

**BARBICAN CONSTRUCTION CO., LTD**

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**Contract No. HY/2001/18  
Sai Sha Road Widening between Kam Ying Road  
and Future Trunk Road T7 Junction**

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**QUARTERLY ENVIRONMENTAL**

**MONITORING & AUDIT REPORT**

**REPORT NO. 04**

**(JUL – SEP 2003)**

Document No. R/2563/017 Issue 1

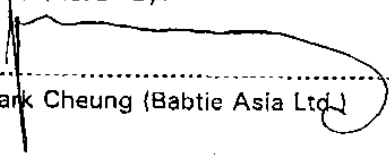

October 2003

**Babtie Asia**



**Contract No. HY/2001/18  
Sai Sha Road Widening between Kam Ying Road and  
Proposed Road T7 Junction**

**Quarterly Environmental Monitoring & Audit Report  
(July – Sept 2003)  
Report No. 04**

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**CONTRACT NO. HY/2001/18  
SAI SHA ROAD WIDENING BETWEEN KAM YING ROAD  
AND FUTURE TRUNK ROAD T7 JUNCTION**

**QUARTERLY ENVIRONMENTAL MONITORING & AUDIT REPORT  
(JUL – SEP 2003)**

**REPORT NO. 04**

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## **EXECUTIVE SUMMARY**

This is the fourth Quarterly EM & A Report for the project of Sai Sha Road Widening between Kam Ying Road and Future Trunk Road T7 Junction.

This report mainly presents the EM & A works undertaken for the above project from 1 July 2003 to 30 September 2003 in accordance with the EM & A Manual under Appendix H.3 of the Particular Specification.

### **Noise Level**

During the reporting quarter,  $L_{eq (30min)}$  noise level measurement was performed at CNM 1, CNM 2 and CNM 3. CNM 1 is for noise sensitive receivers (NSRs 1 & 2) Wu Kwai Sha New Village. CNM 2 is for (NSRs 3 & 4) Kam Lung Court/ Lee On Estate. CNM 3 is for (NSR7) Residential Development at Wu Kai Sha DD 206. The noise limit level for all the noise sensitive receivers is 75 dB(A).

Owing to the absence of any noise sensitive receiver at the moment, the noise monitoring work at station CNM 3, Wu Kwai Sha DD 206, had been suspended since 1 August 2003. In case there is any new noise sensitive receiver(s) established at Wu Kwai Sha DD 206 during the remaining construction period, the monitoring work will be immediately resumed and conducted in accordance with the requirements set out in the Environmental Monitoring and Audit Manual.

In general, all the measured noise levels at the three monitoring stations are below the noise limit level.

### **Complaint log**

No written or verbal complaints were received during the reporting quarter.

### **Others**

No notifications of summons, no successful prosecutions were received during the reporting period except the above mentioned.

### **Comments**

#### *Noise Impact Mitigation Measures*

The mitigation measures mentioned in the EIA Report generally help the Contractor reduce the noise level. In accordance with Annex A in the EIA report, construction noise mitigation options remain the same as the third quarter for all noise assessment locations.

#### *Landscape Impact Mitigation Measures*

The mitigation measures mentioned in the EIA Report generally help the Contractor protect the environment especially for the trees mentioned in the EIA Report to be retained. The Contractor should notify the ET in advance before any tree transplanting works are undertaken.

## **1.0 PROJECT INFORMATION**

### **1.1 Background**

Babtie Asia Ltd was employed by the Contractor to act as the Environmental Team for this project. The Independent Environmental Checker is BMT Asia Pacific Ltd.

The purpose of this report is to document the Environmental Monitoring & Audit (EM & A) works for the period between 1 July 2003 and 30 September 2003.

### **1.2 Contact Details of Key Personnel**

Titles, names and contact telephone numbers of the key personnel of the captioned project are shown in Appendix H.

### **1.3 Construction Programme**

The construction programme has been recently revised. The latest construction programme is attached in Appendix A. This construction programme is subject to continuous refinement.

### **1.4 Site Management Structure**

The site organization chart is shown as Appendix B.

### **1.5 Synopsis of Works undertaken during the Quarter**

The works for this project are divided into three sections: Section 1, Section 2 and Section 3.

Section 1 comprises all the works for the completion of the subway system connecting the existing vacant subway barrel across Sai Sha Road adjacent to Kam Ying Road and the local widening of northern Kam Ying Road and all associated landscaping works.

Section 2 comprises all construction works including the new carriageways, two footbridges and all footpath, cycle tracks, subways, village access road, noise barriers, roundabout and associated works comprising drainage works, E&M works, traffic signs and aids, slope works, embankments, retaining walls, subway wing walls, cycle parks, fencing, street lighting and all associated landscaping works, except Section 1 and Section 3.

Section 3 comprises all the works for the new access road to Whitehead and all the works except Section 1 and 2.

The works undertaken during the year were as follows:

- Drainage Works
- Minipile Works for Footbridge (FB 1)
- Retaining Wall construction
- Construction of three subways

- Road Works

## **1.6 Project Area, Sensitive Receivers & Monitoring Locations**

The drawings showing the project area, noise sensitive receivers (NSRs) and the locations of the monitoring stations are shown in Appendix D.

The construction noise monitoring stations are CNM 1, CNM 2 and CNM 3.

CNM 1 is for noise sensitive receivers (NSRs 1 & 2) Wu Kwai Sha New Village. CNM 2 is for (NSRs 3 & 4) Kam Lung Court/ Lee On Estate. CNM 3 is for (NSR7) Residential Development at Wu Kai Sha DD 206.

Noise monitoring work at CNM3, Wu Kwai Sha DD 206, was temporarily suspended since 1 August 2003 owing to the absence of any noise sensitive receiver. In case there is new noise sensitive receiver established at the site of Wu Kwai Sha DD 206 during the remaining construction period, the monitoring work will be immediately resumed and conducted in accordance with the requirements set out in the Environmental Monitoring and Audit Manual.

It is noted that the locations of the monitoring stations are the same as those adopted in the Noise Baseline Monitoring.

## **1.7 Summary of EM & A Requirements**

The summary of the EM & A Requirement is shown in Appendix C.

## 2.0 IMPLEMENTATION STATUS

According to the EIA report, the following should be implemented for the fourth construction phase quarter.

Location	Reference Section	Environmental Protection Measures	Agent
<b>Construction Noise Mitigation</b>			
Wu Kwai Sha New Village (1)	EIA 3.5.25	Mitigation Option 2	Contractor
Wu Kwai Sha New Village (2)	EIA 3.5.23	Mitigation Option 2	Contractor
Lok Wo Sha (1)	EIA 3.5.23	Mitigation Option 1	Contractor
Lok Wo Sha (2)	EIA 3.5.23	Mitigation Option 2	Contractor
Kam Lung Court (1)	EIA 3.5.25	Mitigation Option 2	Contractor
Kam Lung Court (2)	EIA 3.5.25	Mitigation Option 2	Contractor
Lee On Estate (1)	EIA 3.5.25	Mitigation Option 2	Contractor
Lee On Estate (2)	EIA 3.5.25	Mitigation Option 2	Contractor
Residential Development STTL446	EIA 3.5.23	Mitigation Option 1	Contractor
Residential Development at Wu Kai Sha DD206	EIA 3.5.23	Mitigation Option 1	Contractor

- Note: The locations of the noise assessment points are shown in the Figure 7 of the EIA Report.



