

Maeda Corporation

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

Quarterly Environmental
Monitoring and Audit
Summary Report
November 2003 to
January 2004

First 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

Quarterly Environmental Monitoring and Audit Summary Report

November 2003 to January 2004

February 2004

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16 February 2004

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For attention of: Mr. Sam Tsoi

Dear Mr. Tsoi

**Contract HY/2000/02 East Contract
Castle Peak Road Improvement between Area 2 and Ting Kau, Tsuen Wan
Quarterly EM&A Report (Nov 03 – Jan 04)**

We refer to the electronic version of the captioned report submitted by your Mr. Laurent Cheung via e-mail on 10 February 2004 and subsequent submission. We have no further comment and endorse the report.

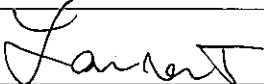
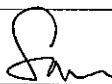
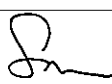
Please do not hesitate to contact the undersigned on 2911-2719 if you wish to discuss any further issues.

Yours sincerely

Coleman Ng
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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
B&K	Brüel & Kjær
CFM	Cubic Feet per Minute
CNP	Construction Noise Permit
CT	Contractor
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
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 eighth quarterly environmental monitoring and audit (EM&A) summary report summarising the site inspection findings, air quality, noise impact and landscape and visual monitoring and audit works for the period from November 2003 to January 2004.

Monitoring works included air quality monitoring at 9 locations and noise monitoring at 13 locations. Air quality was recorded in terms of 1-hour Total Suspended Particulates (TSP) and 24-hour TSP. Noise was measured in terms of $L_{eq(30min)}$ with L_{10} and L_{90} measurements as references.

Air Quality

The highest 1-hour TSP level was $292.8\mu\text{g}/\text{m}^3$ recorded at Tsing Lung Tau Tin Hau Temple (WA6) on 17 December 2003 while 6 January 2004 and the lowest 1-hour TSP level was $122.6\mu\text{g}/\text{m}^3$ recorded at G/F of Hong Kong Garden Between Blocks 1 & 2 (WA4) on 23 December 2003. There was no exceedance on Action and Limit Levels in the reporting period.

The highest 24-hour TSP level was $237.3\mu\text{g}/\text{m}^3$ recorded at Sea Crest Villa Phase 3 Block 8 (WA8) on 27 December 2003 while the lowest 24-hour TSP level was $34.5\mu\text{g}/\text{m}^3$ recorded at Hong Kong Garden Regent Heights (WA3) on 15 January 2004. Exceedances on Action Level were recorded at Sea Crest Villa Phase 3 Block 8 (WA8) on 27 December 2003, and at Hong Kong Garden between Blocks 1 & 2 (WA4), Hong Kong Garden Block 4 (WA5), and Tsing Lung Tau Tin Hau Temple (WA6) on 3 January 2004. These exceedances were mainly due to the poor weather condition in the territory other than the construction site. Upon the implementation of mitigation measures, no further exceedance was recorded in the subsequent air quality monitoring.

Noise

The highest noise level was 74.8dB(A) recorded at House 1, Tsing Lung Tau Village (WN9) on 19 November 2003 and 17th and 30th December 2003 while the lowest noise level was 64.5dB(A) recorded at Sea Crest Villa Phase 4 (WN12) on 1 December 2003 and Hong Kong Garden Block 4 (WN8) on 28 January 2004. There was no exceedance on the A/L Levels during the monitoring period.

Marine Water Quality

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 10 October 2003.

Landscape and Visual

A total of 6 times of the landscape and visual monitoring and audits had been carried out in the reporting period by a Registered Landscape Architect. Frequently watering and tidying up of the construction site had been suggested after the landscape and visual monitoring and audits. The CT was informed of the recommendations for action.

Waste Disposal

A total of 52 loads of Construction & Demolition (C&D) waste had been disposed of at WENT Landfill in the reporting period. A total of 2,557 loads of C&D fill materials (Public Fill) had been disposed of at Public Filling Area in Tuen Mun by dump trucks in the reporting period. There was no chemical waste collected by licensed collector in the reporting period.

Complaint Records

A total of 3 environmental complaints were received in the reporting period. Two of these were related to water quality impacts from the muddy water on the beach opposite to Sea Crest Villa Phase III and ponding of foul water at the footway in front of Sham Tseng Latrine. The third one was concerned about construction noise during early hours of 8:00am. All had been solved after investigation.

Non-compliance

There were four exceedances on Action Level of 24-hour TSP monitoring, and there was one documented complaint regarding construction noise which had triggered the Action Level of construction noise.

Comments

The environmental performance of the CT during the reporting period was acceptable. Upon advised by the ET, remedial measures had been taken to mitigate the environmental impacts caused by the construction activities. EM&A programme had been conducted as planned in the reporting period.

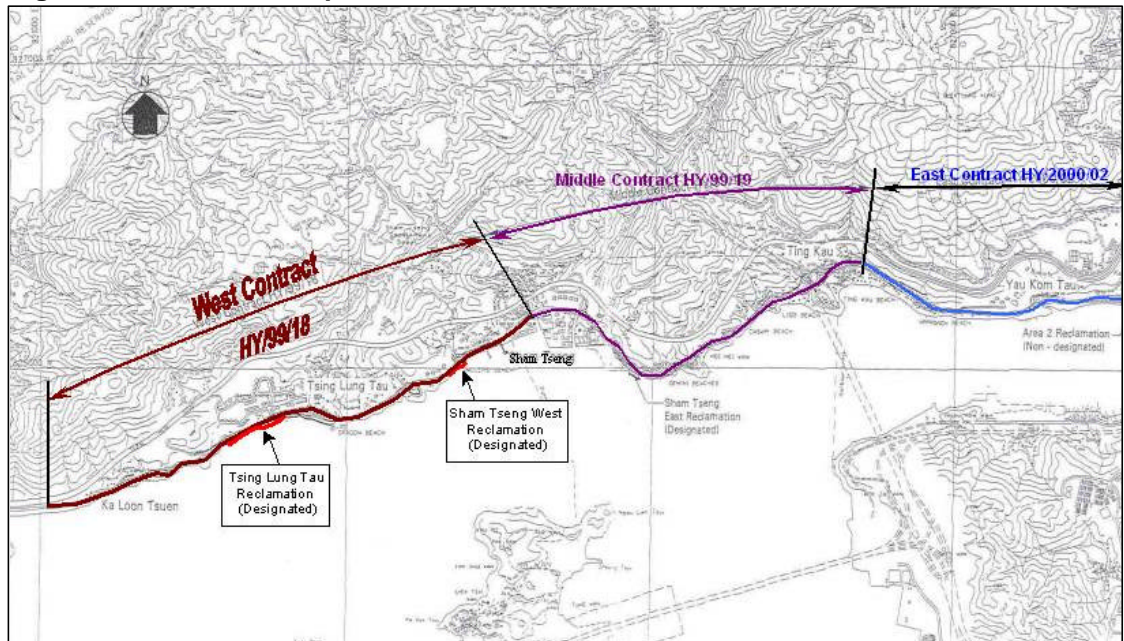
1. INTRODUCTION

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 contract period of the Project are anticipated as 36 months from December 2001 to November 2004.

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.

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 are 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 quarterly EM&A summary report is to summarise and provide the information on monitoring methodology, monitoring results, environmental permit status, site audit findings, recommendations and conclusions for the period from November 2003 to January 2004.

2. ENVIRONMENTAL STATUS

2.1 Construction Programme

The construction work was commenced in February 2002. The updated construction programme is given in Appendix A.

2.2 Construction Activities of the Quarter

The major construction activities carried out by the Contractor (CT) in the reporting period included excavation, rock breaking, rock drilling, chemical blasting and hydroseeding for slope formation, bored piling, construction of outfalls and base-slab; and installation of retaining walls and filling of sub-base.

The major sea works at level below +2.5mPD had been completed in July 2003.

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 impact monitoring, and audit shall be performed by an ET at all specified monitoring locations during the construction and operational stages.

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 according to the EM&A Manual. The monitoring parameters and frequencies 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 were 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)
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 had been evacuated 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.

3.2 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 according to 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	$L_{eq(30\text{ min})}$	Once per week	1
Between 1900-2300 hours on normal weekdays	$L_{eq(5\text{ min})}^*$		3 (consecutive)
Between 2300-0700 hours of next day			
Between 0700-1900 hours on holidays			

Remarks: * The $L_{eq(5\text{ min})}$ 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 were specified. They are given in Table 3-4 and presented in Figures 3-1a to 3-1d. The measurements shall be 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 had been evacuated 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 will be conducted thrice per week, during mid-flood and mid-ebb tides and at sixteen designated sampling locations. 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 3.4). 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 had been selected for marine water quality monitoring and the locations are given in Table 3-5 and presented in Figure 3-1b to 3-1e.

