23SEP05	27SEP05	-60
01-12436	Proposed CLP on E/B C.way CH2950-3130	9	30SEP05	12OCT05	-65
01-12351	Proposed CATV on E/B C.way CH3130-3460	16	29OCT05	16NOV05	-87
01-12352	Proposed HKT on E/B C.way CH3130-3460	16	03NOV05	21NOV05	-87
01-12353	Proposed HKBN on E/B C.way CH3130-3460	16	03NOV05	21NOV05	-87
01-12354	Proposed HT on E/B C.way CH3130-3460	16	08NOV05	25NOV05	-87
01-12355	NWT Cross Rd on E/B CH3290-3310	6	10NOV05	16NOV05	-87
01-12356	Proposed CLP on E/B C.way CH3130-3460	16	12NOV05	30NOV05	-87
3. Roadworks					
Drainage Works					
03-3323	Drainage Works on E/B C'way bet CH2980-3130	50	11APR05A	07SEP05	-84
03-3321	Drainage Works on W/B C'way bet CH3400-3510	26	18JUN05A	20SEP05	-91
03-33231	Drainage Works on E/B C'way bet CH3130-3250	50	16AUG05	15OCT05	-84
03-33232	Drainage Works on E/B C'way bet CH3250-3460	50	16SEP05	16NOV05	-91
Pipe Works (Local Supply Watermains)					
03-3330	Pipe Works on E/B C'way bet CH3010-3130	30	07JUN05A	01SEP05	-74
03-3332	Pipe Works on W/B C'way bet CH3440-3530	13	05SEP05	20SEP05	-91
03-33301	Pipe Works on E/B C'way bet CH3130-3250	30	21SEP05	27OCT05	-84
03-33302	Pipe Works on E/B C'way bet CH3250-3460	30	07OCT05	11NOV05	-91
Road Works					
03-3340	Dragon Garden Accommodation	1.020*	12APR02A	20SEP05	-96
03-334008	Remove Temporary Hoarding & Reinstatement	35	28APR04A	20SEP05	-16
03-3315	Formation, sub-base, kerbs; W/B CH3400-3530	13	12SEP05	27SEP05	-91
03-33152	Construct rd pave & f/p; W/B CH3400-3530	10	24SEP05	06OCT05	-91
03-3317	Formation/sub-base, kerbs; E/B CH3010-3460	39	04OCT05	18NOV05	-91
03-331542	Divert Traffic on W/B Perma C'way CH3400-3730	0		06OCT05	-91
03-33184	Rd finishes, marking & lighting; E/B CH3460-3670	10	07OCT05	19OCT05	-39
03-33172	Construct rd pave & f/p; E/B CH3010-3460	30	25OCT05	28NOV05	-91
03-33174	Rd finishes, marking & lighting; E/B CH3010-3460	20	15NOV05	07DEC05	-91
5. Footbridges					
Footbridge FB11					
05-55606	Erect Steelwork & Roofing for FB11 (North)	30	28FEB05A	05SEP05	-34
05-55402	Erect Steelwork & Roofing of Main Span for FB11	30	07JUL05A	05SEP05	-10
05-55506	Erect Steelwork & Roofing for FB11 (South)	30	07JUL05A	05SEP05	-34



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
Footbridge FB11					
05-5570	E&M and Finishing Works for Footbridge FB11	30	06SEP05	13OCT05	-34
6. Retaining Walls					
Reinforced Earth Wall 14					
RE1414	Filling/Trim slope/Drainage & Maint. stair	40	25JUL05A	03OCT05	-56
8. Culverts and Outfalls					
Culvert - Outfall HB					
08-810202	Const. Culvert-Outfall HB (Middle)	30	10JUN05A	06AUG05A	
08-810203	Const. Culvert-Outfall HB (North)	30	05JUL05A	06AUG05A	
Culvert-Outfall H					
08-811303	Backfill; Outfall H	10	02AUG05A	08AUG05A	
10. Geotechnical & Slope Works					
Existing Slope Works					
10-1092	Remedial Works to Slope No. FR41	616*	26JUL03A	22AUG05	0
10-10928	Fill behind RW104 & Finishing Work	16	07JAN04A	22AUG05	0
11. Entrusted Sewerage Works					
Entrusted Sewers/Drains					
11-114001	350mm Twin Rising Mains at CH 3000-3130	40	01APR05A	01SEP05	-84
11-114002	350mm Twin Rising Mains at CH 3130-3250	40	18APR05A	07SEP05	-84
11-1140	Sewer at E/B CH3000-3130	40	20JUN05A	07SEP05	-74
11-11401	Sewer at E/B bet CH3130-3250	40	27AUG05	15OCT05	-84
11-114003	350mm Twin Rising Mains at CH 3250-3460	40	30AUG05	18OCT05	-91
11-11402	Sewer at E/B bet CH3250-3460	40	29SEP05	16NOV05	-91
12. Entrusted Watermains					
Entrusted Water Mains					
12-1230	DN1000FW/Associated Wks E/B CH2970-3100	50	03MAR05A	17AUG05	-84
12-12301	DN1000FW/Associated Wks E/B CH3130-3250	50	01APR05A	29AUG05	-84
12-12302	DN1000FW/Associated Wks E/B CH3250-3450	50	03AUG05A	21OCT05	-91
12-12211	Revision of temp. supports to UUs CH3450-3470	12	16AUG05	29AUG05	-91
12-1221	DN1000FW/Associated Wks(W/B C'way CH3450-3470	12	30AUG05	12SEP05	-91
14. Landscape Works					
Landscape Softworks					
14-14101	Landscape Works bet CH3010-3730	150	20AUG05	20FEB06	-91
18. Variation Works					
New Slope No. 11					
10-10757	Reprovsion of B. Fence; V.O. No. 133	45	07FEB04A	29AUG05	2

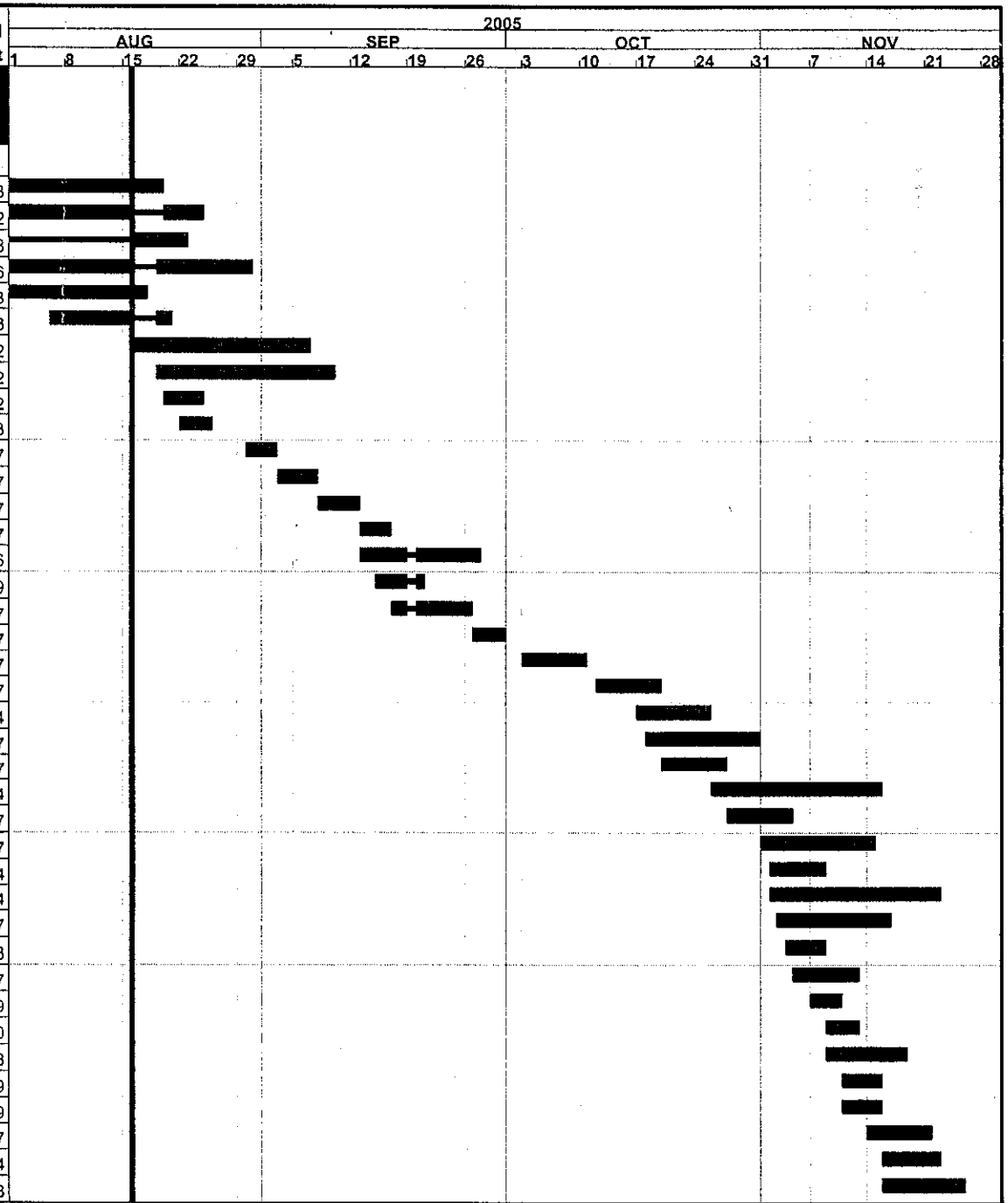


CPR from Chainage 3+730 to Chainage 4+470

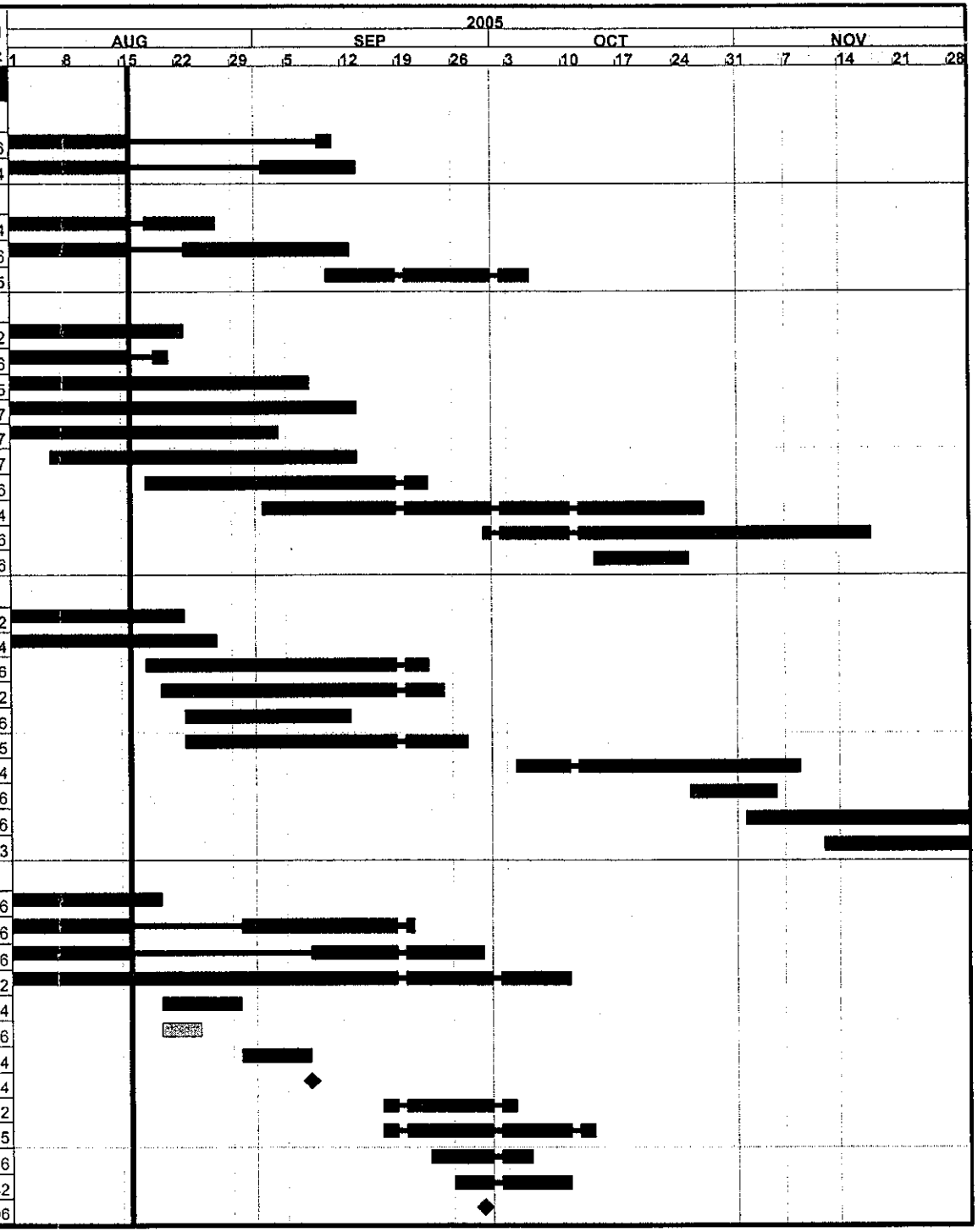
1. Preliminaries

Proposed Utility Works

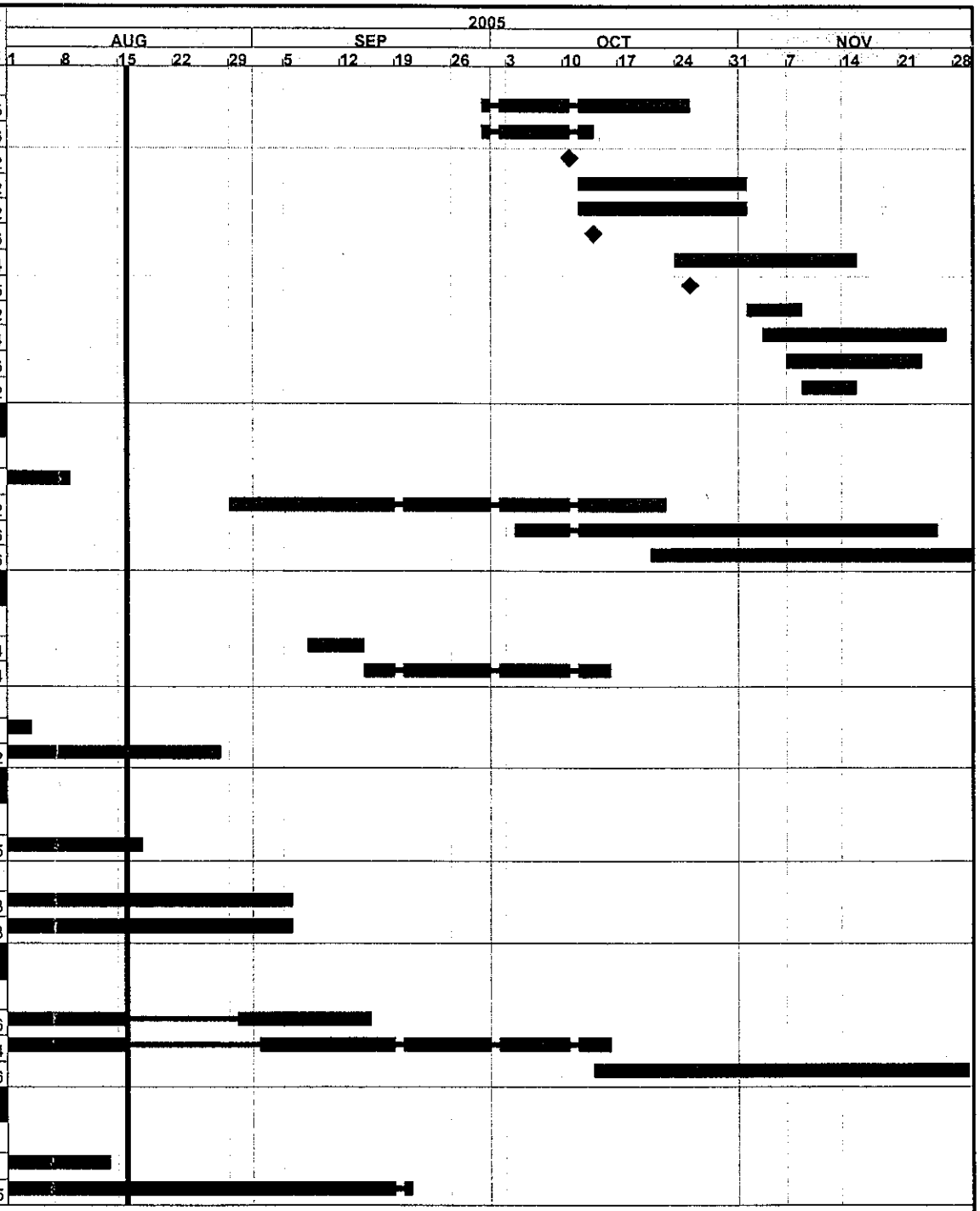
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
01-12444	Proposed CLP on W/B C.way CH3630-3850	11	18APR05A	19AUG05	-78
01-12443	Proposed HKT on W/B C.way CH3630-3850	11	06MAY05A	24AUG05	-72
01-12495	Proposed CLP on E/B C.way CH3850-3900	6	14JUN05A	22AUG05	-78
01-12463	Proposed CLP on W/B C.way CH3910-4330	19	25JUL05A	30AUG05	-96
01-124554	HKT Cross Rd. Ducts at W/B CH3670	4	01AUG05A	17AUG05	-78
01-124633	CLP Cross Rd. Ducts at W/B CH4100	4	06AUG05A	20AUG05	-83
01-12462	Proposed HKT on W/B C. say CH3910-4330	19	16AUG05	06SEP05	-52
01-124622	Proposed HKBN on W/B C.way CH3910-4330	19	19AUG05	09SEP05	-52
01-124964	HKT Cross Rd. Ducts at W/B CH3970	4	20AUG05	24AUG05	-82
01-124631	CLP Cross Rd. Ducts at W/B CH3970	4	22AUG05	25AUG05	-83
01-124844	HKT Cross Rd. Ducts at W/B CH4363	4	30AUG05	02SEP05	-67
01-1247334	CATV Cross Rd. Ducts at W/B CH4375	4	03SEP05	07SEP05	-67
01-1247354	HT Cross Rd. Ducts at W/B CH4361	4	08SEP05	12SEP05	-67
01-1247382	CLP Cross Rd. Ducts at W/B CH4330	4	13SEP05	16SEP05	-67
01-1257	Proposed Gasmain on E/B C.way CH3850-3900	12	13SEP05	27SEP05	-96
01-124635	CLP Cross Rd. Ducts at W/B CH4180	4	15SEP05	20SEP05	-69
01-1247385	CLP Cross Rd. Ducts at W/B CH4470	7	17SEP05	26SEP05	-67
01-1247343	NWT Cross Rd. ducts at W/B CH4450	4	27SEP05	30SEP05	-67
01-12464	Proposed CATV on W/B C.way CH4340-4470	7	03OCT05	10OCT05	-67
01-12484	Proposed HKT on W/B C.way CH4330-4363	7	12OCT05	19OCT05	-67
01-124762	Proposed CLP on E/B C.way CH4180-4330	8	17OCT05	25OCT05	-84
01-12472	Proposed NWT on E/B C.way CH3900	12	18OCT05	31OCT05	-87
01-12486	Proposed HKBN on W/B C.way CH4330-4470	7	20OCT05	27OCT05	-67
01-124732	Proposed CATV on E/B C.way CH3980-4330	18	26OCT05	15NOV05	-84
01-12465	Proposed HT on W/B C.way CH4340-4470	7	28OCT05	04NOV05	-67
01-124812	Proposed HKBN on E/B C.way CH3850-3900	12	01NOV05	14NOV05	-87
01-1247	Gasmain Cross Road at E/B CH3670 & 3850	6	02NOV05	08NOV05	-84
01-124742	Proposed HT on E/B C.way CH3980-4330	18	02NOV05	22NOV05	-84
01-12494	Proposed HKT on E/B C.way CH3850-3900	12	03NOV05	16NOV05	-87
01-124443	CLP Cross Rd. Ducts at E/B CH3810	4	04NOV05	08NOV05	-83
01-12483	Proposed NWT on W/B C.way CH4550	7	05NOV05	12NOV05	-67
01-124442	Proposed CLP on W/B C.way CH3850-3910	4	07NOV05	10NOV05	-89
01-124623	HKT Cross Rd. Ducts at E/B CH4133	4	09NOV05	12NOV05	-80
01-12473	Proposed CATV on E/B C.way CH3670-3850	9	09NOV05	18NOV05	-83
01-124432	Proposed HKT on W/B C.way CH3850-3910	4	11NOV05	15NOV05	-89
01-124434	Proposed HKBN on W/B C.way CH3850-3910	4	11NOV05	15NOV05	-89
01-12485	Proposed CLP on W/B C.way CH4330-4470	7	14NOV05	21NOV05	-67
01-124722	Proposed NWT on E/B C.way CH4055-4130	6	16NOV05	22NOV05	-84
01-124761	Proposed HKBN on E/B C.way CH3670-3850	9	16NOV05	25NOV05	-83



