

Mass Transit Railway Corporation Limited

Contract 5032 - Mong Kok Station New Integrated Entrance C3

Environmental Monitoring and Audit Report

(March 2004)

## ***EXECUTIVE SUMMARY***

This is the 12<sup>th</sup> report prepared to document the environmental monitoring and audit works conducted for the modification works of Mong Kok Station under Contract 5032. Monitoring works for noise impact from the construction works were carried out during the period of March 2004. During this period, the major civil construction activities, including sheetpiling, drainage pipe laying, boring works, supporting to existing underground services, temporary road deck construction, underground excavation, implementing of TTM Scheme and concrete placing for the subway structure.

With reference to the collected monitoring data and by field observation, environmental conditions of the construction site were in general satisfactory. There were no limit level exceedance recorded in regular construction noise monitoring at the agreed sensitive receivers. No complaint and prosecution were received during this reporting month. The Contractor continued to have regular review on their environmental mitigation measures provided on site. They also reinforced their effort to control the impacts generated from the construction activities to the nearby surrounding.

As the concerned construction site is located in an urban area of Mong Kok, the noise and dust level are significantly affected by the busy traffic on Argyle Street and Portland Street and the works activities performed on the adjacent URA K2 Development site.

## ***EXECUTIVE SUMMARY***

### ***1 INTRODUCTION***

- 1.1 Scope of the Report***
- 1.2 Structure of the Report***

### ***2 PROJECT INFORMATION***

- 2.1 Construction Programme***
- 2.2 Construction Activities***

### ***3 IMPACT NOISE MONITORING***

- 3.1 Monitoring Parameters***
- 3.2 Monitoring Locations***
- 3.3 Monitoring Time, Frequency, Duration and Weather***
- 3.4 Monitoring Schedule for Next Month***
- 3.5 Monitoring Results***

### ***4 ASSESSMENT AND AUDIT RESULTS***

### ***5 ACTION TAKEN IN EVENT OF CONSTRUCTION NOISE LEVEL EXCEEDANCE***

### ***6 CONSTRUCTION WASTE DISPOSAL***

### ***7 RECORD OF COMPLAINTS FROM PUBLIC & EPD***

### ***8 STATUS OF PERMITS AND LICENCES OBTAINED***

### ***9 ACTION ITEMS FOR SITE AUDITS IN PAST MONTH***

### ***10 CONCLUSION***

#### **Appendix A**

- *Site Location Plan / Monitoring Locations*
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#### **Appendix B**

- *Environmental Monitoring Data*
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## **1 INTRODUCTION**

### **1.1 Scope of the Report**

The Environmental Team headed by the ET leader Dr. Kam Chan is responsible to provide baseline and impact environmental monitoring services for the Project and advise ER to supervise Contractor's performance on site environmental matters in order to comply with the requirements of the Project Profile, EM&A Manual and Environmental Permit approved by the Environmental Protection Department of HKSAR.

This is the 12<sup>th</sup> impact monitoring report to cover the environmental monitoring works in the period of March 2004.

### **1.2 Structure of the Report**

The structure of the report is as follows:

- Section 1: Introduction – details the scope and structure of the report.
- Section 2: Project Information – summarizes the scope of the construction activities in this monitoring reporting period and the coming month.
- Section 3: Impact Noise Monitoring – summarizes the monitoring programme, locations and results.
- Section 4: Compliance checking which compares the impact monitoring results with the A/L Levels to determine whether the construction activities have any adverse impacts on the environment and gives comment in order to alleviate those impacts.
- Section 5: Actions taken in events of noise level exceedance.
- Section 6: Construction wastes disposal.
- Section 7: Record of complaints from public & EPD.
- Section 8: Status of permits and licences obtained.
- Section 9: Action items for site audits recorded.
- Section 10: Conclusion.

## **2 PROJECT INFORMATION**

### **2.1 Construction Programme**

The construction for modifications to the existing Mongkok Station are scheduled to commence in April 2003 and to be completed in early 2005. MTRCL is responsible for overall programming of the construction works. It is recommended that the programming is such that environmental impacts are reduced as far as possible. Site location plan is shown on Appendix A EMOKC3-001.