Table 3-5 Water quality monitoring locations

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

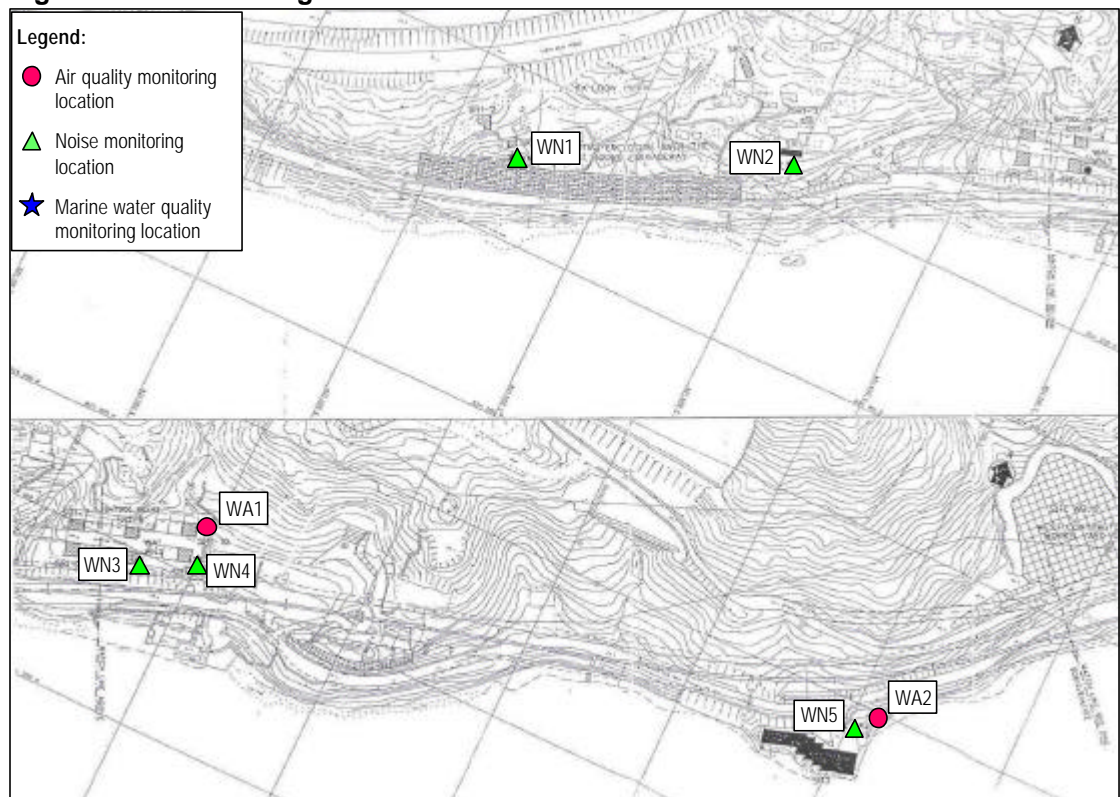


Figure 3-1b Monitoring locations

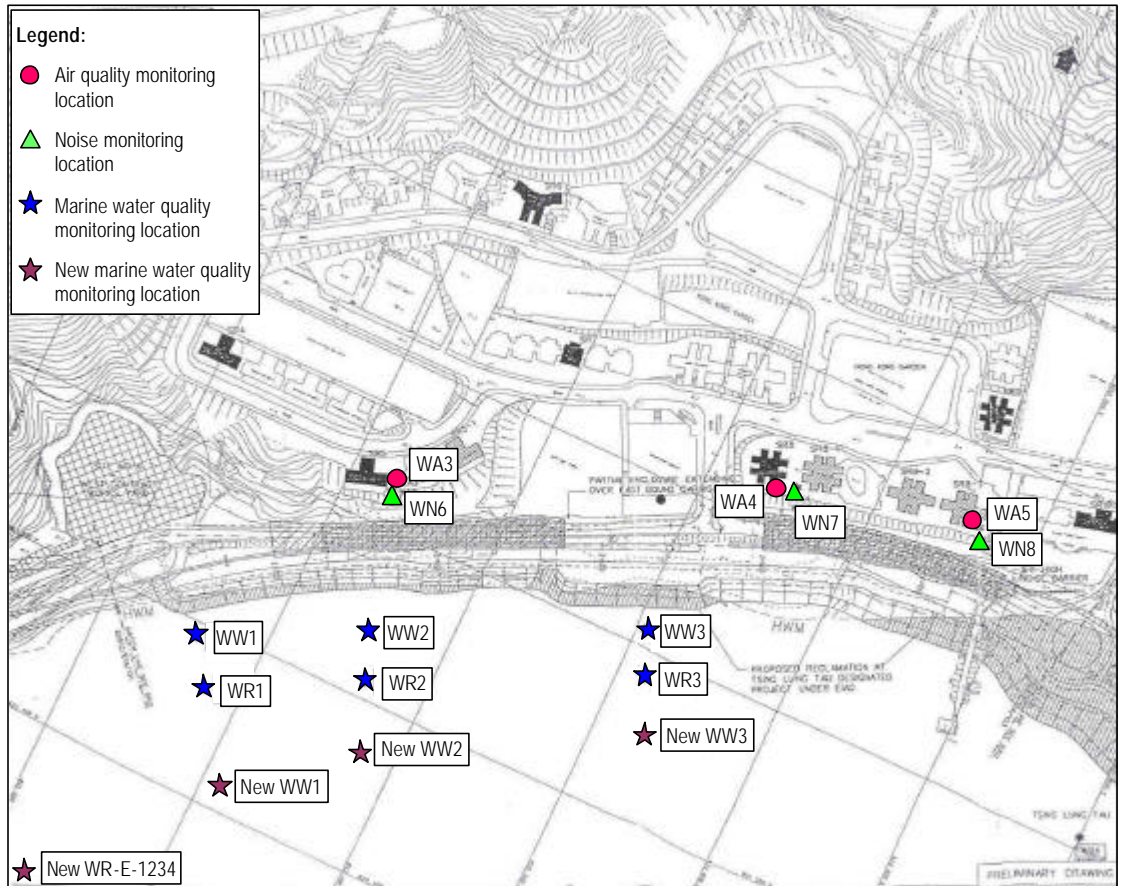


Figure 3-1c Monitoring locations

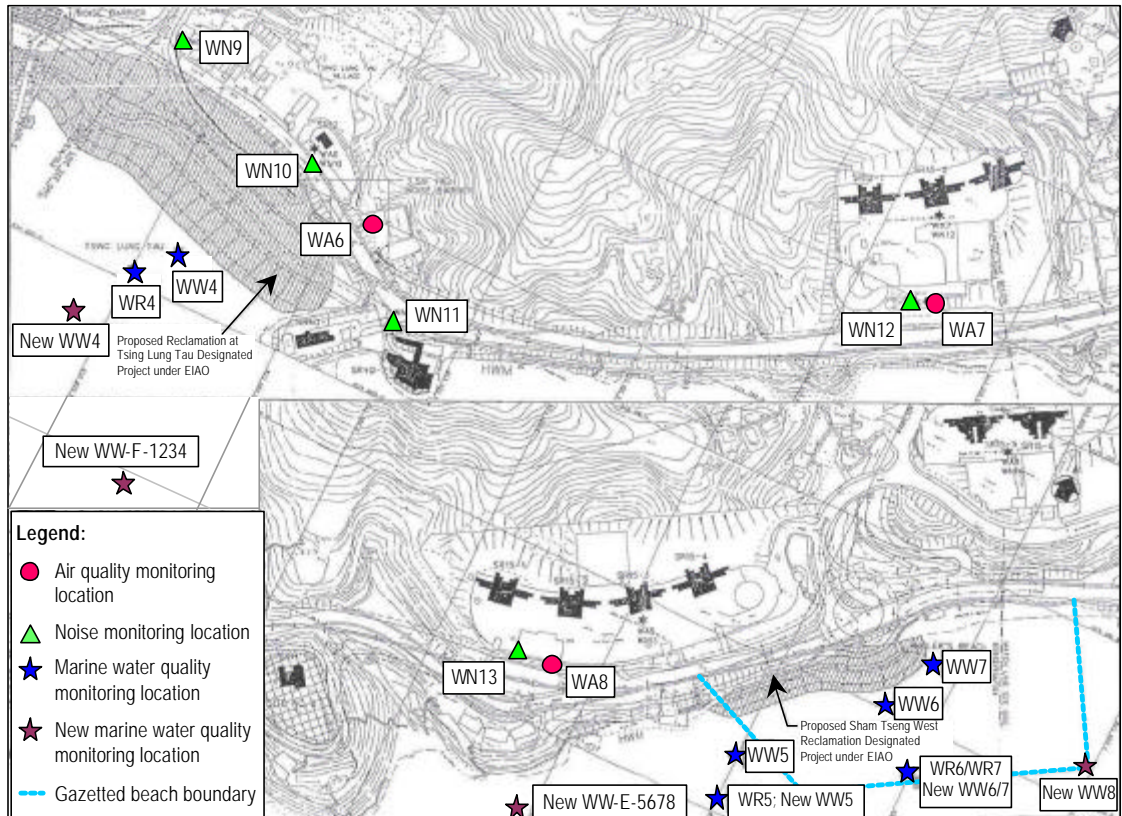


Figure 3-1d Monitoring locations

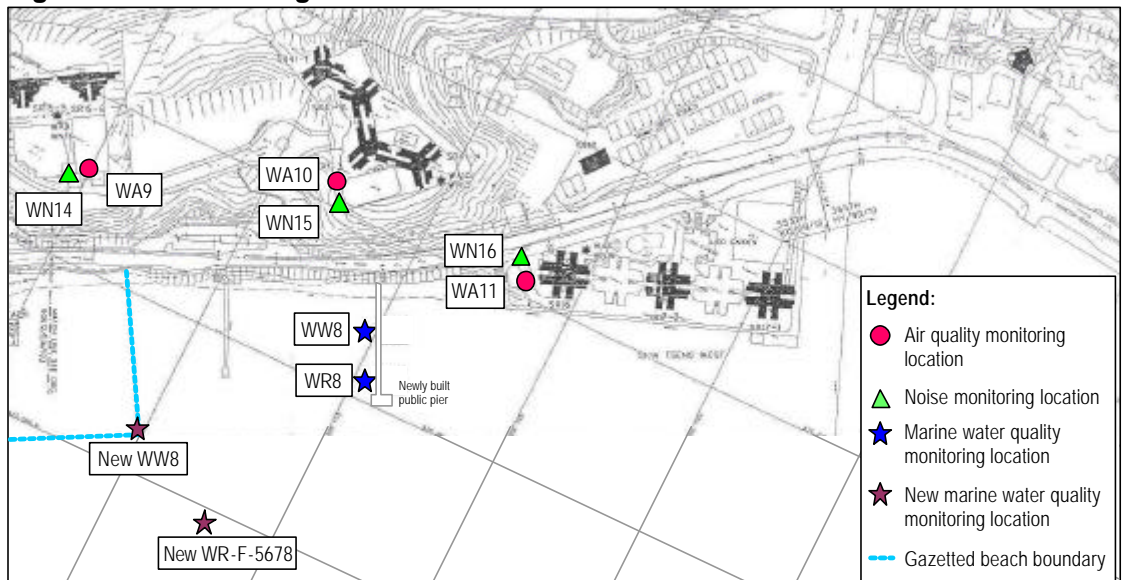
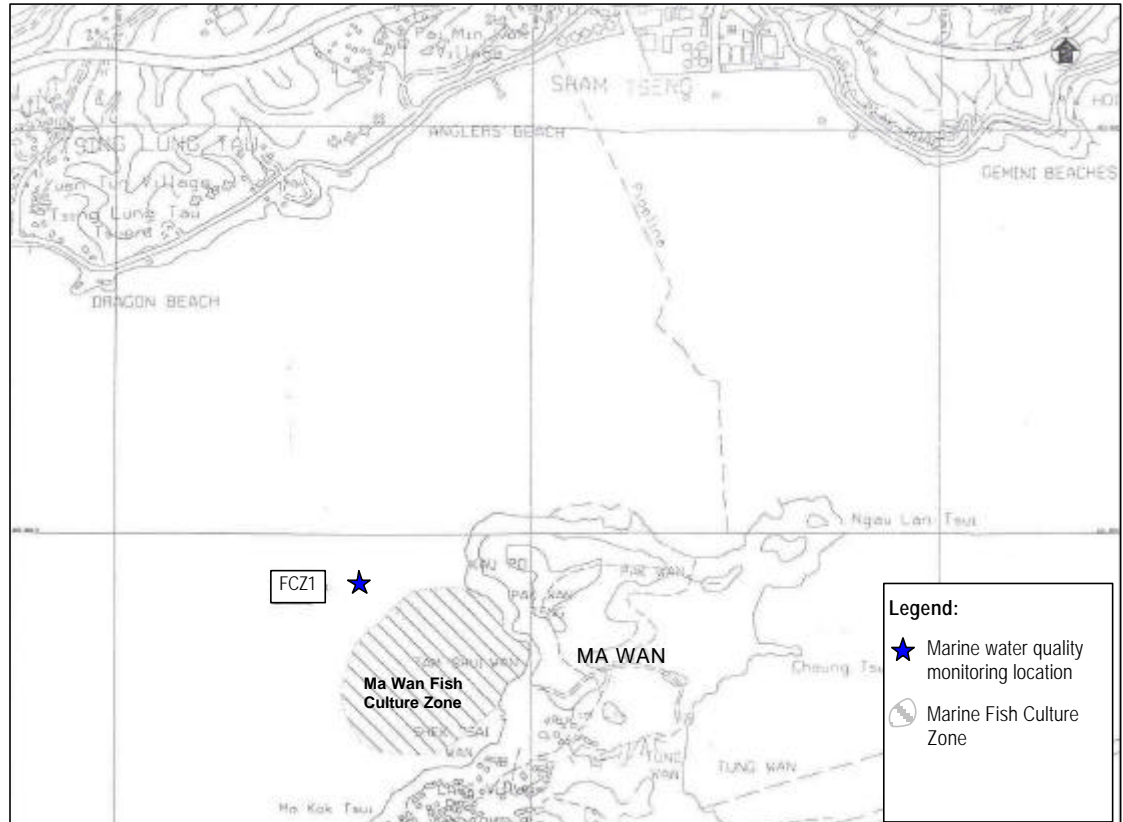


Figure 3-1e Monitoring locations



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 were 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 was 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 was conducted throughout the entire site area.

3.5 Performance Limits and Event-Action Plans

The monitoring results were checked against appropriate standards and requirements. A two-tier system performance limits had 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 $\mu\text{g}/\text{m}^3$		24-hour TSP Level in $\mu\text{g}/\text{m}^3$	
	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.