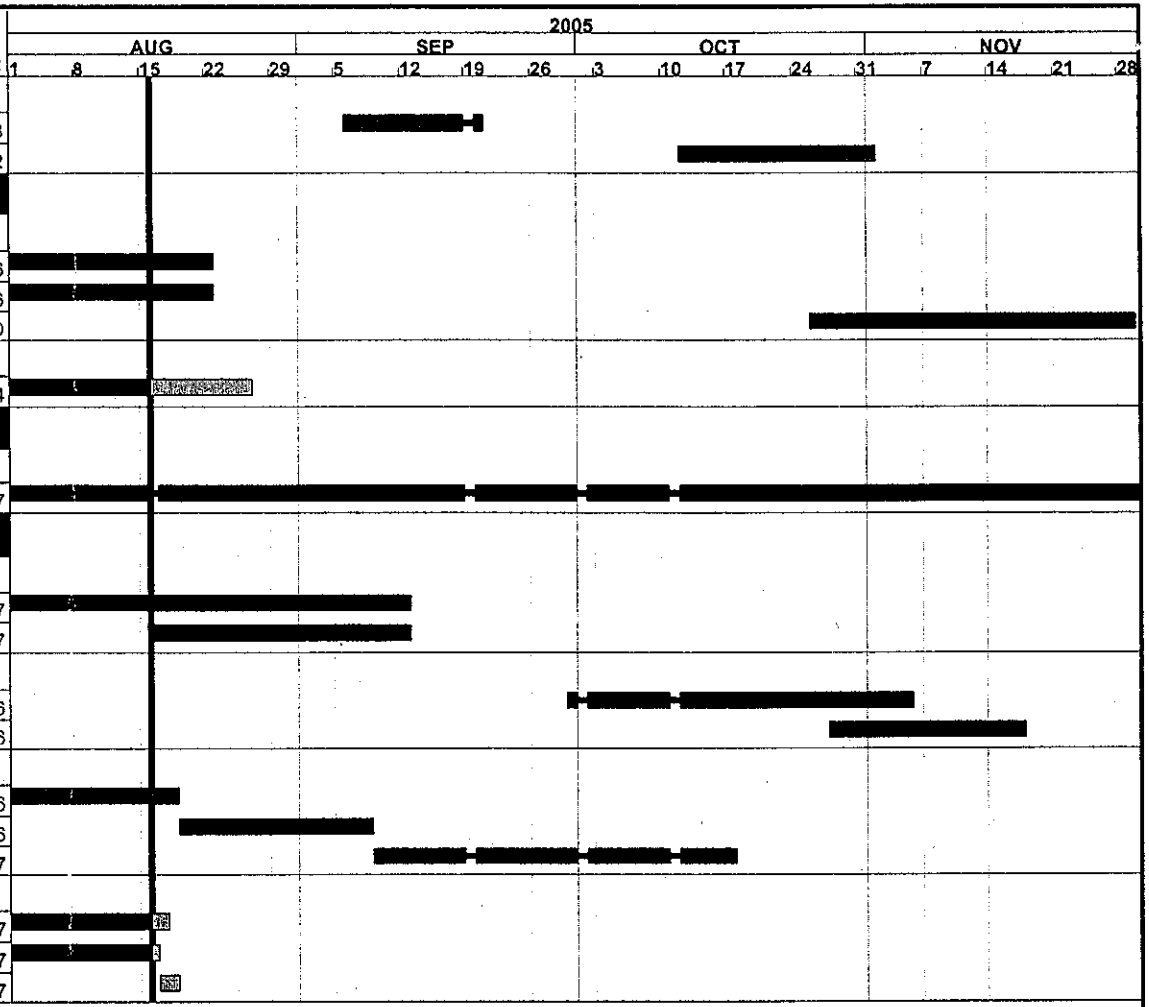
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
3. Roadworks					
Utility Diversion					
03-34506	Expose/protect UUs at E/B CH 3850-3900	30	01FEB05A	10SEP05	-96
03-34505	Expose/protect UUs at E/B CH 3630-3850	30	06JUN05A	13SEP05	-84
Earthworks					
03-34012	Road formation at W/B C'way CH3630-3730	10	10JUN05A	26AUG05	-84
03-3402	Road Formation at W/B CH3950-4200	20	16JUN05A	12SEP05	-96
03-34022	Road Formation at W/B CH4200-4330	20	10SEP05	05OCT05	-75
Drainage Works					
03-34201	Drainage Works at W/B C'way CH3610-3730	30	24JAN05A	22AUG05	-82
03-3421	Drainage Works at W/B C'way CH3950-4200	50	30MAR05A	20AUG05	-96
03-34212	Drainage Works at W/B C'way CH4200-4330	50	09MAY05A	07SEP05	-75
03-3425	Drainage Works at W/B C'way CH4330-4470	40*	29JUL05A	13SEP05	-67
03-34252	Trial pits/Shet piling/excavate for drainage	40	29JUL05A	03SEP05	-67
03-34254	Construct drainage/backfill at W/B CH4330-4470	40	06AUG05A	13SEP05	-67
03-3423	Drainage Works at E/B C'way CH3850-3900	30	18AUG05	22SEP05	-96
03-3422	Drainage Works at E/B C'way CH3670-3850	45	02SEP05	27OCT05	-84
03-3444	Drainage Works at E/B C'way CH4050-4160	40	30SEP05	17NOV05	-96
03-34204	Drainage Works at W/B C'way CH3900-3950	10	14OCT05	25OCT05	-96
Pipe Works (Local Supply Watermains)					
03-3434	Pipe Works at W/B C'way bet CH3950-4200	30	17MAR05A	22AUG05	-82
03-34310	Pipe Works at W/B C'way bet CH3600-3700	20	18APR05A	26AUG05	-84
03-3440	Pipe Works at E/B C'way bet CH3850-3900	30	18AUG05	22SEP05	-96
03-3441	Pipe Works at W/B C'way bet CH4330-4370	30	20AUG05	24SEP05	-62
03-34341	Pipe Testing & Connection at CH3950-4200	18	23AUG05	12SEP05	-76
03-34342	Pipe Works at W/B C'way bet CH4200-4330	30	23AUG05	27SEP05	-75
03-3430	Pipe Works at E/B C'way bet CH3670-3850	30	04OCT05	08NOV05	-84
03-34314	Pipe Works at W/B CH3910-3950	10	26OCT05	05NOV05	-96
03-3432	Pipe Works at E/B C'way bet CH4055-4135	30	02NOV05	06DEC05	-96
03-34315	Testing/Connection of Pipe Works	18	12NOV05	02DEC05	-83
Road Works					
03-34556	Construct rd pave; R10	8	20DEC04A	19AUG05	-16
03-3451	Lay sub-base, kerbs & edgings; W/B CH3950-4200	20	20JUN05A	20SEP05	-96
03-34512	Construct rd pave & f/p; W/B CH3950-4200	20	30JUN05A	29SEP05	-96
03-34535	Stage 4 TTA (works at W/B carriage way)	61*	29JUL05A	10OCT05	-62
03-34501	Lay sub-base, kerbs & edgings; W/B CH3630-3730	8	20AUG05	29AUG05	-84
03-34558	Rd finishes, marking & lighting; R10	4	20AUG05	24AUG05	6
03-34503	Construct rd pave & f/p; W/B CH3630-3730	8	30AUG05	07SEP05	-84
03-34520	Divert Traffic to W/B Perma C'way CH3630-3730	0		07SEP05	-84
03-34511	Lay sub-base, kerbs & edgings; W/B CH4330-4470	12	17SEP05	03OCT05	-62
03-345122	Lay sub-base, kerbs & edgings; W/B CH4200-4330	20	17SEP05	13OCT05	-75
03-3464	Rd. formation/sub-base,kers; E/B CH3850-3900	10	23SEP05	05OCT05	-96
03-34513	Construct rd pave & f/p; W/B CH4330-4470	12	26SEP05	10OCT05	-62
03-34522	Divert Traffic to W/B Perma C'way CH3950-4200	0		29SEP05	-96



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
Road Works					
03-345124	Construct rd pave & f/p: W/B CH4200-4330	20	30SEP05	25OCT05	-75
03-34642	Construct rd pave & f/p: E/B CH3850-3900	10	30SEP05	13OCT05	-96
03-345134	Divert Traffic to construct central divider	0		10OCT05	-62
03-34546	Stage 5 TTA (works at central divider)	18*	12OCT05	01NOV05	-62
03-345462	Const. central divider/provision of lighting	18	12OCT05	01NOV05	-62
03-34672	Divert Traffic to E/B C'way CH3850-3950	0		13OCT05	-96
03-3454	Formation/sub-base, kerbs: E/B CH3670-3850	20	24OCT05	15NOV05	-84
03-345126	Divert Traffic to W/B Perma C'way CH4200-4330	0		25OCT05	-75
03-34545	Rd finishes, marking & lighting: E/B CH4330-4470	6	02NOV05	08NOV05	-62
03-34542	Construct rd pave & f/p: E/B CH3670-3850	20	04NOV05	26NOV05	-84
03-34032	Road Works at W/B CH3850-3950	15	07NOV05	23NOV05	-96
03-34515	Rd finishes, marking & lighting: W/B CH4330-4470	6	09NOV05	15NOV05	-62
5. Footbridges					
Footbridge FB03					
05-54124	Middle Column & Column head for FB03	24	07JUL05A	08AUG05A	
05-5440	Const./Erect Main Deck Beam B for FB03	45	29AUG05	22OCT05	-92
05-54401	Const./Erect Main Deck Beam A for FB03	45	04OCT05	25NOV05	-96
05-54402	Erect Steelwork & Roofing of Main Span for FB03	50	21OCT05	17DEC05	-96
8. Culverts and Outfalls					
Culvert-Outfall IB					
08-81510	Exc. Culvert-Outfall IB (within E/B of CPR)	6	08SEP05	14SEP05	-84
08-815102	Const. Culvert-Outfall IB (within E/B of CPR)	24	15SEP05	15OCT05	-84
Culvert-Outfall I					
08-81330	Excavate Culvert bays 5-7: Outfall I	24	07MAR05A	03AUG05A	
08-813302	Const. Culvert bays 5-7: Outfall I	30	03MAY05A	27AUG05	-92
9. Seawalls and Marine Works					
Seawall C (460 m Length)					
09-9264	Granular Fill behind RW-C: Bays 25-33	24	28FEB05A	17AUG05	-75
L-Shaped Walls					
09-9250	Construct Retaining Wall RW-C	477*	29JAN04A	05SEP05	-68
09-925062	Construct Retaining Wall RW-C: bays 1-2	20	11JUL05A	05SEP05	-68
11. Entrusted Sewerage Works					
Entrusted Sewers/Drains					
11-1123	Sewer Works at E/B C'way bet CH3850-3900	30	03JUN05A	15SEP05	-96
11-1122	Sewer Works at E/B C'way bet CH3670-3850	45	09JUL05A	15OCT05	-84
11-1127	Sewer Works at E/B CH4050-4180	40	14OCT05	29NOV05	-96
12. Entrusted Watermains					
Entrusted Water Mains					
12-1223	DN1000FW/Associated Wks W/B bet CH3950-4200	48	23FEB05A	13AUG05A	
12-12232	DN1000FW/Associated Wks W/B bet CH4200-4310	50	13JUN05A	20SEP05	-75



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	Total Float
Entrusted Water Mains					
12-12223	DN1000FW/Associated Wks W/B bet CH3910-3950	12	06SEP05	20SEP05	-68
12-1224	DN1000FW/Associated Wks W/B bet CH4310-4320	18	12OCT05	01NOV05	-62
13. Reprovisioning of LCSD & FEHD Facilities					
FEHD Facilities					
13-1350	Reprovision Pavillion & Pai Lau	492*	22DEC03A	22AUG05	-16
13-1354	Superstructure of Pavilion	42	25JUN05A	22AUG05	-16
13-1322	Construct RCP F	30	26OCT05	29NOV05	-80
Stairways					
13-1335	Construct Stairway ST09	20	26JUL05A	26AUG05	4
14. Landscape Works					
Landscape Softworks					
14-14102	Landscape Works bet CH3730-4470	150	16JUL05A	15FEB06	-87
18. Variation Works					
Stairways					
13-1336	Const. New Pavilion/ret. wall/stair; VO 211	246*	15NOV04A	12SEP05	-57
13-13366	Const. New Pavilion/stair; VO 211	24	16AUG05	12SEP05	-57
Additional Outfall MI; VO 244					
08-8124	Excavation for SMMI1/MICP1/675mm twin pipes	30	30SEP05	05NOV05	-96
08-81825	Construct SMMI2/MICP1/675mm twin pipes	18	28OCT05	17NOV05	-96
Reprovision of Pipelines under L.A. No. 7					
VO-48706	Lay Pipelines & Valves of L.A. No. 7 by WSD	12	25JUN05A	18AUG05	-96
VO-48708	Test/Connect Pipelines for L.A. No. 7 by WSD	18	19AUG05	08SEP05	-96
VO-50402	Drainage under VO504 to access rd. to S.C.V.	30	09SEP05	17OCT05	-87
Remedial Works to Existing Feature No. 6SE-C/C22					
VO-30904	Remove existing shortcrete	12	28FEB05A	17AUG05	7
VO-30910	Construct drainage & maint. stairway	12	20JUN05A	16AUG05	7
VO-30912	Lay erosoin mat and hydroseeding	6	17AUG05	18AUG05	7



APPENDIX C

Monitoring schedule for August and September 2005

Environmental Monitoring and Audit Schedule - August 2005

Note 1: **L30** denotes $L_{eq(30\ min)}$ monitoring
Note 2: **TSP** denotes Total Suspended Particulate monitoring
Note 3: **MW** denotes Marine Water Quality monitoring
Note 4: **L&V** denotes Landscape and Visual audit and monitoring

Aug-2005

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
31 x	1 24-hour TSP	2 L30 3 x 1-hour TSP	3	4 Site Inpsection + L&V	5	6 24-hour TSP x
7	8 L30 3 x 1-hour TSP	9	10	11 Site Inpsection	12 24-hour TSP x	13
14	15 L30 3 x 1-hour TSP	16	17	18 24-hour TSP Site Inpsection + L&V x	19 3 x 1-hour TSP	20
21	22	23	24 24-hour TSP x	25 L30 3 x 1-hour TSP Site Inpsection	26	27
28	29	30 24-hour TSP x	31 L30 3 x 1-hour TSP			
						x

Tentative Environmental Monitoring and Audit Schedule - September 2005

Note 1: **L30** denotes $L_{eq(30\ min)}$ monitoring
Note 2: **TSP** denotes Total Suspended Particulate monitoring
Note 3: **MW** denotes Marine Water Quality monitoring
Note 4: **L&V** denotes Landscape and Visual audit and monitoring

Sep-2005

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1	2	3
4	5 24-hour TSP x	6 L30 3 x 1-hour TSP	7	8	9	10 24-hour TSP
11 x	12 L30 3 x 1-hour TSP	13	14	15	16 24-hour TSP	17 x
18	19	20 L30 3 x 1-hour TSP	21	22 24-hour TSP	23 3 x 1-hour TSP x	24
25	26	27	28 24-hour TSP	29 L30 3 x 1-hour TSP x	30	

APPENDIX D

Calibration certificates of 24-hour TSP monitoring equipment

Ove Arup Partners (Hong Kong) Limited

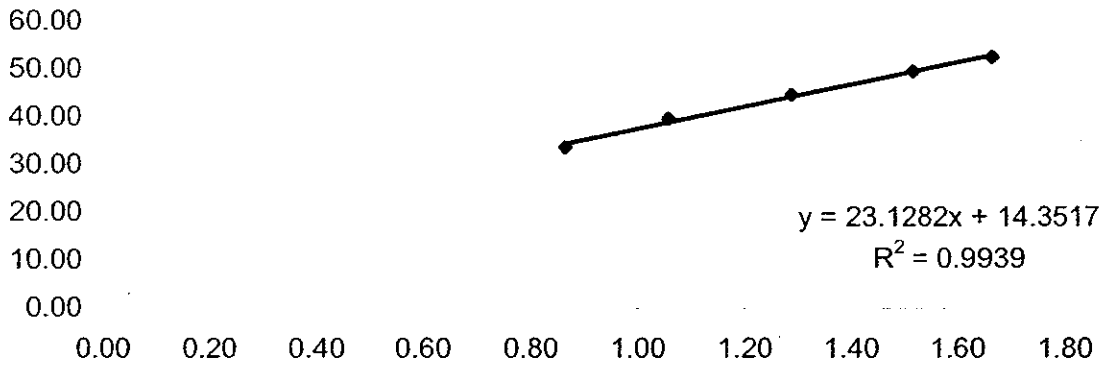
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA3 - Hong Kong Garden (Regent Heights)	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0505	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.00	34.00	0.87	33.65
7	4.50	40.00	1.06	39.59
10	6.70	45.00	1.29	44.54
13	9.30	50.00	1.52	49.49
18	11.20	53.00	1.66	52.46

Calibration Curve



Linear Regression

Sampler slope (m) :	**23.1282**
Sampler intercept (b) :	**14.3517**
Correlation coefficient (R^2) :	**0.9939**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 29-7-05

Checked by: _____ Date: 30-7-05

Ove Arup Partners (Hong Kong) Limited

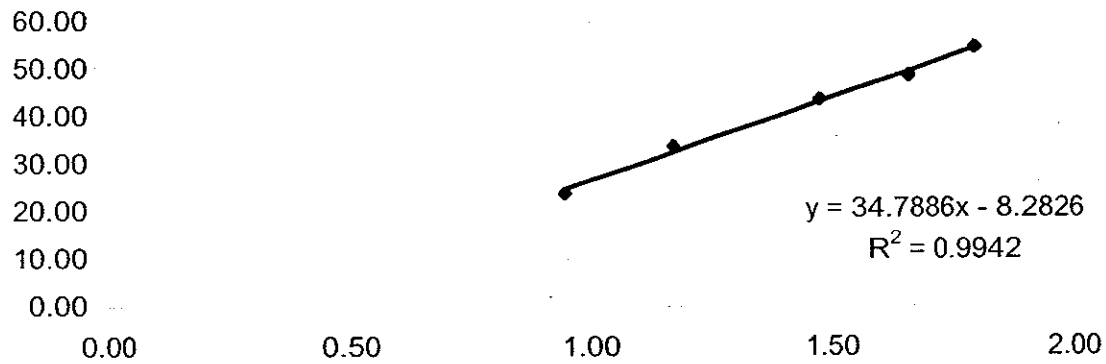
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA4 - Hong Kong Garden (Between Blk1 & Blk2)	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0512	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.60	24.00	0.95	23.75
7	5.50	34.00	1.17	33.65
10	8.80	44.00	1.48	43.55
13	11.10	49.00	1.66	48.50
18	13.10	55.00	1.80	54.44

Calibration Curve



Linear Regression

Sampler slope (m) :	**34.7886**
Sampler intercept (b) :	**-8.2826**
Correlation coefficient (R^2) :	**0.9942**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 29-7-05

Checked by: _____ Date: 30-7-05

Ove Arup Partners (Hong Kong) Limited

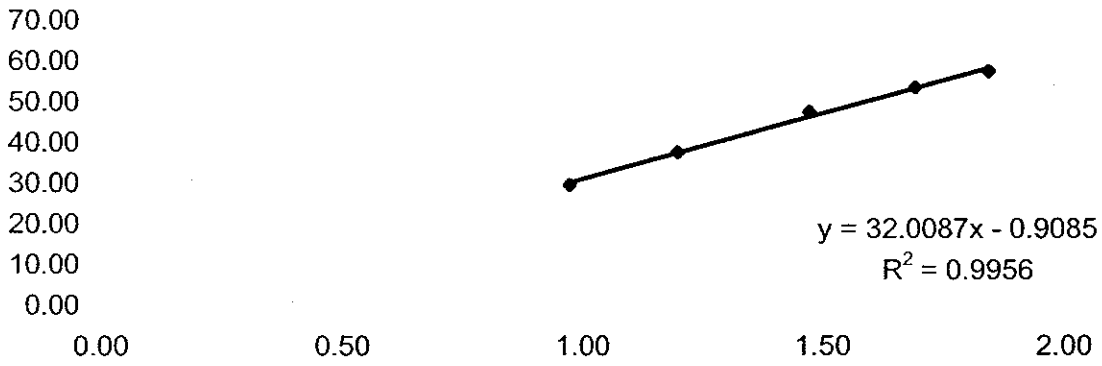
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA5 - Hong Kong Garden (Blk4)	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0511	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.80	30.00	0.97	29.69
7	5.80	38.00	1.20	37.61
10	8.80	48.00	1.48	47.51
13	11.60	54.00	1.69	53.45
18	13.80	58.00	1.85	57.41

Calibration Curve



Linear Regression

Sampler slope (m) :	**32.0087**
Sampler intercept (b) :	**-0.9085**
Correlation coefficient (R^2) :	**0.9956**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 29-7-05

Checked by: _____ Date: 30-7-05

Ove Arup Partners (Hong Kong) Limited

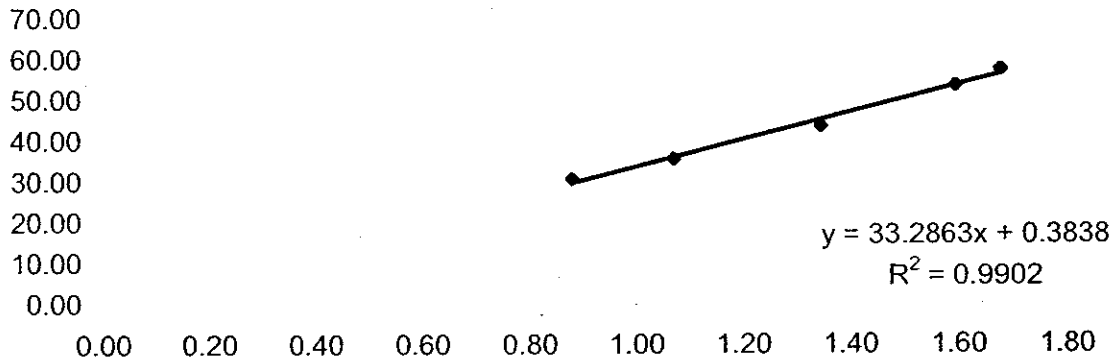
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA6 - Tsing Lung Tau Temple	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0529	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.10	31.00	0.88	30.68
7	4.60	36.00	1.07	35.63
10	7.30	44.00	1.35	43.55
13	10.30	54.00	1.60	53.45
18	11.40	58.00	1.68	57.41

