# Hong Kong Kwong Tai Builders Limited

# Contract No. SSW 317

# Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point

Environmental Monitoring and Audit Monthly Report

January 2011

(Version 1.1)

Certified By

Dr. Priscilla Choy

(Environmental Team Leader)

#### REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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Room 1710, Technology Park, 18 On Lai Street, Shatin, NT, Hong Kong Tel: (852) 2151 2083 Fax: (852) 31071388 Email: info@cinotech.com.hk

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# **EXECUTIVE SUMMARY**

#### Introduction

- 1. This is monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited (Cinotech) for the Contract No. SS W317 "Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point" (hereinafter called "the Project"). This document reports the findings of the environmental auditing works conducted in January 2011.
- 2. The site activities undertaken in the reporting month were:
  - Erection of fence post; and
  - Erection of fence mesh.

# **Environmental Monitoring and Audit Works**

- 3. Environmental monitoring and audit works for the Project was commenced on 17 March 2010.
- 4. Environmental monitoring and audit works for the Project is stipulated in the approved EM&A Manual. Site audits were conducted once per week. Environmental site audits were conducted on 4, 12, 19 and 27 January 2011. No non-compliance was observed during the site audits.
- 5. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.
- 6. Summary of the events and action taken in the reporting month is tabulated in **Table I**.

Table I Summary Table for Events Recorded in the Reporting Month

Parameter	No. of Events			
1 at attletet	<b>Action Level</b>	Limit Level	<b>Due to the Project</b>	Action Taken
Noise	0	0	0	N/A

#### **Construction Noise**

7. All construction noise monitoring was conducted as scheduled in reporting month. No Action/Limit Level exceedance was recorded.

# **Environmental Licenses and Permits**

8. Licenses/Permits granted to the Project include Environmental Permit, Billing Account under Waste Disposal Ordinance, Notification pursuant to Section 3(1) of the Air Pollution Control Ordinance (Construction Dust) Regulation and Registration as Chemical Waste Producer.

# **Key Information in the Reporting Month**

9. Summary of key information in the reporting month are in **Table II**.

Table II Summary of Key Information in the Reporting Month

T. A		<b>Event Details</b>		G	Remark
Event	Number	Nature	Action Taken	Status	
Complaint received	0		N/A	N/A	
Changes to the assumptions and key construction / operation activities recorded	0		N/A	N/A	
Status of submissions under EP	1	Monthly EM&A Report	Submitted to EPD on 14 January 2011	No Comment	
Notifications of any summons & prosecutions received	0		N/A	N/A	

• Future Key Issues:

Major site activities for the coming two months include:

- Erect fencing and install steel post; and
- Tree protection and maintenance: whole site.

# 1 INTRODUCTION

# **Background**

- 1.1 The Project "Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point" with a Contract No. SS W317 is the Section 1 of the "Construction of a Secondary boundary Fence and new sections of Primary Boundary Fence and Boundary Patrol Road". Hong Kong Kwong Tai Builders Limited (hereinafter called the "Contractor") was commissioned by Architectural Services Department (ArchSD) of the Hong Kong Special Administrative Region (HKSAR) to undertake the construction.
- 1.2 The Project mainly comprises a construction purposed to erect a secondary fence along the existing boundary patrol road (approximately 4.1 km) and replace the existing checkpoint at Pak Hok Chau. **Figure 1.1** shown site layout plan.
- 1.3 An Environmental Permit No. EP-347/2009 was issued on 5 June 2009 to the Secretary for Security as the Permit Holder for "Construction of a Secondary Boundary Fence and new sections of Primary Boundary Fence and Boundary Patrol Road". Later, a Further Environmental Permit (No. FEP-01/347/2009) (hereinafter called the FEP) was issued on 19 February 2010 to Contractor as Permit Holder for the Project. On 9 June 2010, a VEP (EP-347/2009/A) for the whole project was issued to Secretary for Security as the Permit Holder with amendments on the scale and scope of section 4 in whole project.
- 1.4 An environmental impact assessment (EIA) report of the Construction of a Secondary Boundary Fence and new sections of Primary Boundary Fence and Boundary Patrol Road (Register No. AEIAR-136/2009) has been prepared in January 2009.
- 1.5 The Environmental Monitoring and Audit Manual (Project's EM&A Manual) was also included as part of the EIA report in the register and the Environmental Monitoring & Audit (EM&A) requirements are specified in Section 10.The Contractor shall follow the requirements stipulated in the EM&A requirements when implementing the Project.
- 1.6 Cinotech Consultants Ltd. (Cinotech) was commissioned by the Contractor to undertake the Environmental Monitoring and Audit (EM&A) works for the Project under Condition 2.1 of FEP.
- 1.7 Environmental monitoring and audit works for the Project was commenced at 17 March 2010.
- 1.8 This is monthly EM&A Report summarizing the EM&A works for the Project in January 2011.

# **Project Organizations**

- 1.9 Different parties with different levels of involvement in the project organization include:
  - The Engineer for the Contract Mott MacDonald Limited (MMD).
  - Contractor Hong Kong Kwong Tai Builders Limited (HKKT).
  - Contractor Environmental Team (CET) Cinotech Consultants Limited (Cinotech).
  - Independent Environmental Checker (IEC) ENVIRON Hong Kong Limited (ENVIRON).
- 1.10 The responsibilities of respective parties are provided in Section 2.2 to 2.7 of the EM&A Manual of the Project.
- 1.11 The key contacts of the Project are shown in Table 1.1.

**Table 1.1 Key Project Contacts** 

Party	Name	Role	Phone No.	Fax No.
Engineer	Mr. Peter Tsang	Engineer's Representative	26831179	
Contractor	Mr. Alex Cheung Site Agent		64731088	27894184
Contractor	Mr. Tony Lau	Environmental Officer	61807827	27094104
	Dr. Priscilla Choy	Contractor's Environmental Team Leader (CETL)	2151 2089	
Contractor's ET	Mr. Gary Lau	Project Coordinator & Audit Team Leader	2151 2098	3107 1388
	Mr. Henry Leung	Monitoring Team Leader	9779 7340	
IEC	Mr. David Yeung	Independent Environmental Checker (IEC)	3743 0717	3548-6988
IEC	Mr. Simon Lam	Independent Environmental Checker (IEC) Representative	3743 0708	3340-0900

1.12 The organization chart of ET and the Project are shown in **Figure 1.2** and **1.3** respectively.

#### **Construction Programme**

- 1.13 The construction activities undertaken in the reporting month were:
  - Erection of fence post; and
  - Erection of fence mesh.

# **Summary of EM&A Requirements**

- 1.14 The EM&A programme requires construction phase monitoring for construction noise and environmental site audit. The duties and responsibilities comprise the following:
  - monitor various environmental parameters as specified in the EM&A Manual;
  - analyze the environmental monitoring and audit data;

- review the EM&A programme to confirm the adequacy and effectiveness of mitigation measures implemented and the validity of the EIA predictions and to identify and adverse environmental impacts arising;
- carry out site inspection to investigate and audit the Contractor's site practice, equipment and work methodologies with respect to pollution control and environmental mitigation, and effect proactive action to pre-empt problems;
- audit and prepare EM&A reports on the site environmental conditions;
- report the environmental audit results to the Contractor; and
- recommending appropriate mitigation measures to the Contractor in case of exceedance of Action and Limit Levels in accordance with the Event and Action Plans.
- 1.15 Summary of monitoring requirements are shown in the table below:

**Table 1.2 Monitoring Requirements** 

Monitorin g Station	Parameter (Noise), dB(A)	Period	Frequency	Measurement
VH 01 and VH 03	L <sub>10</sub> (30 min.) L <sub>90</sub> (30 min.) L <sub>eq</sub> (30 min.)	07:00-19:00 hours on normal weekdays (During construction)	Once per week	Façade

- 1.16 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 3 of this report.
- 1.17 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely noise levels and audit works for the Project in January 2011.

#### 2 NOISE

# **Monitoring Requirements**

2.1 In accordance with the EM&A Manual, two noise monitoring stations (VH01and VH03) out of ten noise monitoring stations in EIA report were considered representative for Section 1 and designated for impact noise monitoring. **Appendix A** shows the established Action/Limit Levels for the environmental monitoring works.

# **Monitoring Locations**

2.2 **Table 2.1** describes the locations of the monitoring stations and their locations are shown in **Figure 2.1**.

**Table 2.1 Locations of Noise Monitoring Stations** 

Monitoring Station	Location	
VH01	Village House at Mai Po	
VH03		

# **Monitoring Equipment**

2.3 **Table 2.2** summarizes the noise monitoring equipment models being used. Copies of calibration certificates are attached in **Appendix B**.

**Table 2.2 Noise Monitoring Equipment** 

Equipment	Model and Make	Quantity
Integrating Sound Level Meter	SVAN 955	1
Calibrator	SV30A	1

# **Monitoring Parameters, Frequency and Duration**

2.4 **Table 2.3** summarizes the monitoring parameters, frequency and total duration of monitoring.

Table 2.3 Noise Monitoring Parameters, Frequency and Duration

Monitoring Station	Time Period	Frequency	Parameter	Method
VH01 and VH03	0700-1900 hrs on weekdays	Once per week	$L_{eq}(30\text{min.}) \text{ dB(A)}$ $L_{10}(30\text{min.}) \text{ dB(A)}, \&$ $L_{90}(30\text{min.}) \text{ dB(A)}$	Façade measurement

# Monitoring Methodology and QA/QC Procedures

- The microphone head of the head level meter should position 1m exterior of the noise sensitive facade and lowered sufficiently so that the building's external wall acts as a reflecting surface.
- The battery condition should check to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:

frequency weighting: Atime weighting: Fast

- time measurement : 30 minutes / 5 minutes

- Prior to and after each noise measurement, the meter was calibrated using a
  Calibrator for 94 dB at 1000 Hz. If the difference in the calibration level before
  and after measurement was more than 1 dB(A), the measurement was considered
  invalid and repeat of noise measurement was required after re-calibration or repair
  of the equipment.
- The wind speed was frequently checked with the portable wind meter.
- At the end of the monitoring period, the  $L_{eq}$ ,  $L_{90}$  and  $L_{10}$  were recorded. In addition, site conditions and noise sources were record on a standard record sheet.
- Noise measurement was paused during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

#### **Maintenance and Calibration**

- 2.5 Maintenance and Calibration procedures were as follows:
  - The microphone head of the sound level meter and calibrator were cleaned with a soft cloth at quarterly intervals.
  - The meter and calibrator would send to laboratory to check and calibrate at yearly intervals.