Location	Reference Section	Environmental Protection Measures	Agent
<b>Construction Phase Landscape and Visual Mitigation Measures</b>			
All Scheme Roads	EIA 4.5.1	<ul style="list-style-type: none"> <li>• Conservation of topsoil;</li> <li>• Screening of site construction works by use of hoardings;</li> <li>• Surface treatment of site hoardings to enhance visual interest and harmony with surrounding landscape / townscape;</li> <li>• Locating site offices and other temporary buildings in least visually prominent locations;</li> <li>• Efficient programming of construction works to reduce duration of construction works;</li> <li>• Staging of construction works to minimise areas requiring site hoardings which creates visual intrusion;</li> <li>• Re-routing of pedestrian routes away from the work site where possible;</li> <li>• Retaining existing trees and minimising damage to vegetation where possible. Care shall be taken not to damage those trees identified in the Tree Survey Report to be retained during the construction phase; and</li> <li>• Careful and efficient transplanting of existing vegetation carried out under the supervision of a professional landscape architect</li> </ul>	Contractor

## **2.1 Advice on the Implementation Status of Environmental Protection & Pollution Control / Mitigation Measures**

### *2.1.1 Construction Noise Mitigation Measures*

The Contractor should use silencers or mufflers on construction equipment such as pneumatic breaker and have noisy air compressor completely enclosed to avoid the noise limit exceedance and the nuisance to the nearby sensitive receivers.

Regular maintenance of the construction plant is strongly encouraged to avoid the black smoke and the excessive noise production. The machines and plant should be shut down or throttled down to a minimum when they are in intermittent use.

The plant known to emit noise strongly in one direction should be orientated to direct noise away from nearby noise sensitive receivers. The mobile plants should be sited as far away from the noise sensitive receivers as possible.

Care should be taken that different mitigation plans (option 1 & option 2) should be applied to different noise sensitive receivers. For mitigation option 2, more stringent environmental control will be required and implemented. The Contractor should pay particular attention to follow and carry out the mitigation measures mentioned in the EIA Report for those sensitive receivers to whom mitigation option 2 should be applied.

It is noted that for different construction phase quarters, the mitigation option will be different. The detailed environmental mitigation implementation schedule is shown in the EIA Report Annex A for different construction phases.

If significant noise impact due to future construction works is identified, the Contractor may be required to erect the temporary movable noise barrier to surround the noise source as recommended in the EIA Report and the EM & A Manual.

### *2.1.2 Landscape and Visual Mitigation Measures*

Care should be taken not to damage those trees identified in the Tree Survey Report to be retained during the construction phase.

In case of the conflict between the construction machine and the trees during the construction activities, the Contractor may consider adopting an alternative construction approach to protect the trees from being damaged. As the last resort, the tree transplanting method may be considered. However, prior to such action, approval from the Engineer, the Environmental Team Leader and the Independent Environmental Checker should be obtained.

Frequent monitoring of the transplanted tree is required to observe whether they live in good condition in new environment.

Whenever tree transplanting is required, the Contractor should notify the ET in advance and should carry out the works under the supervision of a professional landscape architect as stipulated in the EM & A Manual.

### **3.0 MONITORING RESULTS**

#### **3.1 Graphical plots of the monitored parameters**

The graphical plots of the trends of the monitored parameters over the past 4 months (the last month of the previous quarter and the present quarter) for representative monitoring stations are shown in Appendix F.

#### **3.2 Major Activities during the Quarter**

Major activities during the quarter include the followings:

- Drainage Works
- Minipile Works for Footbridge (FB 1)
- Retaining Wall construction
- Construction of three subways
- Road Works

#### **3.3 Weather Conditions**

The weather conditions were mainly sunny and cloudy and did not affect the environmental monitoring works during the reporting period. The weather conditions during the period are shown in the Appendix E.

#### **3.4 Influencing Factors**

The construction works of the ASD site area near Lee On Estate slightly affected the noise monitoring results especially for CNM 2. The traffic noise from Sai Sha Road significantly contributed to the noise pollution.

#### 4. SUMMARY OF NON-COMPLIANCE OF THE ACTION AND LIMIT LEVELS, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

##### 4.1 Non-compliance of the Action and Limit Levels

###### 4.1.1 Noise

During the reporting period, no noise limit exceedance was found.

##### 4.2 Written Complaints and Verbal Complaints

###### 4.2.1 Summary Record of All Complaints Received

No complaints were received during the reporting quarter. The statistics for environmental complaint is shown in Appendix G.

The following table shows the summary for all the complaints received since the commencement of the Contract.

TOTAL NO. OF COMPLAINT	NO. OF COMPLAINT RECEIVED WITHIN REPORTING PERIOD	NO. OF COMPLAINT THAT IS STILL UNDER INVESTIGATION	NO. OF CLOSED COMPLAINT
1	0	0	1

## 5.0 COMMENTS

### 5.1 Effectiveness & Efficiency

#### *Noise Impact Mitigation Measures*

The mitigation measures mentioned in the EIA Report generally help the Contractor reduce the noise level. It is satisfactory to see that the noisy air compressors were completely enclosed, which significantly reduces the equipment noise.

During the quarter, the site activities were not very noisy and no noise exceedance was found. The effectiveness and the efficiency of the mitigation measures through good site practice have been in general effective in minimising the noise impact. The Contractor should frequently review the construction work and prevent simultaneous operation of noisy plant and equipment to prevent intolerable disturbance to the sensitive receivers at the concerned vicinity.

If significant noise impact is identified, the Contractor may be required to erect the temporary movable noise barriers to surround the noise source as stipulated in the EM & A Manual.

#### *Landscape Impact Mitigation Measures*

The mitigation measures mentioned in the EIA Report generally help the Contractor protect the environment especially the trees mentioned in the EIA Report to be retained.

The transplanted trees are generally in good condition. This complies with the recommendations of the EIA Report.

### 5.2 Recommendations

The Contractor should closely monitor the environment being affected by their site activities not only limited to their site area but to those places where the site works will adversely influence the environment and residents.

Closely following the mitigation options mentioned in the EIA Report can help the Contractor eliminate unfavourable environmental impacts.

In addition, the Contractor should minimize the accumulation of the stagnant water within the site area to avoid the breeding of insects especially for the mosquitoes and the spread of dengue fever.

To improve the hygiene condition of the site, the Contractor should remove the rubbish within the site area regularly.

The site runoff resulting from the piling works for the construction of footbridges should be properly treated through the desilting sedimentation tank before being discharged to the stormwater drainage system.

The Contractor is always reminded that unpaved access road should be watered frequently for dust suppression.

### **5.3 Conclusions**

During the past three months, no serious environmental pollution was observed. However, the Contractor should keep it up and maintain a good environment for both residents and the pedestrians, hoping to achieve zero non-compliance and no complaints.

The ET will closely monitor the site environment by conducting weekly noise monitoring and site environmental audit.

### **6.0 PROPONENTS' CONTACTS AND HOTLINE TELEPHONE NUMBER**

The contact details can be found in Appendix H.