Calibration Curve



Linear Regression

Sampler slope (m) :	**33.2863**
Sampler intercept (b) :	**0.3838**
Correlation coefficient (R^2) :	**0.9902**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 29-7-05

Checked by: _____ Date: 30-7-05

Ove Arup Partners (Hong Kong) Limited

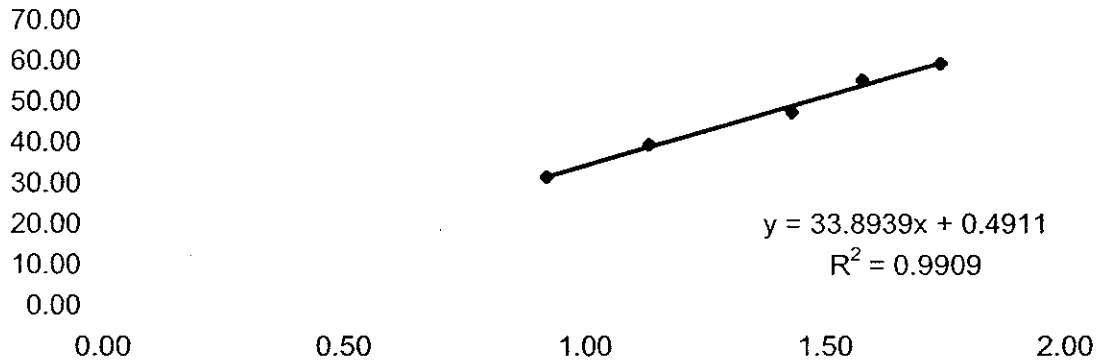
High Volume Air Sampler Calibration Worksheet

Calibration date	6-Sep-05	**Barometric pressure**	756 mm Hg
Calibration due date	5-Nov-05	**Tempature (°C)**	30 °C
Sampler location	WA6 - Tsing Lung Tau Temple	**Tempature (K)**	303 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	1338	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.40	32.00	0.92	31.65
7	5.20	40.00	1.14	39.56
10	8.30	48.00	1.43	47.48
13	10.10	56.00	1.58	55.39
18	12.30	60.00	1.74	59.35

Calibration Curve



Linear Regression

Sampler slope (m) :	**33.8939**
Sampler intercept (b) :	**0.4911**
Correlation coefficient (R^2) :	**0.9909**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 6-9-05

Checked by: _____ Date: 7-9-05

Ove Arup Partners (Hong Kong) Limited

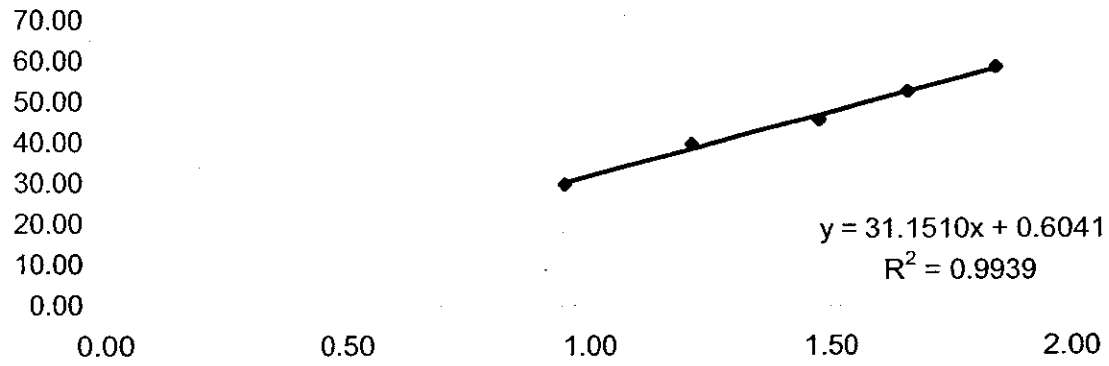
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA7 - Sea Crest Villa (Phase 4 Blk 12)	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0517	**T_{std}**	298 K

Calibrator model	GMW-2544
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.60	30.00	0.95	29.69
7	5.90	40.00	1.21	39.59
10	8.80	46.00	1.48	45.53
13	11.20	53.00	1.66	52.46
18	13.80	59.00	1.85	58.40

Calibration Curve



Linear Regression

Sampler slope (m) :	**31.1510**
Sampler intercept (b) :	**0.6041**
Correlation coefficient (R^2) :	**0.9939**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 29-7-05

Checked by: _____ Date: 30-7-05

G:\env\project\23437\env_data\dust\WCP07-0517\0517-Worksheet

Ove Arup Partners (Hong Kong) Limited

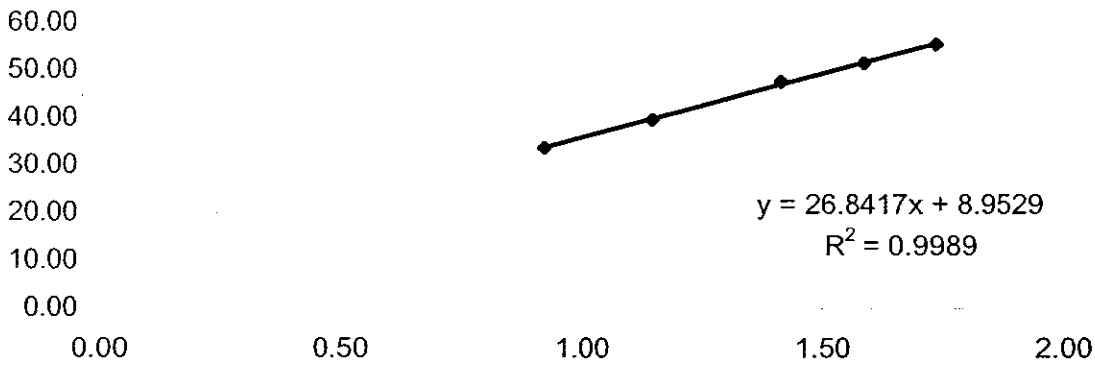
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA8 - Sea Crest Villa (Phase 3 Block 8)	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0526	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.40	34.00	0.92	33.65
7	5.30	40.00	1.15	39.59
10	8.10	48.00	1.42	47.51
13	10.20	52.00	1.59	51.47
18	12.20	56.00	1.74	55.43

Calibration Curve



Linear Regression

Sampler slope (m) :	**26.8417**
Sampler intercept (b) :	**8.9529**
Correlation coefficient (R^2) :	**0.9989**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 29-7-05

Checked by: _____ Date: 30-7-05

Ove Arup Partners (Hong Kong) Limited

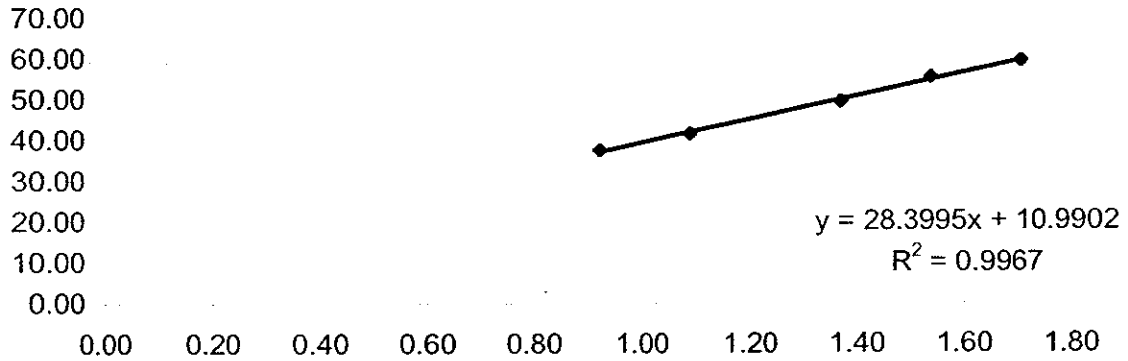
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA9 - Sea Crest Villa (Phase 2 Blk 6)	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0523	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.40	38.00	0.92	37.61
7	4.80	42.00	1.09	41.57
10	7.60	50.00	1.37	49.49
13	9.60	56.00	1.54	55.43
18	11.80	60.00	1.71	59.39

Calibration Curve



Linear Regression

Sampler slope (m) :	**28.3995**
Sampler intercept (b) :	**10.9902**
Correlation coefficient (R^2) :	**0.9967**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 28-7-05

Checked by: _____ Date: 30-7-05

Ove Arup Partners (Hong Kong) Limited

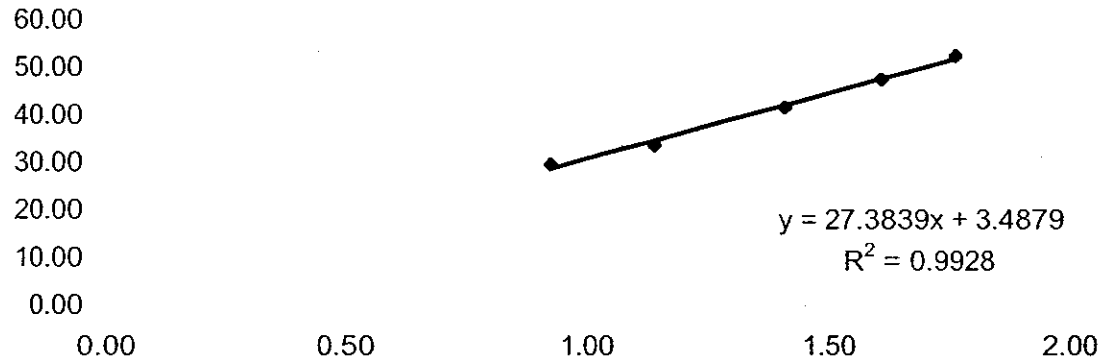
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA10 - Sea Crest Villa (Phase 1 Blk 1)	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0507	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.40	30.00	0.92	29.69
7	5.20	34.00	1.14	33.65
10	8.00	42.00	1.41	41.57
13	10.50	48.00	1.61	47.51
18	12.60	53.00	1.76	52.46

Calibration Curve



Linear Regression

Sampler slope (m) :	**27.3839**
Sampler intercept (b) :	**3.4879**
Correlation coefficient (R^2) :	**0.9928**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 29-7-05

Checked by: _____ Date: 30-7-05

Ove Arup Partners (Hong Kong) Limited

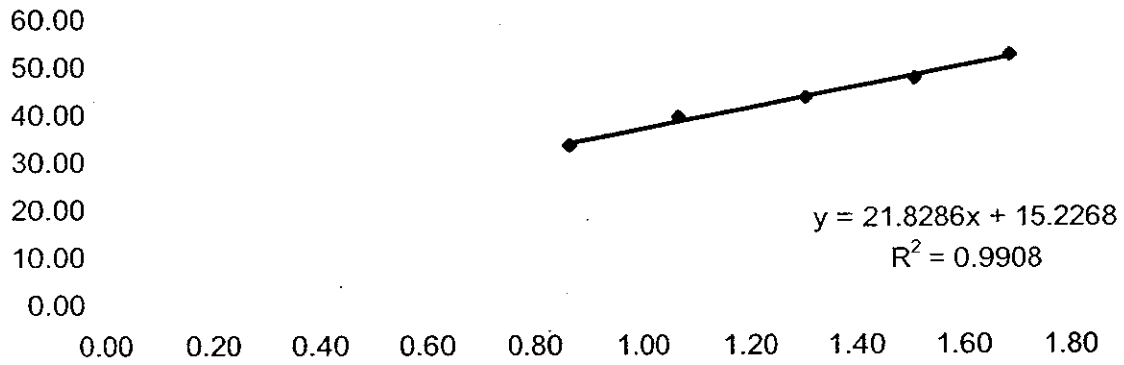
High Volume Air Sampler Calibration Worksheet

Calibration date	29-Jul-05	**Barometric pressure**	752 mm Hg
Calibration due date	27-Sep-05	**Tempature (°C)**	28 °C
Sampler location	WA11 - Lido Garden Tower 1	**Tempature (K)**	301 K
Sampler model	TE-5170	**P_{std}**	760 mm Hg
Sampler serial number	0521	**T_{std}**	298 K

Calibrator model	GMW-2535
Calibrator serial number	1378
Slope of the standard curve, m_s	2.00216
Intercept of the standard curve, b_s	-0.02053

Resistance Plate No.	Manometer Reading (inch H_2O)	Flow Recorder Reading (CFM)	Calculated Q_{std} (m^3/min)	Continuous Flow Recorder Reading IC (CFM)
5	3.00	34.00	0.87	33.65
7	4.60	40.00	1.07	39.59
10	6.90	44.00	1.31	43.55
13	9.20	48.00	1.51	47.51
18	11.50	53.00	1.69	52.46

Calibration Curve



Linear Regression

Sampler slope (m) :	**21.8286**
Sampler intercept (b) :	**15.2268**
Correlation coefficient (R^2) :	**0.9908**

Correlation coefficient is greater than 0.9900 and the calibration result is accepted.

Performed by: _____ Date: 29-7-05

Checked by: _____ Date: 30-7-05

TISCH ENVIROMENTAL, INC.
145 SOUTH MIAMI AVE.
VILLAGE OF CLEVES, OH 45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Feb 10, 2005 Rootsmeter S/N 9833620 Ta (K) - 292
Operator Tisch Orifice I.D. - 1378 Pa (mm) - 754.38

PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1	NA	NA	1.00	1.4010	3.2	2.00
2	NA	NA	1.00	0.9870	6.3	4.00
3	NA	NA	1.00	0.8840	7.8	5.00
4	NA	NA	1.00	0.8420	8.7	5.50
5	NA	NA	1.00	0.6960	12.5	8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)
1.0087	0.7200	1.4234
1.0045	1.0178	2.0130
1.0024	1.1340	2.2506
1.0013	1.1892	2.3604
0.9961	1.4313	2.8468

Qstd slope (m) = 2.00216
intercept (b) = -0.02053
coefficient (r) = 0.99997

y axis = SQRT[H2O(Pa/760)(298/Ta)]

Va	(x axis) Qa	(y axis)
0.9957	0.7107	0.8799
0.9917	1.0047	1.2443
0.9896	1.1194	1.3912
0.9884	1.1739	1.4591
0.9834	1.4129	1.7597

Qa slope (m) = 1.25372
intercept (b) = -0.01269
coefficient (r) = 0.99997

y axis = SQRT[H2O(Ta/Pa)]

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta)
Qstd = Vstd/Time

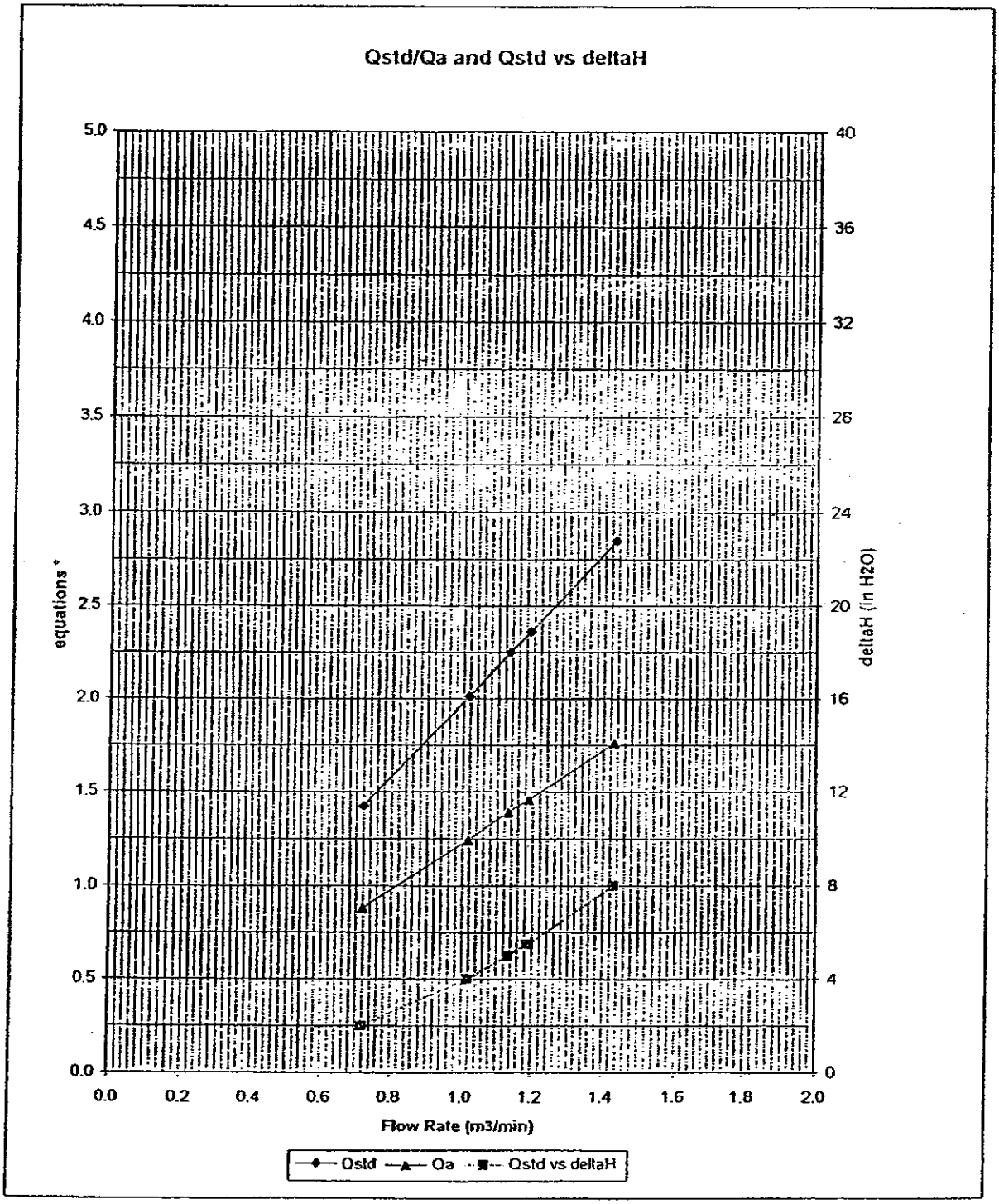
Va = Diff Vol [(Pa-Diff Hg)/Pa]
Qa = Va/Time

For subsequent flow rate calculations:

Qstd = 1/m{[SQRT(H2O(Pa/760)(298/Ta))]- b}
Qa = 1/m{[SQRT H2O(Ta/Pa)]- b}

TISCH ENVIROMENTAL, INC.
145 SOUTH MIAMI AVE.
VILLAGE OF CLEVES, OH 45002
513.467.9000
877.263.7610 TOLL FREE
513.467.9009 FAX
WWW.TISCH-ENV.COM

AIR POLLUTION MONITORING EQUIPMENT



* y-axis equations:

Qstd series: $\sqrt{\Delta H \left(\frac{Pa}{Pstd}\right)\left(\frac{Tstd}{Ta}\right)}$

Qa series: $\sqrt{(\Delta H\ (Ta\ /\ Pa))}$

1378

APPENDIX E

Calibration certificates of 1-hour TSP monitoring equipment

MIE

Thermo Andersen
500 Technology Ct., Smyrna, GA 30082
Toll-Free: 1-800-241-6898 Tel: 770-319-9999
Fax: 770-319-0336 www.Thermoandersen.com

*Personal*DataRAM Calibration Certificate

Record the serial number	S/N 4715	
Record the calibration ratio:	0.994	
Record the average pDR concentration:	382	$\mu g/m^3$
Record the calibration Master average concentration:	326	$\mu g/m^3$
Record the pDR background concentration:	124	$\mu g/m^3$
Temperature	72	°F
Humidity	33	%
Technician: Ramon	Date: 11-21-03	

THERMO ELECTRON
27 FORGE PARKWAY
FRANKLIN MA 02038
TOLL-FREE: 866-282-0430
TEL: 508-553-6949
FAX: 508-541-8366
WWW.THERMO.COM

MASTER # D320

PDR-1000 CALIBRATION CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	4736
CALIBRATION RATIO:	1.004
AVG. PDR-1000 CONCENTRATION:	2.75 mg/m3
CALIBRATION MASTER AVG. CONCENTRATION:	2.44 mg/m3
DR BACKROUND CONCENTRATION:	.271 mg/m3
TEMPERATURE:	74F
HUMIDITY:	44%

TECHNICIAN K. Lachapelle DATE: 7/27/04

THERMO ELECTRON
27 FORGE PARKWAY
FRANKLIN MA 02038
TOLL-FREE: 866-282-0430
TEL: 508-553-6949
FAX: 508-541-8366
WWW.THERMO.COM

MASTER # 2026

PDR-1000 CALIBRATION CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	4705
CALIBRATION RATIO:	.991
AVG. PDR-1000 CONCENTRATION:	176 ug/m3
CALIBRATION MASTER AVG. CONCENTRATION:	174 ug/m3
DR BACKROUND CONCENTRATION:	141 ug/m3
TEMPERATURE:	69F
HUMIDITY:	18%

TECHNICIAN: [signature]

DATE: 1/15/04

THERMO ELECTRON
27 FORGE PARKWAY
FRANKLIN MA 02038
TOLL-FREE: 866-282-0430
TEL: 508-553-6949
FAX: 508-541-8366
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MASTER # 2026

PDR-1000 CALIBRATION CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	4615
CALIBRATION RATIO:	1.008
AVG. PDR-1000 CONCENTRATION:	151 ug/m3
CALIBRATION MASTER AVG. CONCENTRATION:	140 ug/m3
DR BACKROUND CONCENTRATION:	123 ug/m3
TEMPERATURE:	69F
HUMIDITY:	18%

