

**Contract No. HY/2002/08**  
**Footbridge and Improvements to Ap Lei Chau Bridge Road**  
**and Ap Lei Chau Drive**

**Monitoring Location: M2 The Harbour Mission Church & Yan Oi Kindergarten (Ref. no. 12)**  
**Time Period: 07:00-19:00**

Date	Start Time	Duration (min)	Measurement Results								
			L <sub>90</sub> (dB(A))	L <sub>10</sub> (dB(A))	L <sub>eq</sub> (dB(A)) (5 mins)		L <sub>eq</sub> (dB(A)) (30 mins)				
11/03/04	13:26	30	63.2	69.2	65.6	66.5	65.9	66.4	66.6	67.3	66.4
11/12/04	15:30	30	62.6	69.2	67.0	65.8	65.5	66.5	66.3	65.5	66.1
11/16/04	13:25	30	63.4	69.3	66.8	66.5	66.8	66.2	67.0	66.2	66.6
11/26/04	13:16	30	62.5	69.4	65.0	65.1	65.8	65.2	67.9	65.2	65.7

**Contract No. HY/2002/08**  
**Footbridge and Improvements to Ap Lei Chau Bridge Road**  
**and Ap Lei Chau Drive**

**Monitoring Location: M3 The Hong Kong True Light College (Ref.no.17)**  
**Time Period: 07:00-19:00**

Date	Start Time	Duration (min)	Measurement Results								
			L <sub>90</sub> (dB(A))	L <sub>10</sub> (dB(A))	L <sub>eq</sub> (dB(A)) (5 mins)			L <sub>eq</sub> (dB(A)) (30 mins)			
11/03/04	14:10	30	63.1	68.7	67.1	65.9	66.8	67.2	69.4	70.2	67.8
11/12/04	14:08	30	64.0	70.3	67.5	66.9	68.1	67.8	67.0	68.5	67.6
11/16/04	14:10	30	64.0	69.9	66.4	67.2	66.4	68.4	67.5	66.7	67.1
11/26/04	14:02	30	63.4	70.1	68.1	66.9	67.9	67.9	68.1	66.6	67.6

**Contract No. HY/2002/08**  
**Footbridge and Improvements to Ap Lei Chau Bridge Road**  
**and Ap Lei Chau Drive**

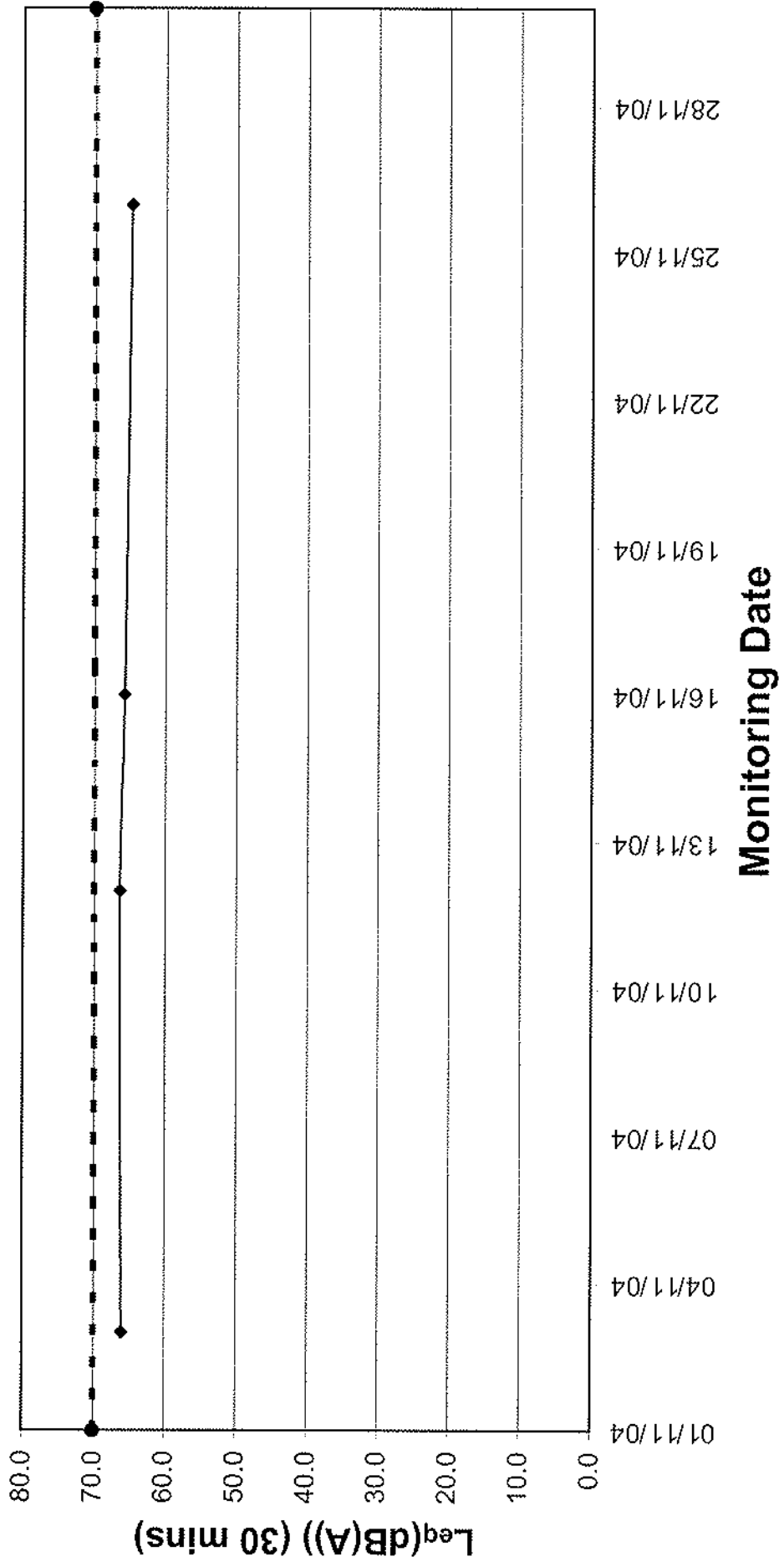
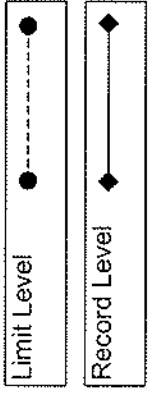
**Monitoring Location: M4 Shan On House (Ref.no.20)**  
**Time Period: 07:00-19:00**