### **2.2 Construction Activities**

Major site activities carried out by the Contractor during this reporting period include the following:-

#### TTM Stage 3 Construction

- Implementation of road lane closure for construction works continued.
- Temporary road deck construction continued.
- Exposure and supporting to existing underground services continued.
- Sheetpiling works completed.
- Underground drainage pipe laying continued.
- Boring works completed.
- Underground excavation and mucking out continued.
- Removal of underground abandoned concrete structure continued.
- Placing concrete for the subway structure construction commenced.

Scheduled major site activities carried out by the Contractor in the next reporting period are as follows:-

#### TTM Stage 3 Construction

- Continue implementation of road lane closure for construction.
- Continue exposure and supporting to existing underground services.
- Continue underground excavation and mucking out.
- Continue removal of underground abandoned concrete structures.
- Continue temporary road deck construction.
- Continue underground drainage pipe laying.
- Continue placing concrete for the subway structure construction.

### 3 **IMPACT NOISE MONITORING**

#### 3.1 **Monitoring Parameters**

During this monitoring period, regular noise monitoring were made once a week at logging interval of 5 minutes in 30 minutes. 6 sets of 5 minutes average of Leq, L10 and L90 (in A-Weighting) were taken at N1MOKC3 and N2MOKC3 respectively.

#### 3.2 **Monitoring Locations**

##### Noise

Noise monitoring was undertaken at the following locations:

N1MOKC3 Residential Building at 43-49A Argyle Street (Argyle House)  
N2MOKC3 Residential Building at 35-37A Argyle Street

Location of the above agreed monitoring stations are shown on Appendix A Figure EMOKC3-001.

#### 3.3 **Monitoring Time, Frequency, Duration and Weather**

##### Noise

Noise monitoring was performed once on normal weekdays i.e. Monday to Saturday (refer to Item 5.5.2 of the approved EM&A Manual March 2003). Below is the time schedule that the noise monitoring was performed in this monitoring period.

<b>Location</b>	<b>Date and Time of Monitoring</b>		<b>Climate</b>
N1MOKC3 (Argyle House)	1/3/04	3:06pm	Clear
	4/3/04	2:25pm	Clear
	11/3/04	10:56am	Clear
	18/3/04	2:19pm	Cloudy
	24/3/04	4:30pm	Cloudy
	29/3/04	2:42pm	Cloudy
N2MOKC3 (Residential Bldg 35-37A Argyle Street)	1/3/04	4:06pm	Clear
	4/3/04	1:36pm	Clear
	11/3/04	10:18am	Clear
	17/3/04	1:15pm	Cloudy
	24/3/04	3:40pm	Cloudy
	29/3/04	2:30pm	Cloudy

### 3.4 Monitoring Schedule for Next Month

Noise monitoring at N1MOKC3 and N2MOKC3 will be performed on 6, 13, 19 and 26 April 2004.

### 3.5 Monitoring Results

#### Noise

A summary of the results (Leq30min) recorded during this monitoring period is shown in following table. Relevant details of the noise monitoring results and graphic plots are presented in Appendix B. Having compared the results with the limit levels, no exceedance were found.

Summary of Noise Monitoring Results measured in 30 minutes and dBA

Location	N1MOKC3 (Argyle House)					
Date	Leq (30 min)	Leq corrected (30 min)	L10(30min)	L90(30min)	Allowable limit (30min)	Exceedance
1/3/04	73.1	66.2	-	-	75	N
4/3/04	72.2	58.7	-	-	75	N
11/3/04	69.5	****	-	-	75	N
18/3/04	74.4	70.7	76.5	69.0	75	N
24/3/04	73.5	68.6	74.8	68.1	75	N
29/3/04	74.9	71.8	-	-	75	N
	N2MOKC3 (Residential Building at 35-37A Argyle Street)					
1/3/04	78.0	66.2	-	-	75	N
4/3/04	76.6	68.3	-	-	75	N
11/3/04	74.9	****	-	-	75	N
17/3/04	77.8	74.5	80.5	71.0	75	N
24/3/04	76.2	69.7	78.0	72.0	75	N
29/3/04	77.3	71.7	-	-	75	N

Note:- \*\*\*\* measured noise level Leq(30min) less than or equal to background noise.