#### **Results and Observations**

- 2.6 All construction noise monitoring at two designated locations were conducted as scheduled in the reporting month. The Monitoring scheduled is shown in **Appendix J.**
- 2.7 No Action/Limit Level exceedance was recorded in the reporting month. Summary of exceedance is shown in **Appendix C.**

- 2.8 The effects of weather condition on the monitoring results are insignificant and the major noise source identified for these monitoring stations was road traffic noise. Weather condition, noise monitoring results and graphical presentations are shown in **Appendix D**.
- 2.9 In accordance with Condition 5.2 of the EP, all environmental monitoring data was made available to the public via internet access at the website http://www.cinotech.com.hk/projects/SBF.
- 2.10 All the Construction Noise Levels (CNLs) reported in this report had been adjusted with the corresponding baseline levels (i.e. Measured Leq Baseline Leq = CNL), in order to facilitate the interpretation of the noise exceedance. The baseline noise level and the allowed CNL at each construction noise monitoring station are presented in **Table 2.4**.

**Table 2.4** Baseline Noise Levels and Allowed Construction Noise Level (CNL) for the Monitoring Stations

Station	Baseline Noise Level, dB (A)	Allowed CNL, dB (A)
VH01 Villager House	56.4	75
VH03 Villager House	49.8	75

2.11 The wind speed records on monitoring date were shown in **Table 2.5.** 

**Table 2.5** Wind Speed on Monitoring Date

Manitaring Data	Wind S	peed (m/s)
Monitoring Date	Monitor	ring Station
	VH01	VH03
5/1/2011	2.5	2.8
14/1/2011	1.4	1.9
21/1/2011	0.7	1.4
28/1/2011	1.1	1.7

#### 3 ENVIRONMENTAL AUDIT

#### **Environmental Site Audits**

- 3.1 Environmental site audits were carried out on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site.
- 3.2 Site audits for the Project in the reporting month were conducted on 4, 12, 19 and 27 January 2011. No non-compliance was observed during the site audits.
- 3.3 Site inspections were undertaken to ensure and check the compliance with the FEP and that the implementation and maintenance of air quality, water quality, ecology and landscape and visual mitigation measures are being properly carried out in the reporting month in accordance to section 3.2, 5.2, 6.2 and 7.3 of the EM&A Manual respectively. No non-compliance was observed during the site inspections.
- 3.4 In accordance with to Condition 3.2 of the FEP, egretry survey was jointly conducted with IEC representative on 5 August 2010.
- 3.5 No breeding Ardeids was found in the Tam Kon Chau Egretry or within the buffer area it is believed that there is currently no breeding activity in Tam Kon Chau Egretry within the 150m buffer zone.
- 3.6 Approvals from AFCD and EPD were received on 17th and 25th August 2010 respectively for commencement of construction works within the 150m buffer zone at Tam Kan Chau Egretry after 1st August 2010 and no construction works using power mechanical equipments shall be allowed between 15th November and 15th March inclusive in any consecutive year within the mentioned area.
- 3.7 Excavation works were commenced after 25th August 2010 within the 150m buffer zone from Tam Kon Chau Egretry.
- 3.8 Excavation works conducted by CLP nearly CH +1500 was observed during the site inspection conducted on 27<sup>th</sup> January 2011.
- 3.9 The summaries of site audits are attached in **Appendix E**.
- 3.10 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations are summarized in **Table 3.1**.

**Table 3.1** Observations and Recommendations of Site Audits

Parameters	Date (Ref. no.)	Observations	Remediation/ Follow up
Air Quality		-	
Water Quality			
Landscape and Visual			
Waste / Chemical Management	1	-	

# **Status of Environmental Licensing and Permitting**

3.11 Environmental license or permit obtained in the reporting month is shown in **Table 3.2.** 

 Table 3.2
 Environmental License or Permit Obtained in Reporting Month

Type of License/	Name le ou	Valid P	eriod	Details	Status
Permit	Number	From	То	Details	Status
VEP	EP-347 /2009/A	15/06/2010	N/A	Location: Boundary patrol road between Mai Po and Lok Ma Chau Control	Vaild
FEP	FEP- 01/347/2009	19/02/2010	N/A	Point Point	Vaild
Registration as Chemical Waste Producer	5213-542- H3263-02	29/03/2010	N/A	i) Location of waste is produced: Border Road, Yuen Long  ii) Major chemical waste: Waste paint drum, waste paint can and waste paint.	Vaild
Billing Account under Waste Disposal Ordinance	7010229	11/02/2010	N/A	Disposal of construction and demolition waste under Waste Disposal Ordinance	Valid
Form NA	314415	23/02/2010	N/A	Notification pursuant to Section 3(1) of the Air Pollution Control Ordinance (Construction Dust) Regulation	N/A

# **Status of Waste Management**

3.12 The amount of waste generated by the construction activities of the Project in the reporting month is shown in **Appendix F**.

# **Implementation Status of Environmental Mitigation Measures**

3.13 According to the Environmental Permit and the EM&A Manual, the mitigation measures detailed in the documents are required to be implemented. Details of implementation Status of Environmental Mitigation Measures are provided in **Appendix G**.

# **Implementation Status of Event Action Plans**

3.14 The Event Action Plans for construction noise are presented in **Appendix H**.

# Construction Noise

3.15 No Action/Limit Level exceedance was reported in the reporting month.

# **Summary of Complaints and Prosecutions**

3.16 No environmental complaint and prosecution related to the Project works was received in the reporting month.

# 4 FUTURE KEY ISSUES

# **Key Issues for the Coming Month**

- 4.1 Key issues to be considered in the coming month include:
  - Storage of chemicals/fuel and chemical waste/waste oil on-site;
  - Larviciding against mosquito breeding in stagnant water should be carried out at least on a weekly basis;
  - Site tidiness;
  - Maintenance of the protection fence for retaining trees; and
  - No using power mechanical equipments shall be allowed between 15th November and 15th March inclusive in any consecutive year.

# **Construction Program for the Next Month**

4.2 The tentative construction program for the Project is provided in **Appendix I**.

# **Monitoring Schedule for the Next Month**

4.3 The tentative environmental monitoring schedule for coming month for the Project is provided in **Appendix J**.

# 5 CONCLUSIONS AND RECOMMENDATIONS

#### **Conclusions**

- 5.1 Four environmental site audits were performed in January 2011. No non-compliance was observed during the site audits.
- 5.2 All construction noise monitoring was conducted as scheduled in the reporting month. All monitoring results were checked and reviewed. No Action/Limit Level exceedance was recorded.
- 5.3 No environmental complaint and prosecution related to the project was received in the reporting month.

#### Recommendations

5.4 According to the environmental audits performed in the reporting month, the following recommendations are recommended:

# **Dust Impact**

• To implement dust suppression measures on haul road, stockpiles and dry surfaces.

# Noise Impact

• No using power mechanical equipments shall be allowed between 15th November and 15th March inclusive in any consecutive year.

#### Water Quality Impact

- To regularly maintain the condition of u-channel, catch pits and wheel washing facilities on site;
- To regularly maintain the sediment control measures after rainstorms;
- To avoid water from accumulation on site and carry out larviciding against mosquito breeding for stagnant water when mosquito larvae are observed;

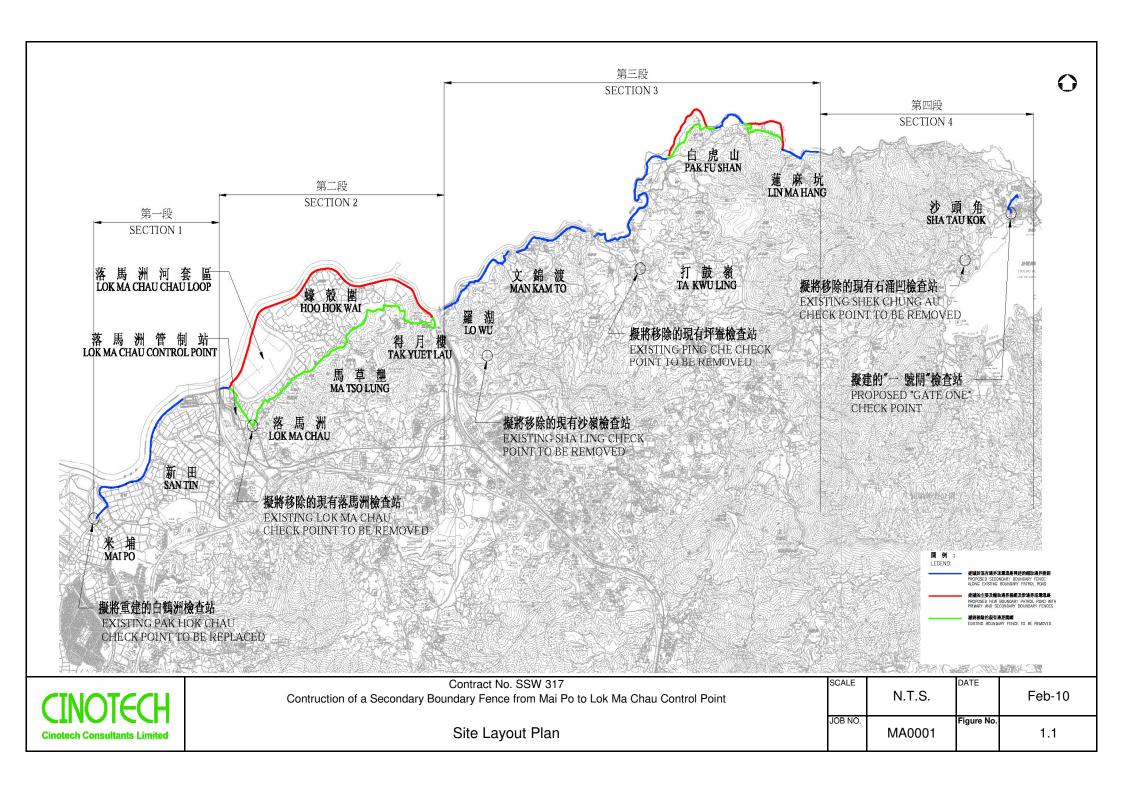
#### Waste/Chemical Management

- To check for any accumulation of waste materials or rubbish on site;
- To avoid any discharge of chemical waste or oil directly from the site;
- To well maintain the equipments and drip trays to avoid oil leakage;
- To avoid improper handling or storage of oil and paint drum on site.