Date	Start Time	Duration (min)	Measurement Results								
			L <sub>90</sub> (dB(A))	L <sub>10</sub> (dB(A))	L <sub>eq</sub> (dB(A)) (5 mins)			L <sub>eq</sub> (dB(A)) (30 mins)			
11/03/04	15:00	30	63.6	69.1	66.4	67.1	66.4	66.1	67.0	66.2	66.5
11/12/04	15:00	30	63.9	69.2	67.4	67.2	66.8	66.4	67.0	66.7	66.9
11/16/04	15:00	30	64.3	69.7	67.6	67.8	67.1	68.0	68.5	67.6	67.8
11/26/04	14:45	30	63.0	69.0	66.2	65.8	64.3	66.5	67.2	66.7	66.1

**Appendix G**

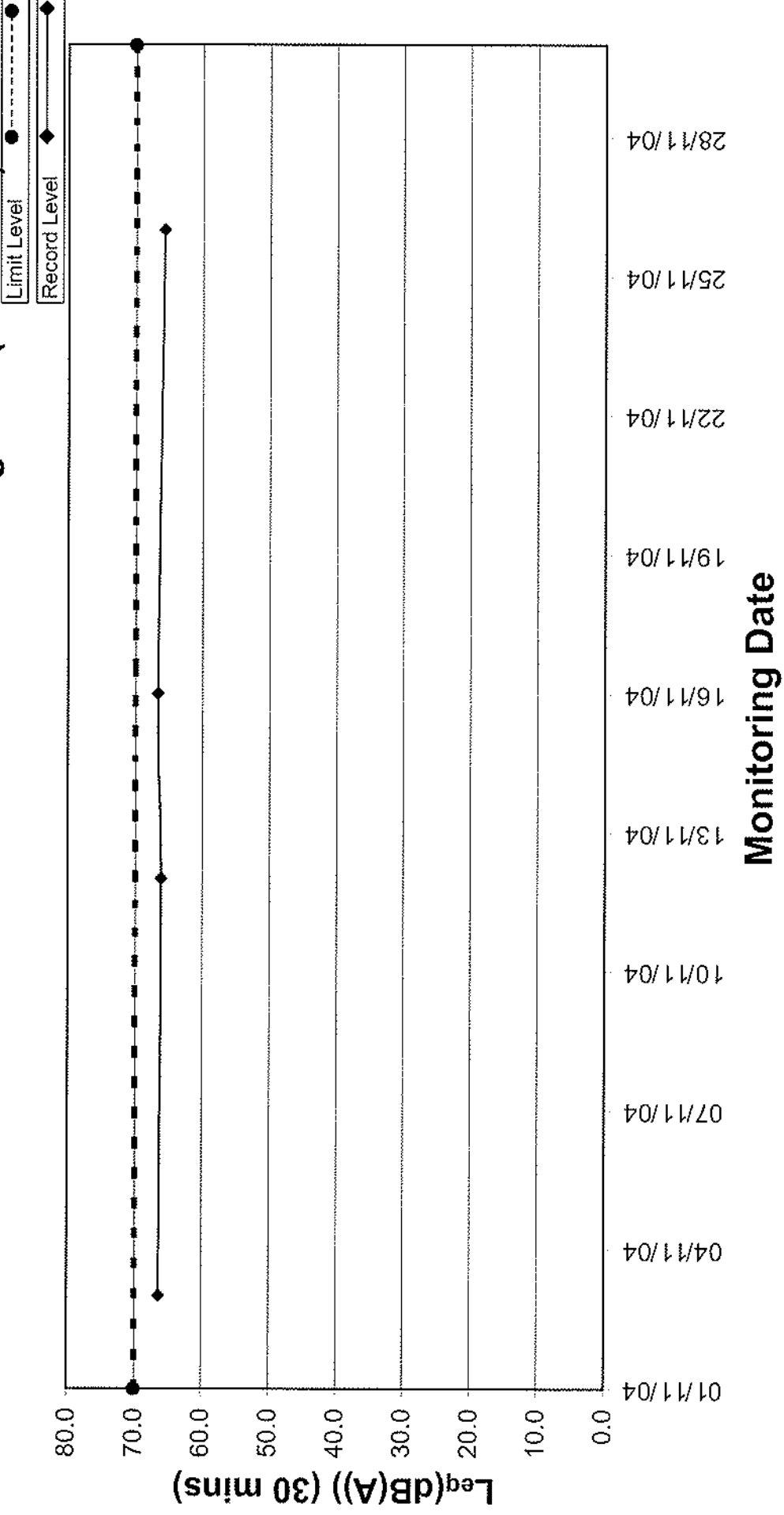
**GRAPHICAL REPRESENTATION OF  
CONSTRUCTION NOISE MONITORING DATA**

# Construction Noise Monitoring Result M1 Ap Lei Chau Baptist Kindergarten (Ref.no.10)

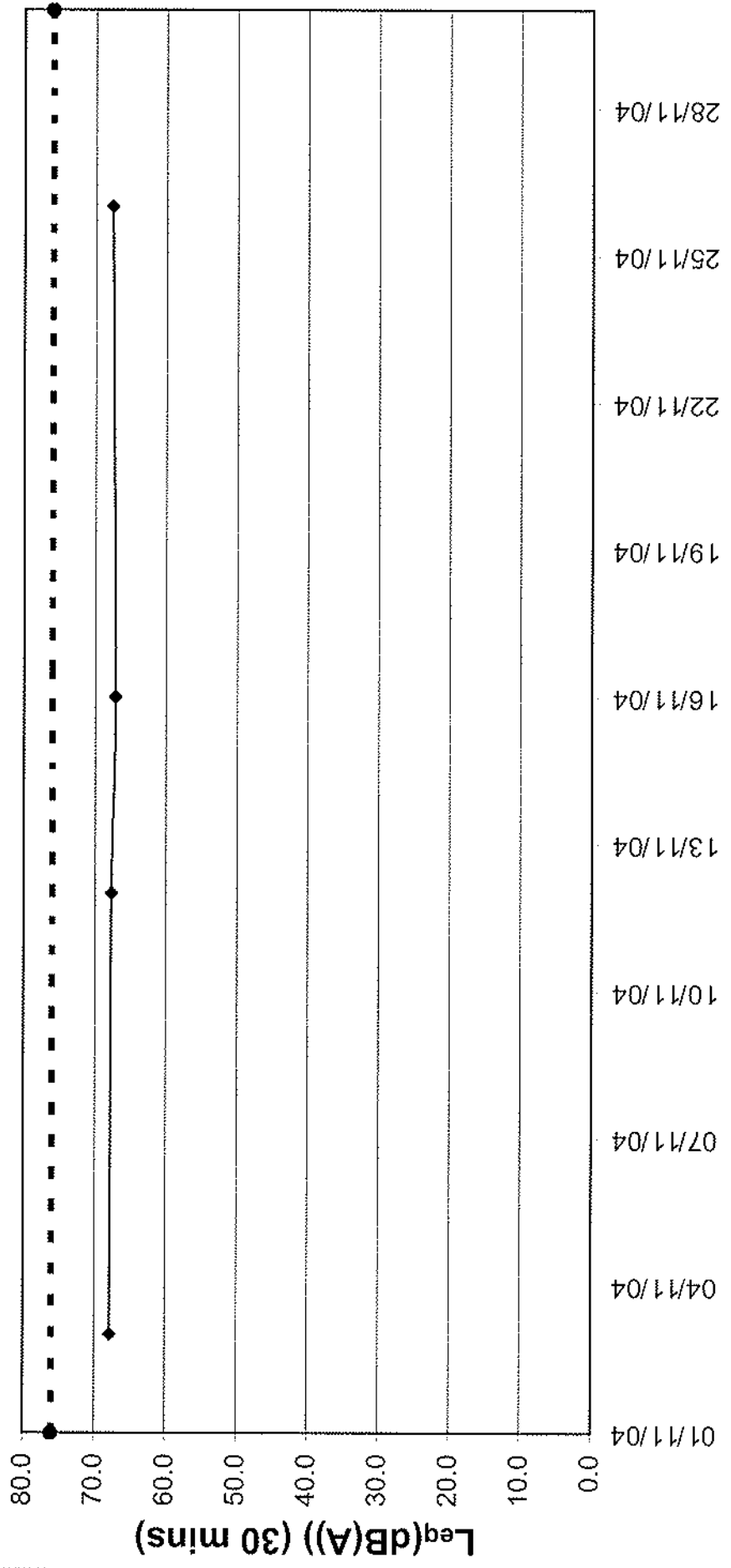
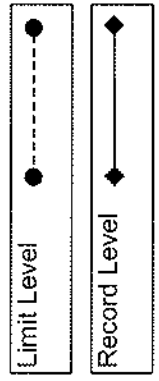