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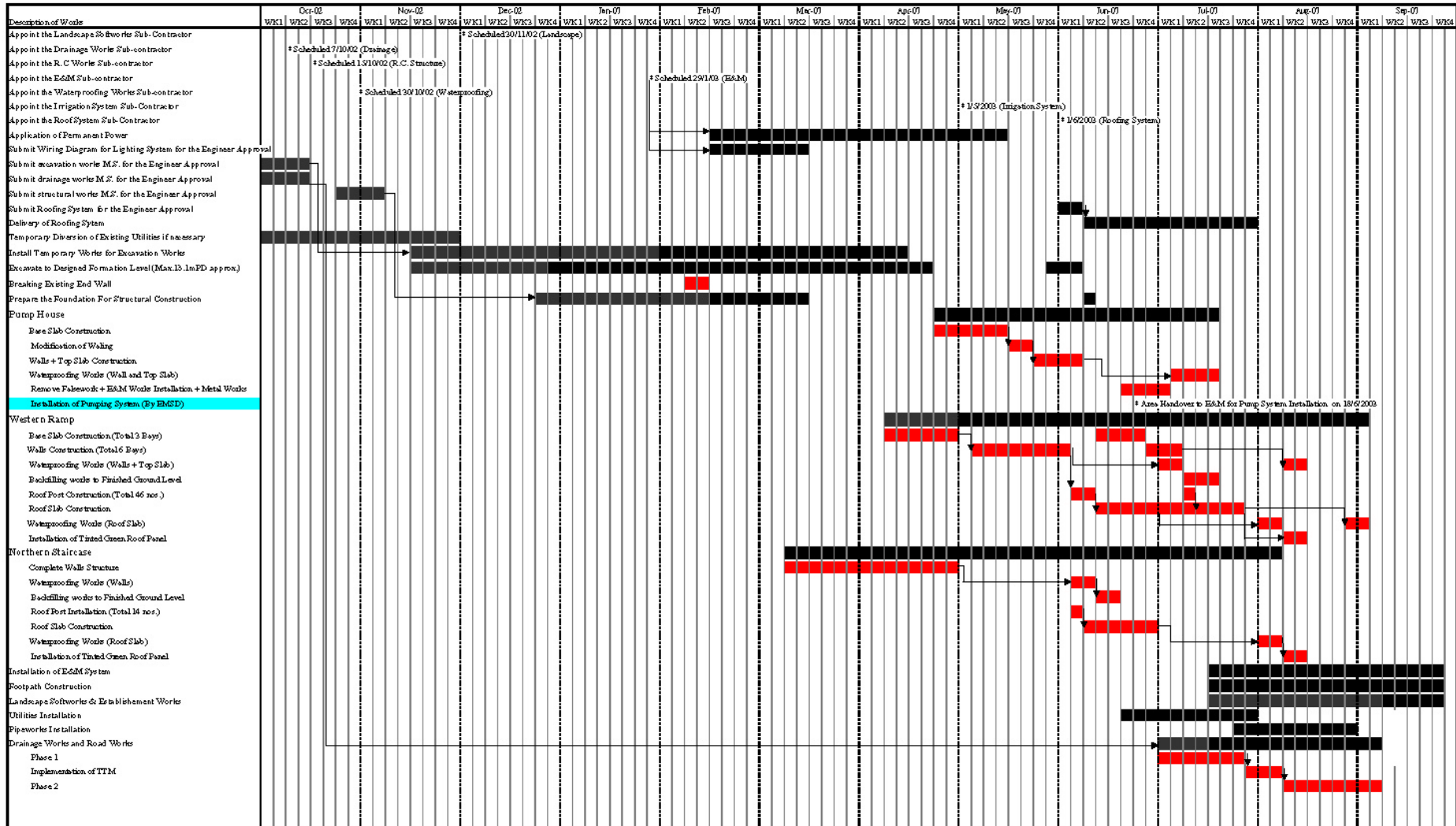
**APPENDIX A**  
CONSTRUCTION PROGRAMME

Barbican Construction Limited  
 Contract No. H2/2001/18  
 Sai Sha Road Widening Between Kam Ying Road and Future Trunk Road T7 Junction

Detailed Working Programme for Completion of 'Section 1' Works

Date: 20 May 2003

Rev: 3





Barbican Construction Limited  
 Contract No. H12001/19  
 Sai Sha Road Widening Between Kam Ying Road and Future Trunk Road T1 Junction

Detailed Working Programme for Completion of Section 2' Works

Table 21.16a/2002 Page 2

Activity ID	Description of Works	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	
W2A100	Possession of Area To Retain C1'																									
W2A100A	Possession of Area To Retain C2'																									
W20000	Implementation of Traffic Diversions at Sai Sha Road																									
W20000	Existing TDM Schemes																									
W20000	Stage 1 - Open Temporary Carriageway																									
W20000	Stage 2 - Divert Existing SSR West (Towards Shek Tin) to Permanent Road																									
W20000A	Stage 2A - Close Part of Temporary Road and Divert Traffic to Permanent Road																									
W20000	Stage 3 - Partially Close Temporary Road																									
W20000	Stage 4 - TDM for Proposed Roundabout Construction																									
W20000	Close Overhead																									
W20000	Stage 1 - Closure of Southbound																									
W20000	Stage 2 - Closure of Northbound																									
W20000	Allow Traffic to Use Shek Tin Junction																									
W20000	Stage 1 - Closure of Slow Lanes at Sai Sha Road																									
W20000	Stage 2 - Closure of Middle Lanes at Sai Sha Road																									
W20000	Stage 2 - Closure of Fast Lanes at Sai Sha Road																									
W21000	Site Clearance																									
W21007	Technical Submission + Fabrication of Clearings and Movement to Site																									
W21000	Piling Works																									
W21000	Ground Investigation for Minimising Works																									
W21000	Design of Founding Level of Minipiles Approved by the Engineer																									
W21000	Construction of Minipiles (South End) at FB1																									
W21000	Construction of Minipiles (North End) at FB1																									
W21000	Utility Diversion for Minipiling Works at FB2																									
W21000	Construction of Minipiles at FB2																									
W21000	Construction of Probe Bridge FB1																									
W21000	Technical Submission (E&M Works) for the Engineer Approval																									
W21000	Application of Permanent Power																									
W21000	Technical Submission for Structural Steel Footbridge (FB1 and FB2)																									
W21000	Fabrication of Steel Footbridge (Main Span)																									
W21000	Construction of Southern Staircase + Lift Tower																									
W21000	Construction of Northern Staircase + Lift Tower																									
W21000	Installation of Bearings																									
W21000	Concrete Strength Development of Structure (achieve 28 days strength)																									
W21000	Temp. Diversion at Sai Sha Rd. for Launching of Pre-stressed Main Span																									
W21000	Completion of Remaining Works (E&M, Finishing, M.T. Installation etc.)																									
W21000	Area Available for Lift Installation by E&M																									
W21000	Construction of Probe Bridge FB2																									
W21000	Technical Submission of E&M Works for the Engineer Approval																									
W21000	Application of Permanent Power																									
W21000	Fabrication of Steel Footbridge (Main Span)																									
W21000	Construction of Staircase + Lift Tower																									
W21000	Installation of Bearing																									
W21000	Concrete Strength Development of Structure (achieve 28 days strength)																									
W21000	Temp. Diversion at Sai Sha Rd. for Launching of Pre-stressed Main Span																									
W21000	Completion of Remaining Works (Lift Tower, Finishing, M.T. Installation etc.)																									
W21000	Area Available for Lift Installation by E&M																									
W21000	Construction of Subway S1																									
W21000	Technical Submission of E&M Works for the Engineer Approval																									
W21000	Application of Permanent Power																									
W21000	Temp. Protection Inversion to Existing Utilities (Water Pipes/Gas Pipes/Cable)																									
W21000	Waterproofing Walls																									
W21000	Wing Wall Construction																									
W21000	Soakers End																									
W21000	Main Base																									
W21000	Soakers Portion																									
W21000	Soakers Portion																									
W21000	Pumps																									
W21000	Remaining Works (E&M Works + Finishing Works etc.)																									
W21000	Construction of Subway S2																									
W21000	Technical Submission of E&M Works for the Engineer Approval																									
W21000	Application of Permanent Power																									
W21000	Waterproofing Walls																									
W21000	Main Base																									
W21000	Wing Wall																									
W21000	Remaining Works (E&M Works + Finishing Works etc.)																									
W21000	Retaining Walls																									
W21000	Removal of Existing Over Area																									
W21000	Asking: Wall A1																									
W21000	Asking: Wall A2 (Partially) etc.																									