# Landscape

- To maintain the protection fencing surround the retaining trees;
- To remove the felled tree to avoid damage on retaining trees;
- To remove materials and equipments placed within the tree protection area;
- To conduct tree pruning works by approved landscape contractor; and
- To replant vegetation at the earliest possible stage of the construction phase.

**FIGURE** 



# **Environmental Team Leader** Dr. Priscilla Choy (Tel: 2151 2089) **Project Coordinator** - coordination of the Project and compile reports Gary Lau (Tel: 2151 2098) **Audit Team Monitoring Team** conduct site inspection, complete the environmental checklist once - perform environmental monitoring works a week **Team Leader: Henry SM Leung Team Leader: Gary Lau** (Tel: 2151 2087) (Tel: 2151 2098) Team Members: Tang Wing Kwai, Yeung Wing Kun, Tsang Tsz **Team Members: Ivy Tam,** Keung, Tao Ching Hang, Choi Wai Yi. Sam Lam

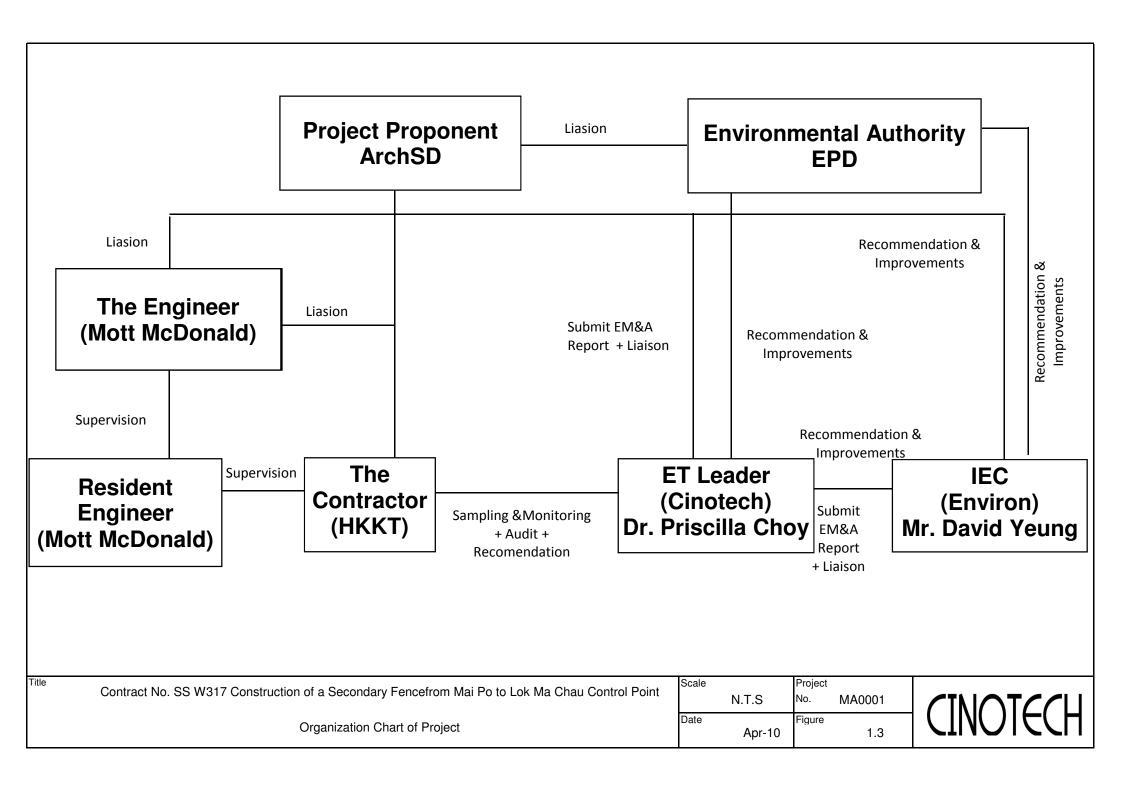
Title

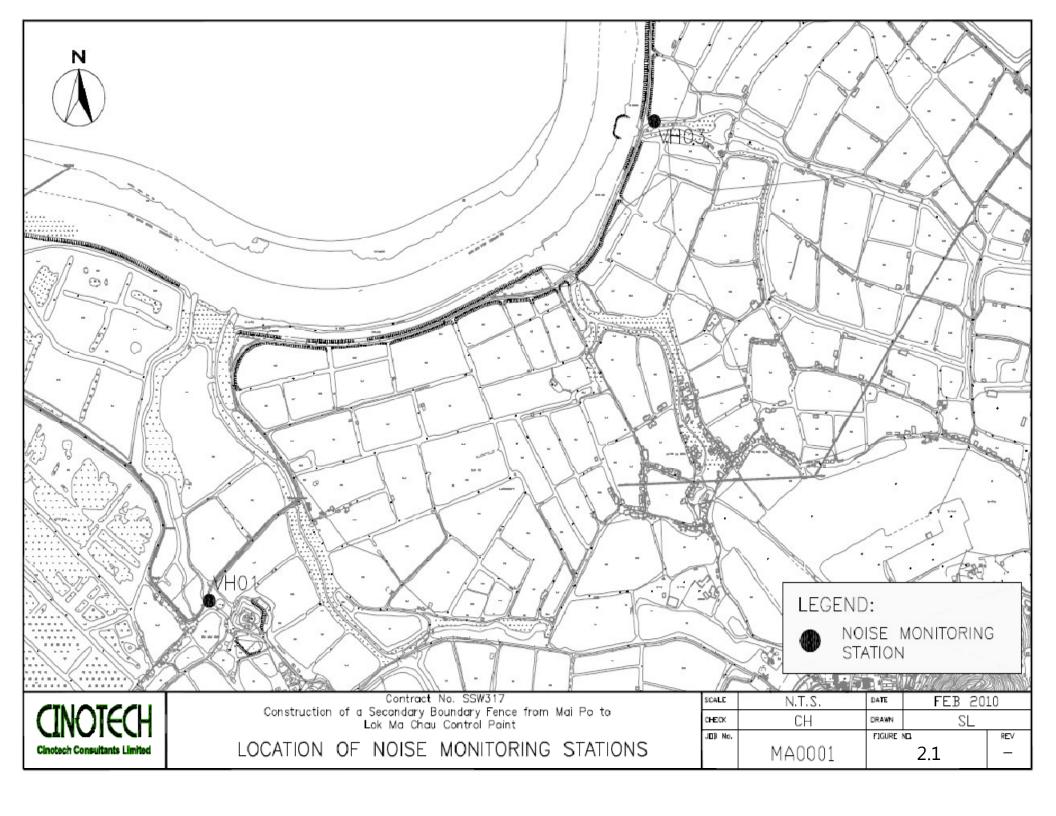
Contract No: SSW 317 Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point

ET Organization Chart

Scale		Project	
	N.T.S	No.	MA0001
Date	Jun-10	Figure	1.2
		1	







# APPENDIX A ACTION AND LIMIT LEVELS

# Appendix A - Action and Limit Level for Construction Noise

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one documented complaint is received	75 dB(A)

APPENDIX B COPIES OF CALIBRATION CERTIFICATES



WELLAB LIMITED

Rms 816, 1516 & 1701, Technology Park, 18 On Lai Street, Shatin, N.T, Hong Kong. Tel: 2898 7388 Fax: 2898 7076

Website: www.wellab.com.hk

# TEST REPORT

APPLICANT:

**Cinotech Consultants Limited** 

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: C/N/100123/1
Date of Issue: 2010-01-23
Date Received: 2010-01-22

Date Tested:
Date Completed:

2010-01-23

Next Due Date:

2010-01-23 2011-01-22

ATTN:

Mr. Henry Leung

Page:

1 of 1

# **Certificate of Calibration**

# Item for calibration:

Description

: 'SVANTEK' Integrating Sound Level Meter

Manufacturer

: SVANTEK

Model No.

: SVAN 955

Serial No.
Microphone No.

: 14303 : 17204

Equipment No.

: N-08-05

# Test conditions:

Room Temperatre

: 21 degree Celsius

Relative Humidity

: 56%

# **Test Specifications:**

Performance checking at 94 and 114 dB

#### Methodology:

In-house method, according to manufacturer instruction manual

#### Results:

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE
Laboratory Manager



WELLAB LIMITED

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Website: www.wellab.com.hk

# TEST REPORT

APPLICANT:

Cinotech Consultants Limited

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: C/N/110124/1
Date of Issue: 2011-01-24

Date Received:

2011-01-21

Date Tested:

2011-01-21

Date Completed: Next Due Date:

2011-01-24 2012-01-23

ATTN:

Mr. Henry Leung

Page:

1 of 1

# **Certificate of Calibration**

#### Item for calibration:

Description

: 'SVANTEK' Integrating Sound Level Meter

Manufacturer

: SVANTEK

Model No.

: SVAN 955

Serial No.

: 14303

Microphone No.

: 17204

Equipment No.

: N-08-05

#### Test conditions:

Room Temperatre

: 23 degree Celsius

Relative Humidity

: 55%.

# **Test Specifications:**

Performance checking at 94 and 114 dB

# Methodology:

In-house method, according to manufacturer instruction manual

# **Results:**

Reference Set Point, dB	Instrument Readings, dB
94	94.0
114	114.0

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE
Laboratory Manager



WELLAB LIMITED

Rms 816, 1516 & 1701, Technology Park,
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# TEST REPORT

APPLICANT:

**Cinotech Consultants Limited** 

Room 1710, Technology Park,

18 On Lai Street,

Shatin, NT, Hong Kong

Test Report No.: C/N/101110/1
Date of Issue: 2010-11-10
Date Received: 2010-11-08
Date Tested: 2010-11-08
Date Completed: 2010-11-10

ATTN:

Mr. Henry Leung

Page:

Next Due Date:

1 of 1

2011-11-09

#### Item for calibration:

Description

: Acoustical Calibrator

Manufacturer

: SVANTEK

Model No.