Table 3-7 Event/Action plan for air quality

Event	Action			
	ET Leader	IC(E)	ER	Contractor
Action Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify the source. Inform the IC(E) and the ER. Repeat measurement to confirm finding. Increase monitoring frequency to daily. 	<ol style="list-style-type: none"> Check monitoring data submitted by the ET Leader. Check Contractor's working method. 	<ol style="list-style-type: none"> Notify Contractor. 	<ol style="list-style-type: none"> Rectify any unacceptable practice. Amend working methods if appropriate.
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Identify the source. Inform the IC(E) and the ER. Repeat measurements to confirm findings. Increase monitoring frequency to daily. Discuss with the IC(E) and the Contractor on remedial actions required. If exceedance continues, arrange meeting with the IC(E) and the ER. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> Check monitoring data submitted by the ET Leader. Check the Contractor's working method. Discuss with the ET Leader and the Contractor on possible remedial measures. Advise the ER on the effectiveness of the proposed remedial measures. Supervisor implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing. Notify the Contractor. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> Submit proposals for remedial actions to IC(E) within 3 working days of notification. Implement the agreed proposals. Amend proposal if appropriate.
Limit Level				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify the source. Inform the ER and the EPD. Repeat measurement to confirm finding. Increase monitoring frequency to daily. Assess effectiveness of Contractor's remedial actions and keep the IC(E), the EPD and the ER informed of the results. 	<ol style="list-style-type: none"> Check monitoring data submitted by the ET Leader. Check the Contractor's working method. Discuss with the ET Leader and the Contractor on possible remedial measures. Advise the ER on the effectiveness of the proposed remedial measures. Supervisor implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing. Notify the Contractor. Ensure remedial measures properly implemented. 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance. Submit proposals for remedial actions to IC(E) within 3 working days of notification. Implement the agreed proposals. Amend proposal if appropriate.
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Notify the IC(E), the ER, the EPD and the Contractor. Identify the source. Repeat measurements to confirm findings. Increase monitoring frequency to daily. Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented. Arrange meeting the IC(E) and the ER to discuss the remedial actions to be taken. Assess effectiveness of the Contractor's remedial actions and keep the IC(E), the EPD and the ER informed of the results. If exceedance stops, cease additional monitoring. 	<ol style="list-style-type: none"> Discuss amongst the ER, the ET Leader and the Contractor on the potential remedial actions. Review the Contractor's remedial actions whenever necessary and advise the ER accordingly. Supervise the implementation of remedial measures. 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing. Notify the Contractor. In consultation with the IC(E), agree with the remedial measures to be implemented. Ensure remedial measures are properly implemented. 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. 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance. Submit proposals for remedial actions to IC(E) within 3 working days of notification. Implement the agreed proposals. Resubmit proposals if problem still not under control. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

3.5.2 Construction Noise Impact

The action and limit levels for the construction noise have been established in accordance with the Baseline Monitoring Report^[2] and 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 $m = \text{Measured } L_{eq(30min)}$, $b = \text{Average Baseline } L_{eq(30min)}$. 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 3-9 Event/Action plan for construction noise

Event	Action			
	ET Leader	IC(E)	ER	Contractor
Action Level	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals to IC(E). 2. Implement noise mitigation proposals.
Limit Level	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance. 2. Submit proposals for remedial actions to IC(E) within 3 working days of notification. 3. Implement the agreed proposals. 4. Resubmit proposals if problem still not under control. 5. Stop the relevant activity of works as determined by the ER until the exceedance is abated.

3.5.3 Water Quality

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 day
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 May 2003, and will be finalised subject to agreement with EPD.

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	<ol style="list-style-type: none"> Repeat in-situ measurement to confirm findings. Conduct investigation to identify the source(s) of impact. Check monitoring data, all plant, equipment, mitigation measures and the Contractor's working methods. Inform the IC(E), ER, EPD, HyD, Contractor and AFCD (if required) the investigation results. If exceedance is confirmed as caused by the construction works, take relevant actions as detailed in "Action Level" and "Limit Level" 	<ol style="list-style-type: none"> If exceedance is confirmed as caused by the construction works, take relevant actions as detailed in "Action Level" and "Limit Level" 	<ol style="list-style-type: none"> If exceedance is confirmed as caused by the construction works, take relevant actions as detailed in "Action Level" and "Limit Level" 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> Discuss the current mitigation measures with the IC(E) and the Contractor. 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. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the Contractor on the current mitigation measures. Assess the effectiveness of the current mitigation measures and advised the ER accordingly. 	<ol style="list-style-type: none"> Discuss with the IC(E) on the current mitigation measures. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the exceedance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. 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	<ol style="list-style-type: none"> Discuss mitigation measures with the IC(E) and the Contractor. Ensure the proposed mitigation measures are implemented. 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. Prepare to increase the monitoring frequency to daily, if the Limit Level is exceeded as below. 	<ol style="list-style-type: none"> Discuss with the ET Leader and the Contractor on the proposed mitigation measures. Review proposals on mitigation measures submitted by the Contractor and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IC(E), the ET Leader and the Contractor on the proposed mitigation measures. Make agreement on the proposed mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the consecutive exceedance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. Discuss with the ET Leader and the IC(E) and propose mitigation measures to the IC(E) and the ER within 3 working day. Implement the agreed mitigation measures.
Limit Level				
1. Limit level being exceeded by one sampling day and is cause by the construction works	<ol style="list-style-type: none"> Discuss mitigation measures with the IC(E), the ER and the Contractor. Ensure the proposed mitigation measures are implemented. Prepare to increase the monitoring frequency to daily if further exceedances of the Limit Level are detected on the next sampling day . 	<ol style="list-style-type: none"> Discuss with the ET Leader and the Contractor on the proposed mitigation measures. Review proposals on mitigation measures submitted by the Contractor and advised the ER accordingly. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Discuss with IC(E), the ET Leader and the Contractor on the proposed mitigation measures. Request the Contractor to Critically review the working methods. Make agreement on the proposed mitigation measures to be implemented. Assess the effectiveness of the implemented mitigation measures. 	<ol style="list-style-type: none"> Inform the ER and confirm notification of the exceedance in writing. Rectify unacceptable practice. Check all plants and equipment. Consider changes of working methods. 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. 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.

3.5.4 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	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Notify Contractor. 2. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Amend working method. 2. Rectify damage and undertaken any necessary replacement.
Repeated Non-conformity	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 1. Notify the Contractor. 2. Ensure remedial measures are properly implemented. 	<ol style="list-style-type: none"> 1. Amend working method. 2. Rectify damage and undertaken any necessary replacement.

4. AIR QUALITY

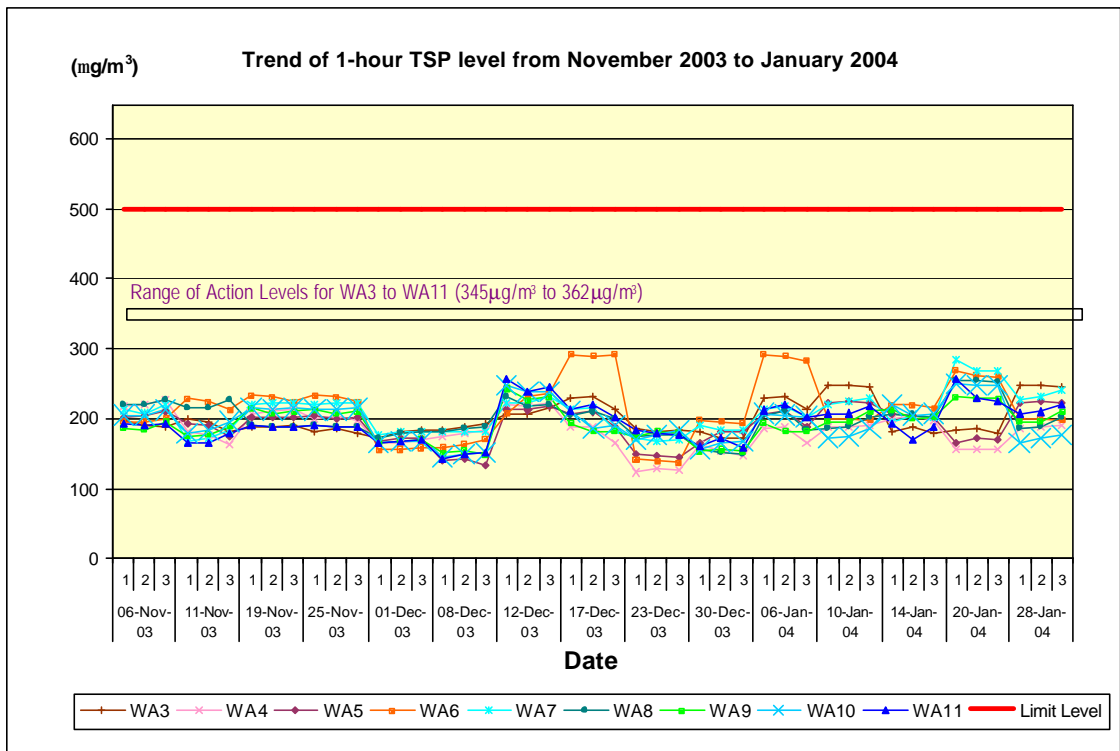
4.1 1-hour TSP Monitoring Results

The highest 1-hour TSP level was 292.8µg/m³ recorded at Tsing Lung Tau Tin Hau Temple (WA6) on 17 December 2003 while 6 January 2004 and the lowest 1-hour TSP level was 122.6µg/m³ recorded at G/F of Hong Kong Garden Between Blocks 1 & 2 (WA4) on 23 December 2003.

There was no exceedance on Action and Limit Levels in the reporting period.

The trend of 1-hour TSP levels at each monitoring location are plotted and presented in Figure 4-1.

Figure 4-1 Trend of 1-hour TSP levels from November 2003 to January 2004



4.2 24-hour TSP Monitoring Results

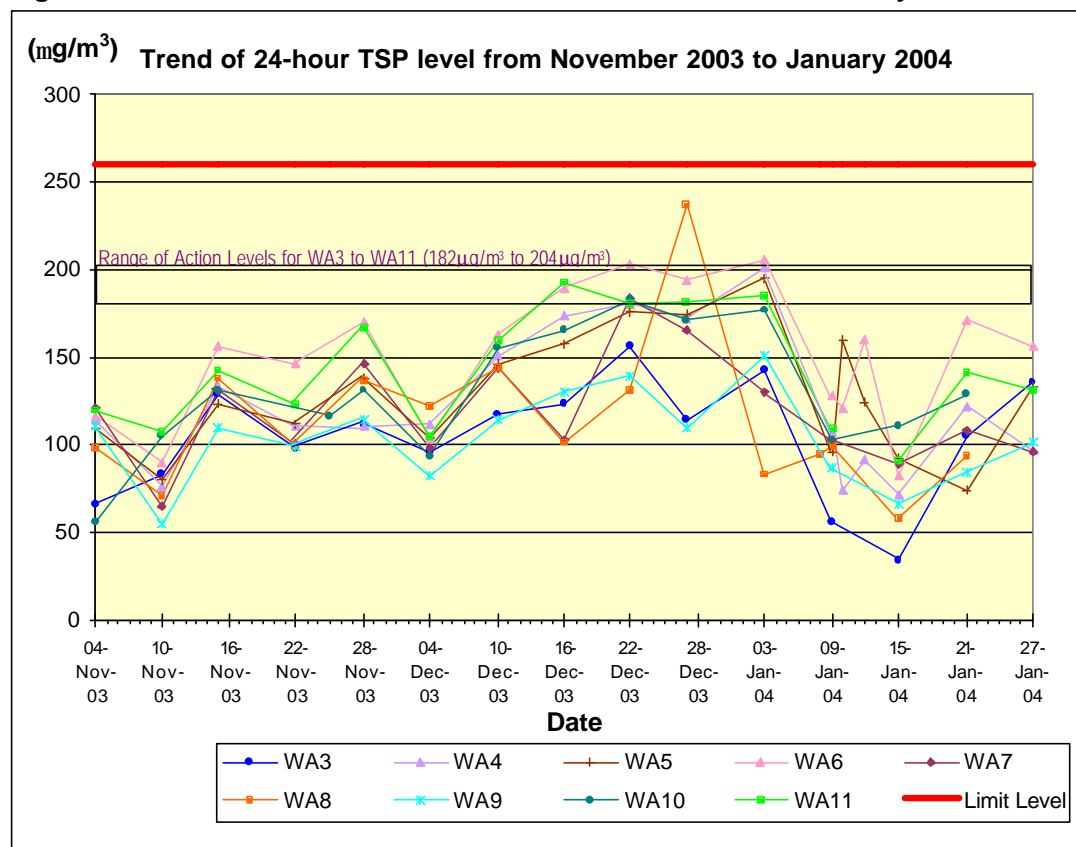
The highest 24-hour TSP level was 237.3 $\mu\text{g}/\text{m}^3$ recorded at Sea Crest Villa Phase 3 Block 8 (WA8) on 27 December 2003 while the lowest 24-hour TSP level was 34.5 $\mu\text{g}/\text{m}^3$ recorded at Hong Kong Garden Regent Heights (WA3) on 15 January 2004.