# Construction Noise Monitoring Result

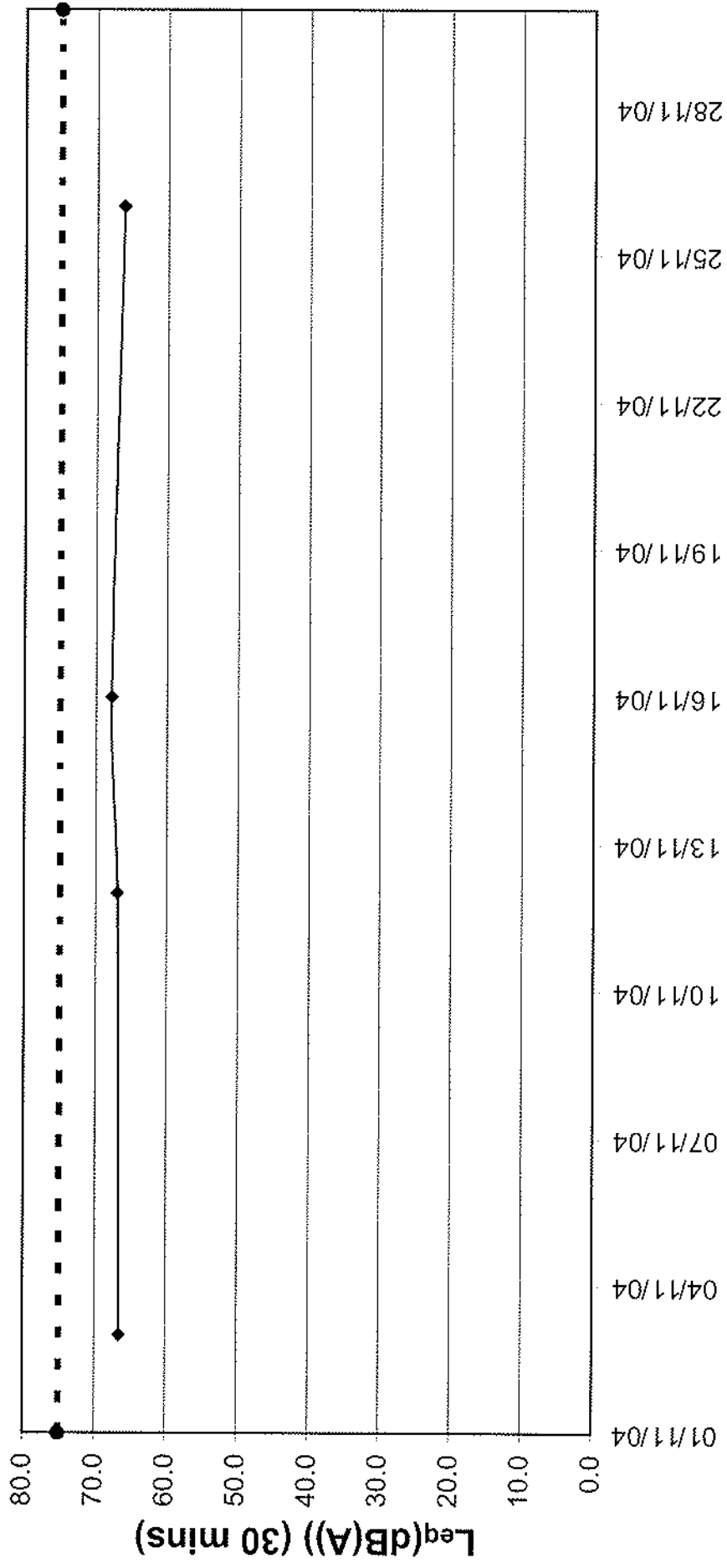
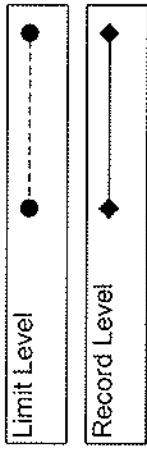
## M2 The Harbour Mission Church & Yan Oi Kindergarten (Ref.no.12)



## Construction Noise Monitoring Result M3 The Hong Kong True Light College (Ref.no.17)



# Construction Noise Monitoring Result M4 Shan On House (Ref.no.20)



**Appendix H**  
**ACTION & LIMIT LEVELS**

## Action and Limit Noise Levels

Action and Limit (AL) Levels are defined levels of impact recorded during the course of EM & A, which represent levels at which a prescribed response is required. These levels are quantitatively defined in the relevant sections of this Manual and described in principle below:

- Action Levels: beyond which there is a clear indication of a deteriorating ambient environment for which appropriate remedial actions are likely to be necessary to prevent environmental quality from falling outside the Limit Levels; and
- Limit Level: statutory and / or agreed contract limits stipulated in the relevant pollution control ordinances, HKPSG or Environmental Quality Objectives established by the EPD. If these are exceeded, works should not proceed without appropriate remedial action, including a critical review of plant and working methods.

According to Section 3.7 of the *EM & A Manual*, the Action and Limit Noise Levels are summarised in the following table:

Time Period	Action Level	Limit Level
0700-1900 hours on normal weekdays	When one documented complaint is received	75 dB(A) for domestic premises
0700-1900 hours on normal weekdays		70 dB(A) for educational uses during normal school hours
0700-1900 hours on normal weekdays		65 dB(A) for educational uses during examination period

To account for cases where ambient noise levels as identified by baseline monitoring approaches or exceeds the stipulated Limit Level prior to commencement of construction, an Exceedance Level may be defined and agreed with the EPD, which incorporates the baseline noise level and the Limit Level given in the above table. The Exceedance Level will therefore be greater than the Limit Level and represents the maximum acceptable noise level at each monitoring station.

For the purposes of compliance checking, after taking into account of any adjustments agreed with the EPD, the measured noise level will be checked against either the Limit or Exceedance Level to identify any likely noise nuisance arising from the Project.