Leq(30min) corrected Measured noise level Leq(30min) with background correction.

Y Exceedance caused by Contractor's works activities.

N No exceedance caused by Contractor's works activities.

#### **4 ASSESSMENT AND AUDIT RESULTS**

With reference to the regular monitoring results obtained, there was no exceedance of limit level occurred in noise monitoring taken during this reporting period. Levels of the construction noise recorded at the agreed NSRs in this reporting period are lower than the allowable limit. By site observations, the major noise sources mainly came from the busy traffic on Argyle Street and Portland Street, the construction activities in URA K2 Development site and the Project construction activities. The Contractor have provided reasonable monitoring and supervision to control the noise generated from the construction site. Also, the dust control provided on the site was acceptable.

#### **5 ACTION TAKEN IN EVENT OF CONSTRUCTION NOISE LEVEL EXCEEDANCE**

There was no noise level exceedance recorded at the agreed NSRs during this reporting period.

#### **6 CONSTRUCTION WASTE DISPOSAL**

Certain amount of excavated material and concrete debris were generated from the construction activities during this reporting period. The Contractor have set up implementation of the delivery trip ticket system for waste disposal.

	Amount of Construction Wastes Disposed		
	Inert Waste (to PPE) (m <sup>3</sup> )	Non-inert waste (to Landfill) (m <sup>3</sup> )	Chemical waste (trip)
April 2003	0	0	0
May 2003	78	0	0
June 2003	148	0	0
July 2003	46	0	0
August 2003	184	0	0
September 2003	152	0	0
October 2003	296	0	0
November 2003	274	7.0	0
December 2003	354	0	1
January 2004	205	0	0
February 2004	941	0	0
March 2004	470	0	1
Accumulated total since April 2003	3148	7.0	2



## 7 **RECORD OF COMPLAINTS FROM PUBLIC & EPD**

A public noise complaint was received from EPD on 24/2/04 during this reporting period. Immediate meeting among representatives from ER/ET/the Contractor for sorting out was held on the same day. A completed complaint form no. MOK/1003 for the incident was sent to EPD on 9/3/04 (refer to Appendix B).

<b>Formal complaint</b>				
	Air	Noise	Water	Others
April 2003	0	0	0	0
May 2003	0	0	0	0
June 2003	0	0	0	0
July 2003	0	0	0	0
August 2003	0	0	0	0
September 2003	1	1	0	0
October 2003	0	0	0	0
November 2003	0	0	0	0
December 2003	0	0	0	0
January 2004	0	0	0	0
February 2004	0	1	0	0
March 2004	0	0	0	0
Accumulated total since April 2003	1	2	0	0

## 8 **STATUS OF PERMITS AND LICENCES OBTAINED**

No new environmental related permits and licences were obtained during this reporting period. An application for CNP for final connection of 750φ watermain by WSD was sent to EPD for approval on 28 February 2004. Application result is awaited.

Type	Reference No.	Commencement Date	Expired Date	Remarks
Chemical waste disposal	WPN5117-229-K2801-01	29/4/03	end of the Project	
Site water disposal	EP482/229/0302/1	30/4/03	31-5-2008	
Public fill disposal	CED's letter ref. (8) in PW PF/GEN/01 pt.26 dated 30/7/03	30/7/03	end of the project unless advised	
Landfill disposal	EPD's letter ref. EPD195/01/24/0614/2003 dated 16/9/03	16/9/03	end of the project unless advised	

## 9 ACTION ITEMS FOR SITE AUDITS IN PAST MONTH

During this monitoring period, regular weekly joint site audits headed by the senior of MTRC and the Contractor were taken. The Contractor's performance on the environmental matters were assessed. Status of required actions taken by the Contractor can be summarised as follows:-