Exceedances on Action Level were recorded at Sea Crest Villa Phase 3 Block 8 (WA8) on 27 December 2003, and at Hong Kong Garden between Blocks 1 & 2 (WA4), Hong Kong Garden Block 4 (WA5), and Tsing Lung Tau Tin Hau Temple (WA6) on 3 January 2004.

These exceedances were mainly due to the poor weather condition in the territory or construction work other than the construction site. Upon the implementation of mitigation measures, no further exceedance was recorded in the subsequent air quality monitoring.

The trend of 24-hour TSP levels at each monitoring location are plotted and presented in Figure 4-2.

Figure 4-2 Trend of 24-hour TSP level from November 2003 to January 2004



5. NOISE

5.1 Noise Monitoring Results

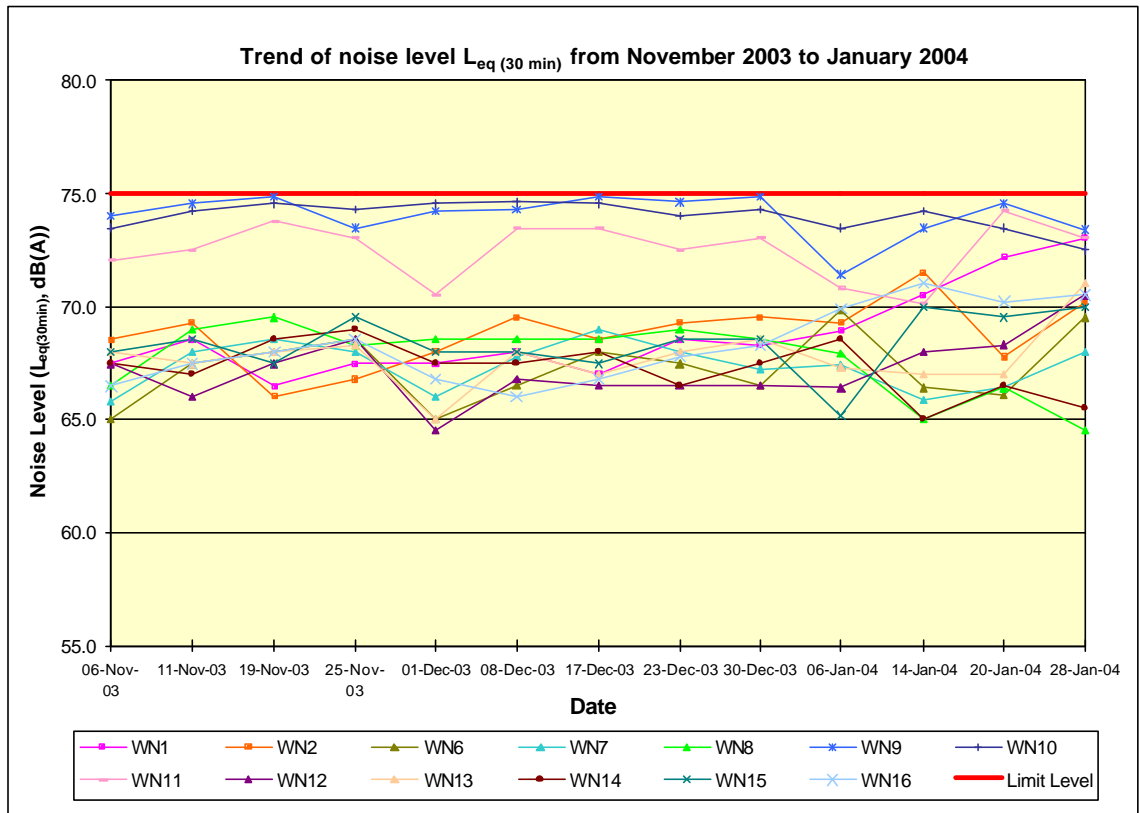
All the noise measurements were taken between 0700-1900 hours on normal weekdays during which the construction site was under normal operation.

The highest noise level was 74.8dB(A) recorded at House 1, Tsing Lung Tau Village (WN9) on 19 November 2003 while 17th and 30th December 2003 and the lowest noise level was 64.5dB(A) recorded at Sea Crest Villa Phase 4 (WN12) on 1 December 2003 and Hong Kong Garden Block 4 (WN8) on 28 January 2004.

There was no exceedance on the Limit Level in the reporting period.

The trend of the noise levels at each monitoring location are plotted and presented in Figure 5-1.

Figure 5-1 Trend of noise level from November 2003 to January 2004



6. WATER QUALITY (DESIGNATED PROJECT)

6.1 Suspension of 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 10 October 2003.

7. LANDSCAPE AND VISUAL MONITORING AND AUDIT

A total of 6 times of the landscape and visual monitoring and audits had been carried out in the reporting period by a Registered Landscape Architect. Frequently watering and tidy up the construction site have been suggested after the landscape and visual monitoring and audits. The CT was informed of the recommendations for action.

8. QUARTERLY SUMMARY, ENVIRONMENTAL COMPLAINT AND NON-COMPLIANCE RECORDS

8.1 Summary of Waste Disposal

Table 8-1 summarises the waste disposal quantity in the reporting period.

Table 8-1 Waste disposal quantity in the period from November 2003 to January 2004

Type of waste or material	Disposal at	No. of loads or quantities			
		Nov-03	Dec-03	Jan-04	Total
C&D waste	WENT Landfill	27 loads	23 loads	2 loads	52 loads
C&D material	Public Filling Area in Tuen Mun	989 loads	502 loads	1,066 loads	2,557 loads
Grease trap waste	Interim Grease Trap Waste Treatment Facility at WENT Landfill	0	0	0	0
Chemical waste	Collected by licenced collector	0	0	0	0

8.2 Complaint Record

A total of 3 environmental complaints were received in the reporting period. Two of these were related to water quality impacts from the muddy water on the beach opposite to Sea Crest Villa Phase III and ponding of foul water at the footway in front of Sham Tseng Latrine. The third one was concerned about construction noise during early hours of 8:00am. All had been solved after investigation. A log record on the environmental complaints is given in Appendix B.

8.3 Non-compliance

There were four exceedances on Action Level of 24-hour TSP monitoring.

There was one documented complaint regarding construction noise which had triggered the Action Level of construction noise. A summary of the exceedances in the reporting period is given in Table 8-2.

Table 8-2 Summary of exceedances

	Monitoring			Action Level	Limit Level	Investigation Findings	Non-compliance
	Date	Location	Result				
Noise [dB(A)]	6-Dec-03	Near Hong Kong Garden	Receipt of complaint*	When one documented complaint is received	75	Inspection was made at the concerned area but no abnormal construction activity was found. The Contractor had explained to the Complainant 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 had reminded the Contractor to implement noise mitigation proposal in accordance with EM&A Manual.	Noise generated from the ongoing construction works in these areas was monitored and no exceedance was found. ET had reminded the Contractor on the noise mitigation measures.
24-hour TSP [mg/m ³]	27-Dec-03	WA8	237.3	187.8	260.0	The site staff's had checked the works schedule and found that there was no heavy construction activity being carried out close to WA8. However, there was a haze overcast at the ambient air causing a poor atmospheric condition. As reflected in the relatively high API levels at the end of Dec 03, the atmospheric dispersion effect was fairly poor due to the seasonal characteristic. It was therefore considered that the exceedance at WA8 was caused by haze in the atmosphere and poor dispersion effect.	The Contractor was advised to enhance the dust suppression measures, including proper wheel washing of vehicle at site exit, and watering the haul road, unpaved area and other dusty activities, such as rock breaking; rock drilling; loading/unloading of rock boulders; and earth moving. Additional monitoring was conducted on 7 January 2004 and no further exceedance was recorded.
24-hour TSP [mg/m ³]	01-Jan-04	WA4	200.3	186.8	260.0	As confirmed by the Contractor, all these monitoring locations were within Seawall-B stretch of the project. The excavation works at Seawall-B areas were mainly completed and the construction of reinforced concrete structures was in progress. The current work types and number of plants mobilised in the area was not believed to be the cause of such exceedances, as the mobilisation rate was significantly lower during the past months (see attached photos). However, there was a haze overcast at the ambient air causing a poor atmospheric condition in early January 2004. Similar to the condition in late December 2003, and the atmospheric dispersion effect was fairly poor due to seasonal characteristics. It is therefore considered that the exceedances at WA4, WA5 and WA6 could be due to the hazy condition in the atmosphere and poor dispersion effect.	The Contractor was advised to enhance the dust suppression measures, including proper wheel washing of vehicle at site exit, and watering the haul road, unpaved area and other dusty activities, such as rock breaking; rock drilling; loading/unloading of rock boulders; and earth moving. Additional monitoring was conducted on 10 th and 12 th January 2004 but no further exceedance was recorded with enhanced dust suppression measures.
		WA5	195.2	185.0			
		WA6	205.4	203.6			

8.4 Notification of Summons and Successful Prosecution

There was no notification of summons or prosecution received during the reporting period.

8.5 Environmental Licenses

No new environmental license was granted in the reporting period.

9. COMMENTS, RECOMMENDATION AND CONCLUSION

9.1 Comments and Recommendations

Regarding the water quality issue, there had been frequently accumulation of silt, construction debris or sands inside the existing and temporary drainage systems and desilting facilities. As advised, the CT had cleaned the drainage systems and desilting facilities but still needed to be improved. In addition, stagnant water had always been found within the construction site, but was cleared up immediately by the CT.

Regarding the air quality issue, dust had been occasionally spotted from the activities of rock breaking and excavation and vehicle movement on dry and dusty haul road and mud trails on public roads. The CT had therefore implemented mitigation measures for dust suppression upon requested by the ET. These included spraying water onto rock breaking and excavation activities, watering of dry and dusty haul road; provision of wheel washing facilities, and cleaning the public road when necessary. Exceedances on Action Level of 24-hour TSP were recorded at the end of December 2003 and early 2004. These exceedances were mainly due to the poor weather condition in the territory other than the construction site. Upon the implementation of mitigation measures, no further exceedance was recorded in the subsequent air quality monitoring.

Construction noise impact was insignificant in the reporting period. It was occasionally spotted that noise label had not been provided for some PMEs but was provided after verbal warning.

Accumulation of general refuse, C&D waste and chemical or oil containers had been occasionally spotted by the ET. Upon advised, the CT had disposed of the waste, removed the containers, cleaned up the area and provided drip tray for the chemical or oil containers accordingly. Oil stain was occasionally spotted and the CT was advised to remove the contaminated soil.