## Event and Action Plan for Construction Noise

Should any non-compliance of the action and limit noise level criteria stipulated in Section 3.7 of the *EM & A Manual* occurs, the ET Leader, the IEC, 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	IEC
Action Level	<ol style="list-style-type: none"> <li>1. Notify IEC and Contractor</li> <li>2. Carry out investigation</li> <li>3. Report the results of investigation to the IEC and Contractor</li> <li>4. Discuss with the Contractor and formulate remedial measures</li> <li>5. Increase monitoring frequency to check the effectiveness of mitigation measures</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>
Limit Level	<ol style="list-style-type: none"> <li>1. Notify IEC, 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 IEC, ER and EPD the causes &amp; actions taken for the exceedances</li> <li>7. Assess effectiveness of Contractor's remedial actions and keep IEC, the 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's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly</li> <li>3. Supervise the implementation of remedial measures.</li> </ol>

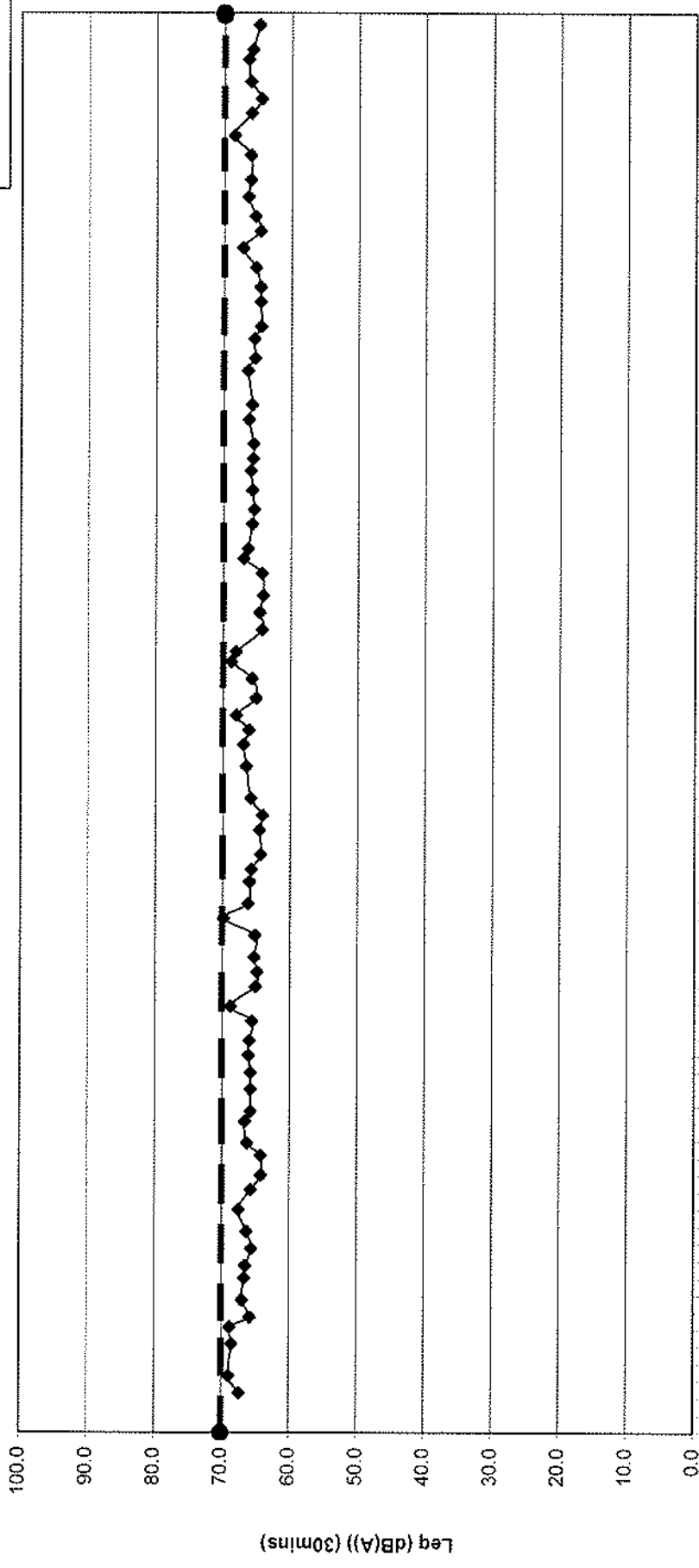
EVENT	ACTION	
	ER	Contractor
Action Level	<ol style="list-style-type: none"> <li>1. Confirm receipt of notification of failure in writing</li> <li>2. Notify Contractor</li> <li>3. Require Contractor to propose remedial measures for the analysed noise problem</li> <li>4. Ensure remedial measures are properly implemented</li> </ol>	<ol style="list-style-type: none"> <li>1. Submit noise mitigation proposals to IEC</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 IEC 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>