Barbican Construction Limited  
 Contract No. HY2001/18  
 Sai Sha Road Widening Between Kam Ying Road and Future Trunk Road T7 Junction

Detailed Working Programme for Completion of Section 2' Works

Date: 21 May 2002

Rev: 2

Activity ID	Description of Works	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03	Oct-03	Nov-03	Dec-03	Jan-04	Feb-04	Mar-04	Apr-04	May-04	Jun-04	Jul-04	Aug-04	Sep-04	
W2H000	Site Barrier																									
W2H070	Material Sub-Plan Design for the Engineer Approval																									
W2H110	Material Ordering + Delivery to Site																									
	Concrete Footing																									
W2H010	Type I																									
W2H020	Type II																									
W2H030	Type IIIA																									
W2H040	Type III																									
W2H050	Type IV																									
W2H060	Type V																									
W2H110	Installation of Noise Barrier																									
	Drainage Works																									
W21100	Sha On Street Southbound/ Sai Sha Road Westbound																									
W21100	Sha On Street Northbound/ Sai Sha Road Westbound																									
W21100	Sai Sha Road Westbound																									
W24100	Sai Sha Road Eastbound																									
W26000	Wai Kwai Sha Village Access Road																									
W270000	Last Manhole Connection (Road T7)																									
	Road Works + Road Marking																									
	Technical Submission for Approval (Flexible Pavement)																									
W22100	Sha On Street Southbound/ Sai Sha Road Westbound																									
W23100	Sha On Street Northbound/ Sai Sha Road Westbound																									
W23100.1	Sai Sha Road Westbound																									
W24100	Sai Sha Road Eastbound																									
W24100	Wai Kwai Sha Village Access Road (Section 1)																									
W24100	Wai Kwai Sha Village Access Road (Remaining Section)																									
W22100	Sign Entry + Directional Sign + Traffic Sign																									
W21100	Tree Felling + Tree Transplanting																									
W21100.1	Original Works																									
W21100.2	Additional Works under V.C.																									
W22100	Landscaping Works + Irrigation System																									
W22100.1	Technical Submission for Approval																									
W22100.2	Hardware																									
W22100.3	Softworks																									
W21110	Utilities Installation (Subject to Utilities Coordination Meeting)																									
W21110.1	Along Sai Sha Road (Towards T7)/ Sha On Street (Westbound) Phase 1																									
W21110.2	Along Sai Sha Road (Towards T7)/ Sha On Street (Westbound) Phase 2																									
W21110.3	Along Sai Sha Road (Towards Sai Hong)																									
W21110.4	Underneath Subway and ST																									
W21110.5	Underneath Temporary Carriageway																									

Total Completion Date: 13/9/04





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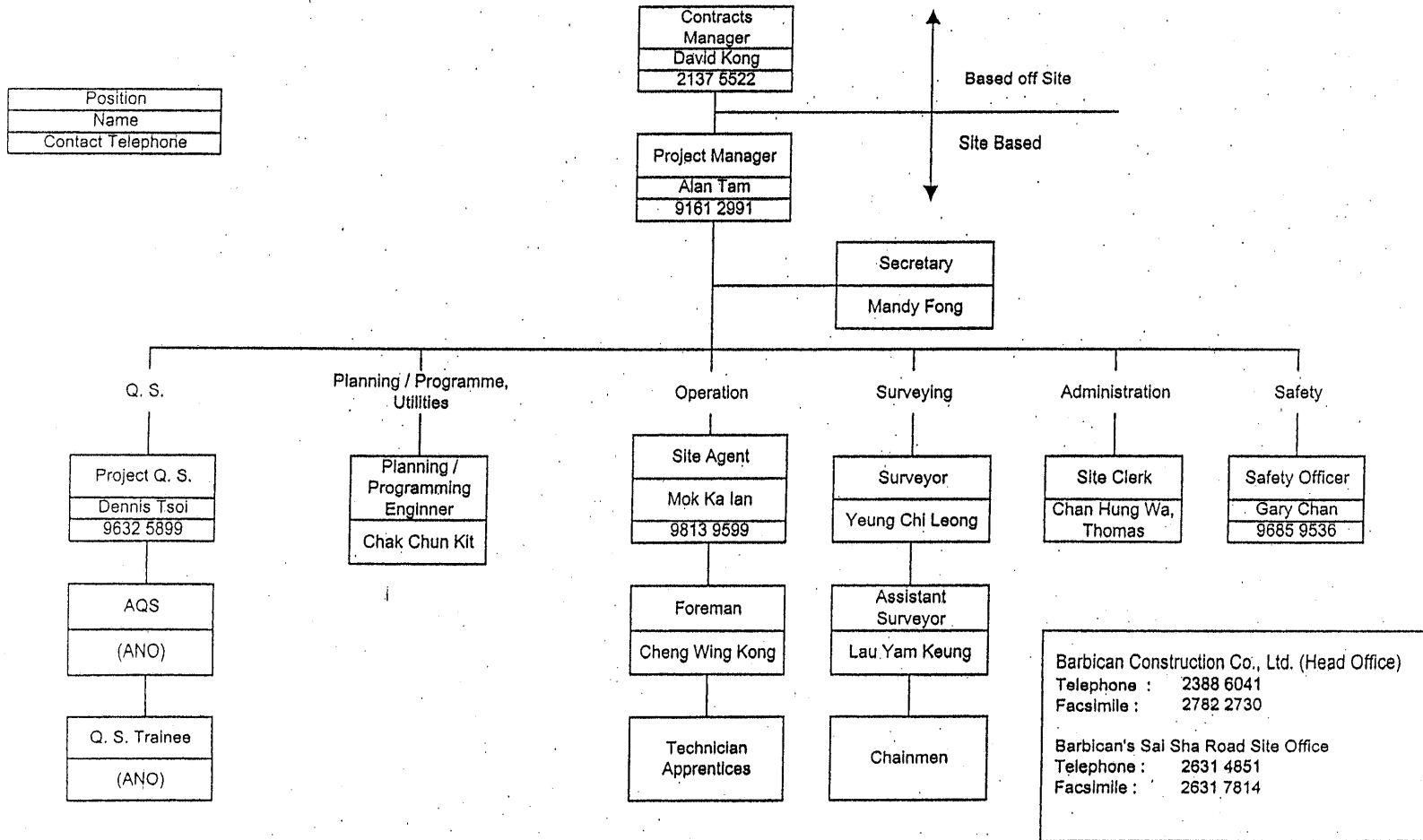
**APPENDIX B**  
SITE ORGANIZATION CHART

Barbican Construction Co., Ltd.