	<b>Description</b>	<b>Status</b>
1.	The Contractor was reminded to have regular check on site to ensure the compliance of relevant environmental regulations, permits and licence.	On going
2.	The Contractor was reminded to remove the accumulated construction debris off site as soon as practical.	On going
3.	The Contractor was reminded to place the proper noise barrier as close as possible to the noisy activities carried out on site.	On going
4.	The Contractor was reminded to have regular check to prevent black smoke generated from the working plant.	On going
5.	The Contractor was reminded to pay attention on desiltation condition of the site water discharged into the public drain.	On going
6.	The Contractor was reminded to provide the proper noise enclosure to the air compressors/generators newly arrived for operation.	Done
7.	The Contractor was reminded to provide proper noise mitigation measures to the working sheetpiling plant.	Done

EPD's comments on the latest revised construction noise mitigation plan (CNMP Revision D) was received on 2/4/04. An update incorporated with EPD's comments will be sent to EPD for approval as soon as possible.

For the public complaint on 24/2/04, EPD's letters concerning adequacy of the noise barriers provided on site were received. MTRCL and the Contractor have taken proper actions to review and rectify the situation. A number of noise monitoring results taken upon the complaint indicate there were no exceedance to the allowable daytime limit at the NSRs.

## **10 CONCLUSION**

Major civil activities including sheetpiling, underground excavation and mucking out, supporting for existing underground services, temporary road deck construction, drainage pipe laying and concrete placing for blinding layers carried out by the Contractor during this reporting period. Regular meetings and joint site audits headed by the senior were held among ET/ER/the Contractor to resolve the site environmental problems. Concerned site environmental issues have been followed up by the Contractor practically.

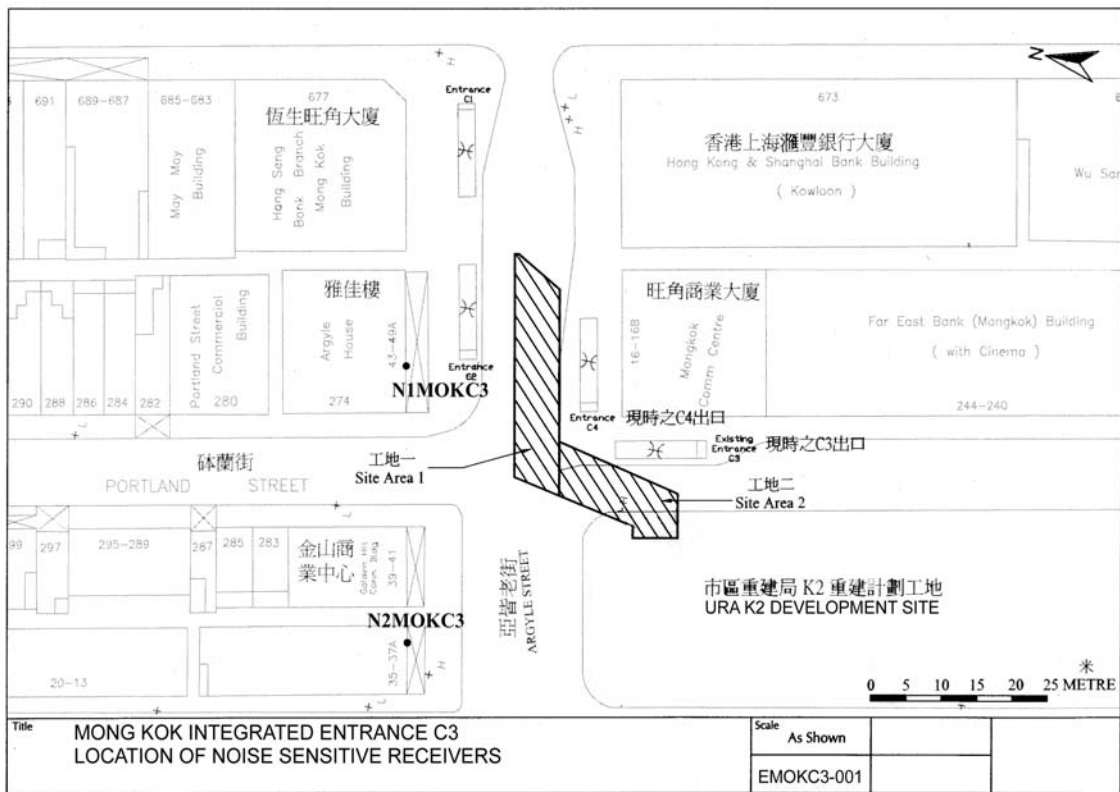
The Contractor continue to have regular review on the noise mitigation measures provided for the noisy activities on site, particularly the sheetpiling activities.