No significant landscape and visual impacts had been recorded in the reporting period.

The EM&A programme including landscape and visual monitoring and audit for the period from November 2003 to January 2004 had been conducted as planned to avoid significant environmental and visual impacts to the sensitive receivers.

9.2 Conclusion

The environmental performance of the CT during the reporting period was acceptable. Upon advised by the ET, remedial measures had been taken to mitigate the environmental impacts caused by the construction activities. As a whole, EM&A programme had been well conducted in the reporting period.

10. 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

**Construction
programme**

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																
							JAN			FEB			MAR			APR							
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26
CPR Improvement bet Sham Tseng & Ka Loon Tsuen																							
Important Dates																							
Key Dates																							
00-SECV	KDE - All Works bet CH2210-2300	0		06APR04*	0	-34																	
Portions Handover Dates																							
00-VD6	Handover Portion No. 6 to Employer	0		28FEB04*	0	0																	
00-VD7	Handover Portion No. 7 to Employer	0		28FEB04*	0	0																	
1. Preliminaries																							
Planning & Programming																							
01-0108	Maintain Programming & Submit Progress Reports	1,236	24NOV01A	26MAY05	60	0																	
Waste Management																							
01-1166	Implement & Monitor WMP	1,171	21DEC01A	23MAR05	63	0																	
Maintenance of Traffic Flow																							
01-1153	Maintain Traffic Flow	1,171	24NOV01A	23MAR05	63	0																	
Environmental Monitoring & Audit																							
01-11702	Implement & Maintain Impact Monitor & Audit	1,601	08MAR02A	26MAY06	46	0																	
Interfacing and Coordination																							
01-1173	Coordination/Integration with Interfacing Works	1,171	01DEC01A	23MAR05	63	0																	
01-1174	Provide Reasonable Access to Other Contractors	1,171	01DEC01A	23MAR05	63	0																	
16. Site Safety																							
Safety Management System																							
16-1612	Implement & Maintain Safety Management System	1,151	14DEC01A	23MAR05	62	0																	
CPR from Chainage 0+900 to Chainage 1+870																							
1. Preliminaries																							
Proposed Utility Works																							
01-1203	Proposed Gasmain on E/B C, way CH1070-1350	40	13AUG03A	25FEB04	85	-194																	
01-1204	Additional Gasmain on E/B C, way CH950-1070	20	15DEC03A	25FEB04	50	-194																	
3. Roadworks																							
Earthworks																							
03-3016	Excavate to Future Road Level at BPRW03; 31-37	20	12JAN04A	30JAN04	50	-37																	
03-3011	Earthworks Along W/B C/W CH1464 to 1554	14	07APR04	26APR04	0	18																	
Drainage Works																							
03-3136	Drill/excavate for drainage at E/B CH1100-1205	26	23SEP03A	15JAN04A	100																		
03-3137	Construct drainage at E/B CH1100-1215	18	11NOV03A	28JAN04	56	-198																	

Start Date	23NOV01		Early Bar
Finish Date	07FEB07		Progress Bar
Data Date	16JAN04		Critical Activity
Run Date	29JAN04 08:05		

3M26

Sheet 1 of 12

Maeda Corporation
HY/99/18 - Castle Peak
3- Month Rolling Programme

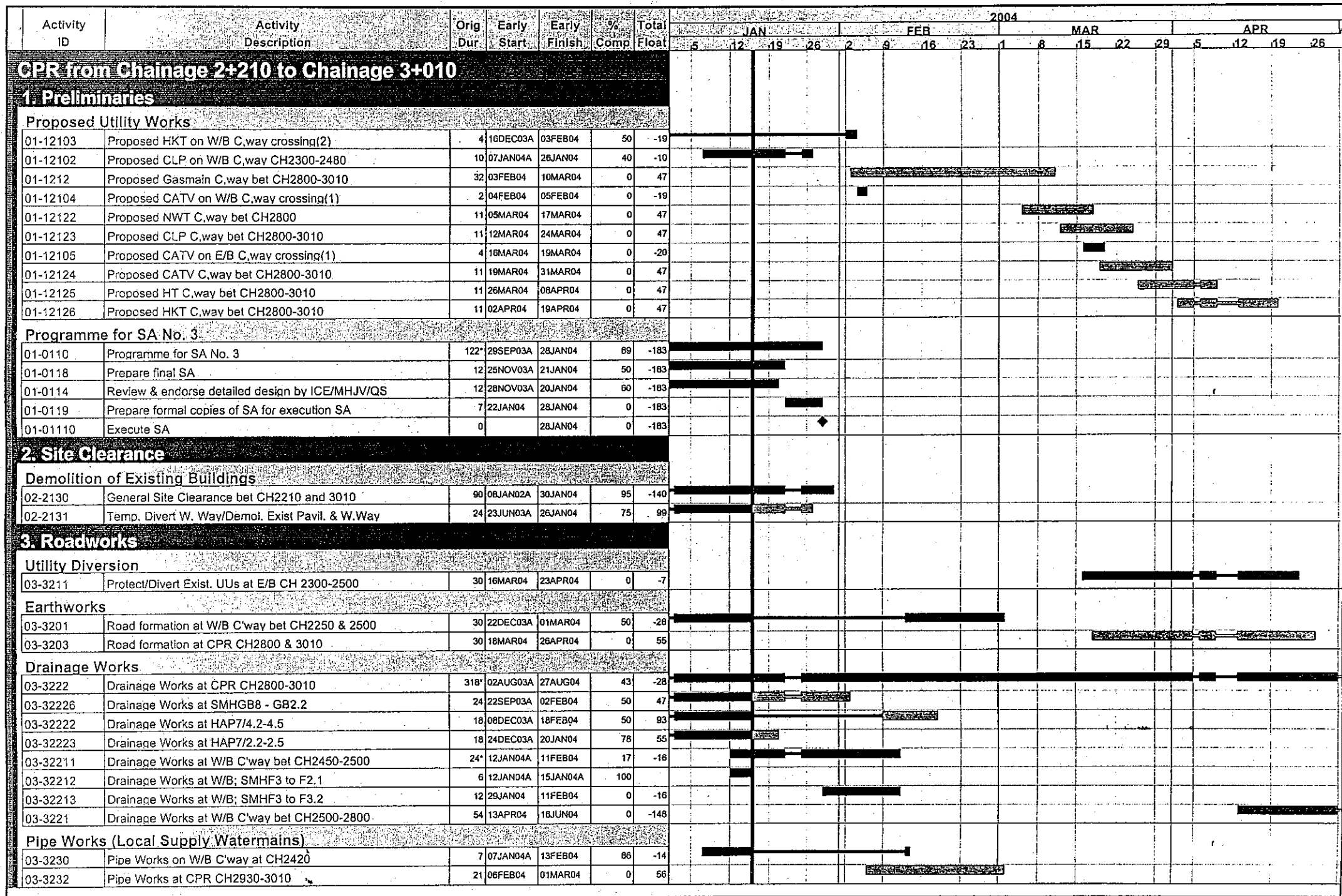


January 2004				
Date	Revision	Checked	Approved	
14APR03	revision c			
10.FEB03	revision d			
10.JAN03	revision e			
30.FEB03	revision 01			
17SEP03	revision 02			

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004															
							JAN				FEB				MAR				APR			
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19
Drainage Works																						
03-3134	Drainage at Access Road R8	30	21FEB04	26MAR04	0	-135																
03-3129	Drainage along E/B C'way bet CH0980-1100	30	18MAR04	26APR04	0	-212																
Pipe Works (Local Supply Watermains)																						
03-3150	Pipe Works on E/B C'way bet CH1185-1215	10	29JAN04	09FEB04	0	-198																
03-3154	Pipe Works at Access Road R8	20	27MAR04	23APR04	0	-135																
Road Works																						
03-3024	Temp Rdworks at E/B C'way (CH1070-1350)	30	09MAR04	16APR04	0	-222																
03-3025	Divert Traffic to E/B C'way CH1070 -1350	0		16APR04	0	-222																
5. Footbridges																						
Footbridge FB12																						
05-5300	Form Working Platform for S.I. South (FB12)	30	04APR02A	10JAN04A	100																	
05-5310	GI Work at South Support for FB12; 14 piles	28	25APR02A	17JAN04	96	-59																
05-53112	Piling Work at North Support for FB12; 17 piles	72	13SEP03A	05JAN04A	100																	
05-53101	Piling Platform for FB12 South	30	01DEC03A	13JAN04A	100																	
05-531122	Pile tests at North Support for FB12; 17 piles	8	14JAN04A	26JAN04	25	-66																
05-53102	Piling Work at South Support for FB12; 14 piles	56	15JAN04A	25MAR04	2	-59																
05-5330	North Pile caps for FB12; 8 Nos.	40	27JAN04	12MAR04	0	-66																
05-5320	South Pile caps for FB12; 6 Nos.	40	26MAR04	17MAY04	0	-59																
6. Retaining Walls																						
Bored Pile Wall BPRW03																						
06-62232	Construct Facing Wall for BPRW03; 1 to 30	45	24NOV03A	09FEB04	60	-48																
06-622248	Const. 16 no.s 610 dia. mini piles	32	12DEC03A	10JAN04A	100																	
06-62233	Construct Caping Beam for BPRW03; 1 to 30	30	19DEC03A	16FEB04	60	-48																
06-62255	Construct Facing Wall for BPRW03; 31 to 37	20	31JAN04	23FEB04	0	-37																
06-62235	Fill & Trim Slope/Construct U-Channel; 1 to 30	30	03FEB04	08MAR04	0	-48																
06-62256	Construct Caping Beam for BPRW03; 31 to 37	12	24FEB04	08MAR04	0	-37																
06-62260	U-channel on F/P at BPRW03	15	09MAR04	25MAR04	0	16																
Bored Pile Wall BPRW60																						
06-62640	Fill & Trim Slope/Construct U-Channel on Slope	30	02MAY03A	21JAN04	83	-102																
06-62660	U-channel on F/P at BPRW60	15	03FEB04	19FEB04	0	-88																
Reinforced Earth Wall 01																						
RE0114	Excavate/Temp. Slope Protection; 2nd stage	30	22OCT03A	02FEB04	60	18																
RE0116	Mass concrete/Install panel & mesh/Backfill	36	03FEB04	15MAR04	0	18																
RE0118	Finishing Work	30	02MAR04	06APR04	0	18																
Reinforced Earth Wall 60																						
RE6014	Backfill/Finishing Work	24	10NOV03A	02FEB04	50	-119																
L-Shaped Walls																						
06-65402	Backfill & drainage behind RW60	10	03JAN04A	10JAN04A	100																	
06-6103	Retaining Wall RW01 (CH1350-1464); 11 bays	90	03MAR04	23JUN04	0	-50																