Contract No. : HY/2001/18  
 Sai Sha Road Widening between  
 Kam Ying Road and Future Trunk Road T7 Junction

Date : 23 September 2002  
 Rev : C

Site Organization Chart







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**APPENDIX C**  
SUMMARY OF EM & A REQUIREMENT

## SUMMARY OF EM & A REQUIREMENTS

### Noise Monitoring Parameters

According to Section 2.2.1 of the *EM & A Manual*, the noise monitoring parameters are:

- 1) A-weighted equivalent continuous sound pressure level  $L_{Aeq(30min)}$  for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods,  $L_{Aeq(5min)}$  shall be employed for comparison with the Noise Control Ordinance (NCO) criteria
- 2)  $L_{A10}$  and  $L_{A90}$ , defined as the levels that have been exceeded the 10% and 90% of the measurement time in decibels respectively

### Action and Limit Noise Levels

According to Section 2.7 of the *EM & A Manual*, the Action and Limit Noise Levels are summarised in the following table:

Time Period	Action	Limit Level
0700-1900 hours on normal weekdays	When one documented complaint is received	75 dB(A)
0700-2300 hours on holidays; and 1900-2300 hours on all other days		70 dB(A)
2300-0700 hours of next day		55 dB(A)

### Event and Action Plan for Construction Noise

Should any non-compliance of the action and limit noise level criteria stipulated in Section 2.7 of the *EM & A Manual* occurs, the ET Leader, the IC(E), the ER (Engineer's Representative) and the Contractor shall undertake relevant actions in accordance with the Event and Action Plan for noise tabulated below:

EVENT	ACTION	
	ET Leader	IC(E)
Action Level	<ol style="list-style-type: none"> <li>1. Notify IC(E) and Contractor</li> <li>2. Carry out investigation</li> <li>3. Report the results of investigation to the IC(E) and Contractor</li> <li>4. Discuss with the Contractor and formulate remedial measures</li> <li>5. Increase monitoring frequency to check mitigation effectiveness</li> </ol>	<ol style="list-style-type: none"> <li>1. Review the analysed results submitted by the ET</li> <li>2. Review the proposed remedial measures by the Contractor and advise the ER accordingly</li> <li>3. Supervise the implementation of remedial measures</li> </ol>



EVENT	ACTION	
	ET Leader	IC(E)
Limit Level	<ol style="list-style-type: none"> <li>1. Notify IC(E), ER, EPD and Contractor;</li> <li>2. Identify source</li> <li>3. Repeat measurement to confirm findings</li> <li>4. Increase monitoring frequency</li> <li>5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented</li> <li>6. Inform IC(E), ER and EPD the causes &amp; actions taken for the exceedances</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IC(E), EPD and ER informed of the results</li> <li>8. If exceedance stops, cease additional monitoring</li> </ol>	<ol style="list-style-type: none"> <li>1. Discuss amongst ER, ET and Contractor on the potential remedial actions</li> <li>2. Review Contractor' remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>

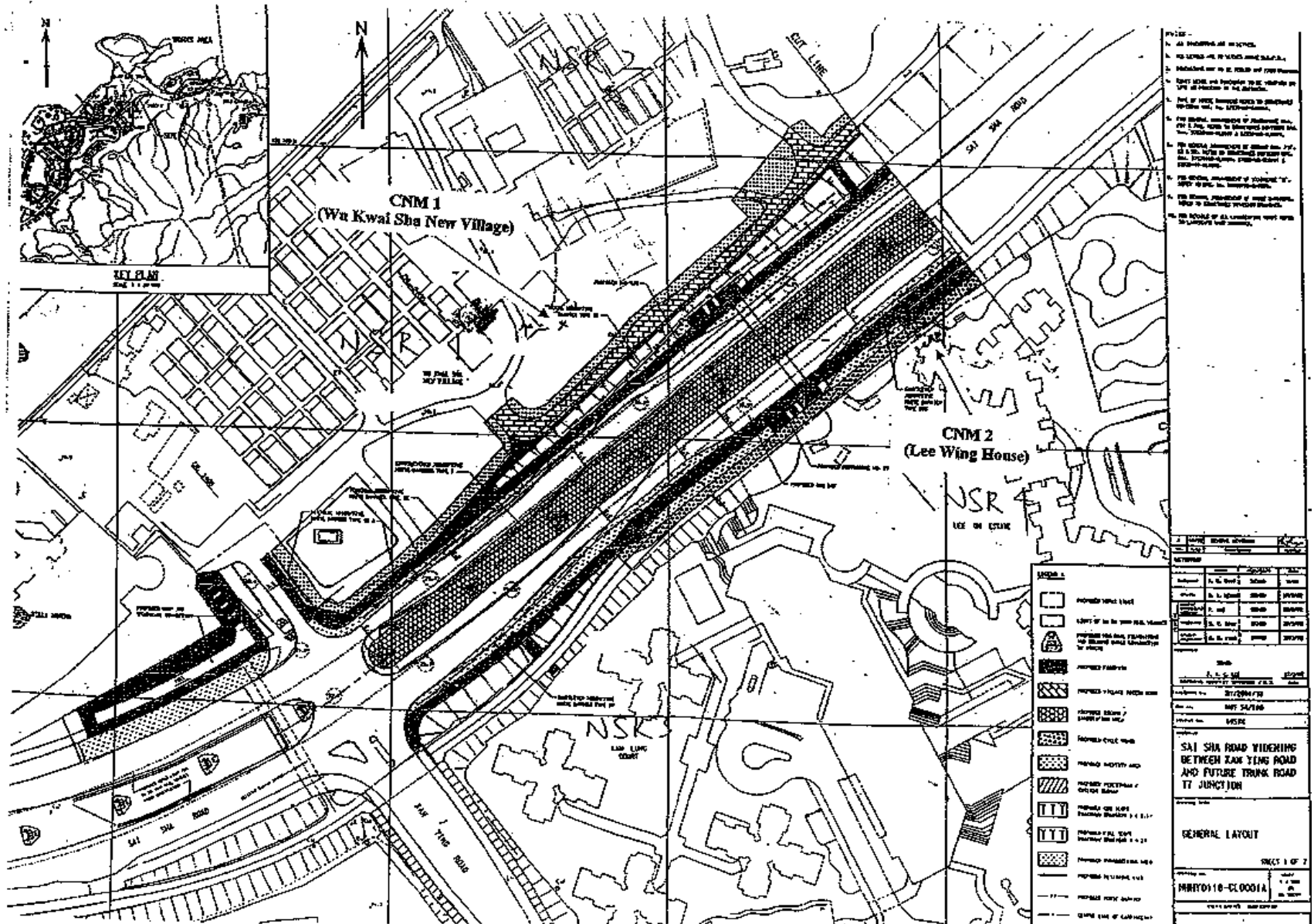
EVENT	ACTION	
	ER	Contractor
Action Level	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem</li> <li>4. Ensure remedial measures are properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to IC(E)</li> <li>2. Implement noise mitigation proposals</li> </ol>
Limit Level	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem</li> <li>4. Ensure remedial measures are properly implemented</li> <li>5. If exceedance continues, consider what portion of work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated</li> </ol>	<ol style="list-style-type: none"> <li>1. Take immediate action to avoid further exceedance</li> <li>2. Submit proposals for remedial actions to IC(E) within 3 working days of notification</li> <li>3. Implement the agreed proposals</li> <li>4. Resubmit proposals if problem still not under control</li> <li>5. Stop the relevant portion of works as determined by the ER until the exceedance is abated</li> </ol>