TECHNICIAN: PRochepelle DATE: 1/15/04

THERMO ELECTRON
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FAX: 508-541-8366
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MASTER # D320

PDR-1000 CALIBRATION CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	4492
CALIBRATION RATIO:	1.013
AVG. PDR-1000 CONCENTRATION:	3.04 mg/m3
CALIBRATION MASTER AVG. CONCENTRATION:	2.69 mg/m3
DR BACKROUND CONCENTRATION:	.291 mg/m3
TEMPERATURE:	75F
HUMIDITY:	52%

TECHNICIAN K. Lachapelle DATE: 7/27/04

MIE

Thermo Andersen
500 Technology Ct., Smyrna, GA 30082
Toll-Free: 1-800-241-6898 Tel: 770-319-9999
Fax: 770-319-0336 www.Thermoandersen.com

*Personal*DataRAM Calibration Certificate

Record the serial number	S/N 4496
Record the calibration ratio:	0.998
Record the average pDR concentration:	1249 µg/m³
Record the calibration Master average concentration:	1070 µg/m³
Record the pDR background concentration:	189 µg/m³
Temperature	75 °F
Humidity	45 %
Technician: Ramon	Date: 9-25-03

Rev. 5/01

THERMO ELECTRON
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FRANKLIN MA 02038
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MASTER # D320 LAST CALIBRATED 10/1/04

PDR-1000 CALIBRATION CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	4243
CALIBRATION RATIO:	.999
AVG. PDR-1000 CONCENTRATION:	2.72 mg/m3
CALIBRATION MASTER AVG. CONCENTRATION:	2.45 mg/m3
DR BACKROUND CONCENTRATION:	.268 mg/m3
TEMPERATURE:	78F
HUMIDITY:	22%

TECHNICIAN K. Lachapelle DATE: 10/6/04

THERMO ELECTRON
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FRANKLIN MA 02038
TOLL-FREE: 866-282-0430
TEL: 508-553-6949
FAX: 508-541-8366
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MASTER # D325 LAST CALIBRATED 12/17/04

PDR-1000 CALIBRATION

CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	4239
CALIBRATION RATIO:	0.9900
AVG. PDR-1000 CONCENTRATION:	2.53 mg/m3
CALIBRATION MASTER AVG. CONCENTRATION:	2.24 mg/m3
DR BACKROUND CONCENTRATION:	.280 mg/m3
TEMPERATURE:	71.7F
HUMIDITY:	21%

TECHNICIAN: DON MCELMAN DATE: 2/03/05

THERMO ELECTRON
27 FORGE PARKWAY
FRANKLIN MA 02038
TOLL-FREE: 866-282-0430
TEL: 508-553-6949
FAX: 508-541-8366
WWW.THERMO.COM

MASTER # D320 LAST CALIBRATED 10/1/04

PDR-1000 CALIBRATION CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	3809
CALIBRATION RATIO:	1.009
AVG. PDR-1000 CONCENTRATION:	2.91 mg/m3
CALIBRATION MASTER AVG. CONCENTRATION:	2.45 mg/m3
DR BACKROUND CONCENTRATION:	.448 mg/m3
TEMPERATURE:	78F
HUMIDITY:	22%

TECHNICIAN K. Lachapelle DATE: 10/6/04

THERMO ELECTRON
27 FORGE PARKWAY
FRANKLIN MA 02038
TOLL-FREE: 866-282-0430
TEL: 508-553-6949
FAX: 508-541-8366
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MASTER # D320 LAST CALIBRATED 10/1/04

PDR-1000 CALIBRATION CERTIFICATE

This calibration is traceable to the National Institute of Standards and Testing

SERIAL NUMBER:	3893
CALIBRATION RATIO:	.994
AVG. PDR-1000 CONCENTRATION:	2.74 mg/m3
CALIBRATION MASTER AVG. CONCENTRATION:	2.42 mg/m3
DR BACKROUND CONCENTRATION:	.262 mg/m3
TEMPERATURE:	78F
HUMIDITY:	22%

TECHNICIAN K. Lachapelle DATE: 10/6/04

APPENDIX F

Detailed air quality (1-hour TSP) monitoring results

Details of 1-Hour TSP Monitoring

Date	Receptor No.	Set No.	Time periods Start	Time periods Finish	Weather condition	Site condition	Temp. (°C)	Pressure (mmHg)	1-hour TSP Level (μg/m³)	Remarks
2-Aug-05	WA3	1	14:00	15:00	Sunny	Normal Operation	32.0	755.0	161.1	
2-Aug-05	WA3	2	15:00	16:00	Sunny	Normal Operation	32.0	755.0	145.6	
2-Aug-05	WA3	3	16:00	17:00	Sunny	Normal Operation	32.0	755.0	129.4	
2-Aug-05	WA4	1	14:02	15:02	Sunny	Normal Operation	32.0	755.0	209.8	
2-Aug-05	WA4	2	15:02	16:02	Sunny	Normal Operation	32.0	755.0	201.8	
2-Aug-05	WA4	3	16:02	17:02	Sunny	Normal Operation	32.0	755.0	192.4	
2-Aug-05	WA5	1	13:50	14:50	Sunny	Normal Operation	32.0	755.0	217.9	
2-Aug-05	WA5	2	14:50	15:50	Sunny	Normal Operation	32.0	755.0	159.0	
2-Aug-05	WA5	3	15:50	16:50	Sunny	Normal Operation	32.0	755.0	151.2	
2-Aug-05	WA6	1	13:50	14:50	Sunny	Normal Operation	32.0	755.0	157.6	
2-Aug-05	WA6	2	14:50	15:50	Sunny	Normal Operation	32.0	755.0	159.0	
2-Aug-05	WA6	3	15:50	16:50	Sunny	Normal Operation	32.0	755.0	151.2	
2-Aug-05	WA7	1	9:00	10:00	Sunny	Normal Operation	32.0	755.0	181.4	
2-Aug-05	WA7	2	10:00	11:00	Sunny	Normal Operation	32.0	755.0	198.4	
2-Aug-05	WA7	3	11:00	12:00	Sunny	Normal Operation	32.0	755.0	192.6	
2-Aug-05	WA8	1	9:00	10:00	Sunny	Normal Operation	32.0	755.0	143.0	
2-Aug-05	WA8	2	10:00	11:00	Sunny	Normal Operation	32.0	755.0	134.5	
2-Aug-05	WA8	3	11:00	12:00	Sunny	Normal Operation	32.0	755.0	140.5	
2-Aug-05	WA9	1	10:00	11:00	Sunny	Normal Operation	32.0	755.0	156.4	
2-Aug-05	WA9	2	11:00	12:00	Sunny	Normal Operation	32.0	755.0	151.9	
2-Aug-05	WA9	3	13:00	14:00	Sunny	Normal Operation	32.0	755.0	162.5	
2-Aug-05	WA10	1	9:00	10:00	Sunny	Normal Operation	32.0	755.0	121.8	
2-Aug-05	WA10	2	10:00	11:00	Sunny	Normal Operation	32.0	755.0	127.3	
2-Aug-05	WA10	3	13:00	14:00	Sunny	Normal Operation	32.0	755.0	119.3	
2-Aug-05	WA11	1	9:00	10:00	Sunny	Normal Operation	32.0	755.0	163.8	
2-Aug-05	WA11	2	10:00	11:00	Sunny	Normal Operation	32.0	755.0	158.9	
2-Aug-05	WA11	3	11:00	12:00	Sunny	Normal Operation	32.0	755.0	151.1	
8-Aug-05	WA3	1	13:31	14:31	Sunny	Normal Operation	32.0	753.0	173.4	
8-Aug-05	WA3	2	14:31	15:31	Sunny	Normal Operation	32.0	753.0	171.0	
8-Aug-05	WA3	3	15:31	16:31	Sunny	Normal Operation	32.0	753.0	172.8	
8-Aug-05	WA4	1	9:24	10:24	Sunny	Normal Operation	32.0	753.0	194.0	
8-Aug-05	WA4	2	10:24	11:24	Sunny	Normal Operation	32.0	753.0	170.3	
8-Aug-05	WA4	3	11:24	12:24	Sunny	Normal Operation	32.0	753.0	169.9	
8-Aug-05	WA5	1	9:19	10:19	Sunny	Normal Operation	32.0	753.0	147.6	
8-Aug-05	WA5	2	10:19	11:19	Sunny	Normal Operation	32.0	753.0	109.7	
8-Aug-05	WA5	3	11:19	12:19	Sunny	Normal Operation	32.0	753.0	84.1	
8-Aug-05	WA6	1	13:19	14:19	Sunny	Normal Operation	32.0	753.0	88.6	
8-Aug-05	WA6	2	14:19	15:19	Sunny	Normal Operation	32.0	753.0	76.6	
8-Aug-05	WA6	3	15:19	16:19	Sunny	Normal Operation	32.0	753.0	91.7	
8-Aug-05	WA7	1	10:05	11:05	Sunny	Normal Operation	32.0	753.0	173.4	
8-Aug-05	WA7	2	11:05	12:05	Sunny	Normal Operation	32.0	753.0	154.3	
8-Aug-05	WA7	3	13:00	14:00	Sunny	Normal Operation	32.0	753.0	177.5	
8-Aug-05	WA8	1	13:22	14:22	Sunny	Normal Operation	32.0	753.0	152.1	
8-Aug-05	WA8	2	14:22	15:22	Sunny	Normal Operation	32.0	753.0	139.7	
8-Aug-05	WA8	3	15:22	16:22	Sunny	Normal Operation	32.0	753.0	148.5	
8-Aug-05	WA9	1	13:14	14:14	Sunny	Normal Operation	32.0	753.0	180.2	
8-Aug-05	WA9	2	14:14	15:14	Sunny	Normal Operation	32.0	753.0	179.4	
8-Aug-05	WA9	3	15:14	16:14	Sunny	Normal Operation	32.0	753.0	56.9	
8-Aug-05	WA10	1	9:11	10:11	Sunny	Normal Operation	32.0	753.0	107.6	
8-Aug-05	WA10	2	10:11	11:11	Sunny	Normal Operation	32.0	753.0	74.6	
8-Aug-05	WA10	3	11:11	12:11	Sunny	Normal Operation	32.0	753.0	74.0	
8-Aug-05	WA11	1	9:18	10:18	Sunny	Normal Operation	32.0	753.0	128.9	
8-Aug-05	WA11	2	10:18	11:18	Sunny	Normal Operation	32.0	753.0	101.4	
8-Aug-05	WA11	3	11:18	12:18	Sunny	Normal Operation	32.0	753.0	93.2	
15-Aug-05	WA3	1	13:03	14:03	Cloudy	Normal Operation	30.0	755.0	128.9	
15-Aug-05	WA3	2	14:03	15:03	Cloudy	Normal Operation	30.0	755.0	190.3	
15-Aug-05	WA3	3	15:03	16:03	Cloudy	Normal Operation	30.0	755.0	173.3	
15-Aug-05	WA4	1	9:00	10:00	Cloudy	Normal Operation	30.0	755.0	150.8	
15-Aug-05	WA4	2	10:00	11:00	Cloudy	Normal Operation	30.0	755.0	151.0	
15-Aug-05	WA4	3	11:00	12:00	Cloudy	Normal Operation	30.0	755.0	189.5	
15-Aug-05	WA5	1	8:55	9:55	Cloudy	Normal Operation	30.0	755.0	114.0	
15-Aug-05	WA5	2	9:55	10:55	Cloudy	Normal Operation	30.0	755.0	88.6	
15-Aug-05	WA5	3	10:55	11:55	Cloudy	Normal Operation	30.0	755.0	144.7	
15-Aug-05	WA6	1	13:12	14:12	Cloudy	Normal Operation	30.0	755.0	120.1	
15-Aug-05	WA6	2	14:12	15:12	Cloudy	Normal Operation	30.0	755.0	139.2	
15-Aug-05	WA6	3	15:12	16:12	Cloudy	Normal Operation	30.0	755.0	144.6	
15-Aug-05	WA7	1	13:13	14:13	Cloudy	Normal Operation	30.0	755.0	116.8	
15-Aug-05	WA7	2	14:13	15:13	Cloudy	Normal Operation	30.0	755.0	98.6	
15-Aug-05	WA7	3	15:13	16:13	Cloudy	Normal Operation	30.0	755.0	83.6	
15-Aug-05	WA8	1	9:00	10:00	Cloudy	Normal Operation	30.0	755.0	120.9	
15-Aug-05	WA8	2	10:00	11:00	Cloudy	Normal Operation	30.0	755.0	125.2	
15-Aug-05	WA8	3	11:00	12:00	Cloudy	Normal Operation	30.0	755.0	164.0	
15-Aug-05	WA9	1	8:54	9:54	Cloudy	Normal Operation	30.0	755.0	130.5	
15-Aug-05	WA9	2	9:54	10:54	Cloudy	Normal Operation	30.0	755.0	110.4	
15-Aug-05	WA9	3	10:54	11:54	Cloudy	Normal Operation	30.0	755.0	151.8	
15-Aug-05	WA10	1	8:57	9:57	Cloudy	Normal Operation	30.0	755.0	153.2	
15-Aug-05	WA10	2	9:57	10:57	Cloudy	Normal Operation	30.0	755.0	150.0	
15-Aug-05	WA10	3	10:57	11:57	Cloudy	Normal Operation	30.0	755.0	192.0	
15-Aug-05	WA11	1	13:33	14:33	Cloudy	Normal Operation	30.0	755.0	46.1	
15-Aug-05	WA11	2	14:33	15:33	Cloudy	Normal Operation	30.0	755.0	34.0	
15-Aug-05	WA11	3	15:33	16:33	Cloudy	Normal Operation	30.0	755.0	61.0	
19-Aug-05	WA3	1	8:59	9:59	Rainy	Normal Operation	26.0	755.0	50.2	
19-Aug-05	WA3	2	9:59	10:59	Rainy	Normal Operation	26.0	755.0	41.7	

Details of 1-Hour TSP Monitoring

Date	Receptor No.	Set No.	Time periods Start	Time periods Finish	Weather condition	Site condition	Temp. (°C)	Pressure (mmHg)	1-hour TSP Level (μg/m³)	Remarks
19-Aug-05	WA3	3	10:59	11:59	Rainy	Normal Operation	26.0	755.0	84.5	
19-Aug-05	WA4	1	9:00	10:00	Rainy	Normal Operation	26.0	755.0	81.4	
19-Aug-05	WA4	2	10:00	11:00	Rainy	Normal Operation	26.0	755.0	102.0	
19-Aug-05	WA4	3	11:00	12:00	Rainy	Normal Operation	26.0	755.0	78.6	
19-Aug-05	WA5	1	8:53	9:53	Rainy	Normal Operation	26.0	755.0	61.7	
19-Aug-05	WA5	2	9:53	10:53	Rainy	Normal Operation	26.0	755.0	114.4	
19-Aug-05	WA5	3	10:53	11:53	Rainy	Normal Operation	26.0	755.0	56.2	
19-Aug-05	WA6	1	8:50	9:50	Rainy	Normal Operation	26.0	755.0	108.4	
19-Aug-05	WA6	2	9:50	10:50	Rainy	Normal Operation	26.0	755.0	122.7	
19-Aug-05	WA6	3	10:50	11:50	Rainy	Normal Operation	26.0	755.0	136.1	
19-Aug-05	WA7	1	13:12	14:12	Rainy	Normal Operation	26.0	755.0	50.9	
19-Aug-05	WA7	2	14:12	15:12	Rainy	Normal Operation	26.0	755.0	46.9	
19-Aug-05	WA7	3	15:12	16:12	Rainy	Normal Operation	26.0	755.0	56.2	
19-Aug-05	WA8	1	13:25	14:25	Rainy	Normal Operation	26.0	755.0	136.1	
19-Aug-05	WA8	2	14:25	15:25	Rainy	Normal Operation	26.0	755.0	132.4	
19-Aug-05	WA8	3	15:25	16:25	Rainy	Normal Operation	26.0	755.0	134.0	
19-Aug-05	WA9	1	13:16	14:16	Rainy	Normal Operation	26.0	755.0	183.1	
19-Aug-05	WA9	2	14:16	15:16	Rainy	Normal Operation	26.0	755.0	129.1	
19-Aug-05	WA9	3	15:16	16:16	Rainy	Normal Operation	26.0	755.0	119.5	
19-Aug-05	WA10	1	13:30	14:30	Rainy	Normal Operation	26.0	755.0	187.5	
19-Aug-05	WA10	2	14:30	15:30	Rainy	Normal Operation	26.0	755.0	152.8	
19-Aug-05	WA10	3	15:30	16:30	Rainy	Normal Operation	26.0	755.0	150.1	
19-Aug-05	WA11	1	13:02	14:02	Rainy	Normal Operation	26.0	755.0	91.0	
19-Aug-05	WA11	2	14:02	15:02	Rainy	Normal Operation	26.0	755.0	85.4	
19-Aug-05	WA11	3	15:02	16:02	Rainy	Normal Operation	26.0	755.0	103.2	
25-Aug-05	WA3	1	9:00	10:00	Fine	Normal Operation	28.0	758.0	192.2	
25-Aug-05	WA3	2	10:00	11:00	Fine	Normal Operation	28.0	758.0	161.8	
25-Aug-05	WA3	3	11:00	12:00	Fine	Normal Operation	28.0	758.0	136.5	
25-Aug-05	WA4	1	8:55	9:55	Fine	Normal Operation	28.0	758.0	219.8	
25-Aug-05	WA4	2	9:55	10:55	Fine	Normal Operation	28.0	758.0	177.3	
25-Aug-05	WA4	3	10:55	11:55	Fine	Normal Operation	28.0	758.0	129.9	
25-Aug-05	WA5	1	9:30	10:30	Fine	Normal Operation	28.0	758.0	231.5	
25-Aug-05	WA5	2	10:30	11:30	Fine	Normal Operation	28.0	758.0	189.9	
25-Aug-05	WA5	3	11:30	12:30	Fine	Normal Operation	28.0	758.0	192.0	
25-Aug-05	WA6	1	13:22	14:22	Fine	Normal Operation	28.0	758.0	215.3	
25-Aug-05	WA6	2	14:22	15:22	Fine	Normal Operation	28.0	758.0	182.4	
25-Aug-05	WA6	3	15:22	16:22	Fine	Normal Operation	28.0	758.0	147.2	
25-Aug-05	WA7	1	13:38	14:38	Fine	Normal Operation	28.0	758.0	184.2	
25-Aug-05	WA7	2	14:38	15:38	Fine	Normal Operation	28.0	758.0	185.6	
25-Aug-05	WA7	3	15:38	16:38	Fine	Normal Operation	28.0	758.0	187.5	
25-Aug-05	WA8	1	13:50	14:50	Fine	Normal Operation	28.0	758.0	113.5	
25-Aug-05	WA8	2	14:50	15:50	Fine	Normal Operation	28.0	758.0	114.0	
25-Aug-05	WA8	3	15:50	16:50	Fine	Normal Operation	28.0	758.0	112.3	
25-Aug-05	WA9	1	14:00	15:00	Fine	Normal Operation	28.0	758.0	113.5	
25-Aug-05	WA9	2	15:00	16:00	Fine	Normal Operation	28.0	758.0	114.0	
25-Aug-05	WA9	3	16:00	17:00	Fine	Normal Operation	28.0	758.0	112.3	
25-Aug-05	WA10	1	13:19	14:19	Fine	Normal Operation	28.0	758.0	139.7	
25-Aug-05	WA10	2	14:19	15:19	Fine	Normal Operation	28.0	758.0	140.9	
25-Aug-05	WA10	3	15:19	16:19	Fine	Normal Operation	28.0	758.0	143.3	
25-Aug-05	WA11	1	13:51	14:51	Fine	Normal Operation	28.0	758.0	182.6	
25-Aug-05	WA11	2	14:51	15:51	Fine	Normal Operation	28.0	758.0	158.8	
25-Aug-05	WA11	3	15:51	16:51	Fine	Normal Operation	28.0	758.0	148.2	
31-Aug-05	WA3	1	9:00	10:00	Sunny	Normal Operation	32.0	753.0	254.2	
31-Aug-05	WA3	2	10:00	11:00	Sunny	Normal Operation	32.0	753.0	203.2	
31-Aug-05	WA3	3	11:00	12:00	Sunny	Normal Operation	32.0	753.0	209.3	
31-Aug-05	WA4	1	8:53	9:53	Sunny	Normal Operation	32.0	753.0	250.7	
31-Aug-05	WA4	2	9:53	10:53	Sunny	Normal Operation	32.0	753.0	213.8	
31-Aug-05	WA4	3	10:53	11:53	Sunny	Normal Operation	32.0	753.0	234.9	
31-Aug-05	WA5	1	13:04	14:04	Sunny	Normal Operation	32.0	753.0	284.5	
31-Aug-05	WA5	2	14:04	15:04	Sunny	Normal Operation	32.0	753.0	275.7	
31-Aug-05	WA5	3	15:04	16:04	Sunny	Normal Operation	32.0	753.0	265.9	
31-Aug-05	WA6	1	13:14	14:14	Sunny	Normal Operation	32.0	753.0	291.1	
31-Aug-05	WA6	2	14:14	15:14	Sunny	Normal Operation	32.0	753.0	284.2	
31-Aug-05	WA6	3	15:14	16:14	Sunny	Normal Operation	32.0	753.0	273.9	
31-Aug-05	WA7	1	9:00	10:00	Sunny	Normal Operation	32.0	753.0	283.3	
31-Aug-05	WA7	2	10:00	11:00	Sunny	Normal Operation	32.0	753.0	241.9	
31-Aug-05	WA7	3	11:00	12:00	Sunny	Normal Operation	32.0	753.0	296.2	
31-Aug-05	WA8	1	8:55	9:55	Sunny	Normal Operation	32.0	753.0	188.6	
31-Aug-05	WA8	2	9:55	10:55	Sunny	Normal Operation	32.0	753.0	163.3	
31-Aug-05	WA8	3	10:55	11:55	Sunny	Normal Operation	32.0	753.0	193.6	
31-Aug-05	WA9	1	13:20	14:20	Sunny	Normal Operation	32.0	753.0	239.5	
31-Aug-05	WA9	2	14:20	15:20	Sunny	Normal Operation	32.0	753.0	237.0	
31-Aug-05	WA9	3	15:20	16:20	Sunny	Normal Operation	32.0	753.0	248.6	
31-Aug-05	WA10	1	13:12	14:12	Sunny	Normal Operation	32.0	753.0	201.7	
31-Aug-05	WA10	2	14:12	15:12	Sunny	Normal Operation	32.0	753.0	199.8	
31-Aug-05	WA10	3	15:12	16:12	Sunny	Normal Operation	32.0	753.0	208.7	
31-Aug-05	WA11	1	13:00	14:00	Sunny	Normal Operation	32.0	753.0	321.3	
31-Aug-05	WA11	2	14:00	15:00	Sunny	Normal Operation	32.0	753.0	316.1	
31-Aug-05	WA11	3	15:00	16:00	Sunny	Normal Operation	32.0	753.0	346.4	