: SV30A

Serial No.

: 10965

Equipment No.

: N-09-02

# Test conditions:

Room Temperatre

: 22 degree Celsius

**Relative Humidity** 

: 57%

# Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

#### Results:

Sound Pressure Level (1kHz)	Measured SPL	Tolerance
At 94 dB SPL	94.0	94.0 ± 0.1 dB
At 114 dB SPL	114.0	114.0 ± 0.1 dB

PREPARED AND CHECKED BY:

For and On Behalf of WELLAB Ltd.

PATRICK TSE

Laboratory Manager

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# APPENDIX C SUMMARY OF EXCEEDANCE

**Appendix C – Summary of Exceedance** 

**Reporting Month:** January 2011

**Exceedance Report for Construction Noise (NIL)** 

APPENDIX D NOISE MONITORING RESULTS AND GRAPHICAL PRESENTATIONS

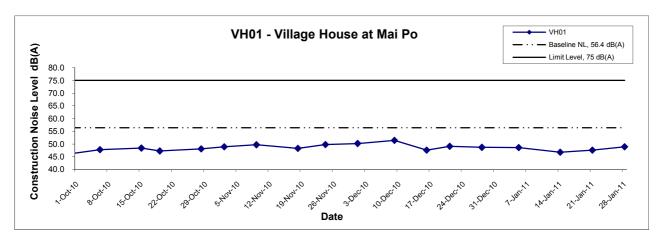
# Appendix D - Noise Monitoring Results

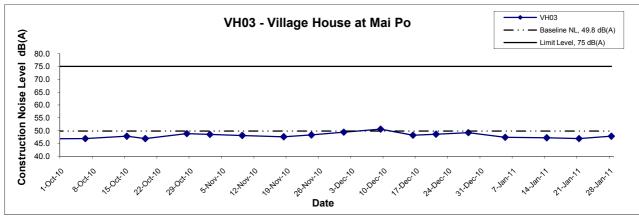
Location VH01 - Village House at Mai Po							
				Unit: dB (A) (30-min)			
Date	Time	Weather	Meas	Measured Noise Level			Construction Noise Level
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
5-Jan-11	14:30	Cloudy	48.6	49.5	46.0		48.6 Measured ≤ Baseline
14-Jan-11	15:15	Sunny	46.8	48.5	43.5	56.4	46.8 Measured ≤ Baseline
21-Jan-11	11:30	Sunny	47.6	49.3	44.5	50.4	47.6 Measured ≤ Baseline
28-Jan-11	13:00	Cloudy	48.9	51.2	43.6		48.9 Measured ≤ Baseline

Location VH03 - Village House at Mai Po							
				Unit: dB (A) (30-min)			
Date	Time	Weather	Meas	Measured Noise Level		Baseline Level	Construction Noise Level
			L <sub>eq</sub>	L <sub>10</sub>	L 90	L <sub>eq</sub>	L <sub>eq</sub>
5-Jan-11	15:15	Cloudy	47.4	49.0	45.0		47.4 Measured ≤ Baseline
14-Jan-11	16:00	Sunny	47.2	49.0	44.0	49.8	47.2 Measured ≤ Baseline
21-Jan-11	10:30	Sunny	46.9	48.7	44.8	43.0	46.9 Measured ≤ Baseline
28-Jan-11	13:45	Cloudy	47.8	50.7	43.8		47.8 Measured ≤ Baseline

MA0001/App D - Noise Cinotech

# **Noise Levels**





Contract No. SSW317
Construction of a Secondary Boundary Fence
from Mai Po to Lok Ma Chau Control Point
Graphical Presentation of Construction Noise Monitoring
Results

Title



# APPENDIX E SITE AUDIT SUMMARY

# Contract No. SS W317

# Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point Weekly Site Inspection Record Summary Inspection Information

Checklist Reference Number	100104
Date	4 January 2011 (Tuesday)
Time	14:30-15:15

D-C M-	Now Complete	Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape	
	No environmental deficiency was identified during site inspection.	
	H. Others	
	• Follow-up on previous audit session (Ref. No.101229), all the environmental deficiencies were improved by the Contractor.	

	Related
Reminders	Item No.
The Contractor was reminded to implement the following preventive measures:	
B. Water Quality	
No environmental deficiency was identified during site inspection.	
C. Air Quality	
No environmental deficiency was identified during site inspection.	
•	
D. Construction Noise Impact	
 No environmental deficiency was identified during site inspection.	
E. Waste / Chemical Management	
 No environmental deficiency was identified during site inspection.	
 F. Landscape	
No environmental deficiency was identified during site inspection.	
G. Permits/Licences	
 No environmental deficiency was identified during site inspection.	
H. Others	
N/A	

	Name	Signature	Date
Recorded by	Gary Lau	Barri .	5 January 2011
Checked by	Dr. Priscilla Choy	WI	5 January 2011

# Contract No. SS W317

# Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point Weekly Site Inspection Record Summary Inspection Information

Checklist Reference Number	110112
Date	12 January 2011 (Wednesday)
Time	10:30 – 12:00

		Related
Ref. No.	Non-Compliance	Item No.
_	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape	
	No environmental deficiency was identified during site inspection.	
	H. Others	
	• Follow-up on previous audit session (Ref. No.110104), all the environmental deficiencies were improved by the Contractor.	

Reminders	Related
	Item No.
The Contractor was reminded to implement the following preventive measures:	
 B. Water Quality	
 No environmental deficiency was identified during site inspection.	
C. Air Quality	
 No environmental deficiency was identified during site inspection.	
•	
D. Construction Noise Impact	
No environmental deficiency was identified during site inspection.	
E. Waste / Chemical Management	
 No environmental deficiency was identified during site inspection.	
 F. Landscape	
No environmental deficiency was identified during site inspection.	
 G. Permits/Licences	
No environmental deficiency was identified during site inspection.	
 • 140 environmental deficiency was identified during site inspection.	
H. Others	
N/A	

	Name	Signature	Date
Recorded by	Gary Lau	Bus L.	17 January 2011
Checked by	Dr. Priscilla Choy	W.T.	17 January 2011

# Contract No. SS W317

# Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point Weekly Site Inspection Record Summary Inspection Information

Checklist Reference Number	110119
Date	19 January 2011 (Wednesday)
Time	16:00-16:30

		Related
Ref. No.	Non-Compliance	Item No.
-	None identified	-
Ref. No.	Remarks/Observations	Related Item No.
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape	
	No environmental deficiency was identified during site inspection.	
	H. Others	
	• N/A	

I	Reminders	Related Item No.
1	The Contractor was reminded to implement the following preventive measures:	
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
(	C. Air Quality	
•	No environmental deficiency was identified during site inspection.	
•		
	D. Construction Noise Impact	
•	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape	
	No environmental deficiency was identified during site inspection.	
	G. Permits/Licences	
•	No environmental deficiency was identified during site inspection.	
The state of the s	I. Others	
	J/A	

	Name	Signature	Date
Recorded by	Gary Lau	fla L.	20 January 2011
Checked by	Dr. Priscilla Choy	WZ	20 January 2011

1

# Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point Weekly Site Inspection Record Summary Inspection Information

Checklist Reference Number	110127
Date	27 January 2011 (Thursday)
Time	14:30-15:00

		Related
Ref. No.	Non-Compliance	Item No
-	None identified	-
		Related
Ref. No.	Remarks/Observations	Item No
	B. Water Quality	
	No environmental deficiency was identified during site inspection.	
	C. Air Quality	
	No environmental deficiency was identified during site inspection.	
	D. Construction Noise Impact	
	No environmental deficiency was identified during site inspection.	
	E. Waste / Chemical Management	
	No environmental deficiency was identified during site inspection.	
	F. Landscape	
	No environmental deficiency was identified during site inspection.	
	H. Others	
	• Excavation works with excavator by CLP was observed in Site Area, near CH+1500.	

Reminders	Related Item No.
The Contractor was reminded to implement the following preventive measures:	
B. Water Quality	
 No environmental deficiency was identified during site inspection.	
C. Air Quality	
No environmental deficiency was identified during site inspection.	
D. Construction Noise Impact	
 No environmental deficiency was identified during site inspection.	
E. Waste / Chemical Management	
No environmental deficiency was identified during site inspection.	
F. Landscape	
 No environmental deficiency was identified during site inspection.	
 G. Permits/Licences	
No environmental deficiency was identified during site inspection.	
 H. Others	
N/A	

	Name	Signature Signature	Date
Recorded by	Gary Lau	Hays L.	28 January 2011
Checked by	Dr. Priscilla Choy	NI.	28 January 2011

#### APPENDIX F SUMMARY OF WASTE GENERATED

Contract No.: SS W317

## Monthly Summary Waste Flow Table for January [2011] [to be submitted not later than the 15<sup>th</sup> day of each month following reporting month]

(All quantities shall be rounded off to 3 decimal places.)

	Actual Quantities of Inert Construction Waste Generated Monthly					Actua	l Quantities of Non-	inert Constructi	on Waste Generate	ed Monthly
Month	(a)=(b)+(c)+(d)+(e)  Total Quantity Generated	(b) Broken Concrete (see Note 4)	(c) Reused in the Contract	(d) Reused in other Projects	(e) Disposed of as Public Fill	(f) Metals	(g) Paper/ cardboard packaging	(h) Plastics (see Note 3)	(i) Chemical Waste	(j) Others, e.g. general refuse disposed of at Landfill
	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000m <sup>3</sup> )	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m <sup>3</sup> )
Jan	0	0	0	0	0	0	0	0	0	0
Feb										
Mar										
Apr										
May										
Jun										
Sub-total										
Jul										
Aug										
Sep										
Oct										
Nov										
Dec										
Total										

Notes:

- (1) The performance targets are given in the Particular Specification on Environmental Management Plan.
- (2) The waste flow table shall also include construction waste that are specified in the Contract to be imported for use at the site.
- (3) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- (4) Broken concrete for recycling into aggregates.
- (5) If necessary, use the conversion factor: 1 full load of dumping truck being equivalent to 6.5 m<sup>3</sup> by volume.