**Appendix I**

**GRAPHICAL PLOTS OF TRENDS OF  
MONITORED PARAMETERS**

**Graphical Noise Parameters for M1 Ap Lei Chau Baptist Kindergarten (Ref.no.10)  
(May 03 - Nov 04)**

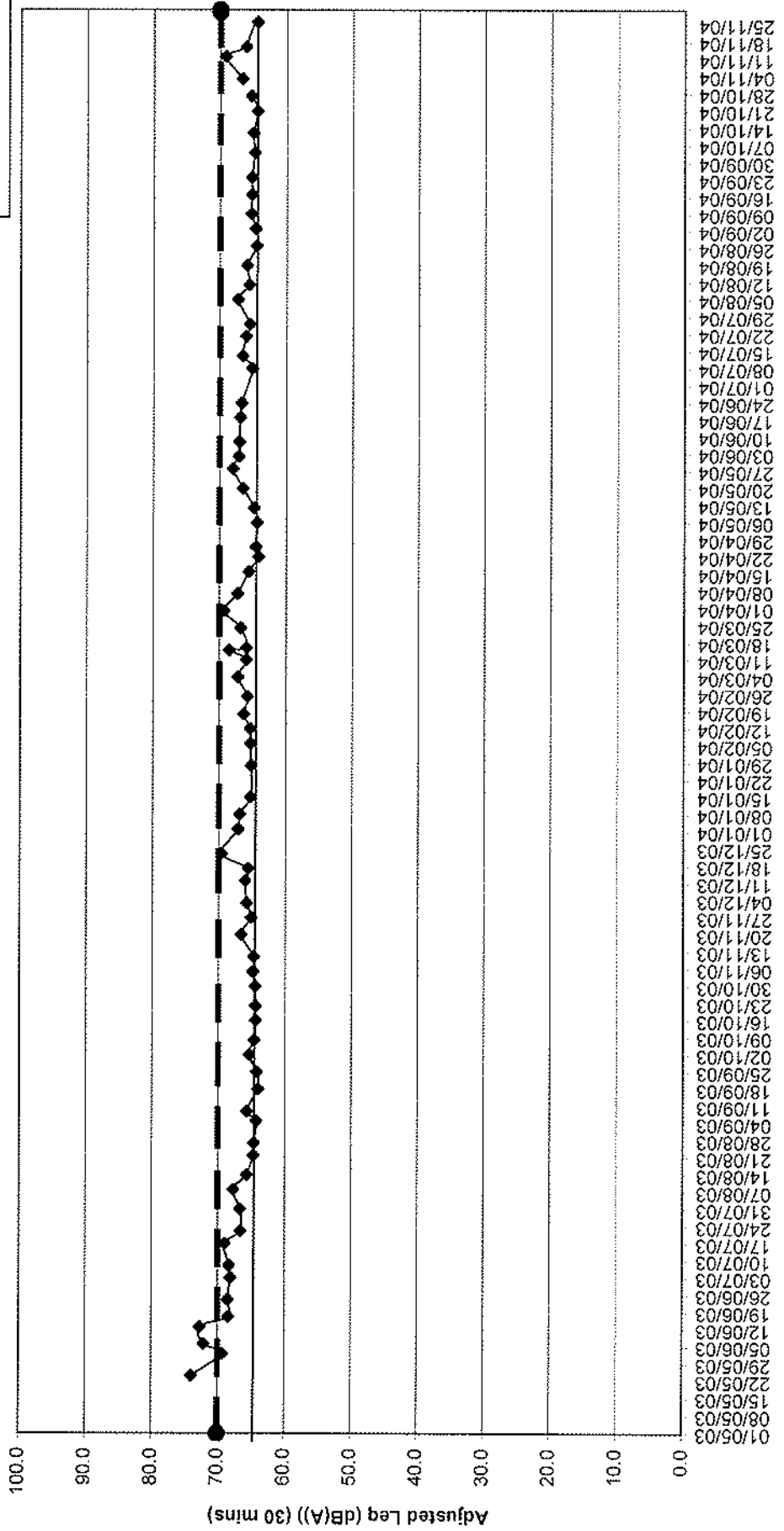
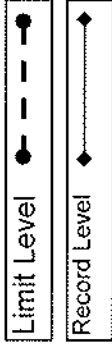
Limit Level ● - - ●  
Record Level ◆



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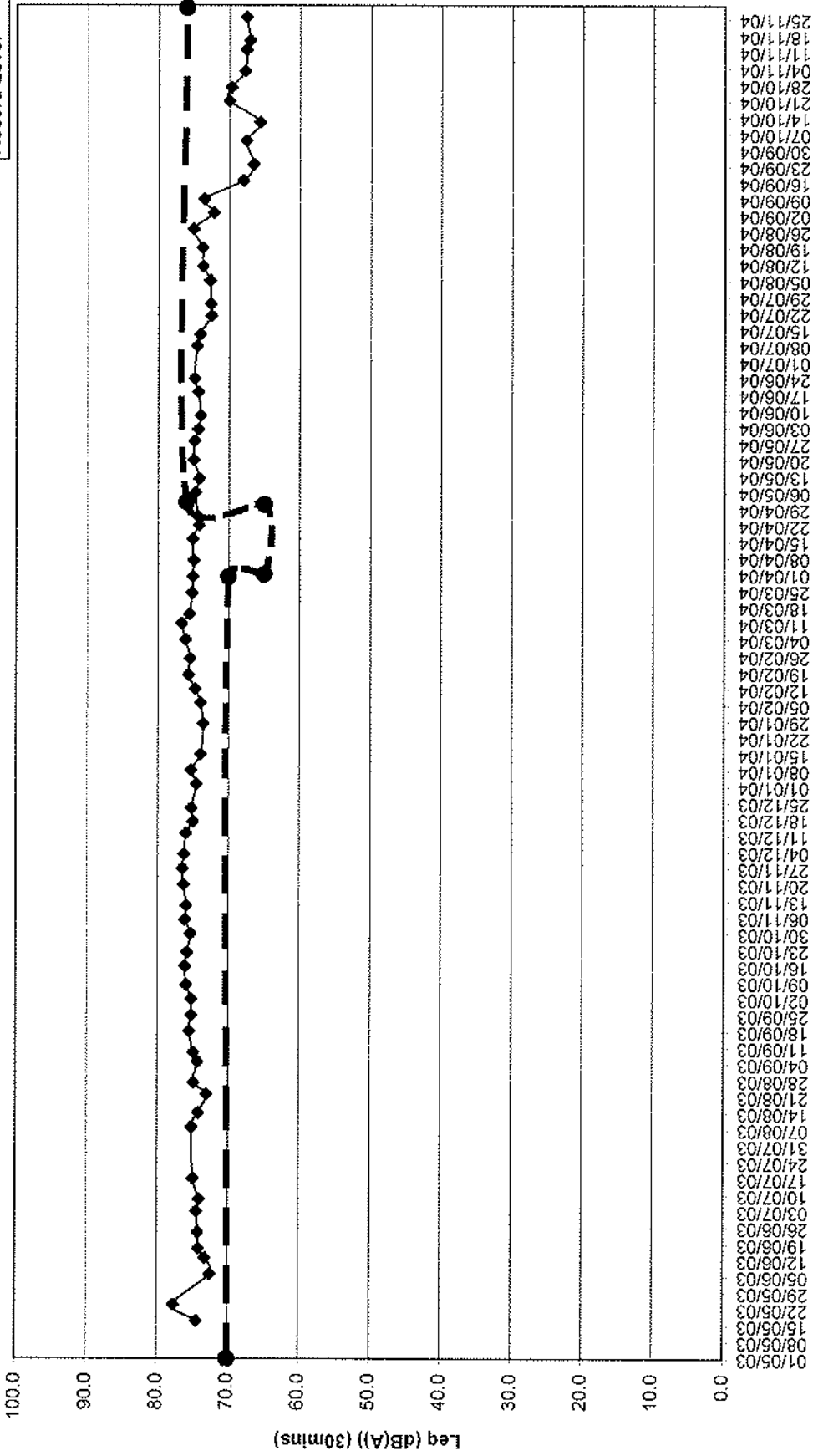
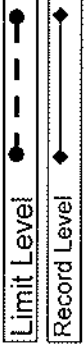
Monitoring Date