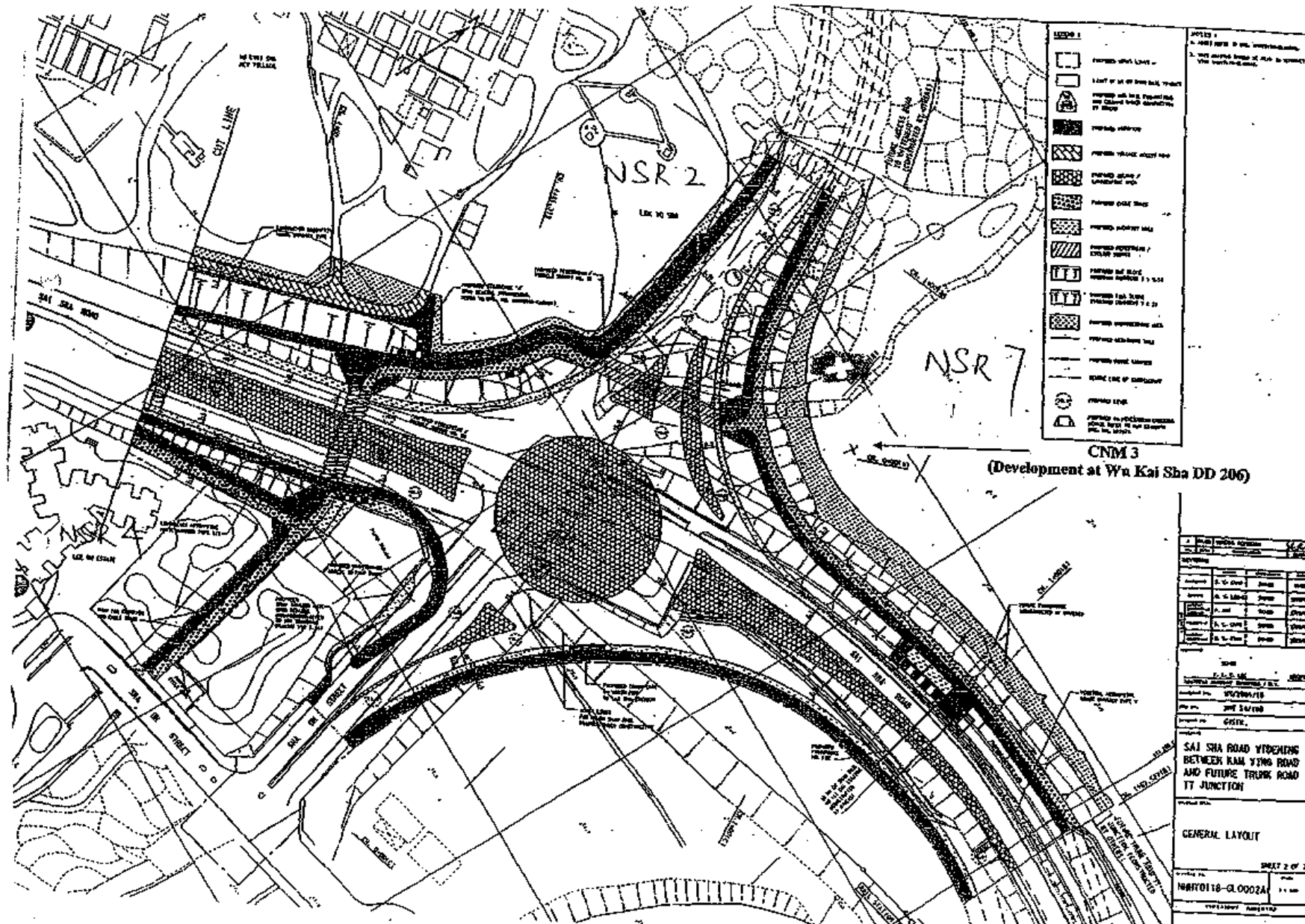


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**APPENDIX D**  
THE PROJECT AREA, ENVIRONMENTAL SENSITIVE RECEIVERS  
AND THE LOCATIONS OF THE MONITORING STATIONS









Monitoring Point CNM 1 – Wu Kwai Sha New Village



Monitoring Point CNM 2 – Lee Wing House of Lee On Estate



Monitoring Point CNM 3 – Residential Development at Wu Kai Shs DD 206



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**APPENDIX E**  
WEATHER CONDITIONS DURING THE MONITORING PERIOD



**Contract No. HY/2001/18****Sai Sha Road Widening between Kam Ying Road  
and Future Trunk Road T7 Junction****Major Activity and Weather Condition During Baseline Monitoring****Monitoring Location: Wu Kwai Sha New Village (CNM 1)**

<b>Date</b>	<b>Start Time</b>	<b>Weather Condition</b>	<b>Major Activities</b>	<b>Other Activities</b>
05/06/03	10:07	Sunny	Nil	Traffic , Pedestrian
12/06/03	10:06	Cloudy	Nil	Traffic
19/06/03	10:01	Sunny	Backhoe	Traffic
26/06/03	10:06	Cloudy	Backhoe , Breaker	Traffic , Pedestrian
03/07/03	10:00	Sunny	Backhoe	Traffic
10/07/03	10:05	Sunny	Backhoe	Traffic
17/07/03	10:01	Sunny	Backhoe	Traffic
25/07/03	10:07	Drizzle	Backhoe	Traffic
01/08/03	10:02	Drizzle	Backhoe	Traffic
07/08/03	10:30	Cloudy	Concreting , Truck	Traffic
15/08/03	09:55	Sunny	Piling Works	Traffic , Pedestrian
21/08/03	09:55	Cloudy	Truck , Pneumatic Breaker	Traffic
29/08/03	10:05	Sunny	Nil	Traffic , Dog barking
04/09/03	09:40	Cloudy	Backhoe	Traffic
11/09/03	10:00	Sunny	Backhoe	Dog Barking , Traffic , Residents , Pedestrian
18/09/03	09:55	Sunny	Pneumatic Breaker , Backhoe	Traffic , Finishing , Dog Barking , Pedestrian
25/09/03	09:50	Sunny	Concreting	Pedestrian , Traffic



**Contract No. HY/2001/18****Sai Sha Road Widening between Kam Ying Road  
and Future Trunk Road T7 Junction****Major Activity and Weather Condition During Baseline Monitoring****Monitoring Location: Kam Lung Court (CNM 2)**

<b>Date</b>	<b>Start Time</b>	<b>Weather Condition</b>	<b>Major Activities</b>	<b>Other Activities</b>
05/06/03	10:42	Sunny	Backhoe	Traffic , Pedestrian
12/06/03	10:44	Cloudy	Machinery	Traffic , Pedestrian
19/06/03	10:37	Sunny	Backhoe	Traffic
26/06/03	10:43	Cloudy	Breaker	Traffic , Pedestrian
03/07/03	10:34	Sunny	Backhoe	Traffic , Pedestrian
10/07/03	10:41	Sunny	Backhoe	Traffic
17/07/03	10:37	Sunny	Backhoe	Traffic , Pedestrian
25/07/03	10:44	Drizzle	Backhoe	Traffic , Pedestrian
01/08/03	10:37	Drizzle	Backhoe	Traffic , Pedestrian
07/08/03	11:10	Cloudy	Truck , Concreting	Traffic , Pedestrian
15/08/03	10:30	Sunny	Backhoe , Pneumatic Breaker	Traffic , Pedestrian
21/08/03	10:30	Cloudy	Backhoe , Pneumatic Breaker	Traffic , Pedestrian
29/08/03	10:45	Sunny	Nil	Traffic , Pedestrian , Truck
04/09/03	10:15	Cloudy	Concreting , Backhoe	Traffic , Pedestrian
11/09/03	10:48	Sunny	Backhoe	Traffic , Pedestrian
18/09/03	10:35	Sunny	Truck , Backhoe	Traffic , Pedestrian
25/09/03	10:25	Sunny	Backhoe	Traffic , Pedestrian