APPENDIX G ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE (EMIS)

# Appendix G - Environmental Mitigation Implementation Schedule (EMIS)

Types of Impacts	Mitigation Measures	Status
	Construction Phase	
	• Excavated dusty materials or stockpile of dusty materials should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet, and recovered or backfilled or reinstated within 24 hours of the excavation or unloading.	
	The working area of excavation should be sprayed with water immediately before, during and immediately after the operations so as to maintain the entire surface wet.	
Air Quality	Dusty materials carried by vehicle leaving a construction site should be covered entirely by clean impervious sheeting.	^
	<ul> <li>Vehicle washing area and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.</li> </ul>	N/A
	The portion of road within 30m of designated vehicle entrance or exit should be kept clear of dusty materials.	۸
	All dusty materials should be sprayed with water prior to any loading, unloading or transfer.	٨
	Vehicle speed should be limited to 10kph except on completed access roads.	
	<ul> <li>Vehicle should be washed to remove any dusty materials from its body and wheels before leaving the construction sites.</li> </ul>	٨
Noise	Construction Phase	
	Adopt the Code of Practice on Good Management Practice to comply with the Noise Control Ordinance (Chapter 400) (for Construction Industry) published by EPD	
	Observe and comply with the statutory and non-statutory requirements and guidelines.	
	Before commencing any work, the Contractor shall submit to the Engineer Representative for approval the method of working, equipment and noise mitigation measures intended to be used at the site.	٨
	The Contractor shall devise and execute working methods to minimise the noise impact on the surrounding sensitive uses, and provide experienced personnel with suitable training to ensure that those methods are implemented.	۸
	Noisy equipment and noisy activities should be located as far away from the NSRs as is practical.	٨
	Unused equipment should be turned off. PME should be kept to a minimum and the parallel use of noisy equipment / machinery should be avoided.	^
	Regular maintenance of all plant and equipment.	٨
	Material stockpiles and other structures should be effectively utilised as noise barriers, where practicable.	۸

	Use of Quiet Plant and Movable Noise Barrier						
	• Purpose-built movable noise barriers should be used to mitigate construction noise directly at sources that are not usually mobile provide that the direct line of sight to the source is blocked.	N/A					
Vater Quality	Construction Phase						
	The site should be confined to avoid silt runoff to the site.	٨					
	No discharge of silty water into the storm drain and drainage channel within and the vicinity of the site.	٨					
	<ul> <li>Any soil contaminated with chemicals/oils shall be removed from site and the void created shall be filled with suitable materials.</li> </ul>	٨					
	Stockpiles to be covered by tarpaulin to avoid spreading of materials during rainstorms;	٨					
	<ul> <li>Suitable containers shall be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport.</li> </ul>	٨					
	• Chemical waste containers shall be labelled with appropriate warning signs in English and Chinese to avoid accidents. There shall also be clear instructions showing what action to take in the event of an accidental.	٨					
	Storage areas shall be selected at safe locations on site and adequate space shall be allocated to the storage area.	٨					
	<ul> <li>Any construction plant which causes pollution to the water system due to leakage of oil or fuel shall be removed off-site immediately.</li> </ul>	٨					
	Spillage or leakage of chemical waste to be controlled by using suitable absorbent materials.	٨					
	Chemicals will always be stored on drip trays or in bunded areas where the volume is 110% of the stored volume.	٨					
	Regular clearance of domestic waste generated in the temporary sanitary facilities to avoid waste water spillage.	٨					
	Temporary sanitary facilities to be provided for on-site workers during construction	٨					
	Concreting Work						
	Set up a temporary drainage channel to collect the runoff generated and prevent concrete-contaminated water from entering watercourses. Adjustment of pH can be achieved by adding a suitable neutralising reagent to wastewater prior to discharge.	٨					
	Soil Excavation and Stockpiling						
	<ul> <li>Temporarily stockpiled excavated soil should be stored in a designated area and provided with a tarpaulin cover to avoid runoff into the drainage channels.</li> </ul>	^					
	Site Depot						
	<ul> <li>All compounds in works areas should be located on areas of hard standing with provision of drainage channels and settlement ponds to allow interception and controlled release of settled/treated water.</li> </ul>	N/A					
	Hard standing compounds should drain via an oil interceptor, it should be regularly inspected and cleaned to	N/A					

	avoid wash-out of oil during storm conditions. A bypass should be provided to avoid overload of the interceptor's capacity.	٨				
	<ul> <li>Registered as a chemical waste producer for contractor generating waste oil or other chemicals. Disposal of the waste oil should be done by a licensed collector</li> </ul>	χ				
	• Appropriate training including safety codes and relevant manuals should be given to the personnel who regularly handle the chemicals on site to keep the storage and the work space in a tidy and clean condition.	N/A				
	Construction of Checkpoint					
	<ul> <li>Sewage system should be constructed to divert domestic sewage, which will be generated from the sanitary facilities provided in the new checkpoint at Shek Chung Au, to public sewer connected to government sewage treatment facilities.</li> </ul>	N/A				
Waste	Site Clearance					
Management	• The topsoil and vegetation removed and excavated material may have to be temporarily stockpiled on-site.to prevent the generation of dust and pollution of stormwater channels, fish ponds or river channels. Stockpiling of excavated materials during the wet season should be avoided as far as practicable.	۸				
	Construction Phase					
	Good site management to minimize over-ordering and generation of waste materials such as concrete mortars and cement grouts.	٨				
	The Contractor should recycle as much of the C&D materials as possible on-site.	٨				
	Trip-ticket system should be employed to monitor the disposal of C&D material and solid at public filling facilities and landfills, and to control fly-tipping.	٨				
	Chemical Waste					
	To reduce generating chemical waste as much as possible.	٨				
	• Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed, have a capacity of less than 450 litres with label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations.	۸				
	The storage area for chemical wastes should be clearly labelled and used solely for the storage of chemical waste.	٨				
	• The storage area should be enclosed on at least 3 sides, have adequate ventilation with impermeable floor, capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area.	۸				
	Rainfall entering should be avoided entering to storage area and adequately separated with incompatible materials.	٨				
	Disposal of chemical waste should be via a licensed waste collector to licensed facility which can supply the necessary storage containers, or to be re-user of the waste, under approval from the EPD.	٨				
	General Refuse					
	• Should be stored in enclosed bins or compaction units separate from C&D and chemical wastes. The Contractor should employ a reputable waste collector to remove general refuse from the site, separate from C&D and chemical wastes, on a regular basis to minimise odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law.	^				
	Prohibition of refuse burning on construction sites	^				

	Construction Waste Management Plan			
	Construction waste management plan (CWMP) should be prepared	٨		
	Contractor should ensure proper collection, treatment and disposal of waste on site.	٨		
	Ecological Impacts on Floral Species of Conservation Concern			
	Erection of protective fencing to protect the plant during construction period	٨		
	Potential Ecological Impacts on Offsite Habitats			
	<ul> <li>Controlling the dust and water quality by avoiding stockpiles adjacent to wetlands and covering the stockpiles</li> </ul>	^		
	with impervious sheeting.			
	<ul> <li>Controlling vehicle speed and ensure no discharge of silty water to the rivers, streams.</li> </ul>			
	Disturbance to Wetland-Dependent Birds, Raptors, Terrestrial Birds and Egretry			
Ecology	Restriction of excavation works within a 150m buffer zone from the egretry to ardeid non-breeding season (from	^		
	August to February).			
	Switching off unused equipment, keep minimum number of powered mechanical equipment in operation at the	٨		
	same period, the use of stockpiles and other structures to form noise barriers where practicable to avoid causing			
	disturbance to feeding the wildlife.			
	Proper cover of stockpiles with impervious sheeting to minimize construction noise, uncontrolled surface runoff	٨		
	and discharge of silts.	٨		
	Avoidance of construction works using Power Mechanical Equipments within the Wetland Conservation Area  during hind migratum account (15th Newsphore, 15th March)  15th March  15th M	٨		
	during bird migratory season (15th November – 15th March).			
Landscape and	Preservation of Existing Vegetation throughout construction phase			
Visual	• To retain trees that have high amenity or ecology value and contribute most to the landscape and visual amenity	۸		
	of the site and its immediate environs.	٨		
	• Prohibition of the storage of materials including fuel, the movement of construction vehicles, and the refuelling and washing of equipment including concrete mixers within the precautionary area	Λ		
	<ul> <li>Phased segmental root pruning for trees to be retained over a suitable period (determined by species and size)</li> </ul>	٨		
	prior to lifting or site formation works which affect the existing rootball of trees identified for retention. The			
	extent of the pruning will be based on the size and the species of the tree in each case.			
	<ul> <li>Pruning of the branches of existing trees identified for retention to be based on the principle of crown thinning</li> </ul>	٨		
	maintaining their form and amenity value.			
	The watering of existing vegetation particularly during periods of excavation when the water table beneath the	٨		
	existing vegetation is lowered.			
	The rectification and repair of damaged vegetation following the construction phase to it's original condition	٨		
	prior to the commencement of the works or replacement using specimens of the same species, size and form			
	where appropriate to the design intention of the area affected			
	All works affecting the trees identified for retention will be carefully monitored, including the key stages in the	٨		
	preparation of the trees, the implementation of protection measures and health monitoring through out the			
	construction period			
	• Detailed landscape and tree preservation proposals will be submitted to the relevant government departments for	٨		
	approval under the lease conditions and in accordance with ETWB TCW No. 2/2004 and WBTC No. 3/2006.			