APPENDIX G

Detailed air quality (24-hour TSP) monitoring results

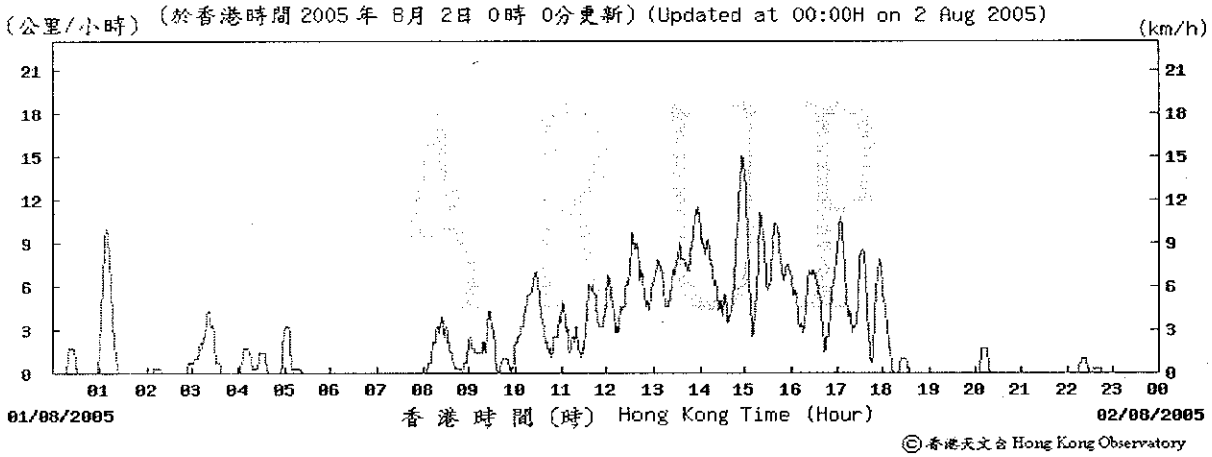
Details of 24-Hour TSP Monitoring

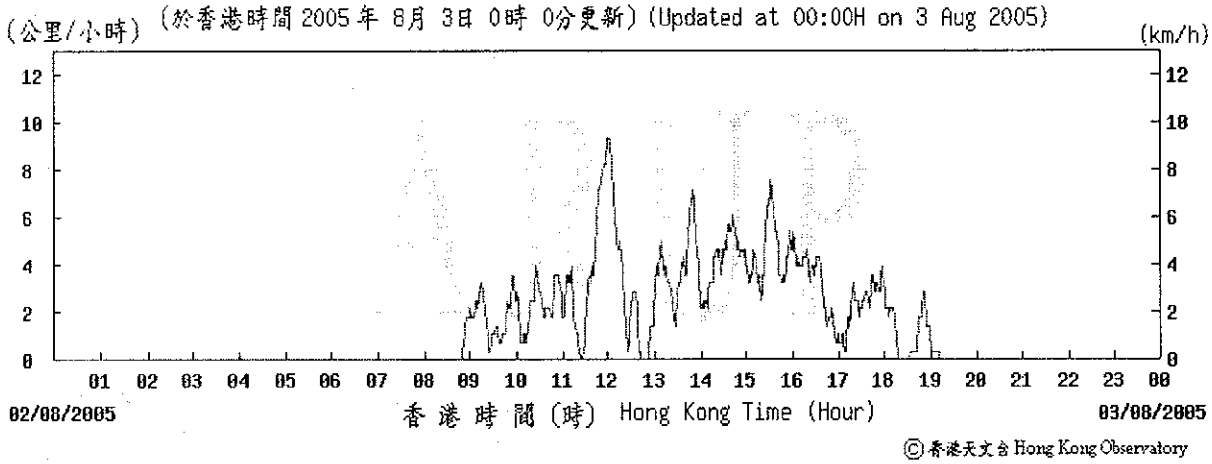
Date	Receptor No.	Weather condition	Site condition	Pressure (mmHg)		Temperature (oC)		Flow Recorder Reading (CFM)		Filter Weight (g)		TSP weight (g)	Flow Rate (m^3/min)		Average Flow Rate (m^3/min)	Elapse Time		Sampling Time (mins.)	Total vol. (m^3)	24-hour TSP Level (ug/m^3)
				Initial	Final	Initial	Final	Initial	Final	Initial	Final		Initial	Final		Start	Finish			
1-Aug-05	WA3	Sunny	Normal Operation	756	756	26	26	42	42	2.8567	2.9498	0.0931	1.1876	1.1876	1.1876	5491.91	5515.92	1440.60	1710.86	54.4
1-Aug-05	WA4	Sunny	Normal Operation	756	756	26	26	42	48	2.8695	2.9899	0.1204	1.4402	1.6119	1.5261	5559.30	5583.31	1440.60	2198.43	54.8
1-Aug-05	WA5	Sunny	Normal Operation	756	756	26	26	60	60	2.9279	3.0629	0.1350	1.8948	1.8948	1.8948	4543.59	4567.59	1440.00	2728.51	49.5
1-Aug-05	WA6	Sunny	Normal Operation	756	756	26	26	40	40	2.8892	3.0567	0.1675	1.1850	1.1850	1.1850	4919.33	4943.33	1440.00	1706.40	98.2
1-Aug-05	WA7	Sunny	Normal Operation	756	756	26	26	44	44	2.8862	2.9443	0.0581	1.3870	1.3870	1.3870	5539.25	5563.25	1440.00	1997.28	29.1
1-Aug-05	WA8	Sunny	Normal Operation	756	756	26	26	30	30	2.8751	2.9135	0.0384	0.7793	0.7793	0.7793	5605.27	5629.27	1440.00	1122.19	34.2
1-Aug-05	WA9	Sunny	Normal Operation	756	756	26	26	42	42	2.8928	2.9800	0.0872	1.0856	1.0856	1.0856	5630.12	5654.13	1440.60	1563.92	55.8
1-Aug-05	WA10	Sunny	Normal Operation	756	756	26	26	38	38	2.8679	2.9503	0.0824	1.2543	1.2543	1.2543	5562.75	5586.75	1440.00	1806.19	45.6
1-Aug-05	WA11	Sunny	Normal Operation	756	756	26	26	40	40	2.8646	3.0027	0.1381	1.1270	1.1270	1.1270	5665.21	5689.21	1440.00	1622.88	85.1
6-Aug-05	WA3	Sunny	Normal Operation	750	750	29	30	25	25	2.9336	3.0073	0.0737	0.4461	0.4443	0.4452	5515.92	5539.92	1440.00	641.09	115.0
6-Aug-05	WA4	Sunny	Normal Operation	750	750	29	30	40	40	2.9460	3.0867	0.1407	1.3727	1.3708	1.3718	5583.33	5607.33	1440.00	1975.32	71.2
6-Aug-05	WA5	Sunny	Normal Operation	750	750	29	30	58	56	2.9411	3.0752	0.1341	1.8165	1.7519	1.7842	4563.59	4587.59	1440.00	2569.25	52.2
6-Aug-05	WA6	Sunny	Normal Operation	750	750	29	30	40	40	2.9410	3.1095	0.1685	1.1743	1.1723	1.1733	4943.33	4967.33	1440.00	1689.55	99.7
6-Aug-05	WA7	Sunny	Normal Operation	750	750	29	30	42	40	2.9325	3.0067	0.0742	1.3111	1.2456	1.2784	5587.24	5611.24	1440.00	1840.82	40.3
6-Aug-05	WA8	Sunny	Normal Operation	750	750	29	30	47	42	2.9303	3.1090	0.1787	1.3943	1.2079	1.3011	5629.27	5653.27	1440.00	1873.58	95.4
6-Aug-05	WA9	Sunny	Normal Operation	750	750	29	30	28	30	2.9260	3.0063	0.0803	0.5859	0.6537	0.6198	5654.13	5678.13	1440.00	892.51	90.0
6-Aug-05	WA10	Sunny	Normal Operation	750	750	29	30	33	34	2.9417	3.0383	0.0966	1.0618	1.0958	1.0788	5586.75	5610.75	1440.00	1553.47	62.2
6-Aug-05	WA11	Sunny	Normal Operation	750	750	29	30	46	46	2.9392	3.0198	0.0806	1.3819	1.3785	1.3802	5710.89	5734.89	1440.00	1987.49	40.6
12-Aug-05	WA3	Fine	Normal Operation	753	750	26	28	22	24	2.9557	3.0154	0.0597	0.3247	0.4051	0.3649	5539.94	5563.94	1440.00	525.46	113.6
12-Aug-05	WA4	Fine	Normal Operation	753	750	26	28	40	40	2.9498	3.0053	0.0555	1.3807	1.3745	1.3776	5655.34	5679.34	1440.00	1983.74	28.0
12-Aug-05	WA5	Fine	Normal Operation	753	750	26	28	56	58	2.9232	3.2565	0.3333	1.7670	1.8194	1.7932	4587.59	4611.59	1440.00	2582.21	129.1
12-Aug-05	WA6	Fine	Normal Operation	753	750	26	28	40	40	2.9430	3.1898	0.2468	1.1826	1.1762	1.1794	4967.33	4991.33	1440.00	1698.34	145.3
12-Aug-05	WA7	Fine	Normal Operation	753	750	26	28	58	58	2.9258	3.1780	0.2522	1.8309	1.8209	1.8259	5611.34	5635.34	1440.00	2629.30	95.9
12-Aug-05	WA8	Fine	Normal Operation	753	750	26	28	46	46	2.9339	3.1479	0.2140	1.3695	1.3603	1.3649	5653.27	5677.27	1440.00	1985.46	108.9
12-Aug-05	WA9	Fine	Normal Operation	753	750	26	28	30	28	2.9257	3.0188	0.0931	0.6628	0.5875	0.6252	5678.13	5702.13	1440.00	900.22	103.4
12-Aug-05	WA10	Fine	Normal Operation	753	750	26	28	36	38	2.9303	3.1053	0.1750	1.1790	1.2442	1.2116	5610.76	5634.76	1440.00	1744.70	100.3
12-Aug-05	WA11	Fine	Normal Operation	753	750	26	28	44	44	2.9309	3.0435	0.1126	1.3055	1.2948	1.3002	5734.89	5758.89	1440.00	1872.22	60.1
18-Aug-05	WA3	Rainy	Normal Operation	755	756	25	25	34	32	2.9390	2.9818	0.0428	0.8447	0.7594	0.8021	5563.94	5587.94	1440.00	1154.95	37.1
18-Aug-05	WA4	Rainy	Normal Operation	755	756	25	25	40	46	2.9010	2.9746	0.0736	1.3841	1.5568	1.4705	5679.34	5703.34	1440.00	2117.45	34.8
18-Aug-05	WA5	Rainy	Normal Operation	755	756	25	25	58	58	2.9288	3.0070	0.0782	1.8344	1.8356	1.8350	4611.59	4635.59	1440.00	2642.40	29.6
18-Aug-05	WA6	Rainy	Normal Operation	755	756	25	25	40	40	2.9221	2.9685	0.0464	1.1862	1.1870	1.1866	4991.33	5015.33	1440.00	1708.70	27.2
18-Aug-05	WA7	Rainy	Normal Operation	755	756	25	25	56	54	2.9372	3.0118	0.0746	1.7724	1.7095	1.7410	5635.34	5659.34	1440.00	2506.97	29.8
18-Aug-05	WA8	Rainy	Normal Operation	755	756	25	25	42	42	2.9313	2.9919	0.0606	1.2260	1.2270	1.2265	5677.27	5701.27	1440.00	1766.16	34.3
18-Aug-05	WA9	Rainy	Normal Operation	755	756	25	25	26	26	2.9447	2.9893	0.0446	0.5255	0.5261	0.5258	5702.13	5726.13	1440.00	757.15	58.9
18-Aug-05	WA10	Rainy	Normal Operation	755	756	25	25	22	22	2.9287	3.0045	0.0758	0.6734	0.6739	0.6737	5634.76	5658.76	1440.00	970.06	78.1
18-Aug-05	WA11	Rainy	Normal Operation	755	756	25	25	46	44	2.8935	2.9925	0.0990	1.4028	1.3128	1.3578	5806.89	5830.89	1440.00	1955.23	50.6
24-Aug-05	WA3	Fine	Normal Operation	754	754	26	27	40	40	2.8955	2.9528	0.0573	1.0993	1.0963	1.0978	5587.94	5611.94	1440.00	1580.83	36.2
24-Aug-05	WA4	Fine	Normal Operation	754	754	26	27	34	36	2.9016	3.0631	0.1615	1.2099	1.2654	1.2377	5703.34	5727.34	1440.00	1782.22	90.6
24-Aug-05	WA5	Fine	Normal Operation	754	754	26	27	58	58	2.9079	3.0101	0.1022	1.8302	1.8272	1.8287	4635.59	4659.59	1440.00	2633.33	38.8
24-Aug-05	WA6	Fine	Normal Operation	754	754	26	27	40	40	2.9083	3.0211	0.1128	1.1834	1.1814	1.1824	4990.75	5014.75	1440.00	1702.66	66.2
24-Aug-05	WA7	Fine	Normal Operation	754	754	26	27	52	58	2.9046	3.0492	0.1446	1.6405	1.8289	1.7347	5659.34	5683.34	1440.00	2497.97	57.9
24-Aug-05	WA8	Fine	Normal Operation	754	754	26	27	44	46	2.8979	3.0336	0.1357	1.2965	1.3677	1.3321	5701.28	5725.28	1440.00	1918.22	70.7
24-Aug-05	WA9	Fine	Normal Operation	754	754	26	27	26	26	2.8990	2.9511	0.0521	0.5234	0.5218	0.5226	5726.13	5750.13	1440.00	752.54	69.2
24-Aug-05	WA10	Fine	Normal Operation	754	754	26	27	38	38	2.8892	2.9968	0.1076	1.2525	1.2502	1.2514	5658.76	5682.76	1440.00	1801.94	59.7
24-Aug-05	WA11	Fine	Normal Operation	754	754	26	27	45	45	2.9091	2.9783	0.0692	1.3524	1.3489	1.3507	5830.89	5854.89	1440.00	1944.94	35.6
30-Aug-05	WA3	Fine	Normal Operation	756	754	28	26	40	40	2.9037	2.9678	0.0641	1.0957	1.0993	1.0975	5611.94	5635.94	1440.00	1580.40	40.6
30-Aug-05	WA4	Fine	Normal Operation	756	754	28	26	34	40	2.9079	2.9873	0.0794	1.2079	1.3814	1.2947	5727.34	5751.34	1440.00	1864.30	42.6
30-Aug-05	WA5	Fine	Normal Operation	756	754	28	26	58	58	2.9258	3.0202	0.0944	1.8265	1.8302	1.8284	4659.59	4683.59	1440.00	2632.82	35.9
30-Aug-05	WA6	Fine	Normal Operation	756	754	28	26	32	32	2.9257	3.0881	0.1624	0.9224	0.9243	0.9234	4217.79	4241.79	1440.00	1329.62	122.1
30-Aug-05	WA7	Fine	Normal Operation	756	754	28	26	56	56	2.9191	2.9974	0.0783	1.7645	1.7682	1.7664	5683.34	5707.34	1440.00	2543.54	30.8
30-Aug-05	WA8	Fine	Normal Operation	756	754	28	26	42	43	2.9135	2.9778	0.0643	1.2192	1.2595	1.2394	5725.28	5749.28	1440.00	1784.66	36.0
30-Aug-05	WA9	Fine	Normal Operation	756	754	28	26	28	29	2.9137	2.9457	0.0320	0.5914	0.6284	0.6099	5750.13	5774.13	1440.00	878.26	36.4
30-Aug-05	WA10	Fine	Normal Operation	756	754	28	26	32	32	2.9128	2.9604	0.0476	1.0323	1.0347	1.0335	5682.77	5706.77	1440.00	1488.24	32.0
30-Aug-05	WA11	Fine	Normal Operation	756	754	28	26	44	44	2.9237	3.2359	0.3122	1.3027	1.3068	1.3048	5854.89	5878.89	1440.00	1878.84	166.2

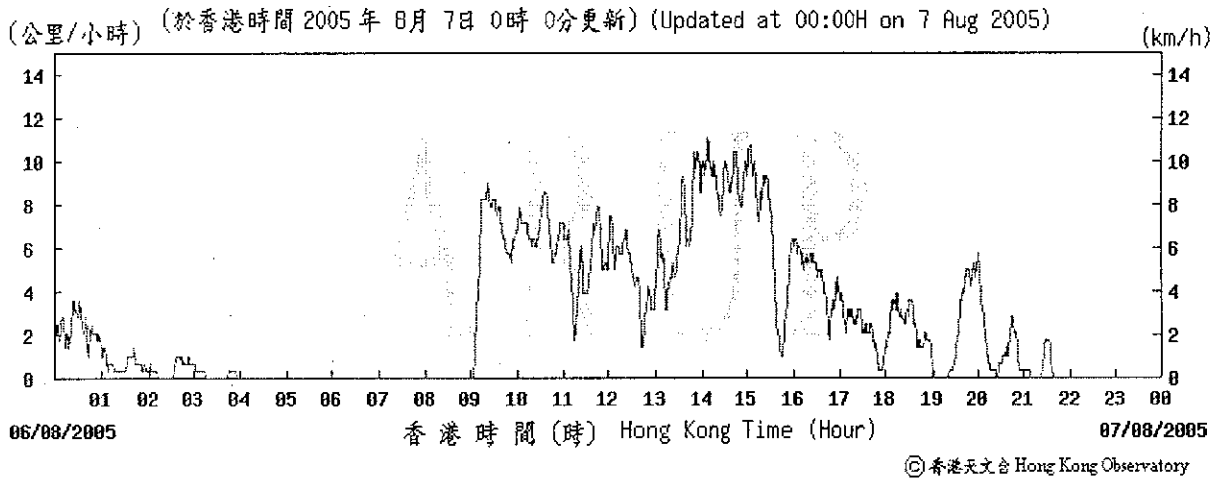
APPENDIX H

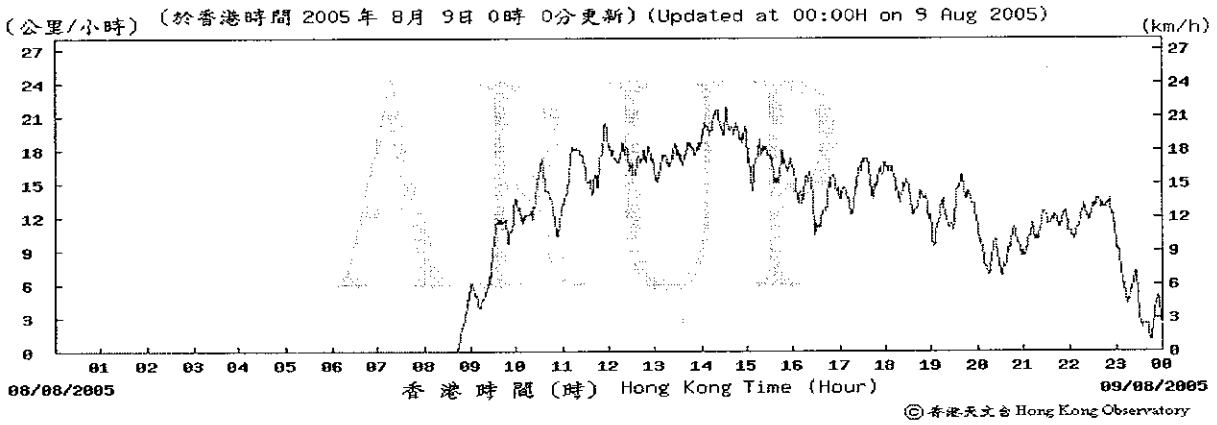
Detailed wind monitoring data for the air quality monitoring period