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004															
							JAN				FEB				MAR				APR			
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19
7. Noise Structures																						
Procurement of Noise Barrier																						
07-7060	Fabrication of Steel Members for Noise Barrier	100	16JAN04	24APR04	17	-50	[Bar chart showing activity duration from Jan 16 to Apr 24]															
07-7070	Fabrication of Panels for Noise Barrier	100	16JAN04	24APR04	17	-50	[Bar chart showing activity duration from Jan 16 to Apr 24]															
07-7040	Prepare, Submit Shop Drawings for NM03	21	29JAN04	18FEB04	0	-44	[Bar chart showing activity duration from Jan 29 to Feb 18]															
07-7080	Delivery of Steel Members for Noise Barrier	90	15FEB04	14MAY04	0	-50	[Bar chart showing activity duration from Feb 15 to May 14]															
07-7050	ER Review/Approve Shop Drawings for NM03	30	19FEB04	19MAR04	0	-44	[Bar chart showing activity duration from Feb 19 to Mar 19]															
07-7090	Delivery of Panels for Noise Barrier	90	25FEB04	24MAY04	0	-50	[Bar chart showing activity duration from Feb 25 to May 24]															
Noise Mitigation No. 01																						
07-71112	Foundation of NM01 (North); CH1205-1280	50*	04DEC03A	06FEB04	68	-184	[Bar chart showing activity duration from Dec 4 to Feb 6]															
07-71114	Excavation/formation for bays 22-25 of NM01	12	04DEC03A	10JAN04A	100		[Bar chart showing activity duration from Dec 4 to Jan 10]															
07-71116	Construct base slab for bays 22-25 of NM01	24	24DEC03A	30JAN04	58	-184	[Bar chart showing activity duration from Dec 24 to Jan 30]															
07-7118	Construct wall for bays 22-25 of NM01	24	05JAN04A	06FEB04	33	-184	[Bar chart showing activity duration from Jan 5 to Feb 6]															
07-7113	Foundation of NM01 (North); CH1350-1405	50*	13MAR04	15MAY04	0	-86	[Bar chart showing activity duration from Mar 13 to May 15]															
07-71132	Excavation/formation for bays 37-42 of NM01	18	13MAR04	02APR04	0	-66	[Bar chart showing activity duration from Mar 13 to Apr 2]															
07-71134	Construct base for bays 37-42 of NM01	24	27MAR04	28APR04	0	-66	[Bar chart showing activity duration from Mar 27 to Apr 28]															
8. Culverts and Outfalls																						
Culvert-Outfall AA																						
08-81502	Exc. Culvert-Outfall AA (within Exist CPR)	6	26FEB04	03MAR04	0	-194	[Bar chart showing activity duration from Feb 26 to Mar 3]															
08-815022	const. Culvert-Outfall AA (within Exist CPR)	18	01MAR04	20MAR04	0	-185	[Bar chart showing activity duration from Mar 1 to Mar 20]															
Culvert-Outfall AB																						
08-8102	Exc. Culvert-Outfall AB (the remaining portion)	6	26FEB04	03MAR04	0	-188	[Bar chart showing activity duration from Feb 26 to Mar 3]															
08-81022	Const. Culvert-Outfall AB (the remain. portion)	18	04MAR04	24MAR04	0	-188	[Bar chart showing activity duration from Mar 4 to Mar 24]															
Culvert-Outfall B																						
08-82012	Const. SMHB2 & Downpipes at bottom batter	18	19NOV03A	26JAN04	67	-178	[Bar chart showing activity duration from Nov 19 to Jan 26]															
Culvert-Outfall D																						
08-8500	Construct Outfall D (North)	139*	14AUG03A	02FEB04	91	-135	[Bar chart showing activity duration from Aug 14 to Feb 2]															
08-85011	Exc. Culvert-Outfall D (North)	50	09SEP03A	26JAN04	88	-135	[Bar chart showing activity duration from Sep 9 to Jan 26]															
08-85015	Construct SMHD1/cascade/ staircase/1500 pipe	18	03JAN04A	02FEB04	50	-135	[Bar chart showing activity duration from Jan 3 to Feb 2]															
10. Geotechnical & Slope Works																						
New Slope Nos. 4, 5 & 3																						
10-10205	Excavation & Filling Works for Slopes 4, 5 & 3	24	08JAN04A	08MAR04	17	-135	[Bar chart showing activity duration from Jan 8 to Mar 8]															
10-102052	Drainage/Stabise Slopes 4, 5 & 3	18	24FEB04	15MAR04	0	-135	[Bar chart showing activity duration from Feb 24 to Mar 15]															
Existing Slope Works																						
10-10211	Remedial Works to Slope No. D/R16	598*	05DEC02A	13DEC04	55	-65	[Bar chart showing activity duration from Dec 5 to Dec 13]															
10-10210	Remedial Works to Slope No. C161 & C5	103*	17DEC03A	26APR04	22	-212	[Bar chart showing activity duration from Dec 17 to Apr 26]															
10-102102	Erect scaffolding/rock mapping	18	30DEC03A	16JAN04	94	-192	[Bar chart showing activity duration from Dec 30 to Jan 16]															
10-102107	Temp. work design/consent from the ER for RW101	30	02JAN04A	11FEB04	33	-212	[Bar chart showing activity duration from Jan 2 to Feb 11]															
10-102104	Install rock dowels/surface protection	30	12JAN04A	19FEB04	10	-179	[Bar chart showing activity duration from Jan 12 to Feb 19]															
10-102106	Excavate & formation to retaining wall RW101	30	12FEB04	17MAR04	0	-212	[Bar chart showing activity duration from Feb 12 to Mar 17]															
10-102105	Remove scaffolding, temp. catch fence	20	20FEB04	13MAR04	0	-179	[Bar chart showing activity duration from Feb 20 to Mar 13]															
10-102108	Construct retaining wall RW101/backfill	30	18MAR04	26APR04	0	-212	[Bar chart showing activity duration from Mar 18 to Apr 26]															

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																							
							JAN				FEB				MAR				APR											
							5	12	19	26	2	9	16	23	1	8	15	22	5	12	19	26								
13. Reprovisioning of LCSD & FEHD Facilities																														
FEHD Facilities																														
13-1330	Construct RCP B	169*	09JUL03A	02FEB04	93	304	[Gantt bar from 09JUL03 to 02FEB04]																							
13-1340	Reprovision of Sitting Out Area at Ka Loon Tsuen	141*	13SEP03A	04MAR04	72	97	[Gantt bar from 13SEP03 to 04MAR04]																							
13-13406	Const. footing/floor slab of Sitting Out Area	40	13SEP03A	29JAN04	78	97	[Gantt bar from 13SEP03 to 29JAN04]																							
13-1320	Construct RCP A	39*	12JAN04A	28FEB04	10	101	[Gantt bar from 12JAN04 to 28FEB04]																							
13-13202	Construct drainage system of RCPA	12	12JAN04A	29JAN04	25	101	[Gantt bar from 12JAN04 to 29JAN04]																							
13-13307	Finishing works for RCPB	12	16JAN04	02FEB04	0	304	[Gantt bar from 16JAN04 to 02FEB04]																							
13-13204	Formation/construct foundation of RCPA	6	30JAN04	05FEB04	0	101	[Gantt bar from 30JAN04 to 05FEB04]																							
13-13407	Const./install Roof & Furnit of Sitting Out Area	30	30JAN04	04MAR04	0	97	[Gantt bar from 30JAN04 to 04MAR04]																							
13-13206	Construct sub-structure & roofing of RCPA	12	06FEB04	19FEB04	0	101	[Gantt bar from 06FEB04 to 19FEB04]																							
13-13207	Finishing works for RCPA	8	20FEB04	28FEB04	0	101	[Gantt bar from 20FEB04 to 28FEB04]																							
Stairways																														
13-1310	Construct Stairway ST01 and Add. Ramp ST01A	30	22DEC03A	15JAN04A	100		[Gantt bar from 22DEC03 to 15JAN04]																							
13-1313	Construct Stairway ST03	30	16MAR04	23APR04	0	-111	[Gantt bar from 16MAR04 to 23APR04]																							
Variation Order																														
Additional Works at Slope 1																														
10-1045	Const. drainage/stabilize slope at bott. batter	139*	21AUG03A	09FEB04	87	-188	[Gantt bar from 21AUG03 to 09FEB04]																							
10-1051	Const. planter wall/drainage V.O. 104	18	05DEC03A	26JAN04	87	-188	[Gantt bar from 05DEC03 to 26JAN04]																							
10-1052	Const. additional but. wall at bottom batter	12	27JAN04	09FEB04	0	-188	[Gantt bar from 27JAN04 to 09FEB04]																							
Mass & Buttress Wall in front of House No. 6																														
VO214	Add. retaining wall at House no. 6; VO 214	158*	18SEP03A	29MAR04	62	-222	[Gantt bar from 18SEP03 to 29MAR04]																							
VO2143	Soldier piling	12	02DEC03A	30JAN04	17	-222	[Gantt bar from 02DEC03 to 30JAN04]																							
VO2144	Excavation/lagging to soldier piles	16	31JAN04	18FEB04	0	-222	[Gantt bar from 31JAN04 to 18FEB04]																							
VO2145	Rock mapping/confirm rock dowels	4	19FEB04	23FEB04	0	-222	[Gantt bar from 19FEB04 to 23FEB04]																							
VO2146	Install rock dowels	4	24FEB04	27FEB04	0	-222	[Gantt bar from 24FEB04 to 27FEB04]																							
VO2147	Construct buttress wall	12	26FEB04	12MAR04	0	-222	[Gantt bar from 26FEB04 to 12MAR04]																							
VO2148	Construct mass concrete wall	8	13MAR04	22MAR04	0	-222	[Gantt bar from 13MAR04 to 22MAR04]																							
VO2149	Back filling & drainage behind retaining wall	6	23MAR04	29MAR04	0	-222	[Gantt bar from 23MAR04 to 29MAR04]																							
Remedial Works for failed slope behind BPRW60																														
06-62652	Rem. Works for Failed Slope at BPRW60; VO. 197	77*	21OCT03A	21JAN04	94	-102	[Gantt bar from 21OCT03 to 21JAN04]																							
06-62269	Reinstate work/finishing work	8	29DEC03A	21JAN04	38	-102	[Gantt bar from 29DEC03 to 21JAN04]																							
Mass Concrete Wall at toe of Slope 3																														
VO2252	Add. mass conc. wall at toe of slope 3; VO. 253	30	27JAN04	01MAR04	0	-135	[Gantt bar from 27JAN04 to 01MAR04]																							
Grade 200 Rockfill Slope to replace RW74																														
VO206	Construct Slope replacing RW74; VO 206	81*	12DEC03A	22MAR04	33	-206	[Gantt bar from 12DEC03 to 22MAR04]																							
VO2064	Remove exist shortcrete/benching/fill grade 700	24	22DEC03A	02FEB04	50	-206	[Gantt bar from 22DEC03 to 02FEB04]																							
VO2066	Const. berm/drain/stairs/cap. layer; top batter	12	03FEB04	16FEB04	0	-206	[Gantt bar from 03FEB04 to 16FEB04]																							
VO2068	Const. berm/drain/stairs/cap. layer; 2nd batter	18	17FEB04	08MAR04	0	-206	[Gantt bar from 17FEB04 to 08MAR04]																							
VO2069	Const. drain/stairs/cap. layer; bott batter	12	09MAR04	22MAR04	0	-206	[Gantt bar from 09MAR04 to 22MAR04]																							



Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																	
							JAN				FEB				MAR				APR					
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26	
Pipe Works (Local Supply Watermains)																								
03-3233	Water Works at Portion W10	7	12FEB04	19FEB04	0	14																		
Road Works																								
03-3142	Lav sub-base, kerbs & edgings; W/B CH2250-2500	18	17FEB04	08MAR04	0	-28																		
03-31422	Construct rd pave & f/p; W/B CH2250-2500	18	24FEB04	15MAR04	0	-28																		
03-3147	Divert Traffic to W/B Perma C'way CH2210 to 2500	0		15MAR04	0	-28																		
03-31448	Reinstall E/B CH2210-2300 prior to Complete KDE	6	30MAR04	06APR04	0	-28																		
5. Footbridges																								
Footbridge FB01																								
05-51103	Piling Works for caps 10 to 12; FB01; 8 Nos.	150	17JUN03A	10JAN04A	100																			
05-51104	Pile testing for FB01 (South)	12	16JAN04	02FEB04	0	-119																		
05-51202	South Columns & Column head for 6-7; 3 Nos.	30	28JAN04	28FEB04	0	-52																		
05-51201	South Pile caps for 8 to 12; FB01; 5 Nos.	24	16MAR04	16APR04	0	-119																		
Footbridge FB02																								
05-52402	North Columns & column head for FB02; 9 Nos.	40	22SEP03A	21JAN04	88	-64																		
05-52704	Construct Stairway for FB02 (North)	30	22DEC03A	26JAN04	80	-55																		
05-5270	Construct Ramp for FB02 (North)	60	31DEC03A	11FEB04	67	-69																		
05-5230	South Pile caps for FB02; 8 Nos.	35	05JAN04A	11FEB04	43	-109																		
05-52302	South Columns & column head for FB02; 9 Nos.	40	12FEB04	29MAR04	0	-109																		
05-5250	Erect Deck of Main Span for FB02	30	30MAR04	08MAY04	0	-109																		
05-5260	Construct Ramp for FB02 (South)	60	30MAR04	14JUN04	0	-109																		
05-52604	Construct Stairway for FB02 (South)	30	30MAR04	08MAY04	0	-79																		
05-52706	Erect Steelwork & Roofing for FB02 (North)	30	30MAR04	08MAY04	0	-109																		
7. Noise Structures																								
Noise Mitigation No. 02																								
07-7231	Const. footing for NM02 (South); CH2450-2480	24	04DEC03A	26JAN04	75	-8																		
Noise Mitigation No. 03																								
07-7311	Foundation of NM03 (South)	60	29JAN04	08APR04	0	-61																		
07-73112	Excavation/formation of NM03 (South)	18	29JAN04	18FEB04	0	-61																		
07-73114	Construct base of NM03 (South)	34	12FEB04	22MAR04	0	-61																		
07-73116	Construct wall stem of NM03 (South)	34	28FEB04	08APR04	0	-61																		
Noise Mitigation No. 04																								
07-7407	Erect Frame/Panels for NM04 (Within portion W10)	50	25FEB04	27APR04	0	-40																		
8. Culverts and Outfalls																								
Culvert-Outfall F																								
08-8710	Formation Culvert-Outfall F (South of Exist CPR)	193	02JUN03A	26JAN04	97	114																		
08-87102	Excavate and Const. Outlet (stitch concrete)	43	02JUN03A	26JAN04	86	114																		
Culvert-Outfall G																								
08-8810	Culvert-Outfall G (South of Exist CPR)	204	11JUN03A	16FEB04	88	-104																		
08-88105	Excavate/formation/blinding for bay 3	12	03DEC03A	26JAN04	50	-104																		
08-88106	Const. twin box-culvert for bay 3	18	27JAN04	16FEB04	0	-104																		

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																			
							JAN				FEB				MAR				APR							
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26			
9. Seawalls and Marine Works																										
Sea Wall B (710 m Length)																										
09-9114	Granular Fill (CH2210-2450)	50	22APR03A	06FEB04	80	-8																				
09-9134	Granular Fill (CH2800-3010)	50	10MAY03A	01MAR04	60	87																				
09-91122	Place Armour to +4 mPD (CH2210-2500)	25	03DEC03A	04FEB04	50	-8																				
L-Shaped Walls																										
09-9113	Retaining Wall RW-B (CH2250-2500)	282*	10FEB03A	21JAN04	98	-52																				
09-9133	Retaining Wall RW-B (CH2800-3010)	212*	11JUN03A	25FEB04	85	56																				
09-9143	Reprovision of Pavillion at Sea Wall B	258*	23JUN03A	06MAY04	66	-51																				
09-9123	Retaining Wall RW-B (CH2500-2800)	323*	14JUL03A	13AUG04	48	-148																				
09-91136	Const. plinth; RW-B for bay 01-27	46	04SEP03A	21JAN04	89	-52																				
09-91437	Const. pavilion & staircase	24	08SEP03A	06MAY04	17	-51																				
09-91234	Const. RW-B; base for bays 25-27; at FB01	18	30OCT03A	18JAN04	94	-47																				
09-91334	Const. RW-B; base for bays 59-68; at FB02	40	17DEC03A	02FEB04	70	-109																				
09-913341	Const. RW-B; wall for bays 59-68; at FB02	40	03JAN04A	13FEB04	50	-109																				
09-91336	Const. plinth; RW-B for bays 57-76	46	08JAN04A	25FEB04	-35	56																				
09-912312	Const. wall of RW-B; bays 33-56	60	29JAN04	08APR04	0	-148																				
09-912344	Const. RW-B; base for bays 28-32; at FB01	18	03FEB04	23FEB04	0	-119																				
09-912346	Const. RW-B; wall for bays 28-32; at FB01	18	24FEB04	15MAR04	0	-119																				
10. Geotechnical & Slope Works																										
Existing Slope Works																										
09-9212	Remedial Works to Slope No. 6SW-C186 & C1/C78	90*	16MAR04	07JUL04	0	6																				
09-92121	Remedial Works to Slope No. 6SW-D/C186	36*	16MAR04	30APR04	0	12																				
09-921212	Form access and site clearance	6	16MAR04	22MAR04	0	12																				
09-92122	Remedial Works to Slope No. 6SW-D/C1 & D/C78	90*	16MAR04	07JUL04	0	6																				
09-921221	Form access and site clearance	8	16MAR04	24MAR04	0	6																				
09-921214	Construct 300 U-channel on the slope	6	23MAR04	29MAR04	0	12																				
09-921222	Trim slope/Construct 300 U-channel on the slope	12	25MAR04	08APR04	0	6																				
09-921216	Excavate/trim slope to future road level	12	30MAR04	18APR04	0	12																				
09-921223	Excavate/trim slope to future road level	26	13APR04	13MAY04	0	6																				
12. Entrusted Watermains																										
Entrusted Water Mains																										
12-1216	DN1000FW/Associated Wks at CPR CH2800-3010	52	10SEP03A	26JAN04	89	-28																				
12-1231	DN1000FW/Associated Wks at E/B CH2270-2300	20	04DEC03A	31JAN04	45	-28																				
12-1219	DN1000FW/Associated Wks at E/B CH2480-2550	30	06JAN04A	23FEB04	0	-28																				
12-1232	DN150 cross rd & fire hydrant at CH L600	12	16MAR04	29MAR04	0	-28																				
CPR from Chainage 3+010 to Chainage 3+730																										
1. Preliminaries																										
Temporary Watermain Diversions																										
001-1170	Watermain Diversion between CH3010-3100	21	03FEB04	26FEB04	0	-72																				

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																		
							JAN				FEB				MAR				APR						
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26		
Proposed Utility Works																									
01-1245	Proposed Gasmain on E/B C. way CH3540-3670	20	06MAR04	29MAR04	0	53																			
01-1240	Proposed CLP on W/B bet CH3010-3100	5	03APR04	13APR04	0	-125																			
01-12402	Proposed CATV on W/B CH3010, rd crossing	2	03APR04	08APR04	0	-125																			
01-12403	Proposed HKT on W/B CH3220, rd crossing	2	07APR04	08APR04	0	-125																			
2. Site Clearance																									
Demolition of Existing Buildings																									
02-2162	Demolish Exist RCP at Potlon No. W32	6	02APR04	13APR04	0	-126																			
3. Roadworks																									
Earthworks																									
03-3241	Earthworks at W/B C'way CH3010-3300	97*	11DEC03A	13APR04	29	-126																			
03-3243	Earthworks at E/B C'way CH3400-3540	30	11MAR04	19APR04	0	-21																			
Drainage Works																									
03-3324	Drainage Works on E/B C'way bet CH3540-3670	257*	10APR03A	23FEB04	88	53																			
03-3320	Drainage Works on W/B C'way bet CH3010-3300	58	03FEB04	14APR04	0	-109																			
03-33248	Exc. & const. drainage for H2.4-pH2.4	18	03FEB04	23FEB04	0	53																			
Pipe Works (Local Supply Watermains)																									
03-3331	Pipe Works on E/B C'way bet CH3540-3670	22	10FEB04	05MAR04	0	53																			
Road Works																									
03-3340	Dragon Garden Accommodation	626*	12APR02A	24MAY04	84	-146																			
03-334006	Const. Plinth & Wall Face incl. Slope Work	60	10JAN03A	28FEB04	42	-12																			
03-33132	Temp UUs & Roadworks at E/B CH3300-3460	30	03FEB04	08MAR04	0	-65																			
03-33133	Divert Traffic on E/B Temp. C'way CH3300-3460	0		08MAR04	0	-65																			
03-334008	Remove Temporary Hoarding & Reinstatement	35	13APR04	24MAY04	0	123																			
03-3314	Lay sub-base, kerbs & edgings; W/B CH3010-3300	29	14APR04	18MAY04	0	-126																			
R.E. Wall REV05																									
Reinforced Earth Wall W05W																									
REV010	Excavation/Temp. soil nail/Cleaning the base	70	20FEB04	17MAY04	0	-65																			
5. Footbridges																									
Footbridge FB11																									
05-5530	North Pile caps for FB11; 6 Nos.	35	06OCT03A	02FEB04	66	-65																			
05-5520	South Pile caps for FB11; 8 Nos.	35	10OCT03A	28JAN04	77	-22																			
05-55202	South Columns & column head for FB11; 9 Nos.	40	09DEC03A	08MAR04	13	-22																			
05-5550	Construct Ramp for FB11 (South)	60	09MAR04	22MAY04	0	-22																			
6. Retaining Walls																									
Reinforced Earth Wall 13																									
RE1312	Mass concrete/Install panel & mesh/Backfill	80	21JAN03A	03MAR04	93	-126																			
RE1314	Finishing Work	112*	24NOV03A	13APR04	72	-126																			
RE1315	Construct L-shaped wall	30	24NOV03A	20MAR04	50	-126																			
RE1317	Compacted selected fill	18	11DEC03A	13APR04	0	-126																			
RE1316	Construct Plinth	18	20DEC03A	01APR04	44	-126																			

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																
							JAN				FEB				MAR				APR				
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26
L-Shaped Walls																							
06-6590	Construct Partition Wall at D. Garden	45*	28SEP02A	08APR04	85	-21																	
06-6591	Construct Retaining Wall RW16 (Outside)	30*	08MAR03A	22MAR04	83	-21																	
06-6560	Construct Retaining Wall RW13	250*	22APR03A	23FEB04	88	-91																	
06-65912	Construct Wall Stem of RW16; Bay 3 to 5	40	05JUL03A	11FEB04	50	-15																	
06-65904	Construct Partition Wall; Bay 12	30	04AUG03A	08APR04	80	-21																	
06-65906	Construct Partition Wall; Bays 8 & 10	25	24OCT03A	26JAN04	76	-21																	
06-6566	Construct Wall Stem of RW13; 6 bays	24	17NOV03A	15JAN04A	100																		
06-65915	Construct Retaining Wall RW16; Bay 6	25	22DEC03A	02FEB04	52	-1																	
06-6567	Backfill behind RW13	18	24DEC03A	02FEB04	33	-109																	
06-65913	Temp. Works for RW16; Bays 1-2	18	27JAN04	16FEB04	0	-21																	
06-6568	Construct plinth of RW13; 6 bays	18	03FEB04	23FEB04	0	-91																	
06-65914	Construct Retaining Wall RW16; Bays 1-2	30	17FEB04	22MAR04	0	-21																	
06-65908	Extract sheet piles & temp. rd to D. Garden	12	26FEB04	10MAR04	0	-21																	
06-65909	Construct Partition Wall; Bays 11	18	11MAR04	31MAR04	0	-21																	
8. Culverts and Outfalls																							
Culvert - Outfall HB																							
08-81010	Culvert-Outfall HB (South of Exist CPR)	26*	27JAN04	25FEB04	0	-126																	
08-810102	Excavation for DN 1200 DI Pipe & SMH HB3	8	27JAN04*	04FEB04	0	-126																	
08-810103	Const. SMH HB3 & Catchpit	12	05FEB04	18FEB04	0	-126																	
08-810104	Install DN 1200 DI Pipe & Backfill	6	19FEB04	25FEB04	0	-126																	
Culvert-Outfall H																							
08-81110	Culvert-Outfall H (North of Exist CPR)	184*	13AUG03A	24MAR04	70	-21																	
08-81113	Construct manhole SMHH1 & install 1.65m pipe	24	26FEB04	24MAR04	0	-21																	
10. Geotechnical & Slope Works																							
New Slope No. 9																							
10-10545	Drainage Work for Slope No.9	35	27JAN03A	26JAN04	83	65																	
New Slope No. 11																							
10-10757	Reprovision of B. Fence; V.O. No. 133	45	06MAR04	03MAY04	0	106																	
Existing Slope Works																							
10-1092	Remedial Works to Slope No. FR41	149*	26JUL03A	26JAN04	96	150																	
10-10927	Additional mass conc. wall at RW104	18	30DEC03A	07JAN04A	100																		
10-10928	Fill behind RW104 & Finishing Work	16	07JAN04A	26JAN04	63	150																	
11. Entrusted Sewerage Works																							
Entrusted Sewers/Drains																							
11-1141	Sewer Works at E/B bet CH3540-3670	169*	09JUL03A	02FEB04	93	53																	
11-11412	Const. sewer for TS127 to TS127A	24	09JUL03A	10JAN04A	100																		
11-11413	Const. sewer for TS127A to TS128	24	24NOV03A	15JAN04A	100																		
11-11414	Const sewer for TS128 to TS130	30	13DEC03A	02FEB04	60	53																	