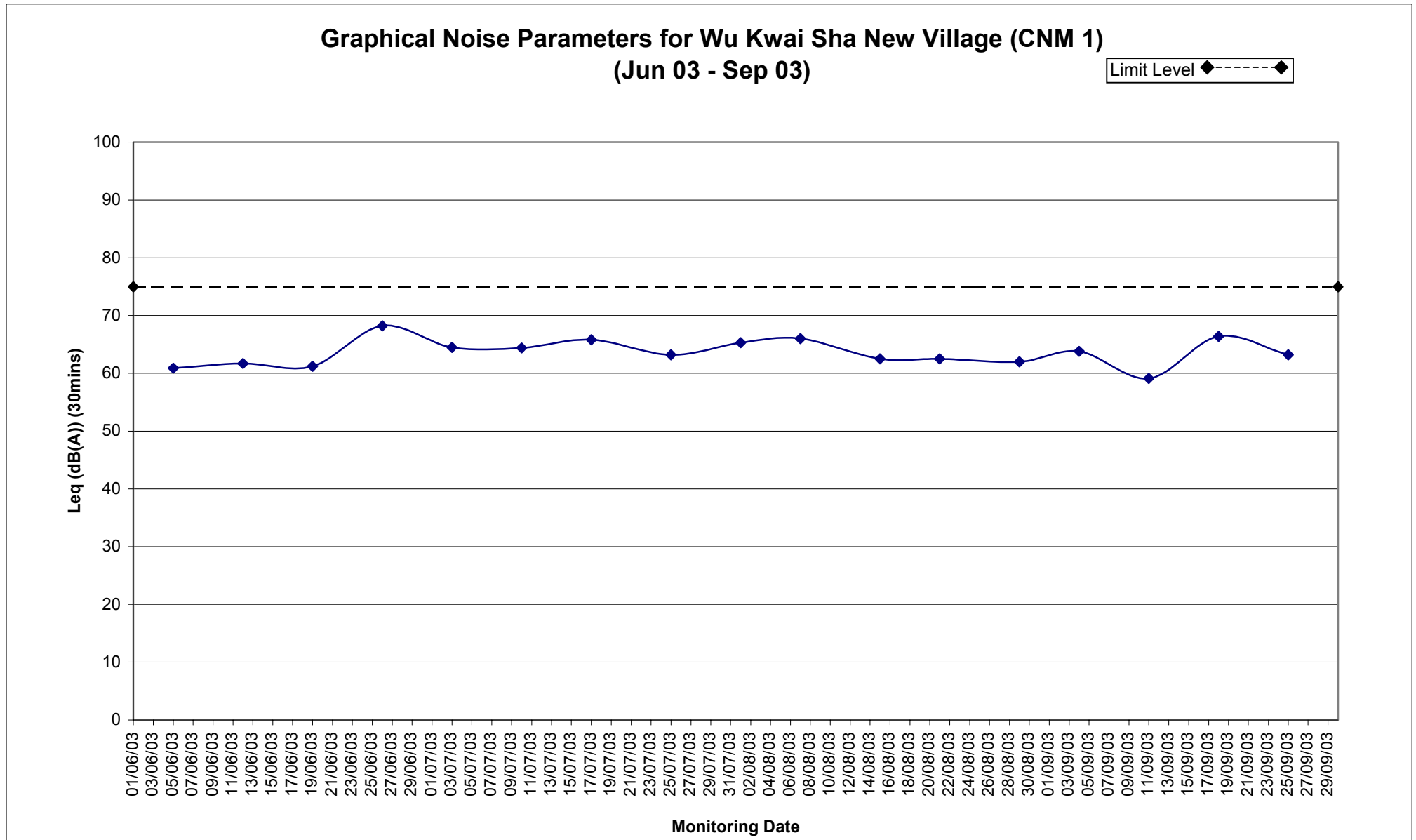
**Contract No. HY/2001/18****Sai Sha Road Widening between Kam Ying Road  
and Future Trunk Road T7 Junction****Major Activity and Weather Condition During Baseline Monitoring****Monitoring Location: Residential Development at Wu Kai Sha DD206 (CNM 3)**

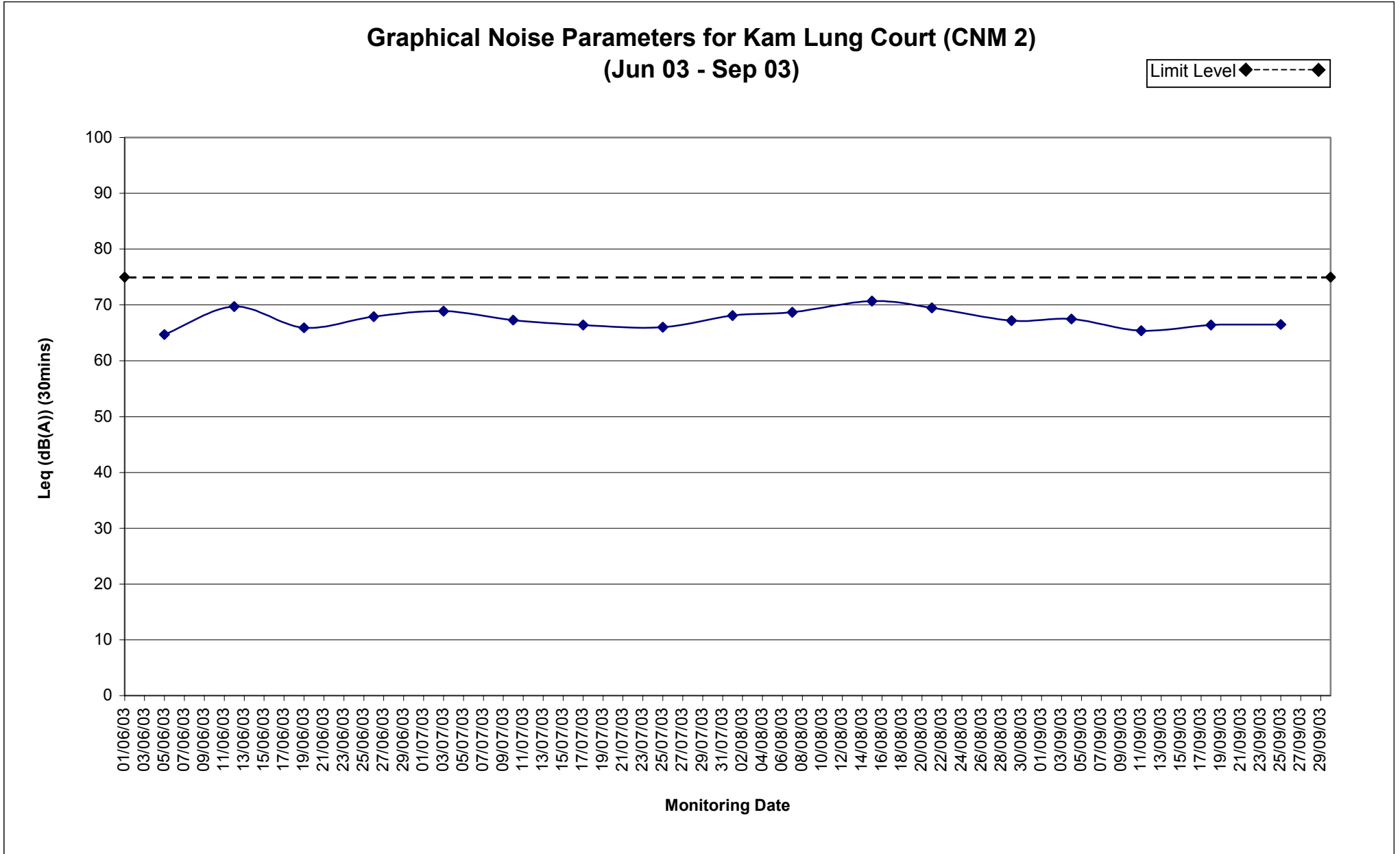
<b>Date</b>	<b>Start Time</b>	<b>Weather Condition</b>	<b>Major Activities</b>	<b>Other Activities</b>
05/06/03	11:19	Sunny	Backhoe	Pedestrian , Traffic
12/06/03	11:21	Cloudy	Backhoe	Pedestrian , Traffic
19/06/03	11:13	Sunny	Backhoe	Traffic
26/06/03	11:19	Cloudy	Backhoe	Traffic , MOS Railway Construction
03/07/03	11:10	Sunny	Backhoe	Traffic
10/07/03	11:17	Sunny	Backhoe	Traffic
17/07/03	11:13	Sunny	Backhoe	Traffic , Pedestrian
25/07/03	11:19	Drizzle	Nil	Traffic