Wind Monitoring Data – Wind Speed during air quality monitoring in July 2005





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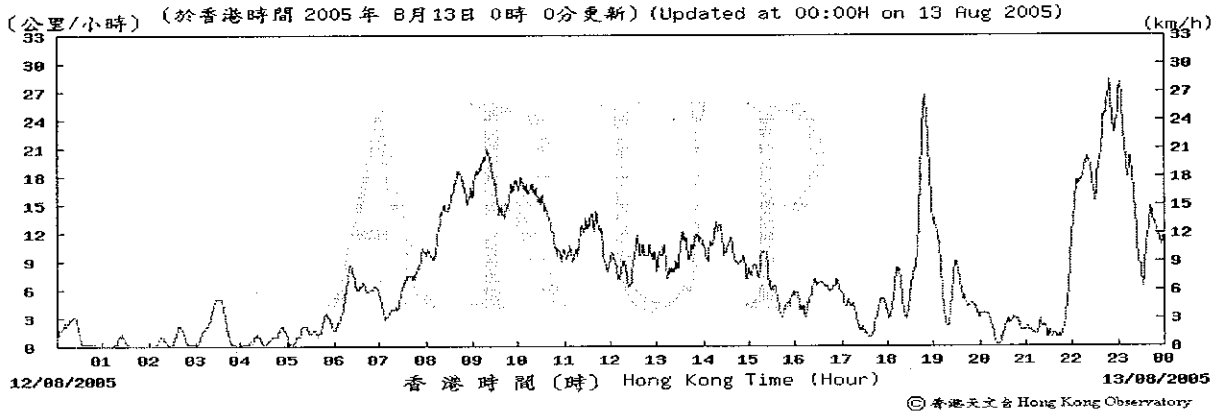
(km/h)
08/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
09/08/2005
© 香港天文台 Hong Kong Observatory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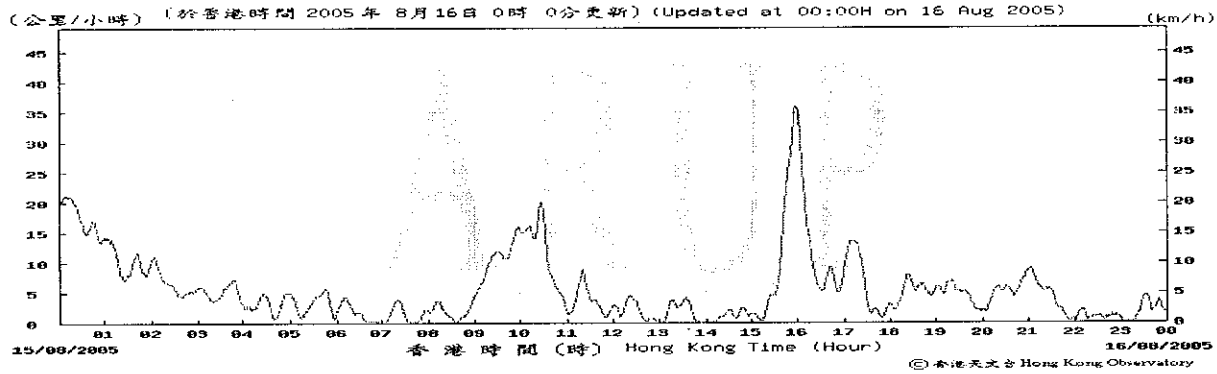
12/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
13/08/2005
© 香港天文台 Hong Kong Observatory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(km/h)
15/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
16/08/2005
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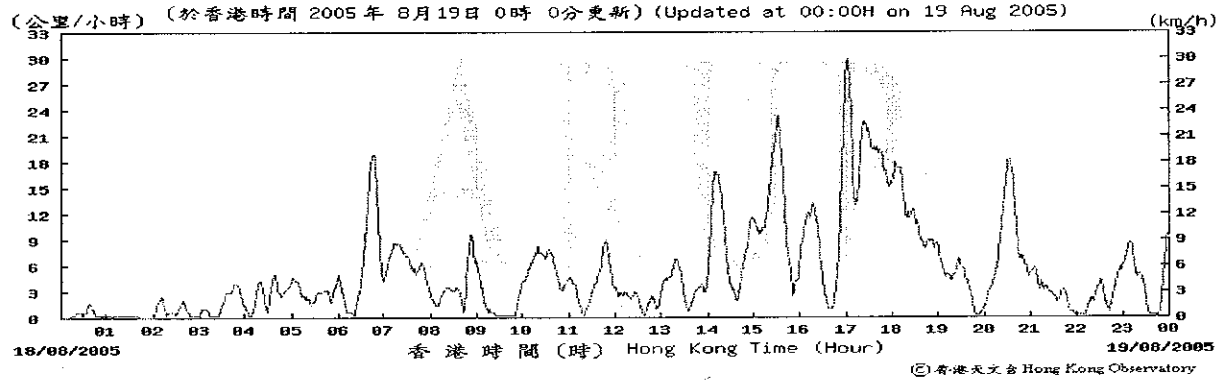
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(km/h)
18/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
19/08/2005
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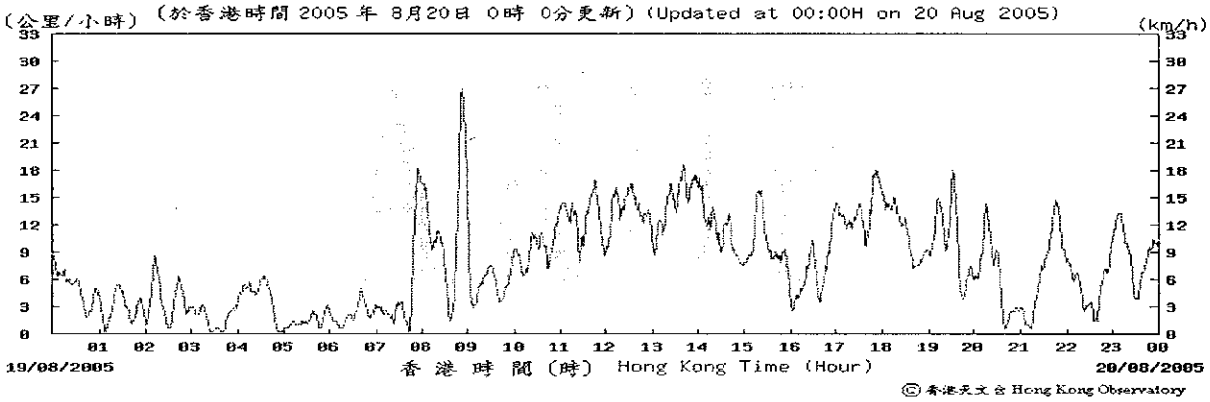
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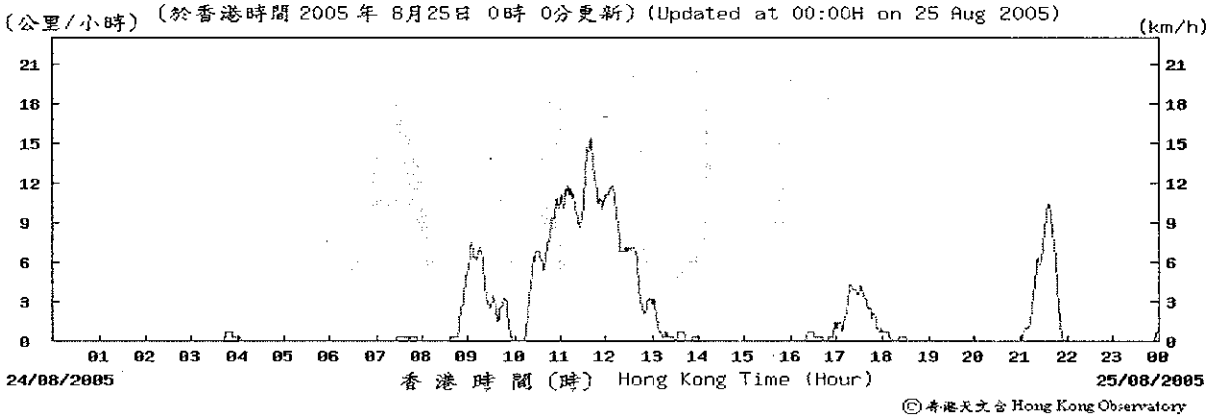
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 00
19/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
20/08/2005
© 香港天文台 Hong Kong Observatory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01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 00
24/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
25/08/2005
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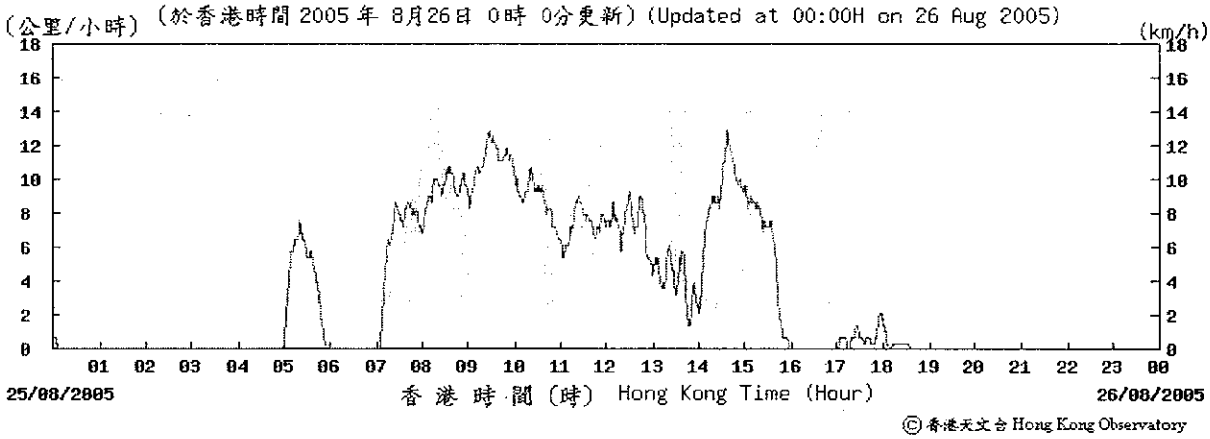
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(km/h)
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01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 00
25/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
26/08/2005
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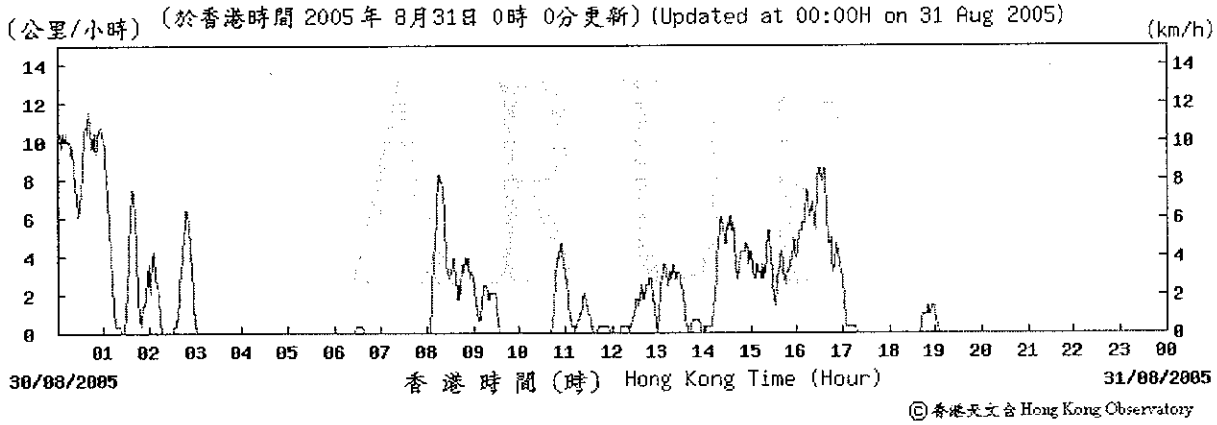
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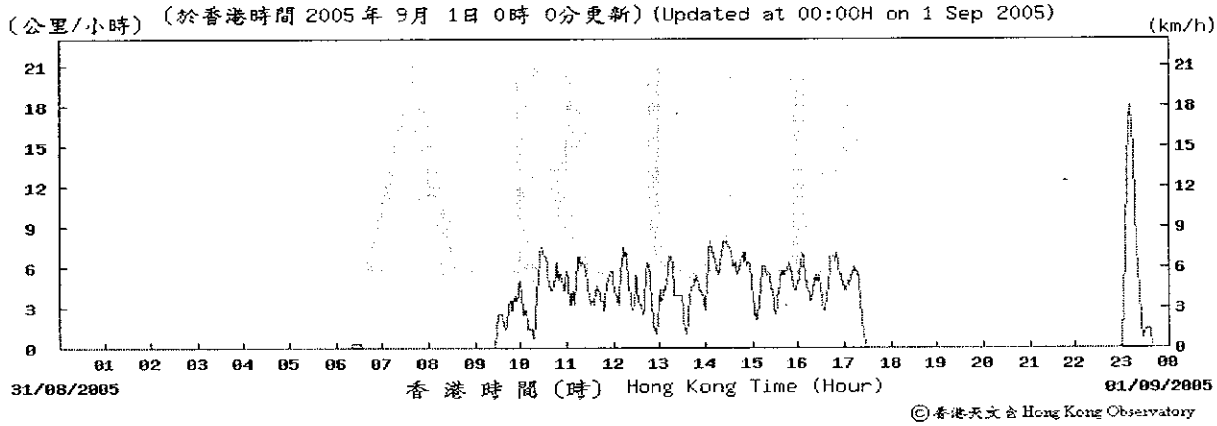
(km/h)
14
12
10
8
6
4
2
0
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 00
30/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
31/08/2005
© 香港天文台 Hong Kong Observatory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(km/h)
21
18
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12
9
6
3
0
01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 00
31/08/2005
香 港 時 間 (時) Hong Kong Time (Hour)
01/09/2005
© 香港天文台 Hong Kong Observatory

APPENDIX I

Calibration certificates of noise monitoring equipment

ArupAcoustics

ARUP

Level 5 Festival Walk
80 Tat Chee Avenue
Kowloon Tong, Kowloon
HONG KONG

Tel: +852 2268 3216

Fax: +852 2268 3950

AAc Certificate No. 2004001

CERTIFICATE OF CONFORMITY

Description of Test Instrument	Type No	Serial No
Bruel & Kjaer Acoustic Calibrator	4230	1233887

Date of Test: 16 July 2004

Carried out by: Steven Wong

Approved by: William Ng

Signature:

Signature:

Ambient Conditions During Test	
Atmospheric Pressure:	1KPa
Air Temperature:	28°C
Relative Humidity:	58%

This document is to certify that the above Test Instrumentation did conform to the manufacturer's original specification on the date of the test. Any adjustments that were required to bring the instrumentation back into specification are duly noted in this document. The tests were carried out using the reference calibrator described below.

Description of Reference Calibrator	Type No	Serial No
Brüel & Kjær Multi Frequency Calibrator	4226	1531372
Brüel & Kjær Coupler	UA0915	1531372

Certificate of Calibration Serial No.	12701
By Brüel & Kjær (UK) Ltd Calibration Date:	20 April 2004
NAMAS Accredited Calibration Laboratory No.	0174

The reference calibrator, Type 4226, has traceable calibration back to National Measurement Standards. As such it is used as Arup Acoustics own 'Primary Standard' and is used only for controlled laboratory calibration tests on all sound measuring equipment owned by Arup Acoustics.

Footnote:

Arup Acoustics is not a registered NAMAS accredited calibration laboratory. This certificate is for internal use only (unless otherwise authorised) and is part of Arup Acoustics development and commitment to QC and QA procedures.

ArupAcoustics

ARUP

Level 5 Festival Walk
80 Tat Chee Avenue
Kowloon Tong, Kowloon
HONG KONG

Tel: +852 2268 3216

Fax: +852 2268 3950

AAc Certificate No. 2004002

CERTIFICATE OF CONFORMITY

Description of Test Instrument	Type No	Serial No
Bruel & Kjaer Acoustic Calibrator	4231	2314016

Date of Test: 16 July 2004

Carried out by: Steven Wong

Signature:

Approved by: William Ng

Signature:

Ambient Conditions During Test	
Atmospheric Pressure:	1KPa
Air Temperature:	28°C
Relative Humidity:	58%

This document is to certify that the above Test Instrumentation did conform to the manufacturer's original specification on the date of the test. Any adjustments that were required to bring the instrumentation back into specification are duly noted in this document. The tests were carried out using the reference calibrator described below.

Description of Reference Calibrator	Type No	Serial No
Brüel & Kjær Multi Frequency Calibrator	4226	1531372
Brüel & Kjær Coupler	UA0915	1531372

Certificate of Calibration Serial No.	12701
By Brüel & Kjær (UK) Ltd Calibration Date:	20 April 2004
NAMAS Accredited Calibration Laboratory No.	0174

The reference calibrator, Type 4226, has traceable calibration back to National Measurement Standards. As such it is used as Arup Acoustics own 'Primary Standard' and is used only for controlled laboratory calibration tests on all sound measuring equipment owned by Arup Acoustics.

Footnote:

Arup Acoustics is not a registered NAMAS accredited calibration laboratory. This certificate is for internal use only (unless otherwise authorised) and is part of Arup Acoustics development and commitment to QC and QA procedures.

Brüel & Kjær

SPECTRIS CHINA LIMITED
思百吉中國有限公司

CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-5

Calibration of :

Description	:	Sound Level Meter	,	Microphone
Manufacture	:	Brüel & Kjær		
Type No.	:	2238	,	4188
Serial No.	:	2320707	,	2179479

Client :

Ove Arup & Partners Hong Kong Ltd.
Level 5, Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong, Kowloon,
Hong Kong.

Calibration Conditions :

Air Temperature	:	23.1	**°C**
Air Pressure	:	101.4	**kPa**
Relative Humidity	:	58	**%**

Test Specifications :

The Sound Level Meter has been calibrated in accordance with the requirements as specified in IEC 60651 and IEC 60804 type 1, and vendor specific procedures.

The measurements has been performed with the assistance of :
Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 CAL2238A, Ver.25.10.1999
The standard(s) and instrument(s) used in the calibration are traceable to international standard and are calibrated on a schedule which is adjusted to maintain the required accuracy level.

Test Result :

A list of the performed (sub) tests is stated on page 2 of this certificate. Actual Measurement are documented on worksheet.

Date of Calibration : 09 September, 2004
Calibrated By :

Fox Ng

Certificate issued : 10 September, 2004
Approved signatory :

Jacky Leung

Unit 706 7/F, Miramar Tower, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong
[illegible] 132 [illegible] 7樓706室

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CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-5 **Page** 2 **of** 2

Results :

List of performed (sub) test with test status:

"OK" Means the result of the (sub)test is Inside the tolerances stated in the test specifications.

" - " Means the result of the (sub)test is Outside these tolerances.

Test :	Subtest :	Status :
Noise	A	OK
Noise	C	OK
Noise	Lin	OK
Frequency Weighting	A	OK
Frequency Weighting	C	OK
Frequency Weighting	Lin	OK
Level Range Control	1000 Hz	OK
Linearity Range	SPL 10dB 4000 Hz	OK
Linearity Range	SPL 1dB 1000 Hz	OK
Linearity Range	Leq	OK
Linearity Range	SEL	OK
RMS Detector	CF 3	OK
RMS Detector	CF 5	OK
RMS Detector	CF 10	OK
RMS Detector	Symmetry	OK
Time Weighting	Difference Indication	OK
Time Weighting	Single Burst FAST	OK
Time Weighting	Single Burst SLOW	OK
Time Weighting	Single Burst IMPULSE	OK
Time Weighting	Repetitive Burst	OK
Time Weighting	Peak	OK
Time Averaging		OK
Pulse Range		OK
Overload	SPL	OK
Overload	SEL	OK
Acoustic Response	A	OK
Acoustic Response	Lin	OK

Calibration Equipment :

Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 CAL2238A, Ver.25.10.1999

Description :	Make & Model :	Serial No. :	Last Cal. Date :	Traceable to:
Digital Multi-meter	Datron 1281	27361	08 Oct, 2003	HKSCL (HOKLAS)
Sine/Noise Generator	B&K 1049	1314978	Test	B&K Conformance
Test Waveform Generator	B&K 5918	1482949	Test	B&K Conformance
Acoustical Calibrator	B&K 4226	1551627	22 Jun, 2004	NPL via B&K (UKAS)

Calibrated By : Date : 09 September, 2004

Checked By : Date : 10 September, 2004

CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-4

Calibration of :

Description	:	Sound Level Meter	,	Microphone
Manufacture	:	Brüel & Kjær		
Type No.	:	2238	,	4188
Serial No.	:	2320696	,	2274286

Client :

Ove Arup & Partners Hong Kong Ltd.
Level 5, Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong, Kowloon,
Hong Kong.

Calibration Conditions :

Air Temperature	:	23.2	°C
Air Pressure	:	101.2	kPa
Relative Humidity	:	59	%

Test Specifications :

The Sound Level Meter has been calibrated in accordance with the requirements as specified in IEC 60651 and IEC 60804 type 1, and vendor specific procedures.

The measurements has been performed with the assistance of :
Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 CAL2238A, Ver.25.10.1999
The standard(s) and instrument(s) used in the calibration are traceable to international standard and are calibrated on a schedule which is adjusted to maintain the required accuracy level.

Test Result :

A list of the performed (sub) tests is stated on page 2 of this certificate. Actual Measurement are documented on worksheet.

Date of Calibration : 10 September, 2004
Calibrated By :

Fox Ng

Certificate issued : 10 September, 2004
Approved signatory :

Jacky Leung

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CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-4 **Page** 2 **of** 2

Results :

List of performed (sub) test with test status:

"OK" Means the result of the (sub)test is Inside the tolerances stated in the test specifications.

"-" Means the result of the (sub)test is Outside these tolerances.