•	The tree preservation works should be implemented by approved Landscape Contractors and inspected and approved on site by a qualified Landscape Architect. A tree protection specification would be included within the contract documents.	۸
Pres	ervation of Existing Topsoil	
•	Topsoil disturbed during the construction phase should be tested using a standard soil testing methodology and where it is found to be worthy of retention stored for re-use.	N/A
•	The soil will be stockpiled to a maximum height of 2m and will be either temporarily vegetated with hydroseeded grass during construction or covered with a waterproof covering to prevent erosion.	N/A
•	Regularly turned over the stockpile to avoid acidification and the degradation of the organic material, and reused after completion.	N/A
•	Considered for re-use in other projects when above actions are not practical.	N/A
Perm	anent and Temporary Works Areas	
•	Where appropriate to the final design the landscape of these works areas should be restored following the completion of the construction phase.	N/A
•	Construction site controls should be enforced including the storage of materials, the location and appearance of site accommodation and the careful design of site lighting to prevent light spillage.	٨
Mitig	ration Planting	
•	Replanting of disturbed vegetation should be undertaken at the earliest possible stage of the construction phase	N/A
•	Use of native plant species predominantly in the planting design for the buffer areas.	N/A

Remarks:	٨	Compliance of mitigation measure;		
	N/A	Not Applicable;		
	*	* Recommendation was made during site audit but		
	improve	d/rectified by the contractor.		
	# Recommendation was made during site audit and to be			
	improve	ed / rectified by the contractor.		
	X Non-compliance of mitigation measure;			
	•	Non-compliance but rectified by the contractor;		

#### APPENDIX H EVENT ACTION PLANS FOR CONSTRUCTION NOISE

#### **Appendix H- Event and Action Plan for Construction Noise**

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

H-1 Cinotech

#### APPENDIX I TENTATIVE CONSTRUCTION PROGRAMME

Hong Kong Kwong Tai Builders Ltd SS W317 - Construction of a Secondary Boundary Fence From Mai Po to Lok Ma Chau Control Point Rev. E Master Programme Date: 20 December 2010 WBS Task Name 工期 開始時間 完成時間 識別 2011年 碼 Jan 2 | Feb 2 | Mar 2 | Apr 2 | May | Jun 2 | Jul 20 | Aug 2 | Sep 2 | Oct 2 | Nov | Dec 2 | Jan 2 | Feb 2 | Mar 2 | Apr 2 | May | Jun 2 | Jul 20 | Aug 2 | Sep 2 | Oct 2 | Nov | Dec 2 | Jan 2 | Feb 2 | Mar 2 | Apr 2 | May | Jun 2 | Jul 20 | Aug 2 | Sep 2 | Oct 2 | Nov | Dec 2 | Jan 2 | Feb 2 | Mar 2 | Apr 2 | May | Jun 2 | Jul 20 | Aug 2 | Sep 3 | Oct 2 | Nov | Dec 2 | Jan 2 | Feb 2 | Mar 2 | Apr 2 | May | Jun 3 | Jun 4 | Jun 5 | Aug 2 | Sep 4 | Oct 2 | Nov | Dec 2 | Jan 2 | Feb 2 | Mar 3 | Apr 3 512 days 2010/1/15 2011/6/18 Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point 1.1 116 days 2010/11/15 2011/3/15 bird migratory season 1.2 2010/1/15 2010/2/11 3 Application of permits and licences required under legislation 28 days 1.3 2010/1/21 4 Conition surveying & submission of report 10 days 2010/1/30 1.4 Site Office setup 24 days 2010/2/18 2010/3/13 5 45 days 6 1.5 Site mobilization 2010/2/1 2010/3/17 Material submissions 2010/1/20 2010/10/31 1.6 285 days 8 1.6. Submission and approval of XPM mesh 181 days 2010/1/20 2010/7/19 1.6.2 Submission of concrete mix design 107 days 2010/1/25 2010/5/11 9 10 1.6.3 submission of spacer 14 days 2010/3/5 2010/3/18 11 1.6.4 submission of sub-base material 28 days 2010/9/21 2010/10/18 2010/10/4 12 1.6.5 submission of bituminous material 28 days 2010/10/31 13 1.7 Initital site survey 30 days 2010/4/9 2010/5/8 14 1.8 Mock up panel 119 days 2010/3/30 2010/7/26 50 days 2010/3/30 15 1.8.1 submission and approval of shop drawing and method 2010/5/18 statement 7 days 2010/7/20 16 1.8.2 fix mock up panel 2010/7/26 2010/1/15 2010/4/28 17 1.9 Submissions 104 days 1.9.1 Submission to EPD as required under the Environment 2010/1/15 18 1 day 2010/1/15 1.9.2 2010/1/15 19 Submission of temporary traffic arrangement 90 days 2010/4/14 1.9.3 30 days 2010/1/15 2010/2/13 20 submission of safety aspect schedule 21 1.9.4 submission of safety plan 1 day 2010/4/28 2010/4/28 22 1.9.5 Submission of Environmental Management Plan 1 day 2010/3/1 2010/3/1 23 1.9.6 submission of waste management plan 30 days 2010/2/11 2010/3/12 24 1.9.7 Submission of Smart Card System 18 days 2010/3/18 2010/4/4 25 1.10 application of excavation permit (XP Permit) 303 days 2010/3/19 2011/1/17 26 1.10.1 169 days 2010/3/19 2010/9/3 27 1.10.1.1 CH0+285 to CH 0+315(Zone 30 - Zone 1 day 2010/9/3 2010/9/3 31)PlanID: 1006307 CH 3+270 to 3+300(Zone 54)PlanID: 1006328 2010/8/30 28 1.10.1.2 1 day 2010/8/30 29 1.10.1.3 CH 2+790 to CH 2+900(Zone 51)PlanID: 1006326 2010/7/12 2010/7/12 1 day 30 1.10.1.4 CH 2+900 to 3+030(Zone 51 - Zone 52)PlanID: 2010/7/12 2010/7/12 1 day 1006328 CH 3+030 to CH 3+270(Zone 52 -2010/7/29 31 1.10.1.5 1 day 2010/7/29 Zone54)PlanID: 1006328 32 1.10.1.6 CH+000 to CH+090(Zone 29)PlanID: 1006307 1 day 2010/7/12 2010/7/12 33 1.10.1.7 CH+090 to CH 0+285(Zone 29 - Zone 30)PlanID: 1 day 2010/8/5 2010/8/5 1006307 34 1.10.1.8 CH 2+550 to CH 2+790(Zone 49 - Zone 2010/5/12 2010/5/12 1 day 51)PlanID: 1006326 35 1.10.1.9 CH 0+600 to CH 0+800(Zone33 - Zone 1 day 2010/3/19 2010/3/19 35)PlanID: 1006317 1.10.1.10 CH 0+315 to CH 0+600(Zone 31 - Zone 2010/7/13 2010/7/13 36 1 day 33)PlanID: 1006317 37 1.10.1.11 CH 0+800 to CH 1+020(Zone 35 - Zone 1 day 2010/4/19 2010/4/19 37)PlanID: 1006319