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																		
							JAN				FEB				MAR				APR						
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26		
13. Reprovisioning of LCSD & FEHD Facilities																									
Stairways																									
13-1331	Construct Stairway ST06	60*	27JAN04	06APR04	0	-94																			
13-13312	Formation & Construct foundation	10	27JAN04	06FEB04	0	-94																			
13-1332	Construct Stairway ST07	60	27JAN04	06APR04	0	150																			
13-13314	Construct staircae upto +8.6 mPD	23	07FEB04	04MAR04	0	-94																			
13-13316	Construct Stairway from +8.6 to +10.4 mPD	15	05MAR04	22MAR04	0	-94																			
13-13318	Finishing & railing	12	23MAR04	06APR04	0	-94																			
Variation Order																									
Additional Works at Outfall IA under VO No. 195																									
08-81230	Additional Works under V.O. No. 195	126*	16JAN04	21JUN04	0	207																			
08-81231	Form Access & Remove Vegetation; VO 195	12	16JAN04*	02FEB04	0	207																			
08-81232	Exc. incl. Sheet pile/Break Conc. Pipe; L. Part	18	03FEB04	23FEB04	0	207																			
08-81233	Const. Cascade/M. Stairway/Backfill; L. Part	18	24FEB04	15MAR04	0	207																			
08-81234	Exc. incl. Sheet pile; U. Part of Cascade	12	16MAR04	29MAR04	0	207																			
08-81235	Const. Cascade/M. Stairway/Backfill; U. Part	12	30MAR04	16APR04	0	207																			
CPR from Chainage 3+730 to Chainage 4+470																									
2. Site Clearance																									
Demolition of Existing Buildings																									
02-2160	Site Clearance bet CH3730-4470	75	16MAR02A	26JAN04	92	-122																			
3. Roadworks																									
Utility Diversion																									
03-34105	Temp. relocate/protect exist. L.A. Pipes	12	13DEC03A	20JAN04	67	-89																			
03-34506	Lay UUs/Temp. Roadwork at E/B CH 3900-3980	40	09MAR04	28APR04	0	-122																			
Drainage Works																									
03-3424	Drainage Works at E/B C'way CH3900-4330	89*	28NOV03A	17MAR04	44	-108																			
03-34241	Drainage Works; manholes IC1.9-IC1.7	30	28NOV03A	09JAN04A	100																				
03-34243	Drainage Works; manholes IC1.5-IC3.1	40	02JAN04A	23FEB04	25	-108																			
03-34242	Drainage Works; manholes IC1.7-IC1.5	30	16JAN04	23FEB04	0	-108																			
03-3426	Drainage Works at E/B C'way CH4330-4470	58*	27JAN04	02APR04	0	2																			
03-34262	Sheet piling/excavate trench for storm drainage	50	27JAN04	24MAR04	0	2																			
03-34245	Drainage Works; m/h IC1.9-IC1.12 & IC12.2-12.3	30	03FEB04	08MAR04	0	-122																			
03-34264	Const. manholes and install drainage	50	05FEB04	02APR04	0	2																			
03-34244	Drainage Works; manholes J1.6-J1.5	20	24FEB04	17MAR04	0	-108																			
03-34552	Drainage along Access Road R10	16	30MAR04	21APR04	0	92																			
Road Works																									
03-34523	Stage 2 TTA (Temp. works at central divider)	35*	10DEC03A	26JAN04	83	2																			
03-345234	Break central divider & const. temp road	8	16DEC03A	03JAN04A	100																				
03-345235	Consent/install traffic signals by EMSD	12	02JAN04A	28JAN04	25	2																			
03-345236	Divert traffic for Stage 3 TTA	0		28JAN04	0	2																			
03-34533	Stage 3 TTA (works at E/B fast lane)	70*	27JAN04	21APR04	0	2																			

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																	
							JAN				FEB				MAR				APR					
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26	
Road Works																								
03-345332	Road formation/Paving asphalt at E/B fast lane	12	03APR04	21APR04	0	2																		
5. Footbridges																								
L-Shaped Walls																								
03-3400	Excavate & Temp. Slope Protection; Walkway-FB03	296*	01APR03A	31MAR04	79	-107																		
03-34002	Excavate & Temp. Slope Protection; bays 15-19	40	13OCT03A	08MAR04	70	-144																		
05-54502	Const. wall of walkway; FB03(South); bays 4-12	48	30OCT03A	02FEB04	75	-80																		
03-340022	T. design/mini pile/excavate; bays 20-21-VO 246	40	01NOV03A	23FEB04	25	-144																		
05-54507	Const. base of walkway; FB03(South); bays 1-3	20	12JAN04A	11FEB04	0	-125																		
05-54509	Const. wall of walkway; FB03(South); bays 1-3	30	18FEB04	23MAR04	0	-111																		
03-34003	Excavate & Temp. Slope Protection; bays 13-14	20	09MAR04	31MAR04	0	-107																		
05-54503	Const. base of walkway; FB03(South); bays 15-21	32	09MAR04	19APR04	0	-144																		
Footbridge FB03																								
05-5450	Construct Walkway for FB03 (South)	230*	20SEP03A	02JUL04	42	-144																		
05-54302	North Columns & Col head for FB03; 6 Nos.	50	21NOV03A	02FEB04	76	-122																		
05-5420	South Pile caps for FB03; 1 Nos.	30	16JAN04	23FEB04	0	-146																		
05-5460	Construct Ramp for FB03 (North)	60	03FEB04	16APR04	0	98																		
05-54202	South Columns & Column head for FB03	30	24FEB04	29MAR04	0	-146																		
05-54506	Construct Stairway for FB03 (South)	30	30MAR04	08MAY04	0	-146																		
6. Retaining Walls																								
Reinforced Earth Wall 21																								
RE2114	Finishing Work	56*	16DEC03A	25FEB04	43	-90																		
RE2115	Construct end walls & copping	30	16DEC03A	10JAN04A	100																			
RE2116	Backfill slope on top of RE wall	30	12JAN04A	11FEB04	33	-145																		
RE2117	Trim slope & construct berm & channel	16	05FEB04	25FEB04	0	-90																		
Reinforced Earth Wall 70																								
RE7012	Finishing Work	68*	02DEC03A	25FEB04	53	-90																		
RE7014	Backfill slope on top of RE wall	30	12DEC03A	11FEB04	33	-145																		
RE7015	Trim slope & construct berm & channel	30	12JAN04A	25FEB04	10	-90																		
8. Culverts and Outfalls																								
Culvert-Outfall IB																								
08-81520	Culvert-Outfall IB (South Portion)	54*	24FEB04	30APR04	0	-90																		
08-815202	Excavation and formation	12	24FEB04	08MAR04	0	-90																		
08-815203	Const. wing wall and cascade	18	09MAR04	29MAR04	0	-90																		
08-815204	Const. ret. wall/manhole & concrete pipes	24	30MAR04	30APR04	0	-90																		
Culvert-Outfall I																								
08-81320	Culvert-Outfall I (South & Exist CPR)	81*	13DEC03A	23MAR04	32	-125																		
08-813202	Excavation and formation; South	12	13DEC03A	10JAN04A	100																			
08-813203	Const. outfall wing wall	19	27JAN04	17FEB04	0	-125																		
08-813204	Const. 2mx2m twin box culvert; South	30	18FEB04	23MAR04	0	-125																		

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish	% Comp	Total Float	2004																	
							JAN				FEB				MAR				APR					
							5	12	19	26	2	9	16	23	1	8	15	22	29	5	12	19	26	
9. Seawalls and Marine Works																								
Seawall C (460 m Length)																								
09-9242	Granular Fill at FB03 Stairway/W. way (bays 1-6)	30	03APR04	13MAY04	0	-146																		
10. Geotechnical & Slope Works																								
L-Shaped Walls																								
10-109208	Add ret. walls to 6SE-C/C431& C/C111; VO 219	30	22DEC03A	02FEB04	60	-112																		
Existing Slope Works																								
10-109203	Rem. Works to Slope 6SE-C/C431& C/C111; VO 168	187*	02JUL03A	16FEB04	87	98																		
10-109206	Slope works to 6SE-C/C431& C/C111; VO 168	30	21JUL03A	16FEB04	60	98																		
11. Entrusted Sewerage Works																								
Entrusted Sewers/Drains																								
11-1124	Sewer Works at E/B C'way bet CH3980-4330	87*	12FEB04	29MAY04	0	-145																		
11-11242	Sewer Works at TS115-TS110	47	12FEB04	07APR04	0	-145																		
11-1121	Additional Sewer Works at R10; VO No. 209	30	24FEB04	29MAR04	0	92																		
11-11246	Sewer Works at TS115-TS118	30	09MAR04	16APR04	0	-122																		
11-11244	Sewer Works at TS110-TS105	40	08APR04	29MAY04	0	-145																		
13. Reprovisioning of LCSD & FEHD Facilities																								
FEHD Facilities																								
13-1350	Reprovision Pavilion & Pai Lau	205*	22DEC03A	02SEP04	9	-112																		
13-1351	Substructure of Pai Lau	18	22DEC03A	17JAN04	89	-112																		
13-1353	Substructure of Pavilion	18	03FEB04	23FEB04	0	82																		
14. Landscape Works																								
Tree Felling and Transplanting																								
14-21606	Transplant Trees;South of exist. CPRCH4200-4300	65	09MAY02A	04FEB04	70	120																		

APPENDIX B

**Log record on
environmental
complaints**

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Proposed 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 during 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 adjacent temporary road diversion.	The Contractor has added extra welding to improve the rigidity of the temporary steel deck. The work was completed during 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 vacated 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 reorganization of working arrangement is necessary, mitigation proposal should be submitted to IC(E) for review. Additional noise monitoring shall also be conducted at the noise monitoring station WN8 once the mitigation proposal is implemented.

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Proposed Actions	Completion Date	Remarks
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	
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 outside 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. Additional 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.

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Proposed Actions	Completion Date	Remarks
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. Additional 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.
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, it appears that the complaint refers to the extended duration of construction works in the concerned area (i.e. inconvenience caused due to lengthy works program). The Contractor'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 Crest 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	11-Sep-03	

Log Record on Environmental Complaints

No.	Date of Complaint Received	Description	Proposed Actions	Completion Date	Remarks
112	10-Oct-03	Complaint from Mr Cheung of FEHD that regarding 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	
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.