By field observation, the environmental pollution control measures provided by the Contractor were generally acceptable. The construction noise levels recorded in regular monitoring were below the allowable limits. No prosecutions were received.

# Appendix A

## - Site Location Plan / Monitoring Locations

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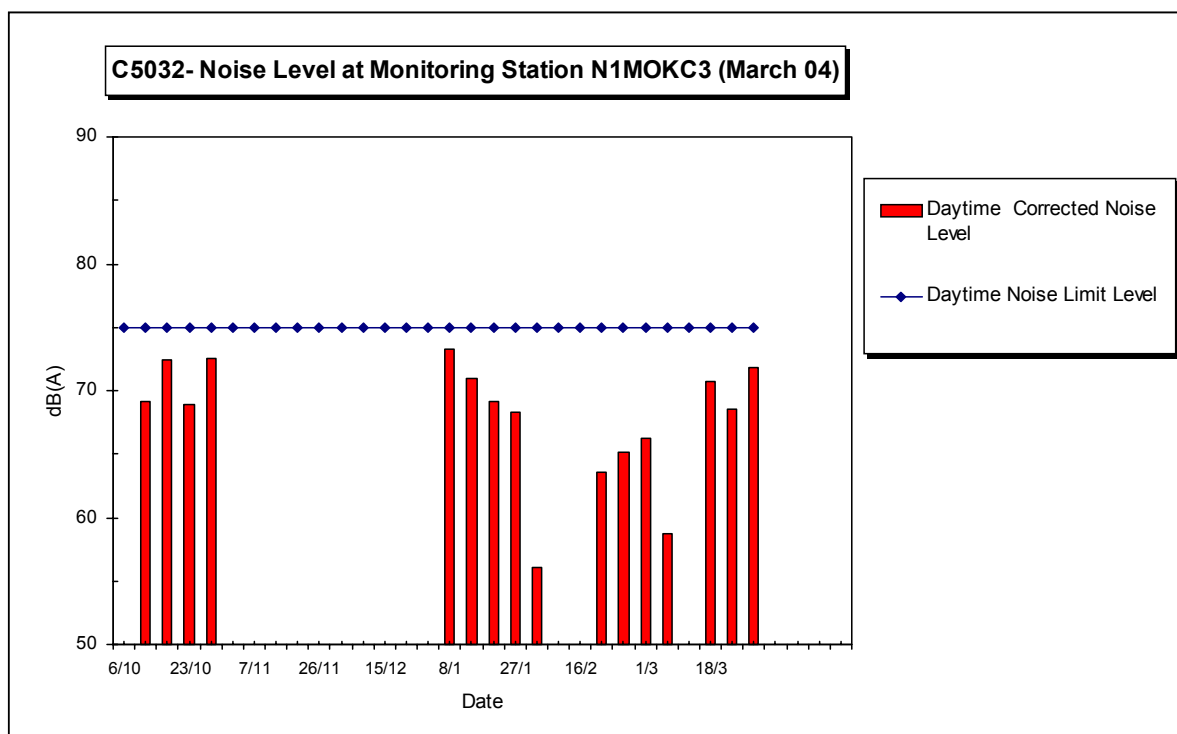


## Appendix B

### - Environmental Monitoring Data

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**C5032 - Noise Level at Monitoring Station N2MOKC3 (March 04)**