CH 1+020 to CH 1+050(Zone 37)PlanID: 1006319

CH 1+050 to CH 1+260(Zone 37 - Zone

CH 1+260 to CH 1+500(Zone 39 - Zone

CH 1+500 to CH 1+650(Zone 41 - Zone

CH 1+650 to CH 1+850(Zone 42 - Zone

39)PlanID: 1006321

40)PlanID: 1006321

42)PlanID: 1006321

44)PlanID: 1006324

38

39

40

41

1.10.1.12

1.10.1.13

1.10.1.14

1.10.1.15

42 1.10.1.16

2010/5/17

2010/6/14

2010/8/26

2010/7/27

2010/3/19

1 day

1 day

1 day

1 day

1 day

2010/5/17

2010/6/14

2010/8/26

2010/7/27

2010/3/19

Hong	Kong Kwo	ng Tai Builders Ltd		SS W317 - Co	onstruction of a S	Secondary Boundary Fence From Mai Po to Lok Ma Chau Control Point	Rev. E		
						Master Programme	Date: 20 December 2010		
識別	WBS	Task Name	工期	開始時間	完成時間	2010年 2011年	2012年		
43	1.10.1.17	CH 1+850 to CH 2+070(Zone 44 - Zone	1 day	2010/4/19	2010/4/19	Jan 2   Feb 2   Mar 2   Apr 2   May   Jun 2   Jul 20   Aug 2   Sep 2   Oct 2   Nov   Dec 2   Jan 2   Feb 2   Mar 2   Apr 2   May   Jun 2   Jul 20   Jul 20	Aug 2   Sep 2   Oct 2   Nov   Dec 2   Jan 2   Feb 2		
		45)PlanID: 1006324							
44	1.10.1.18	CH 2+070 to CH 2+150(Zone 45 - Zone 46)PlanID: 1006324	1 day	2010/5/17	2010/5/17				
45	1.10.1.19	CH 2+150 to CH 2+310(Zone 46 - Zone 47)PlanID: 1006325	1 day	2010/6/14	2010/6/14				
46	1.10.1.20	CH 2+310 to CH 2+550(Zone 47 - Zone 49)PlanID: 1006325	1 day	2010/7/13	2010/7/13				
47	1.10.2	2nd stage	1 day	2011/1/17	2011/1/17				
48	1.10.2.1	CH0+86 to CH4050 (Gate 24)	1 day	2011/1/17	2011/1/17				
49	1.11	Anticipated issued date of excavation permit (XP Permit)	300 days	2010/4/19	2011/2/17				
50	1.11.1	1st stage	169 days	2010/4/19	2010/10/4	Ţ			
51	1.11.1.1	CH0+285 to CH 0+315(Zone 30 - Zone 31)	1 day	2010/10/4	2010/10/4				
52	1.11.1.2	CH 3+270 to 3+300(Zone 54)	1 day	2010/9/30	2010/9/30				
53	1.11.1.3	CH 2+790 to CH 2+900(Zone 51)	1 day	2010/8/12	2010/8/12				
54	1.11.1.4	CH 2+900 to 3+030(Zone 51 - Zone 52)	1 day	2010/8/12	2010/8/12				
55	1.11.1.5	CH 3+030 to CH 3+270(Zone 52 - Zone54)	1 day	2010/8/29	2010/8/29				
56	1.11.1.6	CH+000 to CH+090(Zone 29)	1 day	2010/8/12	2010/8/12				
57	1.11.1.7	CH+090 to CH 0+285(Zone 29 - Zone 30)	1 day	2010/9/5	2010/9/5	<u> </u>			
58	1.11.1.8	CH 2+550 to CH 2+790(Zone 49 - Zone 51)	1 day	2010/6/12	2010/6/12				
59	1.11.1.9	CH 0+600 to CH 0+800(Zone33 - Zone 35)	1 day	2010/4/19	2010/4/19				
60	1.11.1.10	CH 0+315 to CH 0+600(Zone 31 - Zone 33)	1 day	2010/8/13	2010/8/13				
61	1.11.1.11	CH 0+800 to CH 1+020(Zone 35 - Zone 37)	1 day	2010/5/20	2010/5/20	<u> </u>			
62	1.11.1.12	CH 1+020 to CH 1+050(Zone 37)	1 day	2010/6/17	2010/6/17				
63	1.11.1.13	CH 1+050 to CH 1+260(Zone 37 - Zone 39)	1 day	2010/7/15	2010/7/15				
64	1.11.1.14	CH 1+260 to CH 1+500(Zone 39 - Zone 40)	1 day	2010/9/26	2010/9/26				
65	1.11.1.15	CH 1+500 to CH 1+650(Zone 41 - Zone 42)	1 day	2010/8/27	2010/8/27				
66	1.11.1.16	CH 1+650 to CH 1+850(Zone 42 - Zone 44)	1 day	2010/4/19	2010/4/19				
67	1.11.1.17	CH 1+850 to CH 2+070(Zone 44 - Zone 45)	1 day	2010/5/20	2010/5/20				
68	1.11.1.18	CH 2+070 to CH 2+150(Zone 45 - Zone 46)	1 day	2010/6/17	2010/6/17				
69	1.11.1.19	CH 2+150 to CH 2+310(Zone 46 - Zone 47)	1 day	2010/7/15	2010/7/15				
70	1.11.1.20	CH 2+310 to CH 2+550(Zone 47 - Zone 49)	1 day	2010/8/13	2010/8/13				
71	1.11.2	2nd stage	1 day	2011/2/17	2011/2/17				
72	1.11.2.1	CH0+86 to CH4050 (Gate 24)	1 day	2011/2/17	2011/2/17				
73	1.12	Submission	100 days	2010/2/1	2010/5/11				
74	1.12.1	Submission of Computer and mobile phone	26 days	2010/2/1	2010/2/26				
75	1.12.2	Submission of Subcontractor Management Plan	59 days	2010/3/3	2010/4/30				
76	1.12.3	Submission of EM&A works schedule	28 days	2010/2/18	2010/3/17				
77	1.12.4	Submission of Landscape Plan	30 days	2010/2/25	2010/3/26				
78	1.12.5	Submission of Baseline Monitoring Report	30 days	2010/3/1	2010/3/30				
79	1.12.6	submission of Site Management plan for trip ticket system	1 day	2010/3/16	2010/3/16				
80	1.12.7	submission of formwork & temporary work design	30 days	2010/3/15	2010/4/13				
81	1.12.8	submission of welding procedure	30 days	2010/4/12	2010/5/11				
	1.12.9	submission of welder certificate	30 days	2010/4/12	2010/5/11				
83	1.12.10	Submission of fencing shop drawing	28 days	2010/4/12	2010/5/9				
84	1.12.11	Submission of gate shop drawing	28 days	2010/4/12	2010/5/9				
85	1.12.12	Submission of method statement for footing at Pak Hok Chau	28 days	2010/4/12	2010/5/9				

86 1.13

87 1.14

88 1.15

89 1.15.1

Checking existing underground utilities and submit report

Site clearance prior to work

CH0+000 to CH0+086

Footing construction

28 days

4 days

254 days

55 days

2010/3/15

2010/3/17

2010/9/22

2010/9/22

2010/4/11

2010/3/20

2011/6/10

2010/11/15

Hong Kong Kwong Tai Builders Ltd

SS W317 - Construction of a Secondary Boundary Fence From Mai Po to Lok Ma Chau Control Point Master Programme

Rev. E Date: 20 December 2010

哉別	WBS	Task Name	工期	開始時間	完成時間	2010年 2011年 2012年
馬 ()	1.15.2	CH0+318 to CH0+345	35 days	2010/10/12	2010/11/15	Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Nov Dec 2 Jan 2 Peb 2 Mar 2 Nov Dec 2 Jan 2 Nov Dec 2
	1.15.2	CH0+540 to CH0+620	55 days	2010/10/12	2010/11/15	
1 2	1.15.4	CH0+660 to CH1+420	-	2010/9/22	2010/11/15	
	1.15.5	CH1+670 to CH1+900	55 days 55 days	2010/9/22	2010/11/15	
3	1.15.6	CH2+010 to CH2+788		2010/9/22	2010/11/15	
4			55 days			
5	1.15.7	CH2+900 to CH2+986	55 days	2010/9/22	2010/11/15	
6	1.15.8	CH086 to CH0+318 (Type 3 footing)	84 days	2011/3/16	2011/6/10	
7	1.15.8.1	1000x500 Balance Beam	41 days	2011/3/16	2011/4/26	
98	1.15.8.1.	excavation and erect formwork	35 days	2011/3/16	2011/4/20	
9	1.15.8.1.2		35 days	2011/3/19	2011/4/23	
00	1.15.8.1.2		35 days	2011/3/22	2011/4/26	
01	1.15.8.2	Tie Beam CH0+086 to CH 0+318	43 days	2011/4/27	2011/6/10	
02	1.15.8.2.	excavation and erect formwork	37 days	2011/4/27	2011/6/3	
03	1.15.8.2.2		37 days	2011/4/30	2011/6/7	
04	1.15.8.2.1		37 days	2011/5/4	2011/6/10	
05	1.15.9	CH0+345 to 0+540	60 days	2011/3/16	2011/5/16	<b>———</b>
06	1.15.9.1	Fence Footing	41 days	2011/3/16	2011/4/26	
07	1.15.9.1.	excavation and erect formwork	35 days	2011/3/16	2011/4/20	
08	1.15.9.1.2	rebar fixing	35 days	2011/3/19	2011/4/23	
09	1.15.9.1.3	placing concrete	35 days	2011/3/22	2011/4/26	
10	1.15.9.2	Fence Kerb	19 days	2011/4/27	2011/5/16	
11	1.15.9.2.	Erect formwork	15 days	2011/4/27	2011/5/12	
12	1.15.9.2.2	placing concrete	15 days	2011/5/2	2011/5/16	
13	1.15.10	CH0+620 to CH0+660	24 days	2011/5/6	2011/5/29	
4	1.15.10.1	Fence Footing	16 days	2011/5/6	2011/5/21	
15	1.15.10.1	excavation and erect formwork	10 days	2011/5/6	2011/5/15	
16	1.15.10.1	rebar fixing	10 days	2011/5/9	2011/5/18	
17	1.15.10.1	placing concrete	10 days	2011/5/12	2011/5/21	
18	1.15.10.2	Fence Kerb	8 days	2011/5/22	2011/5/29	
19	1.15.10.2	Erect formwork	7 days	2011/5/22	2011/5/28	The state of the s
20	1.15.10.2	placing concrete	1 day	2011/5/29	2011/5/29	
21	1.15.11	CH1+420 to CH1+670	84 days	2011/3/16	2011/6/10	
22	1.15.11.1	Fence Footing	61 days	2011/3/16	2011/5/17	- · · · · · · · · · · · · · · · · · · ·
23	1.15.11.1	_	55 days	2011/3/16	2011/5/11	
24	1.15.11.1		55 days	2011/3/19	2011/5/14	
25	1.15.11.1		55 days	2011/3/22	2011/5/17	
	1.15.11.2		23 days	2011/5/18	2011/6/10	
27	1.15.11.2		16 days	2011/5/18	2011/6/2	
28	1.15.11.2		8 days	2011/6/2	2011/6/10	
29	1.15.12	CH1+900 to CH 2+010	76 days	2011/3/16	2011/6/1	
	1.15.12.1		36 days	2011/3/16	2011/4/21	
31	1.15.12.1	9	30 days	2011/3/16	2011/4/21	
	1.15.12.1		30 days	2011/3/10	2011/4/18	
	1.15.12.1	-	30 days	2011/3/19	2011/4/18	
	1.15.12.1		40 days	2011/3/22	2011/4/21	
				2011/4/22		
	1.15.12.2		30 days		2011/5/22	
	1.15.12.2		30 days	2011/5/3	2011/6/1	
	1.15.13	CH2+788 to CH 2+900	54 days	2011/4/16	2011/6/10	
	1.15.13.1	_	37 days	2011/4/16	2011/5/23	
39	1.15.13.1		31 days	2011/4/16	2011/5/17	
40	1.15.13.1	rebar fixing	31 days	2011/4/19	2011/5/20	