# Graphical Noise Parameters for M2 The Harbour Mission Church & Yan Oi Kindergarten (Ref.no.12) (May 03 - Nov 04)



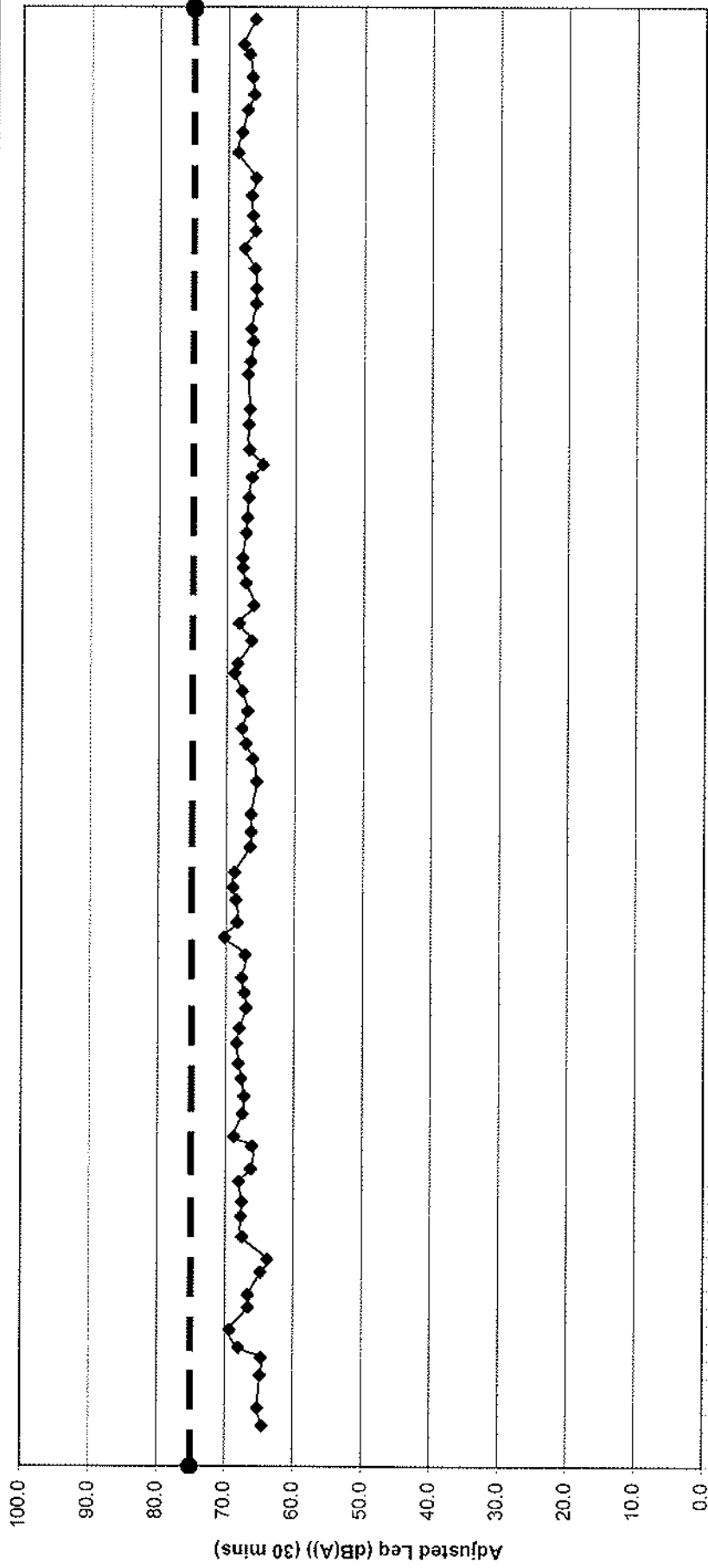
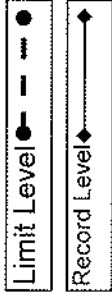
Monitoring Date