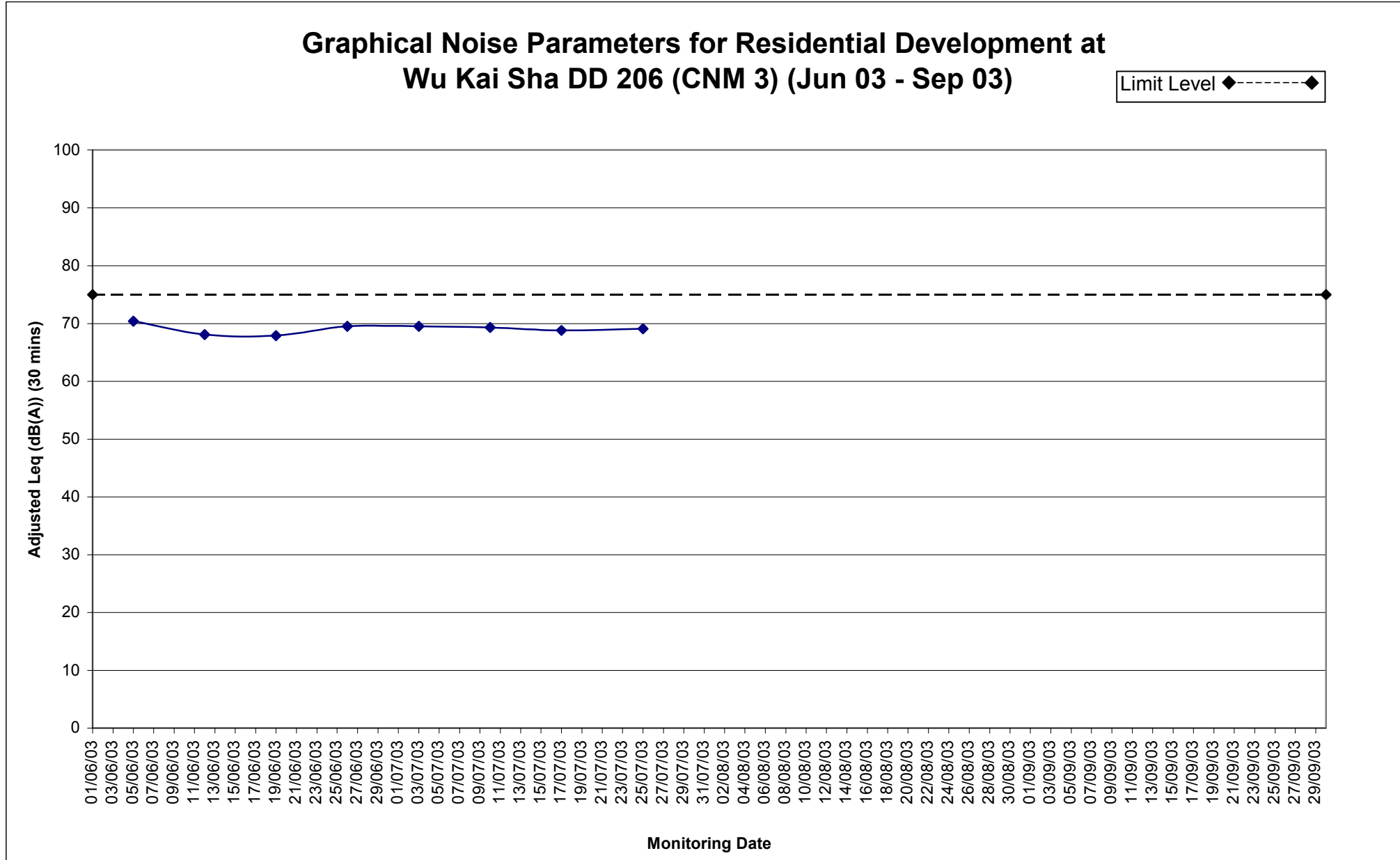


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**APPENDIX F**  
GRAPHICAL PLOTS OF TRENDS OF MONITORED PARAMETERS





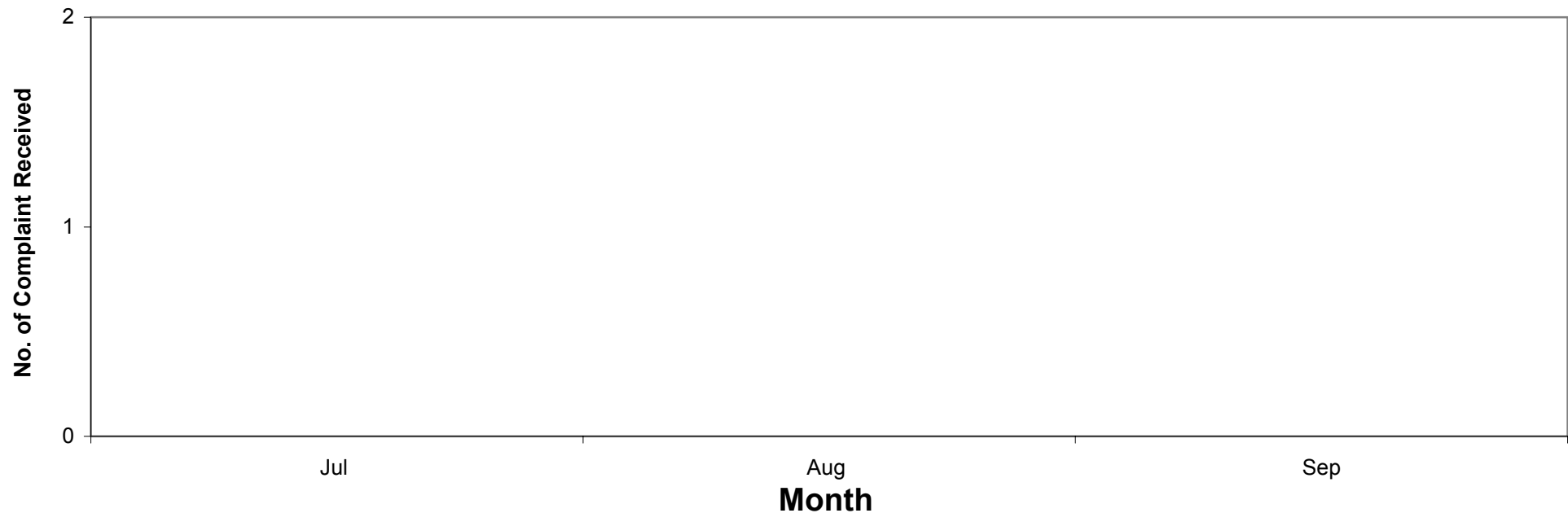




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**APPENDIX G**  
STATISTICS FOR ENVIRONMENTAL COMPLAINTS

**Contract No. HY/2001/18**  
**Sai Sha Road Widening between Kam Ying Road**  
**and Future Trunk Road T7 Junction**  
**Statistic for Environmental Complaint During the Quarter**  
**Jul - Sep 2003**







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**APPENDIX H**  
CONTACT DETAILS & HOTLINE

## Contact Details of Key Personnel

<b>Title</b>	<b>Name</b>	<b>Contact Number</b>
Engineer's Representative (Highways Department)	Mr. Greg Leung	2716 1043
EPD	Mr. Simon Hui	2835 1105
Project Director (Contractor)	Mr. David Kong	2137 5522
Project Manager (Contractor)	Mr. Alan Tam	9161 2991
Site Agent (Contractor)	Mr. K I Mok	9813 9599
Environmental Team Leader (Babtie Asia Limited)	Mr. Mark Cheung	2738 3803
Independent Environmental Checker (BMT Asia Pacific Ltd)	Ms. Lyn Ip	2241 9812