	sk Name	工期	開始時間	完成時間	2010年 2011年
碼 1.15.12.1	-1	21.1	2011/4/22	2011/7/22	Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 Jan 2 Feb 2 Mar 2 Apr 2 May Jun 2 Jul 20 Aug 2 Sep 2 Oct 2 Nov Dec 2 May 3 May Jun 2 Jul 20 Aug 2 Nov Dec 2 May 3
141 1.15.13.1	placing concrete	31 days	2011/4/22	2011/5/23	
142 1.15.13.2	Fence Kerb	17 days	2011/5/24	2011/6/10	
143 1.15.13.2	Erect formwork	14 days	2011/5/24	2011/6/7	
144 1.15.13.2	placing concrete	14 days	2011/5/27	2011/6/10	
145 <b>1.15.14</b>	CH2+986 to CH 3+255	84 days	2011/3/16	2011/6/10	<b>____</b>
146 1.15.14.1	Fence Footing	61 days	2011/3/16	2011/5/17	
147 1.15.14.1	excavation and erect formwork	55 days	2011/3/16	2011/5/11	
148 1.15.14.1	rebar fixing	55 days	2011/3/19	2011/5/14	
49 1.15.14.1	placing concrete	55 days	2011/3/22	2011/5/17	
150 <b>1.15.14.2</b>	Fence Kerb	23 days	2011/5/18	2011/6/10	
51 1.15.14.2	Erect formwork	20 days	2011/5/18	2011/6/7	
52 1.15.14.2	placing concrete	20 days	2011/5/21	2011/6/10	
153 <b>1.15.15</b>	Gates	52 days	2011/4/18	2011/6/10	<b>▼</b>
54 1.15.15.1	excavation and erect formwork	50 days	2011/4/18	2011/6/8	
55 1.15.15.2	rebar fixing	50 days	2011/4/19	2011/6/9	
56 1.15.15.3	placing concrete	50 days	2011/4/20	2011/6/10	
157 1.16	Structural post and Fencing construction	206 days	2010/11/16	2011/6/17	<b>—</b>
58 <b>1.16.1</b>	CH0+050 to CH3+255	206 days	2010/11/16	2011/6/17	<b>│</b>
59 1.16.1.1	Post installation	206 days	2010/11/16	2011/6/17	
60 1.16.1.2	Fence installation	206 days	2010/11/16	2011/6/17	
61 1.17	Soft Landscape	469 days	2010/2/25	2011/6/16	
62 1.17.1	tree survey report	94 days	2010/2/25	2010/5/29	
163 1.17.2	Tree felling	167 days	2010/5/28	2010/11/10	
64 1.17.3	new plant tree	220 days	2010/11/1	2011/6/16	Ţ—————————————————————————————————————
165 1.17.3.1	submission	63 days	2010/11/1	2011/1/4	<u> </u>
66 1.17.3.1.	soil mix	14 days	2010/11/1	2010/11/14	
67 1.17.3.1.2	fertilizer	14 days	2010/12/6	2010/12/19	<b>-</b>
68 1.17.3.1.1	conditioner and mulching	14 days	2010/12/13	2010/12/27	<b></b>
169 1.17.3.1.4	plant stock photographs	14 days	2010/11/1	2010/11/14	- 1
170 1.17.3.1.:	drawing of tree stakes	14 days	2010/12/20	2011/1/4	- 1
71 1.17.3.2	planting	90 days	2011/3/16	2011/6/16	<b>↑</b>
72 1.18	Remove obstructions	143 days	2010/9/20	2011/2/14	
73 1.18.1	Joint inspection with CLP and telephone company for the obstructed CLP pole and telephone pole	20 days	2010/9/20	2010/10/9	
74 1.18.2	anticipated removal of CLP pole and Telephone pole	30 days	2011/1/13	2011/2/14	
175 1.19	Steelwork	426 days	2010/4/9	2011/6/16	
76 1.19.1	Submission of proposed steel fabricator	1 day	2010/4/21	2010/4/21	
77 1.19.2	submission of proposed hot-dipped galvanizing factory	1 day	2010/4/9	2010/4/9	
78 1.19.3	submission and approval of shop drawing	200 days	2010/7/5	2011/1/22	
79 1.19.4	testing of steel material	14 days	2010/7/19	2010/8/1	
80 1.19.5	procurement of steel material	1 day	2010/7/15	2010/7/15	
181 1.19.6	fabrication of steel material	180 days	2010/8/2	2011/1/30	The state of the s
82 1.19.7	delivery of steel material to site	60 days	2011/3/16	2011/5/16	
83 1.19.8	installation of steel gate	30 days	2011/5/17	2011/6/16	
84 1.20	Electrical Installation	460 days	2010/3/1	2011/6/11	
85 1.20.1	Submission	90 days	2010/3/1	2010/5/29	1 · • • • • • • • • • • • • • • • • • •
86 1.20.1.1	Material & Equipment submission	68 days	2010/3/1	2010/5/7	
187 1.20.1.2	Drawing & method statement submission	20 days	2010/5/10	2010/5/29	
188 1.20.2	Revised design	6 days	2010/10/25	2010/10/30	
	Received of revised drawing from MM	1 day	2010/10/25	2010/10/30	_

ong Kong Kwong Tai Builders Ltd	SS W317 - Construction of a Secondary Boundary Fence From Mai Po to Lok Ma Chau Control Point
	Master Programme

Rev. E Date: 20 December 2010

						Master Programme	Date. 20 Decembe
識別碼	WBS	Task Name	工期	開始時間	完成時間	2010年	2011年 2012年
	1.20.2.2	Submission of revised drawing by KT	5 days	2010/10/26	2010/10/30	Jan 2   Feb 2 Mar 2   Apr 2   May   Jun 2   Jul 20   Aug 2   Sep 2   Oct 2   Nov   Dec 2	Jan 2   Feb 2   Mar 2   Apr 2   May   Jun 2   Jul 20   Aug 2   Sep 2   Oct 2   Nov   Dec 2   Jan 2   Jul 20   Aug 2   Sep 3   Oct 2   Nov   Dec 3   Jul 20   Jul 20   Aug 3
	1.20.3	24V power Cable installation	68 days	2011/3/16	2011/5/24	-	
	1.20.3.1	(Zone 29 - Zone 35)	49 days	2011/3/16	2011/5/5		Y
193	1.20.3.1.	CH 0+050 to CH 0+800	49 days	2011/3/16	2011/5/5		Y
	1.20.3.2	(Zone 35 - Zone 41)	58 days	2011/3/16	2011/5/14		
		, ,					<u> </u>
195	1.20.3.2.	CH 0+800 to CH 1+850	58 days	2011/3/16	2011/5/14		
196	1.20.3.3	(Zone 42 - Zone 46)	53 days	2011/3/19	2011/5/12		<b>——</b>
197	1.20.3.3.	CH 1+8150 to CH 3+150	53 days	2011/3/19	2011/5/12		
198	1.20.3.4	(Zone 46 - Zone 54)	53 days	2011/3/31	2011/5/24		▼
199	1.20.3.4.	CH 3+250 to CH 3+300	53 days	2011/3/31	2011/5/24		
200	1.20.3.5	Lok Ma Chau area	10 days	2011/4/20	2011/4/29		•
201	1.20.3.5.	CH3+300 to CH4+230	10 days	2011/4/20	2011/4/29		
202	1.20.3.6	Main & Submain	18 days	2011/4/8	2011/4/25		<b>**</b>
203	1.20.3.6.	Switch Room 1	7 days	2011/4/8	2011/4/14		
204	1.20.3.6.2	Switch room 2	7 days	2011/4/14	2011/4/20		
205	1.20.3.6.	Switch Room 3	7 days	2011/4/19	2011/4/25		
206	1.20.4	Pak Hok Chau CheckPoint	40 days	2011/5/2	2011/6/11		<b></b>
207	1.20.4.1	E&M installation work	40 days	2011/5/2	2011/6/11		
208	1.21	Construction of Pak Hok Chau Check Point	295 days	2010/8/17	2011/6/15		
209	1.21.1	Shop drawing submission and approval	160 days	2010/9/17	2011/2/28	-	· ·
210	1.21.2	provide Temporary Check point (container) on site	1 day	2010/8/17	2010/8/17		
211	1.21.3	HKPF Move to temporary check point	10 days	2010/10/18	2010/10/27	- ' '	
212	1.21.4	Demolition of existing check point	5 days	2010/10/28	2010/11/1		
213	1.21.5	Excavation	3 days	2010/11/2	2010/11/4		
	1.21.6	Footing	8 days	2010/11/5	2010/11/12		
	1.21.7	Install GBP	18 days	2011/3/29	2011/4/29	-	
	1.21.8	Lightning pole installation	30 days	2011/5/16	2011/6/15		
	1.22	Roadworks	246 days	2010/10/6	2011/6/16		
	1.22.1	reinstatement road surface	246 days	2010/10/6	2011/6/16	<u> </u>	<u> </u>
219	1.22.1.1	CH 0+050 to CH 0+086	8 days	2010/10/6	2010/10/13		<b>~</b>
	1.22.1.2	CH 0+086 to CH 0+550	15 days	2011/6/1	2011/6/16		
	1.23	Temporary fencing for MTR area	223 days	2010/10/30	2011/6/17		
	1.23.1	Application of CP to MTR	1 day	2010/10/30	2010/10/30	_	•
	1.23.2	waiting reply from MTR	28 days	2010/10/31	2010/11/27		
	1.23.3	Receive MTR work permit	1 day	2010/10/31	2010/12/1		
	1.23.4	Tempertory Fencing construction	21 days	2011/3/16	2010/12/1		
226	1.23.4	Demolition of existing MTR fencing	12 days	2011/3/10	2011/4/0		
	1.23.6	replace new fence	58 days	2011/4/7	2011/4/18		
	1.23.6	Site clearance	20 days	2011/4/19	2011/6/17		
	1.25	Handover	1 day	2011/5/28	2011/6/17		
	1.23	Handover	1 day	ZU11/U/10	2011/0/16		

APPENDIX J ENVIRONMENTAL MONITORING SCHEDULE S

#### Contract No. SS W317 Impact Noise Monitoring for Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point Noise Monitoring Schedule for January 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1-Jan
2-Jan	3-Jan	4-Jan	5-Jan	6-Jan	7-Jan	8-Jan
			Noise			
			2.0000			
	10.1	44.7	10.7	10.1	11.	15.7
9-Jan	10-Jan	11-Jan	12-Jan	13-Jan	14-Jan	15-Jan
					Noise	
16 Jan	17 Ion	18-Jan	19-Jan	20-Jan	21-Jan	22-Jan
16-Jan	17-Jan	10-Jan	19-Jan	20-Jan	Z1-Jaii	ZZ-Jaii
					Noise	
23-Jan	24-Jan	25-Jan	26-Jan	27-Jan	28-Jan	29-Jan
20 0411	2. van	20 0411	20 0411	2, 0411	20 0411	2> 0 411
					Noise	
30-Jan	31-Jan					
2 v dun	2.2 8411					

**Noise Monitoring Station** 

VH01 - Village House at Mai Po

VH03 - Village House at Mai Po

## Contract No. SS W317 Impact Noise Monitoring for Construction of a Secondary Boundary Fence from Mai Po to Lok Ma Chau Control Point Tentative Noise Monitoring Schedule for February 2011

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	·	1-Feb	2-Feb	3-Feb	4-Feb	5-Feb
			Noise			
6-Feb	7-Feb	8-Feb	9-Feb	10-Feb	11-Feb	12-Feb
			Noise			
13-Feb	14-Feb	15-Feb	16-Feb	17-Feb	18-Feb	19-Feb
			Noise			
20-Feb	21-Feb	22-Feb	23-Feb	24-Feb	25-Feb	26-Feb
					Noise	
27-Feb	28-Feb					
The selected area has						

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

#### **Noise Monitoring Station**

VH01 - Village House at Mai Po

VH03 - Village House at Mai Po