### Graphical Noise Parameters for M3 The Hong Kong True Light College (Ref.no.17) (May 03 - Nov 04)



Monitoring Date

# Graphical Noise Parameters for M4 Shan On House (Ref.no.20) (May 03 - Nov 04)



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25/11/04

Monitoring Date

**Appendix J**

**CONSTRUCTION NOISE MONITORING SCHEDULES**

Job No. : G/2647.02  
 Footbridge and improvements to Ap Lei Chau Bridge Road and Ap Lei Chau Drive  
 Contract No. HY/2002/08

**Construction Noise Monitoring Schedule**  
**November 2004**

Location Point	Monitoring Parameter	Measurement Start Time			
		03/11/2004 (Wednesday)	12/11/2004 (Friday)	16/11/2004 (Tuesday)	26/11/2004 (Friday)
M 1	L <sub>eq</sub> (30 min)	11:15	11:16	11:06	11:15
M 2	L <sub>eq</sub> (30 min)	13:26	15:30	13:26	13:16
M 3	L <sub>eq</sub> (30 min)	14:10	14:08	14:10	14:02
M 4	L <sub>eq</sub> (30 min)	15:00	15:00	15:00	14:45

\* Note: In case of poor weather condition that the monitoring work is found inappropriate according to the acoustic principles, we will inform the Contractor to arrange monitoring day within the same week if feasible.

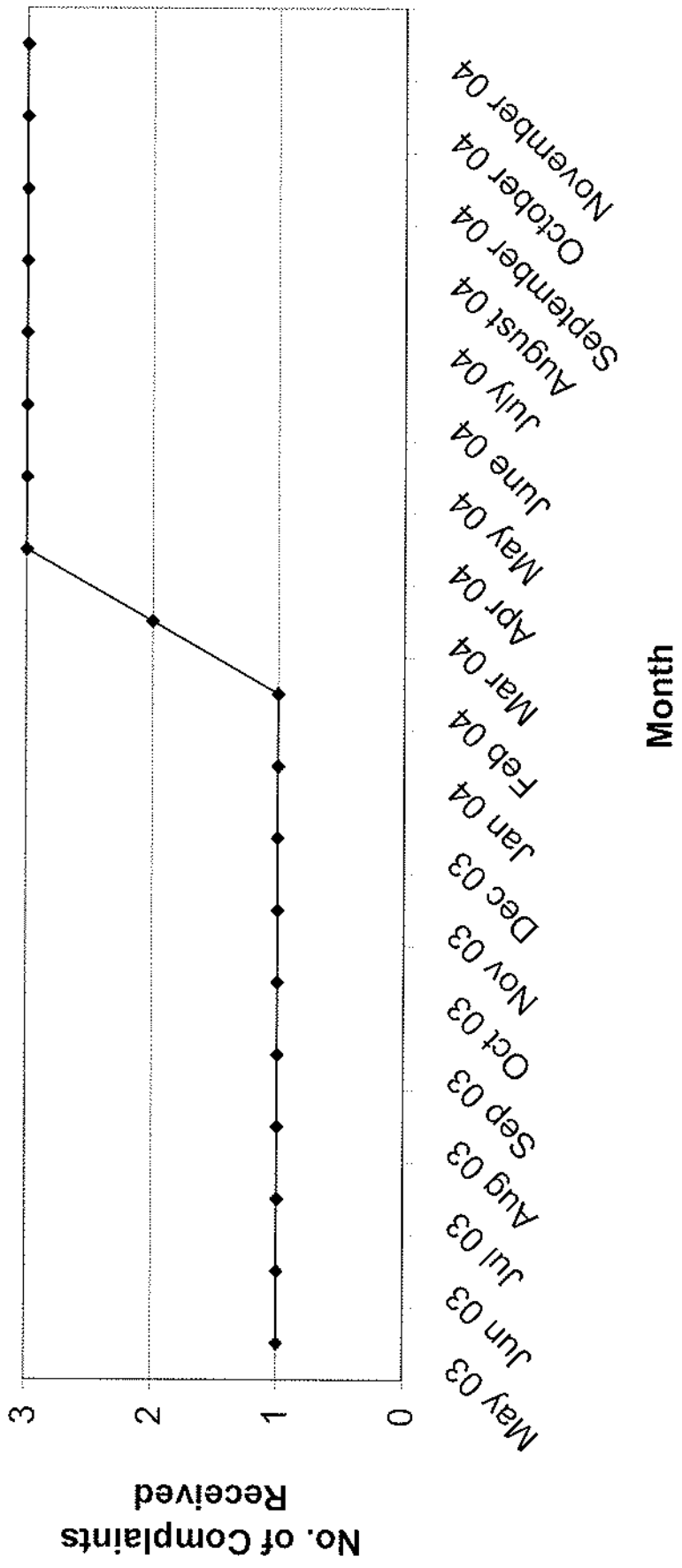
**Appendix K**

**CUMULATIVE STATISTICS ON ENVIRONMENTAL COMPLAINTS**

**Contract No. HY/2002/08**  
**Footbridge and Improvements to Ap Lei Chau Bridge Road and Ap Lei**  
**Chau Drive**

**Statistics of Cumulative Environmental Complaints**

**May 03 - Nov 04**



**Contract No. HY/2002/08  
Footbridge and Improvements  
to Ap Lei Chau Bridge Road and Ap Lei Chau Drive**

**Statistic for Environmental Complaint  
November 2004**