Test :	Subtest :	Status :
Noise	A	OK
Noise	C	OK
Noise	Lin	OK
Frequency Weighting	A	OK
Frequency Weighting	C	OK
Frequency Weighting	Lin	OK
Level Range Control	1000 Hz	OK
Linearity Range	SPL 10dB 4000 Hz	OK
Linearity Range	SPL 1dB 1000 Hz	OK
Linearity Range	Leq	OK
Linearity Range	SEL	OK
RMS Detector	CF 3	OK
RMS Detector	CF 5	OK
RMS Detector	CF 10	OK
RMS Detector	Symmetry	OK
Time Weighting	Difference Indication	OK
Time Weighting	Single Burst FAST	OK
Time Weighting	Single Burst SLOW	OK
Time Weighting	Single Burst IMPULSE	OK
Time Weighting	Repetitive Burst	OK
Time Weighting	Peak	OK
Time Averaging		OK
Pulse Range		OK
Overload	SPL	OK
Overload	SEL	OK
Acoustic Response	A	OK
Acoustic Response	Lin	OK

Calibration Equipment :

Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 CAL2238A, Ver.25.10.1999

Description :	Make & Model :	Serial No. :	Last Cal. Date :	Traceable to:
Digital Multi-meter	Datron 1281	27361	08 Oct, 2003	HKSCL (HOKLAS)
Sine/Noise Generator	B&K 1049	1314978	Test	B&K Conformance
Test Waveform Generator	B&K 5918	1482949	Test	B&K Conformance
Acoustical Calibrator	B&K 4226	1551627	22 Jun, 2004	NPL via B&K (UKAS)

Calibrated By : Date : 10 September, 2004

Checked By : Date : 10 September, 2004

Brüel & Kjær

SPECTRIS CHINA LIMITED
思百吉中國有限公司

CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-3

Calibration of :

Description	:	Sound Level Meter	,	Microphone
Manufacture	:	Brüel & Kjær		
Type No.	:	2238	,	4188
Serial No.	:	2320694	,	2274284

Client :

Ove Arup & Partners Hong Kong Ltd.
Level 5, Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong, Kowloon,
Hong Kong.

Calibration Conditions :

Air Temperature	:	23.2	°C
Air Pressure	:	101.2	kPa
Relative Humidity	:	59	%

Test Specifications :

The Sound Level Meter has been calibrated in accordance with the requirements as specified in IEC 60651 and IEC 60804 type 1, and vendor specific procedures.

The measurements has been performed with the assistance of :
Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 CAL2238A, Ver.25.10.1999
The standard(s) and instrument(s) used in the calibration are traceable to international standard and are calibrated on a schedule which is adjusted to maintain the required accuracy level.

Test Result :

A list of the performed (sub) tests is stated on page 2 of this certificate. Actual Measurement are documented on worksheet.

Date of Calibration : 10 September, 2004
Calibrated By :

Fox Ng

Certificate issued : 10 September, 2004
Approved signatory :

Jacky Leung

Unit 706 7/F., Miramar Tower, 132 Nathan Road, Tsim Sha Tsui, Kowloon, Hong Kong
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CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-3 **Page** 2 **of** 2

Results :

List of performed (sub) test with test status:

"OK" Means the result of the (sub)test is Inside the tolerances stated in the test specifications.

"-" Means the result of the (sub)test is Outside these tolerances.

Test :	Subtest :	Status :
Noise	A	OK
Noise	C	OK
Noise	Lin	OK
Frequency Weighting	A	OK
Frequency Weighting	C	OK
Frequency Weighting	Lin	OK
Level Range Control	1000 Hz	OK
Linearity Range	SPL 10dB 4000 Hz	OK
Linearity Range	SPL 1dB 1000 Hz	OK
Linearity Range	Leq	OK
Linearity Range	SEL	OK
RMS Detector	CF 3	OK
RMS Detector	CF 5	OK
RMS Detector	CF 10	OK
RMS Detector	Symmetry	OK
Time Weighting	Difference Indication	OK
Time Weighting	Single Burst FAST	OK
Time Weighting	Single Burst SLOW	OK
Time Weighting	Single Burst IMPULSE	OK
Time Weighting	Repetitive Burst	OK
Time Weighting	Peak	OK
Time Averaging		OK
Pulse Range		OK
Overload	SPL	OK
Overload	SEL	OK
Acoustic Response	A	OK
Acoustic Response	Lin	OK

Calibration Equipment :

Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 CAL2238A, Ver.25.10.1999

Description :	Make & Model :	Serial No. :	Last Cal. Date :	Traceable to:
Digital Multi-meter	Datron 1281	27361	08 Oct, 2003	HKSCL (HOKLAS)
Sine/Noise Generator	B&K 1049	1314978	Test	B&K Conformance
Test Waveform Generator	B&K 5918	1482949	Test	B&K Conformance
Acoustical Calibrator	B&K 4226	1551627	22 Jun, 2004	NPL via B&K (UKAS)

Calibrated By :
Date : 10 September, 2004

Checked By :
Date : 10 September, 2004

Brüel & Kjær

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CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-1

Calibration of :

Description	:	Sound Level Meter	,	Microphone
Manufacture	:	Brüel & Kjær		
Type No.	:	2231	,	4188
Serial No.	:	1294630	,	2179478

Client : Ove Arup & Partners Hong Kong Ltd.
Level 5, Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong, Kowloon,
Hong Kong.

Calibration Conditions :

Air Temperature	:	23.2	°C
Air Pressure	:	101.2	kPa
Relative Humidity	:	59	%

Test Specifications :

The Sound Level Meter has been calibrated in accordance with the requirements as specified in IEC 60651 and IEC 60804 type 1, and vendor specific procedures.

The measurements has been performed with the assistance of :
Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 C2231_10, Ver.03.11.1995
The standard(s) and instrument(s) used in the calibration are traceable to international standard and are calibrated on a schedule which is adjusted to maintain the required accuracy level.

Test Result :

A list of the performed (sub) tests is stated on page 2 of this certificate. Actual Measurement are documented on worksheet.

Date of Calibration: 10 September, 2004
Calibrated By :

Fox Ng

Certificate issued: 10 September, 2004
Approved Signatory :

Jacky Leung

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CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-1

Results :

List of performed (sub) test with test status:
"OK" Means the result of the (sub)test is Inside the tolerances stated in the test specifications.
" - " Means the result of the (sub)test is Outside these tolerances.

Test :	Subtest :	Status :
Noise	A	OK
Noise	C	OK
Noise	Lin	OK
Noise	Lin Lim	OK
Frequency Weighting	A	OK
Frequency Weighting	C	OK
Frequency Weighting	Lin	OK
Frequency Weighting	Lin Lim	OK
Frequency Weighting	Random	OK
Level Range Control	4000 Hz	OK
Linearity Range	SPL 10dB 1000 Hz	OK
Linearity Range	SPL 1dB 4000 Hz	OK
Linearity Range	Leq	OK
Linearity Range	SEL	OK
RMS Detector	CF 3	OK
RMS Detector	CF 5	OK
RMS Detector	CF 10	OK
RMS Detector	Symmetry	OK
Time Weighting	Difference Indication	OK
Time Weighting	Single Burst FAST	OK
Time Weighting	Single Burst SLOW	OK
Time Weighting	Single Burst IMPULSE	OK
Time Weighting	Repetitive Burst	OK
Time Weighting	Peak	OK
Time Averaging	Leq-SEL	OK
Pulse Range	SEL-Leq	OK
Overload	SPL	OK
Overload	SEL	OK
Internal Reference		OK
Acoustic Response	A	OK
Acoustic Response	Lin	OK

Calibration Equipment :

Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 C2231_10, Ver.03.11.1995

Description :	Make & Model :	Serial No. :	Last Cal. Date :	Traceable To
Digital Multi-meter	Datron 1281	27361	08 Oct 2003	HKSCL(HOKLAS)
Sine/Noise Generator	B&K 1049	1314978	Test	B&K Conformance
Test Waveform Generator	B&K 5918	1482949	Test	B&K Conformance
Acoustical Calibrator	B&K 4226	1551627	22 Jun, 2004	NPL via B&K (UKAS)

Calibrated By : Ng
Date :10 September, 2004

Checked By : Lucky
Date : 10 September, 2004

Brüel & Kjær

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CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-2

Calibration of :

Description	: Sound Level Meter	,	Microphone
Manufacture	: Brüel & Kjær		
Type No.	: 2231	,	4188
Serial No.	: 1709184	,	2179476

Client : Ove Arup & Partners Hong Kong Ltd.
Level 5, Festival Walk,
80 Tat Chee Avenue,
Kowloon Tong, Kowloon,
Hong Kong.

Calibration Conditions :

Air Temperature	:	23.2	°C
Air Pressure	:	101.2	kPa
Relative Humidity	:	59	%

Test Specifications :

The Sound Level Meter has been calibrated in accordance with the requirements as specified in IEC 60651 and IEC 60804 type 1, and vendor specific procedures.

The measurements has been performed with the assistance of :
Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 C2231_10, Ver.03.11.1995
The standard(s) and instrument(s) used in the calibration are traceable to international standard and are calibrated on a schedule which is adjusted to maintain the required accuracy level.

Test Result :

A list of the performed (sub) tests is stated on page 2 of this certificate. Actual Measurement are documented on worksheet.

Date of Calibration: 10 September, 2004
Calibrated By :

Fox Ng

Certificate issued: 10 September, 2004
Approved Signatory :

Jacky Leung

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CERTIFICATE OF CALIBRATION

Certificate No. : 2KS040905-2

Results :

List of performed (sub) test with test status:
"OK" Means the result of the (sub)test is Inside the tolerances stated in the test specifications.
"-" Means the result of the (sub)test is Outside these tolerances.

Test :	Subtest :	Status :
Noise	A	OK
Noise	C	OK
Noise	Lin	OK
Noise	Lin Lim	OK
Frequency Weighting	A	OK
Frequency Weighting	C	OK
Frequency Weighting	Lin	OK
Frequency Weighting	Lin Lim	OK
Frequency Weighting	Random	OK
Level Range Control	4000 Hz	OK
Linearity Range	SPL 10dB 1000 Hz	OK
Linearity Range	SPL 1dB 4000 Hz	OK
Linearity Range	Leq	OK
Linearity Range	SEL	OK
RMS Detector	CF 3	OK
RMS Detector	CF 5	OK
RMS Detector	CF 10	OK
RMS Detector	Symmetry	OK
Time Weighting	Difference Indication	OK
Time Weighting	Single Burst FAST	OK
Time Weighting	Single Burst SLOW	OK
Time Weighting	Single Burst IMPULSE	OK
Time Weighting	Repetitive Burst	OK
Time Weighting	Peak	OK
Time Averaging	Leq-SEL	OK
Pulse Range	SEL-Leq	OK
Overload	SPL	OK
Overload	SEL	OK
Internal Reference		OK
Acoustic Response	A	OK
Acoustic Response	Lin	OK

Calibration Equipment :

Brüel & Kjær's Sound Level Meter Calibration System B&K 9600 C2231_10, Ver.03.11 1995

Description :	Make & Model :	Serial No. :	Last Cal. Date :	Traceable To
Digital Multi-meter	Datron 1281	27361	08 Oct 2003	HKSCL(HOKLAS)
Sine/Noise Generator	B&K 1049	1314978	Test	B&K Conformance
Test Waveform Generator	B&K 5918	1482949	Test	B&K Conformance
Acoustical Calibrator	B&K 4226	1551627	22 Jun. 2004	NPL via B&K (UKAS)

Calibrated By : Rex Ng
Date :10 September, 2004

Checked By :
Date : 10 September, 2004

APPENDIX J

Detailed noise monitoring results

Details of Noise Impact Monitoring

Date	NSR No.	Time periods		Weather condition	Avg. wind speed (m/s)	Noise Level dB(A)			Influencing factors/ Site condition
		Start	Finish			L_{eq}	L_{10}	L_{90}	
2-Aug-05	WN1	13:15	13:45	Sunny	1.7	67.3	69.2	63.1	Normal Operation
2-Aug-05	WN2	13:15	13:45	Sunny	1.4	67.7	68.2	62.1	Normal Operation
2-Aug-05	WN6	14:10	14:40	Sunny	1.1	65.3	67.1	63.1	Normal Operation
2-Aug-05	WN7	14:55	15:25	Sunny	1.3	66.6	67.7	63.2	Normal Operation
2-Aug-05	WN8	15:50	16:20	Sunny	1.4	65.6	67.2	63.1	Normal Operation
2-Aug-05	WN9	11:30	12:00	Sunny	0.8	71.8	73.2	66.1	Normal Operation
2-Aug-05	WN10	16:50	17:20	Sunny	1.1	69.3	72.3	67.7	Normal Operation
2-Aug-05	WN11	10:10	10:40	Sunny	1.6	70.4	72.2	65.1	Normal Operation
2-Aug-05	WN12	9:45	10:15	Sunny	1.8	70.1	73.3	66.4	Normal Operation
2-Aug-05	WN13	13:40	14:10	Sunny	1.6	70.9	73.8	67.6	Normal Operation
2-Aug-05	WN14	13:00	13:30	Sunny	1.7	69.6	72.4	63.2	Normal Operation
2-Aug-05	WN15	11:15	11:45	Sunny	1.4	69.1	72.2	60.5	Normal Operation
2-Aug-05	WN16	10:30	11:00	Sunny	1.4	66.8	70.6	63.6	Normal Operation
8-Aug-05	WN1	13:15	13:45	Sunny	1.1	65.1	67.2	61.8	Normal Operation
8-Aug-05	WN2	13:50	14:20	Sunny	1.3	65.3	67.1	61.8	Normal Operation
8-Aug-05	WN6	15:00	15:30	Sunny	2.0	67.0	68.2	63.1	Normal Operation
8-Aug-05	WN7	15:40	16:10	Sunny	1.8	68.9	69.2	62.1	Normal Operation
8-Aug-05	WN8	16:20	16:50	Sunny	1.8	68.6	69.2	62.1	Normal Operation
8-Aug-05	WN9	14:50	15:20	Sunny	1.0	73.0	74.8	67.8	Normal Operation
8-Aug-05	WN10	10:50	11:20	Sunny	1.2	72.5	74.2	67.1	Normal Operation
8-Aug-05	WN11	15:35	16:05	Sunny	1.9	70.3	71.7	66.7	Normal Operation
8-Aug-05	WN12	9:30	10:00	Sunny	1.8	67.3	69.2	63.1	Normal Operation
8-Aug-05	WN13	11:30	12:00	Sunny	1.4	66.0	68.2	62.8	Normal Operation
8-Aug-05	WN14	10:55	11:25	Sunny	1.0	65.7	67.8	61.8	Normal Operation
8-Aug-05	WN15	10:15	10:45	Sunny	1.6	68.7	70.2	63.8	Normal Operation
8-Aug-05	WN16	9:30	10:00	Sunny	1.7	73.2	74.8	68.8	Normal Operation
15-Aug-05	WN1	13:15	13:45	Cloudy	1.3	67.6	69.5	63.0	Normal Operation
15-Aug-05	WN2	14:00	14:30	Cloudy	1.6	67.2	69.5	63.5	Normal Operation
15-Aug-05	WN6	9:15	9:45	Cloudy	2.3	68.4	70.0	65.0	Normal Operation
15-Aug-05	WN7	9:55	10:25	Cloudy	1.7	66.7	69.5	61.5	Normal Operation
15-Aug-05	WN8	10:45	11:15	Cloudy	1.0	66.9	70.0	63.5	Normal Operation
15-Aug-05	WN9	11:30	12:00	Cloudy	0.8	69.8	72.5	65.5	Normal Operation
15-Aug-05	WN10	15:00	15:30	Cloudy	1.3	68.7	70.5	64.0	Normal Operation
15-Aug-05	WN11	15:40	16:10	Cloudy	1.8	69.3	72.0	66.0	Normal Operation
15-Aug-05	WN12	15:25	15:55	Cloudy	2.2	66.8	70.2	62.2	Normal Operation
15-Aug-05	WN13	11:25	11:55	Cloudy	1.7	65.8	68.6	62.6	Normal Operation
15-Aug-05	WN14	10:30	11:00	Cloudy	1.8	68.0	70.2	66.1	Normal Operation
15-Aug-05	WN15	9:30	10:00	Cloudy	2.1	67.1	68.2	64.7	Normal Operation
15-Aug-05	WN16	13:40	14:10	Cloudy	1.9	69.8	71.7	67.7	Normal Operation
25-Aug-05	WN1	13:15	13:45	Fine	1.3	67.2	69.8	63.8	Normal Operation
25-Aug-05	WN2	14:00	14:30	Fine	1.6	67.5	69.8	64.3	Normal Operation
25-Aug-05	WN6	9:30	10:00	Fine	1.5	67.7	69.8	64.3	Normal Operation
25-Aug-05	WN7	10:10	10:40	Fine	1.2	68.3	70.3	64.8	Normal Operation
25-Aug-05	WN8	10:45	11:15	Fine	1.6	68.1	71.3	64.8	Normal Operation
25-Aug-05	WN9	11:30	12:00	Fine	0.9	70.4	72.8	67.8	Normal Operation
25-Aug-05	WN10	14:45	15:15	Fine	1.1	68.0	70.3	65.8	Normal Operation
25-Aug-05	WN11	15:30	16:00	Fine	1.8	70.2	73.3	67.3	Normal Operation
25-Aug-05	WN12	16:25	16:55	Fine	2.1	73.1	76.0	69.0	Normal Operation
25-Aug-05	WN13	15:30	16:00	Fine	2.3	73.3	76.0	67.5	Normal Operation
25-Aug-05	WN14	14:30	15:00	Fine	1.7	69.8	72.5	66.5	Normal Operation
25-Aug-05	WN15	11:30	12:00	Fine	2.1	68.9	72.0	65.5	Normal Operation
25-Aug-05	WN16	16:15	16:45	Fine	1.3	69.9	73.3	65.3	Normal Operation
31-Aug-05	WN1	14:45	15:15	Sunny	1.3	67.9	69.8	63.3	Normal Operation
31-Aug-05	WN2	15:25	15:55	Sunny	1.5	67.5	69.8	63.8	Normal Operation
31-Aug-05	WN6	9:15	9:45	Sunny	2.3	68.2	70.8	64.3	Normal Operation
31-Aug-05	WN7	10:00	10:30	Sunny	1.4	67.1	69.8	64.3	Normal Operation
31-Aug-05	WN8	10:35	11:05	Sunny	1.7	66.7	69.3	62.8	Normal Operation
31-Aug-05	WN9	11:30	12:00	Sunny	1.0	69.9	73.8	65.8	Normal Operation
31-Aug-05	WN10	13:00	13:30	Sunny	1.4	70.3	73.8	66.3	Normal Operation
31-Aug-05	WN11	13:45	14:15	Sunny	1.7	69.3	73.3	66.8	Normal Operation
31-Aug-05	WN12	11:00	11:30	Sunny	1.2	66.7	69.5	61.5	Normal Operation
31-Aug-05	WN13	9:45	10:15	Sunny	1.4	69.3	71.0	63.5	Normal Operation
31-Aug-05	WN14	13:10	13:40	Sunny	1.2	68.2	70.5	62.5	Normal Operation
31-Aug-05	WN15	14:10	14:40	Sunny	1.3	70.1	73.5	66.0	Normal Operation
31-Aug-05	WN16	15:35	16:05	Sunny	1.9	70.6	74.0	67.0	Normal Operation

APPENDIX K

Landscape and visual monitoring and audit report

Contract No. HY/99/18
Castle Peak Road Improvements between Sham Tseng and Ka Loon Tsuen

Landscape & Visual Audit and Monitoring

Monthly Inspection Report No. 42

(August 2005)

Prepared by

URBIS LIMITED

Prepared by : *Tran Tuan Huy* 24th August 2005

Approved by : *Alexander Duggie* 24th August 2005

1.0 INTRODUCTION

This is a Landscape and Visual Audit conducted to fulfill the requirements of the EIA during the Construction and Operational Phases of the project, and is based on the procedures and requirements as set out in the Castle Peak Road Improvements between Area 2 and Ka Loon Tsuen, Tsuen Wan - Environmental Monitoring and Audit Manual – West Contract.

Under the EIA, the proposed mitigation measures include both the planting works and treatment to structures. As stated in 6.4.2 of the EM & A, all measures undertaken by both the Contractor and the Landscape Contractor during the construction phase and the first 12 months of the operational phase shall be audited on a bi-weekly and bi-monthly basis respectively to ensure compliance with the intended aims of the mitigation measures.

2.0 SCOPE OF AUDIT

The broad scope of the audit on mitigation measures is as detailed below:

2.1 Planting Proposals

- Regular inspection of the agreed works areas to ensure no unnecessary intrusion by the Contractor outside the limit of the works;
- Regular review of the progress of engineering works to identify the earliest practical opportunity for the landscape works;
- Monitoring of tree transplanting and planting operations;
- Monitoring of works around the area of existing trees to be retained and protected;
- Monitoring of protection works for existing trees;
- Ensure planting works are carried out in accordance with the Specification and within the right planting season;
- Monitoring of the maintenance operations during the Establishment Period to ensure all plants are well watered and nutrients applied.

2.2 Standard Treatment to Structures

- Monitoring and review to ensure the proposed architectural treatments to retaining walls, viaducts, bridges, and noise barriers are implemented in accordance with the approved design, and where appropriate, to soften the hard edges to structures with planting works.

3.0 INSPECTIONS

3.1 Summary of Inspection – 4th August 2005

3.1.1 Matters Arising from Previous Inspections

- The Contractor had cleared away the scrap-wood and garbage piles found at NM-01 area. However, new scattered rubbish was found, and the Contractor was reminded to clear it away as soon as possible.
- The Contractor had cleared away the construction waste and scrap wood piles found at NM-03 and FB-03 areas.
- The Contractor had cleared away the garbage found at the temporary collection area at Slope 6.
- The Contractor had cleared away the construction waste piles found at NM-02 area. However, new construction waste and scrap wood piles were found, and the Contractor was reminded to clear it away as soon as possible.
- Untidy site condition was still observed at NM-04 area. The Contractor was reminded to carry out housekeeping of the site area as soon as possible.
- Dry surface condition was observed at various areas on site, including the areas at FB-11, NM-02 and NM-03. The Contractor was reminded to carry out more frequent watering to prevent dust nuisance.

3.1.2 Construction and Planting Works

- Construction waste piles were found at FB-01 and RW-14 areas. The Contractor was requested to clear it away as soon as possible.
- Woodland planting works were carried out for slope areas at Slope Nos. 9 and 11, and BPRW70. It was found that the condition of the plants were poor, with some of the plants wilted due to dry surface conditions. Also, it was found that no grass cutting, removal of overgrown weeds, and clearance of invasive plants was carried out prior to planting. The Contractor was requested to properly prepare the slope surfaces prior to planting, and to carry out regular watering after planting.

3.1.3 Tree Felling and Transplanting Works

- No tree transplanting works was carried out during the inspection period.

3.1.4 Recommendations

- The Contractor was reminded to clear away all scattered litter, garbage, etc. as found on site, and keep the site in a tidy condition at all times.
- The Contractor was reminded to carry out more frequent watering of the site during dry periods to prevent dust nuisance.
- The Contractor was reminded to carry out grass cutting, clearance of overgrown weeds and invasive plants on hydroseeded slopes prior to planting. Also, Contractor to carry out regular watering after planting works.

3.2 Summary of Inspection – 18th August 2005

3.2.1 Matters Arising from Previous Inspections

- The Contractor had cleared away the scattered rubbish found at NM-01 area.
- The Contractor had cleared away the construction waste and scrap wood piles found at NM-02 area. However, new construction waste piles were found, and the Contractor was reminded to clear it away as soon as possible.
- The Contractor had generally tidied up the site area at NM-04. However, full garbage drums were still found, and the Contractor was reminded to clear it away as soon as possible.
- The Contractor had cleared away the construction waste piles found at FB-01 and RW-14 areas. However, new construction waste pile was found at FB-01 area, and the Contractor was reminded to cleared it away as soon as possible.
- Some woodland plants were found dead at Slope Nos. 9 & 11 areas. The Contractor was requested to carry out the replacement of dead plants found as soon as possible.
- No dry surface condition was observed during the inspection.

3.2.2 Construction and Planting Works

- Construction waste pile was found at retaining wall RW-C area. The Contractor was requested to clear it away as soon as possible.
- Woodland planting works was found commenced at Slope 6 area. The Contractor was reminded to carry out grass cutting, clearance of overgrown weeds and invasive plants on hydroseeded slopes prior to planting.

3.2.3 Tree Felling and Transplanting Works

- No tree transplanting work was carried out during the inspection period.

3.2.4 Recommendations

- The Contractor was reminded to clear away all scattered litter, garbage, etc. as found on site, and keep the site in a tidy condition at all times.
- The Contractor was reminded to carry out grass cutting, clearance of overgrown weeds and invasive plants on hydroseeded slopes prior to planting. Also, Contractor to carry out regular watering after planting works.

4.0 TREE TRANSPLANTING SURVIVAL RATE

4.1 Tree Transplanting Survival Rate

The tree transplanting survival rate as reported by the Contractor for the period up to the end of August is 100%.

5.0 AUDIT SCHEULE

5.1 Audit Schedule for September 2005

The next audits are schedule to be conducted on 1st, 15th, and 29th September 2005.

APPENDIX L

Detail of the complaint

MAEDA CORPORATION

Enquiry / Complaint Follow Up Form

Contract: HY/99/18 - Castle Peak Road between Sham Tseng and Ka Loon Tsuen, Tsuen Wan

Call Details

Log No	216	Type	Complaint	☑ *Environmental Complaint*	
Received by	S.Tanaka	Date	07-Aug-2005	Time	02:40 PM

Call Details

Name	Mr. Leung	Organisation				☑ Private	☐ Organization
Tel	9464 4308	Fax		E-mail			

Address Sea Crest Villa Phase 3

Details of Enquiry / Complaint

Location Sea Crest Villa Phase 3

Description

Mr. Leung complained about bad smell generated from rubbish collected around the bus stop near Sea Crest Villa Phase 1 & Phase 2.

Details of Action Taken

Report to RE	Mr. Sidney Ng	Date	11-Aug-2005	Report Time	02:05 PM	Report By
Action by	Mr. Simon Li	Date	08-Aug-2005	Action Time	08:30 AM	Simon Li

Details

Inspect section of the ramp access close to the main entrance of the captioned premises and find the general site conditions thereat are in order.

Follow up by	Alan Chan	Follow up date	10 aug 05	Follow up time	0930 hrs

Follow up

Put up banner at prominent places to heed the public not to litter the adjacent roads and footpaths.

Remarks

-

APPENDIX M

Log record on environmental complaints

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Propopsed Actions	Completion Date	Remarks
029	12-Aug-02	Complaint from Mr. Au regarding muddy water washing out from Kowloon Bound Lane from the construction site	Enlarge concrete paving at site entrance; further improvement to the existing temporary drainage system to minimise wash-off of waste water to the adjacent road; and make sure temporary water supply points are properly turned off during lunch break or other times when they are not in use.	16-Aug-02	
036	31-Aug-02	Complaint from Mrs. Chung regarding the generation of fugitive dust from the construction site in front of Tsing Lung Tau Village	Frequent watering of the related works area with the aid of water browser	31-Aug-02	
054	7-Dec-02	Complaint from Mr. Lo regarding the stagnant water ponding in front of the construction site at Sham Tseng	Explained to the complainant that the water ponding was a wheel washing bay	7-Dec-02	
067	3-Mar-03	Complaint from Hong Kong Garden Management Office regarding the noise from vehicular movement over the temporary road cover at Castle Peak Road provided by the Contractor	The Contractor has added extra welding to improve the rigidity of the temporary steel deck. The work was completed dring the off-peak hours in the period between 12-Mar-03 to 17-Mar-03.	17-Mar-03	The Contractor has taken noise readings and found that the noise level was within the baseline levels.
068	11-Mar-03	Complaint from Mr. Leung at Hong Kong Garden regarding the noise from evening road traffic, travelling over the steel decking plate on the adjacnt temporary road diversion.	The Contractor has added extra welding to improve the rigidity of the temporary steel deck. The work was completed dring the off-peak hours in the period between 12-Mar-03 to 17-Mar-03.	17-Mar-03	The Contractor has taken noise readings and found that the noise level was within the baseline levels.
070	6-Mar-03	Complaint from EPD regarding the reclamation works at Seawall B opposite to Hong Kong Garden on Sunday	The Contractor has previously informed the subcontractor of the statutory requirements as noise, dust emission, water discharge, and waste management. The Contractor agreed to keep vigilant in monitoring and surveillance of the site and continue to remind the subcontractors of the statutory requirements.	10-Mar-03	The Contractor has formally closed all site area for the Chinese New Year. Entrances of all site area were barricaded before the Contractor's staff vacnated the sites on 30 January 2003.
070	6-Mar-03	Complaint from EPD regarding dust emission from the reclamation works at Seawall B opposite to Hong Kong Garden.	The Contractor has previously informed the subcontractor of the statutory requirements as noise, dust emission, water discharge, and waste management. The Contractor agreed to keep vigilant in monitoring and surveillance of the site and continue to remind the subcontractors of the statutory requirements.	10-Mar-03	The Contractor has investigated and confirmed that the marine works towards the eastern end of Seawall B was wet and the concreting works at the west end of the Seawall B were not dusty and no dust was emitted. Ground surface was also covered with crushed rock. The Contractor was also further reminded to spray water before and during unloading and moving of rock boulders and onto the haul road.
070	24-Mar-03	Complaint from EPD regarding daytime construction noise at Seawall B opposite to Hong Kong Garden.	The Contractor agreed to continuously monitor and review the operation in the vicinity opposite to Lung tang Court, in order to minimize the noise impact caused to the public. In addition the Contractor will respond to the complaints received on the 24- hours Contract Complaint Hotline 2496 2555 in the first instant.	31-Mar-03	No exceedance was recorded at the noise monitoring station WN6, WN7 and WN8 from January 2003 to March 2003. It was suspected that the noise was due to traffic noise together with operational noise of plant equipment at Seawall B. The Contractor was also reminded if reorganzation of working arrangement is necessary, mitigation proposal should be submitted to IC(E) for review. Additioinal noise monitoring shall also be conducted at the noise monitoring station WN8 once the mitigation proposal is implemented.
076	15-Apr-03	Complaint from Mr. Wong of TL 60 Management Limited regarding the noise nuisance generated from the vehicle movement over the temporary steel decking in front of Hong Kong Garden at Castle Peak Road provided by the Contractor.	The Contractor has replaced the isolated decking plate by 17 April 2003 and agreed to frequently inspect the condition of the steel decking. Further improvement works were completed on 25 April 2003.	25-Apr-03	

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Propopsed Actions	Completion Date	Remarks
078	15-Apr-03	Complaint from Mr. Chau of Hong Kong Garden regarding the noise nuisance generated from vehicle movement over the temporary steel plate in front of the premises.	The Contractor has explained to Mr. Chau that the improvement works were completed on 25 April 2003 and agreed to carry out daily inspection to check the condition of the steel plate.	29-Apr-03	The complainant agreed that the noise nuisance has abated.
080	5-May-03	Complaint from Mr. Tsao / Mr. Chan of Mui Yuen, opposite to Bayside Villas regarding water leakage from the rocky slope behind his house and the damage of water pipes by cleaning works.	The water pipe was repaired on 9 May 2003. The Contractor has explained that the rocky slope was ouside the site boundary.	9-May-03	
082	7-May-03	Complaint from Ms. Chan regarding water ponding on existing footpath along Castle Peak Road near the Contractor's site office.	The Contractor has formed holes at existing upstand wall to drain off water trapped in the adjacent footpath and to patch up local depression at the affected footway with plain concrete.	19-May-03	
084	21-May-03	Complaint from Ms. Lam of Sea Crest Villa Phase I regarding construction noise from the slope works outside Sea Crest Villa Phase I.	The Contractor has observed low-noise emission construction equipment were being used at the time of inspection and proposed to speed up the works to limit the duration of daytime construction noise impact. The Contractor has provided additional information in their letter ref. HY/99/18/M45/300/40/10229 dated 25 June 2003. Additional noise monitoring had been taken by the Contractor on 22 May 2003 at WN15 obtaining the result of 66.6dB(A), which was below the limit level of 75dB(A). After reviewing the findings and investigation details, the Contractor confirmed that no further remedial actions was required.	25-Jun-03	The Contractor was requested to submit mitigation proposal to IC(E) for review and to implement the mitigation proposal. Additioinal noise monitoring is required to be conducted at the noise monitoring station WN15 once the mitigation proposal is implemented. The IC(E) had no comment on the Contractor's findings. Since no mitigation measures were implemented, additional noise monitoring was not conducted.
086	23-May-03	Complaint from Mr. So regarding stagnant water in the drainage and wheel washing bay near the entrance of Sea Crest Villa Phase IV and the damage of road surface near L1 main gate and CLP electricity supply room.	Explained to the complainant that the stagnant water inside the wheel washing bay was for cleaning of vehicle. The leakage found the temporary water pipe was repaired. The water and silt trapped in the U-channel near the main entrance of the estate was removed and the kerb on west side of the run-in to Gate L1 was reinstated.	29-May-03	The Contractor will properly maintain the wheel washing facility, regularly inspect and clean the drainage channel and the gully pots near the main entrance of the estate. The damaged paving slab and cable pit near the power supply room will be restored to original condition after completion of the adjacent substructure works around mid August 2003.
088	3-Jun-03	Complaint from EPD regarding construction dust from Seawall B.	The Contractor proposed to place the concerned area under higher priority and endeavor to water the concerned haul road more frequently during dry days.	6-Jun-03	No rock breaking activity has been observed in site audits since 5 June 2003. The haul road at Seawall B was observed wetted in the site audits. The Contractor was reminded to provide water spraying if there is rock breaking activity in this vicinity.
088	3-Jun-03	Complaint from EPD regarding construction noise from Seawall B.	The Contractor reported that there may be occasional crashing noise for the piling works when rock level is reached. The Contractor has been providing mitigation measures, such as barrier and restriction of the rate of concerned works. The Contractor will also endeavor to expedite the works to reduce the duration of perceived daytime impact. The Contractor proposed to perform additional ad hoc inspections on Mondays, Wednesday and Fridays at the concerned area to confirm continual implementation of measures and to conduct additional noise monitoring where appropriate.	6-Jun-03	No rock breaking activity has been observed in site audits since 5 June 2003. Contractor has been reminded to submit mitigation proposal to IC(E) for review and to implement the mitigation proposal if provision of additional mitigation measures is required. The Contractor was also advised to provide portable noise barrier if there is rock breaking activity. Additioinal noise monitoring is also required to be conducted at the noise monitoring station WN8 once the mitigation proposal is implemented. The IC(E) had no comment on the Contractor' s findings. Since no mitigation measures were implemented, additional noise monitoring was not conducted.

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Propopsed Actions	Completion Date	Remarks
091	16-Jun-03	Complaint from Ms. Chan of Sea Crest Villa Phase 1 regarding noise from drilling works carried out at BPRW70 outside Sea Crest Villa Phase 1 before 07:00.	Upon investigation, the Contractor confirmed that there has been no construction work being conducted before 07:00. Nevertheless, the Contractor has scheduled the concerned work to be commenced at 08:00 as on 17 July 2003.	17-Jun-03	
092	16-Jun-03	Complaint from Mrs. Chung of Lido Garden regarding noise from drilling works carried out at BPRW70 opposite to Lido Garden before 07:00.	Upon investigation, the Contractor confirmed that there has been no construction work being conducted before 07:00. Nevertheless, the Contractor has scheduled the concerned work to be commenced at 08:00 as on 17 July 2003.	17-Jun-03	
097	27-Jun-03	Complaint from Mr Fok of Kai Shing Management Services regarding noise nuisance and the ponding of stagnant water arising from the construction activities outside Sea Crest Villa Phase III.	Upon investigation, the condition of water pumps installed separately at east end of the slope close to SCV Phase III and Pai Min Kok Stream Course has been checked. Noise generated from the ongoing construction works in these areas has been monitored. The rock breaking with jackhammer at PMK had been completed on 26 June 2003.	4-Jul-03	After further enquiry into the nature of the complaint, its appears that the complaint refers to the extended duration of construction works in the concerned area (i.e. inconvenienve caused due to lengthy works program). The Contrator's Mr Peter Ip has explained the nature of the works to the Management Office. There have been no further complaints from SCV Phase III since the briefing.
103	31-Jul-03	Complaint from Hong Kong Management Office regarding the noise generated by vehicles running over the steel decking plate on the Castle Peak Road close to Hong Kong Garden.	The existing steel decking plate had been repaired during off peak hours and regular inspection on the condition of steel plate and adjacent road surface was agreed to be conducted.	5-Aug-03	There had been no further complaints after the repair.
105	13-Aug-03	Complaint from Mr Chow of Sham Tseng regarding fell of all old trees along section of Castle Peak Road near Ma Wan Pier.	After investigation on the matter, it had been confirmed that the felling and the transplanting of group of trees along the Castle Peak Road near Ma Wan Pier had been carried out in compliance with approved plans and schedules. No follow up is required.	16-Aug-03	
108	11-Sep-03	Complaint from Mr Edith Lee of Sea Creat Villa Phase I complained that it was very dusty at her house and she found that there was no water spraying at the construction site of the slope near Ma Wan Pier.	After investigation on the matter, water browser was arranged for spraying through the haul road. Rock breaking location would be sprayed directly connected from water supply point. To follow up the case, water browser would be arranged every 2 to 3 hours depends on drying up condition. A worker would be arranged for spraying water through out the rock breaking process.	11-Sep-03	
112	10-Oct-03	Complaint from Mr Cheung of FEHD that egarding the general refuse being accumulating on the pedestrian walkway between Sea Crest Villa Phase III and Phase II and the drainage channel at Pai Min Kok Village.	Investigation was conducted immediately on 11 October 2003. It was observed that the pedestrian walkway and Outfall I had been tidied up except at the corner of Sea Crest Villa Phase III where a broken umbrella and some broken traffic light was lying on the ground. Immediate action was taken to remove the broken umbrella and signal lights. The site area would be maintained regularly. It was noted that wooden formwork and construction materials might possibly been mistaken to be rubbish.	13-Oct-03	

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Propopsed Actions	Completion Date	Remarks
114	25-Nov-03	Complaint log no. 114 was received on 25 November 2003 regarding the muddy water found on the beach opposite to Sea Crest Villa Phase III.	An inspection for the concerned site area at the interface between the beach and the construction site revealed that there was no evidence of active construction works adjacent to the beach or the presence of muddy water. There was also no evidence of muddy water discharge from Outfall I. The work programme for the following days leading up to the complaint was inspection and found that the bored piling activity had been completed and removed since 15 November 2003. The contractor would regularly monitor the area for muddy water. If potential discharge sources were identified, the Contractor would take action to rectify the situation.	26-Nov-03	
115	30-Nov-03	Complaint from Miss Chan of Sham Tseng Latrine was received on 30 November 2003 regarding the pond of foul water at the footway in front of Sham Tseng Latrine.	An inspection for the concerned site area was carried out. The water ponding was confirmed to be overflow from the terminal manhole, which was a part of public latrine system. The maintenance of the public latrine and the associated systems were the responsibility of FEHD. The Contractor had contacted FEHD to follow up the issue.	1-Dec-03	
116	6-Dec-03	Complaint from Mr Paul Wong of Hong Kong Garden Management Office was received on 6 December 2003 regarding construction noise during early hours of 8:00am.	Inspection of concern area and no abnormal construction activities was found. The Contractor had explained to the Complainer that no statutory permit was required for construction work other than percussive piling at 8:00am and the nature of works conducted at the area was well within permitted limits. ET was reminded the Contractor to implement noise mitigation proposal in accordance with EM&A Manual.	8-Dec-03	Noise generated from the ongoing construction works in these areas was monitored and no exceedance was found. As the Contractor had responded to the complainant and no further complaint was recorded, the Contractor proposed that no further remedial/ preventative measures were necessary.
123	20-Feb-04	Complaint from Mr Ho of TL60 Management Ltd was received on 20 February 2004 regarding noise arising from the temporary steel plates on road pavement near Blocks 1 & 2 of Hong Kong Garden	Condition of the decking plat was checked on 23 February 2004 and was repaired on 24 February 2004 during off peak hours.	24-Feb-04	Regular inspection will be conducted and adjacent works was be expedited to allow early road diversion for permanent removal of the steel plates.
139	9-Jul-04	Complaint from EPD was received on 9 July 2004 regarding noise arising from prescribed construction works or works using power mechanical equipment at night near Seawall-B area opposite to Hong Kong Garden	After investigation on the matter, there was no evidence of carrying out the prescribed constuction works or using power mechanical equipment between 1900 and 2300 on 3 July 2004.	23-Jul-04	
140	10-Jul-04	Complaint from Highway Department was received on 10 July 2004 regarding noise arising from rock breaking near Sea Crest Villa Phase 3	After investigation on the matter, there was no evidence of rock breaking activities undertaken in the vicinity of Sea Crest Villa Phase 3.	23-Jul-04	
149	11-Aug-04	Complaint from EPD regarding the sandy wake of a marine vessel carrying sand to the beach reinstatement area of Seawall B	After investigation on the matter, the following action was proposed. The vessel and water depth should be thoroughly checked prior to sand placing. If shadow water need to be approached, another shallower vessel should be used. The land co-ordinator should cease the sand placing operation if muddy plumes were noticeable.	31-Aug-04	
154	25-Aug-04	Complaint from Ms Tang regarding littering on the slope close to the Sea Crest Villa Phase 2.	After investigation on the matter, there was no evidence that the problem was caused by any construction activities.	27-Aug-04	

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Propopsed Actions	Completion Date	Remarks
156	18-Sep-04	Complaint from Mr Chu regarding excessive garbage trapped along the adjacent shore of Seawall B west end.	It was out of control over the accumulation of floating rubbish drifting toward the shore. However, the contractor would remove them as soon as possible.	20-Sep-04	
166	4-Nov-04	Complaint from Mr Wong regarding the accumulation of foul ground and sewage waters in the trench in front of the strip of restaurants at Sham Tseng.	Contractor placed a sludge separation plant to treat the accumulated water prior to discharge and pumped away the accumulated water as regularly as possible. An CNP has been attained for the pumping of concerned areas.	11-Nov-04	
172	5-Jan-05	Complaint from Mr Raymond Chan regarding the daytime construction noise started 7:30am over the past few days.	Contractor clarified with Mr Chan that construction work at 7:30am was within regulation guidelines. However, the contractor still agreed to arrange noisy activities be carried out after 8:00am.	5-Jan-05	
175	28-Jan-05	Complaint from Mr Kan regarding the rubbish discarded at the finished RERW slopes and Outfalls opposite to Sea Crest Villa Phase II and	Contractor inspected the concerned area, taken photographs and carry out maintenance works as requested.	31-Jan-05	
193	4-May-05	Complaint received from Highways Department regarding the daytime noise generated from the use of power mechanical equipment during the hours between 8am to 12am near Sea Crest Villa Phase II and III.	Contractor responded to the complainant that daytime construction noise generated from activities was well within the guidelines of prevailing standards and promise to look for opportunties to disperse noisy works more evenly throughout the day and make appropriate improements to works schedudling for the concerned works wherever practicable.	4-May-05	
194	10-Jun-05	One environmental complaint was received on 10 June 2005 regarding the obstructions and mosquitoes found in the footway near Sea Crest Villa Phase 4.	Thorough cleaning up around the precast footbridge deck;Realigning the existing mill barriers to widen the adjacent footbridge deck; and Spaying appropriate insecticide.	14-Jun-05	
216	7-Aug-05	One environmental complaint was received on 7 August 2005 regarding the bad smell generated from rubbish collected around the bus stop near Sea Crest Villa Phase 1 & Phase 2.	It was confirmed not from gas supply pipes or from the rubbish collection points on site, but may have been from the rubbish collected by the Food and Environmental Hygiene Department from the public barbeque area, which was placed next to the road for pick-up. The Contractor has put up banner at prominent locations to heed the public not to litter the adjacent roads and footpaths.	10-Aug-05	